# RF Exposure Evaluation Report

| | | |
|---|---|---|
| APPLICANT | : | ZTE CORPORATION |
| EQUIPMENT | : | Rogers HSPA/LTE CPE |
| BRAND NAME | : | ZTE |
| MODEL NAME | : | MF275R |
| FCC ID | : | SRQ-MF275R |
| STANDARD | : | 47 CFR Part 2.1091 |

**We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091, and pass the limit. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.**

Mark Qu

**Prepared by: Mark Qu / Manager**

Jones Tsai

**Approved by: Jones Tsai / Manager**

***SPORTON INTERNATIONAL (KUNSHAN) INC.***
***No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China***

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**Appendix A. Product Equality Declaration**

# Revision History

| REPORT NO. | VERSION | DESCRIPTION | ISSUED DATE |
|---|---|---|---|
| FA560506-01 | Rev. 01 | This is a variant product of MF275R. The product equality declaration could be referred to Appendix A. Based on the similarity between two models, only added the exposure evaluated data for LTE FDD 5 for the differences. | Aug. 25, 2016 |
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# 1. Administration Data

## 1.1. Testing Laboratory

| Testing Laboratory | |
|---|---|
| Test Site | SPORTON INTERNATIONAL (KUNSHAN) INC. |
| Test Site Location | No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China<br>TEL: +86-0512-5790-0158<br>FAX: +86-0512-5790-0958 |

| Applicant | |
|---|---|
| Company Name | ZTE CORPORATION |
| Address | ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P. R. China |

| Manufacturer | |
|---|---|
| Company Name | ZTE CORPORATION |
| Address | ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P. R. China |

## 2. Description of Equipment Under Test (EUT)

| Product Feature & Specification | |
|---|---|
| EUT Type | Rogers HSPA/LTE CPE |
| Brand Name | ZTE |
| Model Name | MF275R |
| FCC ID | SRQ-MF275R |
| IMEI Code | 004401783465723 |
| Wireless Technology and Frequency Range | WCDMA Band V: 826.4 MHz ~ 846.6 MHz<br>WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz<br>LTE Band 12: 699.7 MHz ~ 715.3 MHz<br>LTE Band 17: 706.5 MHz ~ 713.5 MHz<br>LTE Band 4: 1710.7 MHz ~ 1754.3 MHz<br>LTE Band 2: 1850.7 MHz ~ 1909.3 MHz<br>LTE Band 7: 2502.5 MHz ~ 2567.5 MHz<br>LTE Band 5: 824.7 MHz ~ 848.3 MHz<br>WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz<br>WLAN 5GHz Band: 5180 MHz ~ 5240 MHz, 5745 MHz ~ 5825 MHz |
| Mode | • RMC12.2Kbps<br>• HSDPA<br>• HSUPA<br>• DC-HSDPA<br>• HSPA+(16QAM uplink is not supported)<br>• LTE: QPSK, 16QAM |
| Antenna Type | WWAN: Monopole Antenna<br>WLAN Chain Port 1: Monopole Antenna<br>WLAN Chain Port 2: Monopole Antenna |
| HW Version | dgpB |
| SW Version | MF275R1.2.3 |
| Antenna Function Description | |

| | Chain Port 1 | Chain Port 2 |
|---|---|---|
| 802.11 b | V | V |
| 802.11 g | V | V |
| 802.11a | V | V |
| 802.11n SISO | V | V |
| 802.11n MIMO | V | V |

| | |
|---|---|
| EUT Stage | Identical Prototype |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

# 3. Conducted RF Output Power (Unit: dBm)

**<WCDMA Conducted Power>**

| Band | | | WCDMA Band V | | | Tune up Limit (dBm) | WCDMA Band II | | | Tune up Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|
| TX Channel | | | 4132 | 4182 | 4233 | | 9262 | 9400 | 9538 | |
| Rx Channel | | | 4357 | 4407 | 4458 | | 9662 | 9800 | 9938 | |
| Frequency (MHz) | | | 826.4 | 836.4 | 846.6 | | 1852.4 | 1880 | 1907.6 | |
| MPR (dB) | 3GPP Rel 99 | RMC 12.2Kbps | 23.83 | 23.72 | **23.85** | 24.0 | 22.42 | **22.53** | 22.44 | 23.0 |
| 0 | 3GPP Rel 6 | HSDPA Subtest-1 | 22.83 | 22.34 | 23.16 | 23.5 | 21.52 | 21.74 | 21.31 | 22.0 |
| 0 | 3GPP Rel 6 | HSDPA Subtest-2 | 22.90 | 22.39 | 23.24 | 23.5 | 21.45 | 21.68 | 21.45 | 22.0 |
| 0.5 | 3GPP Rel 6 | HSDPA Subtest-3 | 22.32 | 21.75 | 22.75 | 23.0 | 20.92 | 21.36 | 20.96 | 21.5 |
| 0.5 | 3GPP Rel 6 | HSDPA Subtest-4 | 22.35 | 21.80 | 22.64 | 23.0 | 20.91 | 21.39 | 21.04 | 21.5 |
| 0 | 3GPP Rel 8 | DC-HSDPA Subtest-1 | 22.83 | 22.30 | 23.28 | 23.5 | 21.56 | 21.28 | 21.33 | 22.0 |
| 0 | 3GPP Rel 8 | DC-HSDPA Subtest-2 | 22.82 | 22.29 | 23.25 | 23.5 | 21.54 | 21.26 | 21.29 | 22.0 |
| 0.5 | 3GPP Rel 8 | DC-HSDPA Subtest-3 | 22.38 | 21.65 | 22.74 | 23.0 | 20.97 | 21.37 | 20.64 | 21.5 |
| 0.5 | 3GPP Rel 8 | DC-HSDPA Subtest-4 | 22.34 | 21.61 | 22.73 | 23.0 | 20.94 | 21.16 | 20.63 | 21.5 |
| 0 | 3GPP Rel 6 | HSUPA Subtest-1 | 22.27 | 22.02 | 22.36 | 22.5 | 21.10 | 21.32 | 21.09 | 21.5 |
| 2 | 3GPP Rel 6 | HSUPA Subtest-2 | 21.77 | 21.68 | 21.82 | 22.5 | 20.07 | 20.44 | 20.39 | 21.5 |
| 1 | 3GPP Rel 6 | HSUPA Subtest-3 | 21.79 | 21.45 | 22.04 | 22.5 | 20.17 | 20.38 | 20.41 | 21.5 |
| 2 | 3GPP Rel 6 | HSUPA Subtest-4 | 22.58 | 22.52 | 22.61 | 23.0 | 21.38 | 21.41 | 21.39 | 21.5 |
| 0 | 3GPP Rel 6 | HSUPA Subtest-5 | 23.06 | 22.90 | 23.56 | 24.0 | 21.86 | 22.31 | 22.01 | 22.5 |

**<LTE Conducted Power>**

**<LTE Band 12>**

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 23060 | 23095 | 23130 | | |
| Frequency (MHz) | | | | 704 | 707.5 | 711 | | |
| 10 | QPSK | 1 | 0 | 21.75 | 21.65 | 21.72 | 23.0 | 0 |
| 10 | QPSK | 1 | 24 | **22.06** | 21.94 | 22.03 | | |
| 10 | QPSK | 1 | 49 | 21.45 | 21.45 | 21.69 | | |
| 10 | QPSK | 25 | 0 | 21.74 | 21.80 | 21.48 | 22.0 | 0-1 |
| 10 | QPSK | 25 | 12 | 21.86 | 21.72 | 21.30 | | |
| 10 | QPSK | 25 | 24 | 21.85 | 21.37 | 21.39 | | |
| 10 | QPSK | 50 | 0 | 21.76 | 21.58 | 21.41 | | |
| 10 | 16QAM | 1 | 0 | 20.99 | 20.99 | 21.05 | 22.0 | 0-1 |
| 10 | 16QAM | 1 | 24 | 21.23 | 21.10 | 20.97 | | |
| 10 | 16QAM | 1 | 49 | 20.96 | 20.78 | 21.04 | | |
| 10 | 16QAM | 25 | 0 | 20.86 | 20.99 | 20.63 | 21.0 | 0-2 |
| 10 | 16QAM | 25 | 12 | 20.91 | 20.89 | 20.45 | | |
| 10 | 16QAM | 25 | 24 | 20.91 | 20.53 | 20.52 | | |
| 10 | 16QAM | 50 | 0 | 20.90 | 20.74 | 20.58 | | |
| Channel | | | | 23035 | 23095 | 23155 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 701.5 | 707.5 | 713.5 | | |
| 5 | QPSK | 1 | 0 | 21.72 | 21.85 | 21.14 | 23.0 | 0 |
| 5 | QPSK | 1 | 12 | 21.56 | 21.63 | 21.35 | | |
| 5 | QPSK | 1 | 24 | 21.76 | 21.28 | 21.79 | | |
| 5 | QPSK | 12 | 0 | 21.70 | 21.88 | 21.26 | 22.0 | 0-1 |
| 5 | QPSK | 12 | 6 | 21.66 | 21.74 | 21.43 | | |
| 5 | QPSK | 12 | 11 | 21.70 | 21.57 | 21.65 | | |
| 5 | QPSK | 25 | 0 | 21.69 | 21.69 | 21.47 | | |
| 5 | 16QAM | 1 | 0 | 21.06 | 21.19 | 20.68 | 22.0 | 0-1 |
| 5 | 16QAM | 1 | 12 | 20.93 | 21.02 | 20.70 | | |
| 5 | 16QAM | 1 | 24 | 21.16 | 20.70 | 21.11 | | |
| 5 | 16QAM | 12 | 0 | 20.84 | 20.98 | 20.38 | 21.0 | 0-2 |
| 5 | 16QAM | 12 | 6 | 20.81 | 20.92 | 20.54 | | |
| 5 | 16QAM | 12 | 11 | 20.85 | 20.75 | 20.75 | | |
| 5 | 16QAM | 25 | 0 | 20.85 | 20.87 | 20.60 | | |

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 23025 | 23095 | 23165 | | |
| Frequency (MHz) | | | | 700.5 | 707.5 | 714.5 | | |
| 3 | QPSK | 1 | 0 | 21.76 | 21.92 | 21.37 | 23.0 | 0 |
| 3 | QPSK | 1 | 7 | 21.72 | 21.74 | 21.60 | | |
| 3 | QPSK | 1 | 14 | 21.62 | 21.46 | 21.80 | | |
| 3 | QPSK | 8 | 0 | 21.72 | 21.82 | 21.50 | 22.0 | 0-1 |
| 3 | QPSK | 8 | 4 | 21.67 | 21.69 | 21.68 | | |
| 3 | QPSK | 8 | 7 | 21.63 | 21.57 | 21.78 | | |
| 3 | QPSK | 15 | 0 | 21.67 | 21.70 | 21.65 | | |
| 3 | 16QAM | 1 | 0 | 21.10 | 21.24 | 20.71 | 22.0 | 0-1 |
| 3 | 16QAM | 1 | 7 | 21.08 | 21.11 | 20.91 | | |
| 3 | 16QAM | 1 | 14 | 21.00 | 20.84 | 21.11 | | |
| 3 | 16QAM | 8 | 0 | 20.91 | 20.95 | 20.64 | 21.0 | 0-2 |
| 3 | 16QAM | 8 | 4 | 20.90 | 20.90 | 20.82 | | |
| 3 | 16QAM | 8 | 7 | 20.86 | 20.78 | 20.91 | | |
| 3 | 16QAM | 15 | 0 | 20.86 | 20.88 | 20.76 | | |
| Channel | | | | 23017 | 23095 | 23173 | Tune up Limit (dBm) | Target MPR (dB) |
| Frequency (MHz) | | | | 699.7 | 707.5 | 715.3 | | |
| 1.4 | QPSK | 1 | 0 | 22.01 | 22.03 | 21.88 | 23.0 | 0 |
| 1.4 | QPSK | 1 | 2 | 21.92 | 21.98 | 22.00 | | |
| 1.4 | QPSK | 1 | 5 | 21.95 | 21.94 | 21.92 | | |
| 1.4 | QPSK | 3 | 0 | 21.98 | 21.96 | 21.92 | | |
| 1.4 | QPSK | 3 | 1 | 21.93 | 21.86 | 21.97 | | |
| 1.4 | QPSK | 3 | 2 | 21.89 | 22.02 | 21.98 | | |
| 1.4 | QPSK | 6 | 0 | 21.82 | 21.85 | 21.93 | 22.0 | 0-1 |
| 1.4 | 16QAM | 1 | 0 | 21.34 | 21.43 | 21.12 | 22.0 | 0-1 |
| 1.4 | 16QAM | 1 | 2 | 21.18 | 21.42 | 21.29 | | |
| 1.4 | 16QAM | 1 | 5 | 21.15 | 21.21 | 21.23 | | |
| 1.4 | 16QAM | 3 | 0 | 21.18 | 21.17 | 21.00 | | |
| 1.4 | 16QAM | 3 | 1 | 21.22 | 21.17 | 21.07 | | |
| 1.4 | 16QAM | 3 | 2 | 21.41 | 21.12 | 21.06 | | |
| 1.4 | 16QAM | 6 | 0 | 20.95 | 20.93 | 20.96 | 21.0 | 0-2 |

**<LTE Band 17>**

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 23780 | 23790 | 23800 | | |
| Frequency (MHz) | | | | 709 | 710 | 711 | | |
| 10 | QPSK | 1 | 0 | **22.92** | 22.91 | 22.76 | 23.5 | 0 |
| 10 | QPSK | 1 | 24 | 22.82 | 22.32 | 22.18 | | |
| 10 | QPSK | 1 | 49 | 22.54 | 22.46 | 22.67 | | |
| 10 | QPSK | 25 | 0 | 21.99 | 22.04 | 22.09 | 22.5 | 0-1 |
| 10 | QPSK | 25 | 12 | 22.08 | 22.13 | 22.03 | | |
| 10 | QPSK | 25 | 24 | 21.99 | 22.03 | 22.07 | | |
| 10 | QPSK | 50 | 0 | 21.90 | 22.04 | 22.12 | | |
| 10 | 16QAM | 1 | 0 | 22.25 | 22.17 | 22.06 | 22.5 | 0-1 |
| 10 | 16QAM | 1 | 24 | 22.00 | 21.65 | 21.53 | | |
| 10 | 16QAM | 1 | 49 | 21.80 | 21.76 | 22.00 | | |
| 10 | 16QAM | 25 | 0 | 20.92 | 21.03 | 21.07 | 21.5 | 0-2 |
| 10 | 16QAM | 25 | 12 | 21.01 | 21.11 | 21.04 | | |
| 10 | 16QAM | 25 | 24 | 20.96 | 21.07 | 21.10 | | |
| 10 | 16QAM | 50 | 0 | 20.90 | 21.05 | 21.08 | | |
| Channel | | | | 23755 | 23790 | 23825 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 706.5 | 710 | 713.5 | | |
| 5 | QPSK | 1 | 0 | 22.75 | 22.47 | 22.01 | 23.5 | 0 |
| 5 | QPSK | 1 | 12 | 22.67 | 22.09 | 22.22 | | |
| 5 | QPSK | 1 | 24 | 22.29 | 22.01 | 22.63 | | |
| 5 | QPSK | 12 | 0 | 22.02 | 22.05 | 22.04 | 22.5 | 0-1 |
| 5 | QPSK | 12 | 6 | 22.01 | 22.14 | 22.06 | | |
| 5 | QPSK | 12 | 11 | 21.96 | 22.07 | 22.05 | | |
| 5 | QPSK | 25 | 0 | 21.99 | 22.13 | 22.07 | | |
| 5 | 16QAM | 1 | 0 | 22.09 | 21.79 | 21.36 | 22.5 | 0-1 |
| 5 | 16QAM | 1 | 12 | 22.05 | 21.45 | 21.56 | | |
| 5 | 16QAM | 1 | 24 | 21.71 | 21.35 | 21.96 | | |
| 5 | 16QAM | 12 | 0 | 21.05 | 21.13 | 21.09 | 21.5 | 0-2 |
| 5 | 16QAM | 12 | 6 | 21.01 | 21.14 | 21.03 | | |
| 5 | 16QAM | 12 | 11 | 20.96 | 21.05 | 21.02 | | |
| 5 | 16QAM | 25 | 0 | 20.98 | 21.12 | 21.04 | | |

**<LTE Band 4>**

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 20050 | 20175 | 20300 | | |
| Frequency (MHz) | | | | 1720 | 1732.5 | 1745 | | |
| 20 | QPSK | 1 | 0 | 22.77 | 22.80 | 22.55 | 23.5 | 0 |
| 20 | QPSK | 1 | 49 | 22.14 | 22.27 | 21.87 | | |
| 20 | QPSK | 1 | 99 | 22.20 | 22.22 | 21.86 | | |
| 20 | QPSK | 50 | 0 | 21.35 | 21.42 | 21.12 | 22.5 | 0-1 |
| 20 | QPSK | 50 | 24 | 21.08 | 21.11 | 20.87 | | |
| 20 | QPSK | 50 | 49 | 21.14 | 22.08 | 20.99 | | |
| 20 | QPSK | 100 | 0 | 21.10 | 21.17 | 20.93 | | |
| 20 | 16QAM | 1 | 0 | 21.97 | 22.08 | 21.84 | 22.5 | 0-1 |
| 20 | 16QAM | 1 | 49 | 21.24 | 21.21 | 21.04 | | |
| 20 | 16QAM | 1 | 99 | 21.44 | 21.32 | 21.10 | | |
| 20 | 16QAM | 50 | 0 | 20.25 | 20.39 | 20.10 | 21.5 | 0-2 |
| 20 | 16QAM | 50 | 24 | 20.10 | 20.17 | 19.87 | | |
| 20 | 16QAM | 50 | 49 | 20.12 | 20.11 | 19.97 | | |
| 20 | 16QAM | 100 | 0 | 20.16 | 20.15 | 19.97 | | |
| Channel | | | | 20025 | 20175 | 20325 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 1717.5 | 1732.5 | 1747.5 | | |
| 15 | QPSK | 1 | 0 | 22.47 | 22.17 | 22.36 | 23.5 | 0 |
| 15 | QPSK | 1 | 37 | 22.06 | 21.89 | 21.86 | | |
| 15 | QPSK | 1 | 74 | 21.80 | 21.97 | 21.74 | | |
| 15 | QPSK | 36 | 0 | 21.10 | 21.16 | 21.08 | 22.5 | 0-1 |
| 15 | QPSK | 36 | 18 | 20.99 | 20.92 | 20.82 | | |
| 15 | QPSK | 36 | 37 | 20.87 | 20.87 | 20.76 | | |
| 15 | QPSK | 75 | 0 | 21.02 | 20.97 | 20.90 | | |
| 15 | 16QAM | 1 | 0 | 21.82 | 21.78 | 21.75 | 22.5 | 0-1 |
| 15 | 16QAM | 1 | 37 | 21.40 | 21.11 | 21.25 | | |
| 15 | 16QAM | 1 | 74 | 21.32 | 21.30 | 21.15 | | |
| 15 | 16QAM | 36 | 0 | 20.11 | 20.10 | 20.08 | 21.5 | 0-2 |
| 15 | 16QAM | 36 | 18 | 20.02 | 19.88 | 19.82 | | |
| 15 | 16QAM | 36 | 37 | 19.87 | 19.81 | 19.68 | | |
| 15 | 16QAM | 75 | 0 | 20.14 | 19.97 | 19.95 | | |
| Channel | | | | 20000 | 20175 | 20350 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 1715 | 1732.5 | 1750 | | |
| 10 | QPSK | 1 | 0 | 22.21 | 21.88 | 21.89 | 23.5 | 0 |
| 10 | QPSK | 1 | 24 | 22.05 | 21.64 | 21.63 | | |
| 10 | QPSK | 1 | 49 | 21.80 | 21.62 | 21.62 | | |
| 10 | QPSK | 25 | 0 | 20.99 | 20.71 | 20.73 | 22.5 | 0-1 |
| 10 | QPSK | 25 | 12 | 20.86 | 20.67 | 20.62 | | |
| 10 | QPSK | 25 | 24 | 20.80 | 20.57 | 20.54 | | |
| 10 | QPSK | 50 | 0 | 20.91 | 20.70 | 20.67 | | |
| 10 | 16QAM | 1 | 0 | 21.32 | 21.12 | 21.10 | 22.5 | 0-1 |
| 10 | 16QAM | 1 | 24 | 21.12 | 20.90 | 20.99 | | |
| 10 | 16QAM | 1 | 49 | 20.99 | 20.88 | 20.70 | | |
| 10 | 16QAM | 25 | 0 | 20.04 | 19.75 | 19.77 | 21.5 | 0-2 |
| 10 | 16QAM | 25 | 12 | 19.86 | 19.65 | 19.65 | | |
| 10 | 16QAM | 25 | 24 | 19.85 | 19.54 | 19.56 | | |
| 10 | 16QAM | 50 | 0 | 19.90 | 19.61 | 19.61 | | |

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 19975 | 20175 | 20375 | | |
| Frequency (MHz) | | | | 1712.5 | 1732.5 | 1752.5 | | |
| 5 | QPSK | 1 | 0 | 21.97 | 21.72 | 21.75 | 23.5 | 0 |
| 5 | QPSK | 1 | 12 | 21.96 | 21.65 | 21.71 | | |
| 5 | QPSK | 1 | 24 | 21.87 | 21.56 | 21.66 | | |
| 5 | QPSK | 12 | 0 | 20.81 | 20.63 | 20.64 | 22.5 | 0-1 |
| 5 | QPSK | 12 | 6 | 20.90 | 20.66 | 20.72 | | |
| 5 | QPSK | 12 | 11 | 20.85 | 20.62 | 20.66 | | |
| 5 | QPSK | 25 | 0 | 20.86 | 20.63 | 20.72 | | |
| 5 | 16QAM | 1 | 0 | 21.22 | 20.91 | 21.13 | 22.5 | 0-1 |
| 5 | 16QAM | 1 | 12 | 21.26 | 20.92 | 21.07 | | |
| 5 | 16QAM | 1 | 24 | 21.05 | 20.74 | 20.92 | | |
| 5 | 16QAM | 12 | 0 | 19.96 | 19.72 | 19.82 | 21.5 | 0-2 |
| 5 | 16QAM | 12 | 6 | 19.93 | 19.65 | 19.79 | | |
| 5 | 16QAM | 12 | 11 | 19.87 | 19.68 | 19.73 | | |
| 5 | 16QAM | 25 | 0 | 19.89 | 19.65 | 19.71 | | |
| Channel | | | | 19965 | 20175 | 20385 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 1711.5 | 1732.5 | 1753.5 | | |
| 3 | QPSK | 1 | 0 | 22.00 | 21.66 | 21.82 | 23.5 | 0 |
| 3 | QPSK | 1 | 7 | 22.13 | 21.53 | 21.92 | | |
| 3 | QPSK | 1 | 14 | 21.93 | 21.56 | 21.68 | | |
| 3 | QPSK | 8 | 0 | 20.87 | 20.74 | 20.73 | 22.5 | 0-1 |
| 3 | QPSK | 8 | 4 | 20.99 | 20.71 | 20.78 | | |
| 3 | QPSK | 8 | 7 | 20.85 | 20.61 | 20.71 | | |
| 3 | QPSK | 15 | 0 | 20.88 | 20.61 | 20.66 | | |
| 3 | 16QAM | 1 | 0 | 21.10 | 20.81 | 20.93 | 22.5 | 0-1 |
| 3 | 16QAM | 1 | 7 | 21.31 | 20.93 | 21.14 | | |
| 3 | 16QAM | 1 | 14 | 21.21 | 20.72 | 20.86 | | |
| 3 | 16QAM | 8 | 0 | 19.96 | 19.80 | 19.81 | 21.5 | 0-2 |
| 3 | 16QAM | 8 | 4 | 20.03 | 19.70 | 19.81 | | |
| 3 | 16QAM | 8 | 7 | 19.91 | 19.66 | 19.79 | | |
| 3 | 16QAM | 15 | 0 | 19.91 | 19.61 | 19.66 | | |
| Channel | | | | 19957 | 20175 | 20393 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 1710.7 | 1732.5 | 1754.3 | | |
| 1.4 | QPSK | 1 | 0 | 21.93 | 21.69 | 21.65 | 23.5 | 0 |
| 1.4 | QPSK | 1 | 2 | 22.14 | 21.69 | 21.78 | | |
| 1.4 | QPSK | 1 | 5 | 21.80 | 21.55 | 21.62 | | |
| 1.4 | QPSK | 3 | 0 | 21.88 | 21.75 | 21.77 | | |
| 1.4 | QPSK | 3 | 1 | 21.96 | 21.74 | 21.77 | | |
| 1.4 | QPSK | 3 | 2 | 21.99 | 21.69 | 21.75 | | |
| 1.4 | QPSK | 6 | 0 | 20.77 | 20.62 | 20.65 | 22.5 | 0-1 |
| 1.4 | 16QAM | 1 | 0 | 21.29 | 20.94 | 20.98 | 22.5 | 0-1 |
| 1.4 | 16QAM | 1 | 2 | 21.28 | 20.96 | 21.06 | | |
| 1.4 | 16QAM | 1 | 5 | 21.11 | 20.92 | 20.95 | | |
| 1.4 | 16QAM | 3 | 0 | 20.98 | 20.78 | 20.77 | | |
| 1.4 | 16QAM | 3 | 1 | 20.97 | 20.83 | 20.86 | | |
| 1.4 | 16QAM | 3 | 2 | 21.01 | 20.80 | 20.86 | | |
| 1.4 | 16QAM | 6 | 0 | 19.90 | 19.68 | 19.78 | 21.5 | 0-2 |

**<LTE Band 2>**

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 18700 | 18900 | 19100 | | |
| Frequency (MHz) | | | | 1860 | 1880 | 1900 | | |
| 20 | QPSK | 1 | 0 | 22.31 | 22.74 | 23.04 | 23.5 | 0 |
| 20 | QPSK | 1 | 49 | 21.62 | 22.06 | 22.35 | | |
| 20 | QPSK | 1 | 99 | 21.62 | 22.10 | 22.37 | | |
| 20 | QPSK | 50 | 0 | 20.96 | 21.15 | 21.50 | 22.5 | 0-1 |
| 20 | QPSK | 50 | 24 | 20.68 | 21.09 | 21.35 | | |
| 20 | QPSK | 50 | 49 | 20.65 | 21.06 | 21.38 | | |
| 20 | QPSK | 100 | 0 | 20.78 | 21.19 | 21.39 | | |
| 20 | 16QAM | 1 | 0 | 21.80 | 22.01 | 22.38 | 22.5 | 0-1 |
| 20 | 16QAM | 1 | 49 | 20.79 | 21.11 | 21.34 | | |
| 20 | 16QAM | 1 | 99 | 20.83 | 21.38 | 21.57 | | |
| 20 | 16QAM | 50 | 0 | 19.92 | 20.12 | 20.46 | 21.5 | 0-2 |
| 20 | 16QAM | 50 | 24 | 19.68 | 20.08 | 20.34 | | |
| 20 | 16QAM | 50 | 49 | 19.70 | 20.06 | 20.35 | | |
| 20 | 16QAM | 100 | 0 | 19.77 | 20.22 | 20.36 | | |
| Channel | | | | 18675 | 18900 | 19125 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 1857.5 | 1880 | 1902.5 | | |
| 15 | QPSK | 1 | 0 | 22.09 | 22.39 | 22.50 | 23.5 | 0 |
| 15 | QPSK | 1 | 37 | 21.64 | 21.89 | 22.05 | | |
| 15 | QPSK | 1 | 74 | 21.67 | 22.02 | 22.11 | | |
| 15 | QPSK | 36 | 0 | 20.94 | 21.04 | 21.29 | 22.5 | 0-1 |
| 15 | QPSK | 36 | 18 | 20.71 | 20.93 | 21.10 | | |
| 15 | QPSK | 36 | 37 | 20.66 | 20.83 | 21.02 | | |
| 15 | QPSK | 75 | 0 | 20.71 | 20.94 | 21.20 | | |
| 15 | 16QAM | 1 | 0 | 21.56 | 21.73 | 21.96 | 22.5 | 0-1 |
| 15 | 16QAM | 1 | 37 | 20.91 | 21.18 | 21.46 | | |
| 15 | 16QAM | 1 | 74 | 20.95 | 21.36 | 21.54 | | |
| 15 | 16QAM | 36 | 0 | 19.96 | 19.97 | 20.31 | 21.5 | 0-2 |
| 15 | 16QAM | 36 | 18 | 19.68 | 19.88 | 20.10 | | |
| 15 | 16QAM | 36 | 37 | 19.60 | 19.79 | 20.00 | | |
| 15 | 16QAM | 75 | 0 | 19.74 | 19.98 | 20.20 | | |
| Channel | | | | 18650 | 18900 | 19150 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 1855 | 1880 | 1905 | | |
| 10 | QPSK | 1 | 0 | 21.88 | 22.18 | 22.34 | 23.5 | 0 |
| 10 | QPSK | 1 | 24 | 21.54 | 21.98 | 22.24 | | |
| 10 | QPSK | 1 | 49 | 21.50 | 21.93 | 22.14 | | |
| 10 | QPSK | 25 | 0 | 20.68 | 20.93 | 21.00 | 22.5 | 0-1 |
| 10 | QPSK | 25 | 12 | 20.71 | 20.93 | 21.19 | | |
| 10 | QPSK | 25 | 24 | 20.66 | 20.85 | 21.12 | | |
| 10 | QPSK | 50 | 0 | 20.69 | 20.90 | 21.17 | | |
| 10 | 16QAM | 1 | 0 | 21.20 | 21.41 | 21.54 | 22.5 | 0-1 |
| 10 | 16QAM | 1 | 24 | 21.03 | 21.33 | 21.48 | | |
| 10 | 16QAM | 1 | 49 | 20.84 | 21.34 | 21.49 | | |
| 10 | 16QAM | 25 | 0 | 19.85 | 19.94 | 20.11 | 21.5 | 0-2 |
| 10 | 16QAM | 25 | 12 | 19.78 | 19.94 | 20.20 | | |
| 10 | 16QAM | 25 | 24 | 19.65 | 19.87 | 20.13 | | |
| 10 | 16QAM | 50 | 0 | 19.64 | 19.86 | 20.16 | | |

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 18625 | 18900 | 19175 | | |
| Frequency (MHz) | | | | 1852.5 | 1880 | 1907.5 | | |
| 5 | QPSK | 1 | 0 | 21.76 | 21.97 | 22.35 | 23.5 | 0 |
| 5 | QPSK | 1 | 12 | 21.57 | 21.91 | 22.20 | | |
| 5 | QPSK | 1 | 24 | 21.57 | 21.82 | 22.14 | | |
| 5 | QPSK | 12 | 0 | 20.56 | 20.77 | 21.12 | 22.5 | 0-1 |
| 5 | QPSK | 12 | 6 | 20.61 | 20.85 | 21.19 | | |
| 5 | QPSK | 12 | 11 | 20.56 | 20.82 | 21.16 | | |
| 5 | QPSK | 25 | 0 | 20.60 | 20.81 | 21.20 | | |
| 5 | 16QAM | 1 | 0 | 20.94 | 21.09 | 21.51 | 22.5 | 0-1 |
| 5 | 16QAM | 1 | 12 | 20.95 | 21.09 | 21.57 | | |
| 5 | 16QAM | 1 | 24 | 20.88 | 21.14 | 21.49 | | |
| 5 | 16QAM | 12 | 0 | 19.65 | 19.87 | 20.26 | 21.5 | 0-2 |
| 5 | 16QAM | 12 | 6 | 19.69 | 19.89 | 20.29 | | |
| 5 | 16QAM | 12 | 11 | 19.60 | 19.83 | 20.21 | | |
| 5 | 16QAM | 25 | 0 | 19.63 | 19.80 | 20.22 | | |
| Channel | | | | 18615 | 18900 | 19185 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 1851.5 | 1880 | 1908.5 | | |
| 3 | QPSK | 1 | 0 | 21.76 | 22.07 | 22.38 | 23.5 | 0 |
| 3 | QPSK | 1 | 7 | 21.83 | 22.28 | 22.60 | | |
| 3 | QPSK | 1 | 14 | 21.67 | 21.87 | 22.31 | | |
| 3 | QPSK | 8 | 0 | 20.62 | 20.90 | 21.28 | 22.5 | 0-1 |
| 3 | QPSK | 8 | 4 | 20.62 | 20.91 | 21.31 | | |
| 3 | QPSK | 8 | 7 | 20.60 | 20.83 | 21.24 | | |
| 3 | QPSK | 15 | 0 | 20.58 | 20.87 | 21.19 | | |
| 3 | 16QAM | 1 | 0 | 20.93 | 21.06 | 21.51 | 22.5 | 0-1 |
| 3 | 16QAM | 1 | 7 | 20.91 | 21.44 | 21.49 | | |
| 3 | 16QAM | 1 | 14 | 20.87 | 21.16 | 21.43 | | |
| 3 | 16QAM | 8 | 0 | 19.71 | 19.98 | 20.31 | 21.5 | 0-2 |
| 3 | 16QAM | 8 | 4 | 19.60 | 19.98 | 20.30 | | |
| 3 | 16QAM | 8 | 7 | 19.70 | 19.90 | 20.29 | | |
| 3 | 16QAM | 15 | 0 | 19.57 | 19.86 | 20.21 | | |
| Channel | | | | 18607 | 18900 | 19193 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 1850.7 | 1880 | 1909.3 | | |
| 1.4 | QPSK | 1 | 0 | 21.75 | 21.91 | 22.15 | 23.5 | 0 |
| 1.4 | QPSK | 1 | 2 | 21.80 | 21.96 | 22.34 | | |
| 1.4 | QPSK | 1 | 5 | 21.69 | 21.69 | 22.11 | | |
| 1.4 | QPSK | 3 | 0 | 21.74 | 21.83 | 22.21 | | |
| 1.4 | QPSK | 3 | 1 | 21.70 | 21.87 | 22.23 | | |
| 1.4 | QPSK | 3 | 2 | 21.72 | 21.83 | 22.25 | | |
| 1.4 | QPSK | 6 | 0 | 20.58 | 20.79 | 21.14 | 22.5 | 0-1 |
| 1.4 | 16QAM | 1 | 0 | 20.95 | 21.16 | 21.53 | 22.5 | 0-1 |
| 1.4 | 16QAM | 1 | 2 | 20.72 | 21.19 | 21.63 | | |
| 1.4 | 16QAM | 1 | 5 | 20.88 | 21.07 | 21.44 | | |
| 1.4 | 16QAM | 3 | 0 | 21.01 | 20.85 | 21.28 | | |
| 1.4 | 16QAM | 3 | 1 | 20.70 | 20.96 | 21.39 | | |
| 1.4 | 16QAM | 3 | 2 | 20.87 | 20.96 | 21.36 | | |
| 1.4 | 16QAM | 6 | 0 | 19.83 | 19.88 | 20.26 | 21.5 | 0-2 |

**<LTE Band 7>**

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 20850 | 21100 | 21350 | | |
| Frequency (MHz) | | | | 2510 | 2535 | 2560 | | |
| 20 | QPSK | 1 | 0 | **23.00** | 22.63 | 22.48 | 23.5 | 0 |
| 20 | QPSK | 1 | 49 | 22.63 | 22.84 | 22.64 | | |
| 20 | QPSK | 1 | 99 | 22.32 | 22.24 | 22.31 | | |
| 20 | QPSK | 50 | 0 | 21.68 | 21.74 | 21.60 | 22.5 | 0-1 |
| 20 | QPSK | 50 | 24 | 21.66 | 21.75 | 21.58 | | |
| 20 | QPSK | 50 | 49 | 21.60 | 21.52 | 21.44 | | |
| 20 | QPSK | 100 | 0 | 21.54 | 21.62 | 21.46 | | |
| 20 | 16QAM | 1 | 0 | 22.06 | 21.94 | 21.94 | 22.5 | 0-1 |
| 20 | 16QAM | 1 | 49 | 21.74 | 21.95 | 21.83 | | |
| 20 | 16QAM | 1 | 99 | 21.45 | 21.56 | 21.41 | | |
| 20 | 16QAM | 50 | 0 | 20.78 | 20.78 | 20.73 | 21.5 | 0-2 |
| 20 | 16QAM | 50 | 24 | 20.55 | 20.80 | 20.59 | | |
| 20 | 16QAM | 50 | 49 | 20.44 | 20.50 | 20.47 | | |
| 20 | 16QAM | 100 | 0 | 20.62 | 20.72 | 20.49 | | |
| Channel | | | | 20825 | 21100 | 21375 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 2507.5 | 2535 | 2562.5 | | |
| 15 | QPSK | 1 | 0 | 22.86 | 22.80 | 22.48 | 23.5 | 0 |
| 15 | QPSK | 1 | 37 | 22.87 | 22.99 | 22.95 | | |
| 15 | QPSK | 1 | 74 | 22.28 | 22.56 | 22.26 | | |
| 15 | QPSK | 36 | 0 | 21.73 | 21.78 | 21.62 | 22.5 | 0-1 |
| 15 | QPSK | 36 | 18 | 21.72 | 21.78 | 21.58 | | |
| 15 | QPSK | 36 | 37 | 21.56 | 21.62 | 21.50 | | |
| 15 | QPSK | 75 | 0 | 21.72 | 21.74 | 21.55 | | |
| 15 | 16QAM | 1 | 0 | 22.16 | 22.04 | 21.95 | 22.5 | 0-1 |
| 15 | 16QAM | 1 | 37 | 22.01 | 22.13 | 21.85 | | |
| 15 | 16QAM | 1 | 74 | 21.52 | 21.85 | 21.65 | | |
| 15 | 16QAM | 36 | 0 | 20.69 | 20.75 | 20.59 | 21.5 | 0-2 |
| 15 | 16QAM | 36 | 18 | 20.83 | 20.80 | 20.54 | | |
| 15 | 16QAM | 36 | 37 | 20.50 | 20.62 | 20.54 | | |
| 15 | 16QAM | 75 | 0 | 20.64 | 20.72 | 20.57 | | |

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune up Limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 20800 | 21100 | 21400 | | |
| Frequency (MHz) | | | | 2505 | 2535 | 2565 | | |
| 10 | QPSK | 1 | 0 | 22.56 | 22.64 | 22.39 | 23.5 | 0 |
| 10 | QPSK | 1 | 24 | 22.55 | 22.71 | 22.42 | | |
| 10 | QPSK | 1 | 49 | 22.41 | 22.64 | 22.41 | | |
| 10 | QPSK | 25 | 0 | 21.62 | 21.55 | 21.40 | 22.5 | 0-1 |
| 10 | QPSK | 25 | 12 | 21.50 | 21.63 | 21.43 | | |
| 10 | QPSK | 25 | 24 | 21.35 | 21.42 | 21.30 | | |
| 10 | QPSK | 50 | 0 | 21.33 | 21.58 | 21.32 | | |
| 10 | 16QAM | 1 | 0 | 21.78 | 21.92 | 21.87 | 22.5 | 0-1 |
| 10 | 16QAM | 1 | 24 | 21.62 | 22.02 | 21.66 | | |
| 10 | 16QAM | 1 | 49 | 21.61 | 21.68 | 21.56 | | |
| 10 | 16QAM | 25 | 0 | 20.41 | 20.53 | 20.39 | 21.5 | 0-2 |
| 10 | 16QAM | 25 | 12 | 20.39 | 20.66 | 20.47 | | |
| 10 | 16QAM | 25 | 24 | 20.21 | 20.47 | 20.39 | | |
| 10 | 16QAM | 50 | 0 | 20.31 | 20.61 | 20.31 | | |
| Channel | | | | 20775 | 21100 | 21425 | Tune up Limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 2502.5 | 2535 | 2567.5 | | |
| 5 | QPSK | 1 | 0 | 22.71 | 22.75 | 22.50 | 23.5 | 0 |
| 5 | QPSK | 1 | 12 | 22.69 | 22.83 | 22.46 | | |
| 5 | QPSK | 1 | 24 | 22.35 | 22.62 | 22.42 | | |
| 5 | QPSK | 12 | 0 | 21.66 | 21.47 | 21.23 | 22.5 | 0-1 |
| 5 | QPSK | 12 | 6 | 21.44 | 21.64 | 21.37 | | |
| 5 | QPSK | 12 | 11 | 21.77 | 21.56 | 21.36 | | |
| 5 | QPSK | 25 | 0 | 21.63 | 21.57 | 21.33 | | |
| 5 | 16QAM | 1 | 0 | 21.66 | 21.93 | 21.71 | 22.5 | 0-1 |
| 5 | 16QAM | 1 | 12 | 21.73 | 22.11 | 21.65 | | |
| 5 | 16QAM | 1 | 24 | 21.60 | 21.87 | 21.58 | | |
| 5 | 16QAM | 12 | 0 | 20.36 | 20.66 | 20.48 | 21.5 | 0-2 |
| 5 | 16QAM | 12 | 6 | 20.40 | 20.70 | 20.47 | | |
| 5 | 16QAM | 12 | 11 | 20.36 | 20.62 | 20.41 | | |
| 5 | 16QAM | 25 | 0 | 20.38 | 20.61 | 20.39 | | |

**<LTE Band 5>**

| BW [MHz] | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Channel | | | | 20450 | 20525 | 20600 | | |
| Frequency (MHz) | | | | 829 | 836.5 | 844 | | |
| 10 | QPSK | 1 | 0 | 23.90 | 23.91 | 23.88 | 24.5 | 0 |
| 10 | QPSK | 1 | 25 | 23.76 | 23.84 | 23.81 | | |
| 10 | QPSK | 1 | 49 | 23.62 | 23.81 | 23.76 | | |
| 10 | QPSK | 25 | 0 | 22.86 | 22.90 | 22.89 | 23.5 | 0-1 |
| 10 | QPSK | 25 | 12 | 22.84 | 22.89 | 22.87 | | |
| 10 | QPSK | 25 | 25 | 22.80 | 22.79 | 22.83 | | |
| 10 | QPSK | 50 | 0 | 22.80 | 22.91 | 22.86 | | |
| 10 | 16QAM | 1 | 0 | 23.13 | 23.19 | 23.28 | 23.5 | 0-1 |
| 10 | 16QAM | 1 | 25 | 22.98 | 23.09 | 23.08 | | |
| 10 | 16QAM | 1 | 49 | 22.97 | 23.13 | 23.04 | | |
| 10 | 16QAM | 25 | 0 | 21.78 | 21.90 | 21.82 | 22.5 | 0-2 |
| 10 | 16QAM | 25 | 12 | 21.83 | 21.89 | 21.84 | | |
| 10 | 16QAM | 25 | 25 | 21.78 | 21.79 | 21.84 | | |
| 10 | 16QAM | 50 | 0 | 21.82 | 21.90 | 21.85 | | |
| Channel | | | | 20425 | 20525 | 20625 | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 826.5 | 836.5 | 846.5 | | |
| 5 | QPSK | 1 | 0 | 23.78 | 23.92 | 24.01 | 24.5 | 0 |
| 5 | QPSK | 1 | 12 | 23.95 | 23.87 | 23.90 | | |
| 5 | QPSK | 1 | 24 | 23.81 | 23.82 | 23.87 | | |
| 5 | QPSK | 12 | 0 | 22.91 | 22.92 | 22.88 | 23.5 | 0-1 |
| 5 | QPSK | 12 | 7 | 22.83 | 22.88 | 22.87 | | |
| 5 | QPSK | 12 | 13 | 22.86 | 22.84 | 22.94 | | |
| 5 | QPSK | 25 | 0 | 22.78 | 22.85 | 22.84 | | |
| 5 | 16QAM | 1 | 0 | 23.08 | 23.24 | 23.17 | 23.5 | 0-1 |
| 5 | 16QAM | 1 | 12 | 23.17 | 23.11 | 23.09 | | |
| 5 | 16QAM | 1 | 24 | 23.05 | 23.13 | 23.11 | | |
| 5 | 16QAM | 12 | 0 | 21.93 | 21.91 | 21.91 | 22.5 | 0-2 |
| 5 | 16QAM | 12 | 7 | 21.83 | 21.88 | 21.89 | | |
| 5 | 16QAM | 12 | 13 | 21.85 | 21.84 | 21.92 | | |
| 5 | 16QAM | 25 | 0 | 21.79 | 21.85 | 21.88 | | |
| Channel | | | | 20415 | 20525 | 20635 | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) | | | | 825.5 | 836.5 | 847.5 | | |
| 3 | QPSK | 1 | 0 | 23.67 | 23.77 | 23.93 | 24.5 | 0 |
| 3 | QPSK | 1 | 8 | 23.94 | 23.88 | **24.02** | | |
| 3 | QPSK | 1 | 14 | 23.78 | 23.71 | 23.88 | | |
| 3 | QPSK | 8 | 0 | 22.75 | 22.79 | 22.88 | 23.5 | 0-1 |
| 3 | QPSK | 8 | 4 | 22.81 | 22.72 | 22.92 | | |
| 3 | QPSK | 8 | 7 | 22.69 | 22.71 | 22.86 | | |
| 3 | QPSK | 15 | 0 | 22.76 | 22.76 | 22.93 | | |
| 3 | 16QAM | 1 | 0 | 22.88 | 23.03 | 23.14 | 23.5 | 0-1 |
| 3 | 16QAM | 1 | 8 | 23.18 | 23.15 | 23.28 | | |
| 3 | 16QAM | 1 | 14 | 23.01 | 22.90 | 23.12 | | |
| 3 | 16QAM | 8 | 0 | 21.80 | 21.83 | 21.91 | 22.5 | 0-2 |
| 3 | 16QAM | 8 | 4 | 21.85 | 21.83 | 21.99 | | |
| 3 | 16QAM | 8 | 7 | 21.75 | 21.80 | 21.93 | | |
| 3 | 16QAM | 15 | 0 | 21.80 | 21.74 | 21.93 | | |

| Channel | | | | 20407 | 20525 | 20643 | Tune-up limit (dBm) | MPR (dB) |
|---|---|---|---|---|---|---|---|---|
| Frequency (MHz) | | | | 824.7 | 836.5 | 848.3 | | |
| 1.4 | QPSK | 1 | 0 | 23.64 | 23.76 | 23.86 | 24.5 | 0 |
| 1.4 | QPSK | 1 | 3 | 23.68 | 23.82 | 23.90 | | |
| 1.4 | QPSK | 1 | 5 | 23.60 | 23.67 | 23.84 | | |
| 1.4 | QPSK | 3 | 0 | 23.76 | 23.75 | 23.96 | | |
| 1.4 | QPSK | 3 | 1 | 23.78 | 23.74 | 23.94 | | |
| 1.4 | QPSK | 3 | 3 | 23.74 | 23.74 | 23.93 | | |
| 1.4 | QPSK | 6 | 0 | 22.62 | 22.65 | 22.81 | 23.5 | 0-1 |
| 1.4 | 16QAM | 1 | 0 | 22.84 | 23.00 | 23.21 | 23.5 | 0-1 |
| 1.4 | 16QAM | 1 | 3 | 23.04 | 23.06 | 23.13 | | |
| 1.4 | 16QAM | 1 | 5 | 22.91 | 22.97 | 23.15 | | |
| 1.4 | 16QAM | 3 | 0 | 22.74 | 22.71 | 22.92 | | |
| 1.4 | 16QAM | 3 | 1 | 22.79 | 22.73 | 22.90 | | |
| 1.4 | 16QAM | 3 | 3 | 22.75 | 22.73 | 22.97 | | |
| 1.4 | 16QAM | 6 | 0 | 21.75 | 21.76 | 21.91 | 22.5 | 0-2 |

**<WLAN Conducted Power>**

**<WLAN 2.4GHz>**

| 2.4GHz 802.11b Average Power (dBm) | | | | | | | | Tune up Limit (dBm) |
|---|---|---|---|---|---|---|---|---|
| Power vs. Channel | | | | Power vs. Data Rate | | | | |
| Channel | Frequency (MHz) | Chain Port | Data Rate 1Mbps | Channel | 2Mbps | 5.5Mbps | 11Mbps | |
| CH 01 | 2412 | 1 | 15.23 | CH 06 | 15.99 | 16.14 | 16.08 | 16.5 |
| CH 06 | 2437 | 1 | **16.15** | | | | | |
| CH 11 | 2462 | 1 | 14.42 | | | | | |
| CH 01 | 2412 | 2 | 19.81 | CH 06 | 20.09 | 20.25 | 20.23 | 20.5 |
| CH 06 | 2437 | 2 | **20.26** | | | | | |
| CH 11 | 2462 | 2 | 19.48 | | | | | |

| 2.4GHz 802.11g Average Power (dBm) | | | | | | | | | | | | Tune up Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power vs. Channel | | | | Power vs. Data Rate | | | | | | | | |
| Channel | Frequency (MHz) | Chain Port | Data Rate 6Mbps | Channel | 9Mbps | 12Mbps | 18Mbps | 24Mbps | 36Mbps | 48Mbps | 54Mbps | |
| CH 01 | 2412 | 1 | 14.42 | CH 06 | 15.31 | 15.37 | 15.33 | 15.18 | 15.11 | 15.15 | 15.36 | 15.5 |
| CH 06 | 2437 | 1 | **15.39** | | | | | | | | | |
| CH 11 | 2462 | 1 | 14.12 | | | | | | | | | |
| CH 01 | 2412 | 2 | 15.75 | CH 06 | 16.24 | 16.21 | 16.31 | 16.15 | 16.28 | 16.29 | 16.32 | 16.5 |
| CH 06 | 2437 | 2 | **16.35** | | | | | | | | | |
| CH 11 | 2462 | 2 | 15.58 | | | | | | | | | |

| 2.4GHz 802.11n HT20 Average Power (dBm) | | | | | | | | | | | | Tune up Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power vs. Channel | | | | Power vs. MCS Index | | | | | | | | |
| Channel | Frequency (MHz) | Chain Port | MCS Index MCS0 | Channel | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 | |
| CH 01 | 2412 | 1 | 18.51 | CH 06 | 19.27 | 19.26 | 19.19 | 18.41 | 18.49 | 17.43 | 15.54 | 19.5 |
| CH 06 | 2437 | 1 | **19.29** | | | | | | | | | |
| CH 11 | 2462 | 1 | 17.69 | | | | | | | | | |
| CH 01 | 2412 | 2 | 18.55 | CH 06 | 19.37 | 19.39 | 19.36 | 18.33 | 18.26 | 17.45 | 15.70 | 19.5 |
| CH 06 | 2437 | 2 | **19.41** | | | | | | | | | |
| CH 11 | 2462 | 2 | 18.96 | | | | | | | | | |
| CH 01 | 2412 | 1+2 | 18.76 | CH 06 | 19.44 | 19.06 | 19.07 | 18.44 | 18.34 | 18.28 | 18.37 | 19.5 |
| CH 06 | 2437 | 1+2 | **19.45** | | | | | | | | | |
| CH 11 | 2462 | 1+2 | 18.30 | | | | | | | | | |

| 2.4GHz 802.11n HT40 Average Power (dBm) | | | | | | | | | | | | Tune up Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power vs. Channel | | | | Power vs. MCS Index | | | | | | | | |
| Channel | Frequency (MHz) | Chain Port | MCS Index MCS0 | MCS1 | Channel | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 | |
| CH 03 | 2422 | 1 | 17.42 | 18.06 | CH 06 | 18.03 | 16.92 | 16.86 | 16.23 | 15.11 | 13.30 | 18.5 |
| CH 06 | 2437 | 1 | 17.48 | **18.14** | | | | | | | | |
| CH 09 | 2452 | 1 | 16.76 | 17.40 | | | | | | | | |
| CH 03 | 2422 | 2 | 17.28 | 17.92 | CH 06 | 18.43 | 17.18 | 17.28 | 17.67 | 17.65 | 17.61 | 18.5 |
| CH 06 | 2437 | 2 | 17.67 | **18.45** | | | | | | | | |
| CH 09 | 2452 | 2 | 17.10 | 18.28 | | | | | | | | |
| CH 03 | 2422 | 1+2 | 17.71 | 18.54 | CH 06 | 18.55 | 17.32 | 17.67 | 17.30 | 17.23 | 16.98 | 19.0 |
| CH 06 | 2437 | 1+2 | 17.74 | **18.73** | | | | | | | | |
| CH 09 | 2452 | 1+2 | 17.35 | 18.31 | | | | | | | | |

**<WLAN 5GHz>**

| WLAN 5GHz 802.11a Average Power (dBm) | | | | | | | | | | | | Tune up Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power vs. Channel | | | | Power vs. Data Rate | | | | | | | | |
| Channel | Frequency (MHz) | Chain Port | Data Rate 6Mbps | Channel | 9Mbps | 12Mbps | 18Mbps | 24Mbps | 36Mbps | 48Mbps | 54Mbps | |
| CH 36 | 5180 | 1 | **17.17** | CH 36 | 17.01 | 16.98 | 16.99 | 17.04 | 17.10 | 16.97 | 17.14 | 17.5 |
| CH 44 | 5220 | 1 | 15.68 | | | | | | | | | |
| CH 48 | 5240 | 1 | 16.01 | | | | | | | | | |
| CH 149 | 5745 | 1 | **12.23** | CH 149 | 12.10 | 12.08 | 12.12 | 12.15 | 12.16 | 12.09 | 12.19 | 12.5 |
| CH 157 | 5785 | 1 | 11.87 | | | | | | | | | |
| CH 165 | 5825 | 1 | 11.53 | | | | | | | | | |
| CH 36 | 5180 | 2 | **17.55** | CH 36 | 17.33 | 17.37 | 17.44 | 17.42 | 17.50 | 17.52 | 17.53 | 18.0 |
| CH 44 | 5220 | 2 | 16.35 | | | | | | | | | |
| CH 48 | 5240 | 2 | 16.51 | | | | | | | | | |
| CH 149 | 5745 | 2 | **15.15** | CH 149 | 15.02 | 14.93 | 15.07 | 14.97 | 15.09 | 15.11 | 15.08 | 15.5 |
| CH 157 | 5785 | 2 | 14.57 | | | | | | | | | |
| CH 165 | 5825 | 2 | 14.11 | | | | | | | | | |

| WLAN 5GHz 802.11n-HT20 Average Power (dBm) | | | | | | | | | | | | | Tune up Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power vs. Channel | | | | Power vs. Data Rate | | | | | | | | | |
| Channel | Frequency (MHz) | Chain Port | MCS Index MCS0 | Channel | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 | | |
| CH 36 | 5180 | 1 | 14.10 | CH 44 | 14.36 | 14.32 | 14.39 | 14.43 | 14.45 | 14.54 | 14.55 | | 15.0 |
| CH 44 | 5220 | 1 | **14.58** | | | | | | | | | | |
| CH 48 | 5240 | 1 | 13.64 | | | | | | | | | | |
| CH 149 | 5745 | 1 | **14.57** | CH 149 | 14.42 | 14.43 | 14.47 | 14.51 | 14.54 | 14.49 | 14.48 | | 15.0 |
| CH 157 | 5785 | 1 | 14.10 | | | | | | | | | | |
| CH 165 | 5825 | 1 | 13.64 | | | | | | | | | | |
| CH 36 | 5180 | 2 | 13.89 | CH 48 | 14.15 | 14.19 | 14.23 | 14.30 | 14.24 | 14.28 | 14.33 | | 14.5 |
| CH 44 | 5220 | 2 | 13.98 | | | | | | | | | | |
| CH 48 | 5240 | 2 | **14.36** | | | | | | | | | | |
| CH 149 | 5745 | 2 | **13.86** | CH 149 | 13.70 | 13.72 | 13.76 | 13.77 | 13.83 | 13.80 | 13.78 | | 14.0 |
| CH 157 | 5785 | 2 | 13.37 | | | | | | | | | | |
| CH 165 | 5825 | 2 | 13.10 | | | | | | | | | | |
| CH 36 | 5180 | 1+2 | 14.76 | CH 44 | 14.89 | 14.91 | 14.96 | 14.85 | 14.87 | 14.82 | 14.88 | | 15.5 |
| CH 44 | 5220 | 1+2 | **15.12** | | | | | | | | | | |
| CH 48 | 5240 | 1+2 | 14.99 | | | | | | | | | | |
| CH 149 | 5745 | 1+2 | **14.94** | CH 149 | 14.83 | 14.77 | 14.73 | 14.67 | 14.71 | 14.76 | 14.75 | | 15.0 |
| CH 157 | 5785 | 1+2 | 14.80 | | | | | | | | | | |
| CH 165 | 5825 | 1+2 | 14.08 | | | | | | | | | | |

| WLAN 5GHz 802.11n-HT40 Average Power (dBm) | | | | | | | | | | | | | Tune up Limit (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power vs. Channel | | | | Power vs. Data Rate | | | | | | | | | |
| Channel | Frequency (MHz) | Chain Port | MCS Index MCS0 | Channel | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 | | |
| CH 38 | 5190 | 1 | **15.13** | CH 38 | 14.61 | 14.77 | 14.96 | 15.00 | 15.04 | 15.03 | 15.06 | | 15.5 |
| CH 46 | 5230 | 1 | 14.55 | | | | | | | | | | |
| CH 151 | 5755 | 1 | **12.84** | CH 151 | 12.64 | 12.71 | 12.61 | 12.75 | 12.76 | 12.78 | 12.82 | | 13.0 |
| CH 159 | 5795 | 1 | 12.36 | | | | | | | | | | |
| CH 38 | 5190 | 2 | 14.44 | CH 46 | 14.91 | 14.90 | 14.92 | 15.10 | 15.13 | 15.12 | 15.16 | | 15.5 |
| CH 46 | 5230 | 2 | **15.18** | | | | | | | | | | |
| CH 151 | 5755 | 2 | **12.62** | CH 151 | 12.27 | 12.31 | 12.35 | 12.52 | 12.59 | 12.55 | 12.60 | | 13.0 |
| CH 159 | 5795 | 2 | 12.11 | | | | | | | | | | |
| CH 38 | 5190 | 1+2 | **15.33** | CH 38 | 15.26 | 15.15 | 14.93 | 15.02 | 15.11 | 15.14 | 15.05 | | 15.5 |
| CH 46 | 5230 | 1+2 | 15.22 | | | | | | | | | | |
| CH 151 | 5755 | 1+2 | **13.64** | CH 151 | 13.52 | 13.37 | 13.38 | 13.29 | 13.33 | 13.42 | 13.44 | | 14.0 |
| CH 159 | 5795 | 1+2 | 13.44 | | | | | | | | | | |

<table>
<tr><th colspan="2">Summarized necessary items addressed in KDB 941225 D05 v02r05</th></tr>
<tr><td>FCC ID</td><td>SRQ-MF275R</td></tr>
<tr><td>EUT</td><td>Rogers HSPA/LTE CPE</td></tr>
<tr><td>Operating Frequency Range of each LTE transmission band</td><td>LTE Band 12: 699.7 MHz ~ 715.3 MHz<br>LTE Band 17: 706.5 MHz ~ 713.5 MHz<br>LTE Band 4: 1710.7 MHz ~ 1754.3 MHz<br>LTE Band 2: 1850.7 MHz ~ 1909.3 MHz<br>LTE Band 7: 2502.5 MHz ~ 2567.5 MHz<br>TE Band 5: 824 MHz ~ 849 MHz</td></tr>
<tr><td>Channel Bandwidth</td><td>LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz<br>LTE Band 17: 5MHz, 10MHz<br>LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz</td></tr>
<tr><td>Uplink modulations used</td><td>QPSK and 16QAM</td></tr>
<tr><td>LTE MPR permanently built-in by design</td><td>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3
<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (RB)</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
</table></td></tr>
<tr><td>LTE -MPR</td><td>In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI).</td></tr>
<tr><td>Spectrum plots for RB configuration</td><td>A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.</td></tr>
</table>

| Transmission (H, M, L) channel numbers and frequencies in each LTE band | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LTE Band 12 | | | | | | | | |
| | Bandwidth 1.4 MHz | | Bandwidth 3 MHz | | Bandwidth 5 MHz | | Bandwidth 10 MHz | |
| | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) |
| L | 23017 | 699.7 | 23025 | 700.5 | 23035 | 701.5 | 23060 | 704 |
| M | 23095 | 707.5 | 23095 | 707.5 | 23095 | 707.5 | 23095 | 707.5 |
| H | 23173 | 715.3 | 23165 | 714.5 | 23155 | 713.5 | 23130 | 711 |

| LTE Band 17 | | | | |
|---|---|---|---|---|
| | Bandwidth 5 MHz | | Bandwidth 10 MHz | |
| | Channel # | Freq.(MHz) | Channel # | Freq. (MHz) |
| L | 23755 | 706.5 | 23780 | 709 |
| M | 23790 | 710 | 23790 | 710 |
| H | 23825 | 713.5 | 23800 | 711 |

| LTE Band 4 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bandwidth 1.4 MHz | | Bandwidth 3 MHz | | Bandwidth 5 MHz | | Bandwidth 10 MHz | | Bandwidth 15 MHz | | Bandwidth 20 MHz | |
| | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) |
| L | 19957 | 1710.7 | 19965 | 1711.5 | 19975 | 1712.5 | 20000 | 1715 | 20025 | 1717.5 | 20050 | 1720 |
| M | 20175 | 1732.5 | 20175 | 1732.5 | 20175 | 1732.5 | 20175 | 1732.5 | 20175 | 1732.5 | 20175 | 1732.5 |
| H | 20393 | 1754.3 | 20385 | 1753.5 | 20375 | 1752.5 | 20350 | 1750 | 20325 | 1747.5 | 20300 | 1745 |

| LTE Band 2 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bandwidth 1.4 MHz | | Bandwidth 3 MHz | | Bandwidth 5 MHz | | Bandwidth 10 MHz | | Bandwidth 15 MHz | | Bandwidth 20 MHz | |
| | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) |
| L | 18607 | 1850.7 | 18615 | 1851.5 | 18625 | 1852.5 | 18650 | 1855 | 18675 | 1857.5 | 18700 | 1860 |
| M | 18900 | 1880 | 18900 | 1880 | 18900 | 1880 | 18900 | 1880 | 18900 | 1880 | 18900 | 1880 |
| H | 19193 | 1909.3 | 19185 | 1908.5 | 19175 | 1907.5 | 19150 | 1905 | 19125 | 1902.5 | 19100 | 1900 |

| LTE Band 7 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Bandwidth 5 MHz | | Bandwidth 10 MHz | | Bandwidth 15 MHz | | Bandwidth 20 MHz | |
| | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) |
| L | 20775 | 2502.5 | 20800 | 2505 | 20825 | 2507.5 | 20850 | 2510 |
| M | 21100 | 2535 | 21100 | 2535 | 21100 | 2535 | 21100 | 2535 |
| H | 21425 | 2567.5 | 21400 | 2565 | 21375 | 2562.5 | 21350 | 2560 |

| LTE Band 5 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Bandwidth 1.4 MHz | | Bandwidth 3 MHz | | Bandwidth 5 MHz | | Bandwidth 10 MHz | |
| | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) | Ch. # | Freq. (MHz) |
| L | 20407 | 824.7 | 20415 | 825.5 | 20425 | 826.5 | 20450 | 829 |
| M | 20525 | 836.5 | 20525 | 836.5 | 20525 | 836.5 | 20525 | 836.5 |
| H | 20643 | 848.3 | 20635 | 847.5 | 20625 | 846.5 | 20600 | 844 |

# 4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm$^2$) | Averaging time (minutes) |
|---|---|---|---|---|
| (A) Limits for Occupational/Controlled Exposures | | | | |
| 0.3-3.0 | 614 | 1.63 | *(100) | 6 |
| 3.0-30 | 1842/f | 4.89/f | *(900/f2) | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1500 | | | f/300 | 6 |
| 1500-100,000 | | | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | *(100) | 30 |
| 1.34-30 | 824/f | 2.19/f | *(180/f2) | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | | | f/1500 | 30 |
| 1500-100,000 | | | 1.0 | 30 |

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

# 5. Radio Frequency Radiation Exposure Evaluation

## 5.1. Standalone Power Density Calculation

| Band | Frequency (MHz) | Antenna Gain (dBi) | Maximum Power (dBm) | Maximum EIRP (dBm) | Maximum EIRP (W) | Average EIRP (mW) | Power Density at 20cm (mW/cm^2) | Limit (mW/cm^2) | Power Density / Limit |
|---|---|---|---|---|---|---|---|---|---|
| WCDMA Band V | 826.4 | -0.03 | 24.0 | 23.970 | 0.249 | 31.405 | 0.006 | 0.551 | 0.011 |
| WCDMA Band II | 1852.4 | 0.57 | 23.0 | 23.570 | 0.228 | 28.642 | 0.006 | 1.000 | 0.006 |
| LTE Band 12 | 699.7 | -2.21 | 23.0 | 20.790 | 0.120 | 30.130 | 0.006 | 0.466 | 0.013 |
| LTE Band 17 | 706.5 | -1.72 | 23.5 | 21.780 | 0.151 | 56.494 | 0.011 | 0.471 | 0.024 |
| LTE Band 4 | 1710.7 | 1.31 | 23.5 | 24.810 | 0.303 | 151.705 | 0.030 | 1.000 | 0.030 |
| LTE Band 2 | 1850.7 | 0.57 | 23.5 | 24.070 | 0.255 | 32.137 | 0.006 | 1.000 | 0.006 |
| LTE Band 7 | 2502.5 | 1.87 | 23.5 | 25.370 | 0.344 | 86.497 | 0.017 | 1.000 | 0.017 |
| LTE Band 5 | 824.7 | -0.03 | 24.5 | 24.470 | 0.280 | 70.307 | 0.014 | 0.550 | 0.025 |
| WLAN 2.4GHz 802.11b Chain Port 1 | 2412.0 | 2.68 | 16.5 | 19.180 | 0.083 | 31.046 | 0.006 | 1.000 | 0.006 |
| WLAN 2.4GHz 802.11b Chain Port 2 | 2412.0 | 4.51 | 20.5 | 25.010 | 0.317 | 158.855 | 0.032 | 1.000 | 0.032 |
| WLAN 2.4GHz 802.11g Chain Port 1 | 2412.0 | 2.68 | 15.5 | 18.180 | 0.066 | 8.279 | 0.002 | 1.000 | 0.002 |
| WLAN 2.4GHz 802.11g Chain Port 2 | 2412.0 | 4.51 | 16.5 | 21.010 | 0.126 | 15.885 | 0.003 | 1.000 | 0.003 |
| WLAN 2.4GHz 802.11n HT20 Chain Port 1 | 2412.0 | 2.68 | 19.5 | 22.180 | 0.165 | 41.495 | 0.008 | 1.000 | 0.008 |
| WLAN 2.4GHz 802.11n HT20 Chain Port 2 | 2412.0 | 4.51 | 19.5 | 24.010 | 0.252 | 94.406 | 0.019 | 1.000 | 0.019 |
| WLAN 2.4GHz 802.11n HT20 Chain Port 1+2 | 2412.0 | 6.65 | 19.5 | 26.150 | 0.412 | 206.538 | 0.041 | 1.000 | 0.041 |
| WLAN 2.4GHz 802.11n HT40 Chain Port 1 | 2412.0 | 2.68 | 18.5 | 21.180 | 0.131 | 16.520 | 0.003 | 1.000 | 0.003 |
| WLAN 2.4GHz 802.11n HT40 Chain Port 2 | 2412.0 | 4.51 | 18.5 | 23.010 | 0.200 | 50.234 | 0.010 | 1.000 | 0.010 |
| WLAN 2.4GHz 802.11n HT40 Chain Port 1+2 | 2412.0 | 6.65 | 19.0 | 25.650 | 0.367 | 137.721 | 0.027 | 1.000 | 0.027 |
| WLAN 5.2GHz 802.11a Chain Port 1 | 5180.0 | 0.76 | 17.5 | 18.260 | 0.067 | 33.574 | 0.007 | 1.000 | 0.007 |
| WLAN 5.2GHz 802.11a Chain Port 2 | 5180.0 | 1.61 | 18.0 | 19.610 | 0.091 | 91.411 | 0.018 | 1.000 | 0.018 |
| WLAN 5.2GHz 802.11n HT20 Chain Port 1 | 5180.0 | 0.76 | 15.0 | 15.760 | 0.038 | 37.670 | 0.007 | 1.000 | 0.007 |
| WLAN 5.2GHz 802.11n HT20 Chain Port 2 | 5180.0 | 1.61 | 14.5 | 16.110 | 0.041 | 40.832 | 0.008 | 1.000 | 0.008 |
| WLAN 5.2GHz 802.11n HT20 Chain Port 1+2 | 5180.0 | 4.21 | 15.5 | 19.710 | 0.094 | 93.541 | 0.019 | 1.000 | 0.019 |
| WLAN 5.2GHz 802.11n HT40 Chain Port 1 | 5190.0 | 0.76 | 15.5 | 16.260 | 0.042 | 42.267 | 0.008 | 1.000 | 0.008 |
| WLAN 5.2GHz 802.11n HT40 Chain Port 2 | 5190.0 | 1.61 | 15.5 | 17.110 | 0.051 | 51.404 | 0.010 | 1.000 | 0.010 |
| WLAN 5.2GHz 802.11n HT40 Chain Port 1+2 | 5190.0 | 4.21 | 15.5 | 19.710 | 0.094 | 93.541 | 0.019 | 1.000 | 0.019 |
| WLAN 5.8GHz 802.11a Chain Port 1 | 5745.0 | 3.33 | 12.5 | 15.830 | 0.038 | 38.282 | 0.008 | 1.000 | 0.008 |
| WLAN 5.8GHz 802.11a Chain Port 2 | 5745.0 | 0.27 | 15.5 | 15.770 | 0.038 | 37.757 | 0.008 | 1.000 | 0.008 |
| WLAN 5.8GHz 802.11n HT20 Chain Port 1 | 5745.0 | 3.33 | 15.0 | 18.330 | 0.068 | 68.077 | 0.014 | 1.000 | 0.014 |
| WLAN 5.8GHz 802.11n HT20 Chain Port 2 | 5745.0 | 0.27 | 14.0 | 14.270 | 0.027 | 26.730 | 0.005 | 1.000 | 0.005 |
| WLAN 5.8GHz 802.11n HT20 Chain Port 1+2 | 5745.0 | 4.95 | 15.0 | 19.950 | 0.099 | 98.855 | 0.020 | 1.000 | 0.020 |
| WLAN 5.8GHz 802.11n HT40 Chain Port 1 | 5755.0 | 3.33 | 13.0 | 16.330 | 0.043 | 42.954 | 0.009 | 1.000 | 0.009 |
| WLAN 5.8GHz 802.11n HT40 Chain Port 2 | 5755.0 | 0.27 | 13.0 | 13.270 | 0.021 | 21.232 | 0.004 | 1.000 | 0.004 |
| WLAN 5.8GHz 802.11n HT40 Chain Port 1+2 | 5755.0 | 4.95 | 14.0 | 18.950 | 0.079 | 78.524 | 0.016 | 1.000 | 0.016 |

**Note:** For conservativeness, the lowest uplink frequency of each band is used to determine the MPE limit of that band.

## 5.2. Collocated Power Density Calculation

| Mode | Frequency | Maximum EIRP (dBm) | Calculated Power Density (mW/cm2) | Limit (mW/cm2) | WLAN Power Density / Limit | LTE B and 4 Power Density / Limit | ∑(Power Density / Limit) of WWAN+ WLAN 2.4GHz + WLAN 5GHz |
|---|---|---|---|---|---|---|---|
| WLAN2.4GHz | 2412MHz ~ 2462MHz | 26.150 | 0.041 | 1.000 | 0.041 | 0.030 | 0.091 |
| WLAN5GHz | 5745 MHz ~ 5825 | 19.950 | 0.020 | 1.000 | 0.020 | | |

**Note:**

1. For colocation analysis, LTE Band 4 is chosen for summation due to the highest (power density/limit) among all WWAN wireless modes.
2. ∑(Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for WWAN + WLAN 2.4GHz + WLAN 5GHz.

## Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

# Appendix A. Product Equality Declaration

**ZTE CORPORATION**

# Product Change Description

As the applicant of the below model, [ZTE Corporation] declares that the product,

[MF275R]

[ZTE Corporation]

is the variant of the initial certified product,

[MF275R]

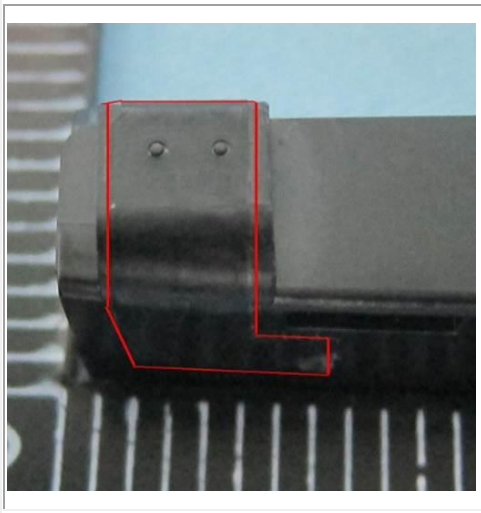
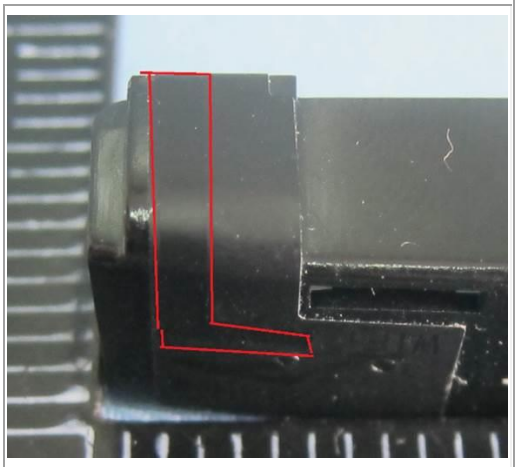
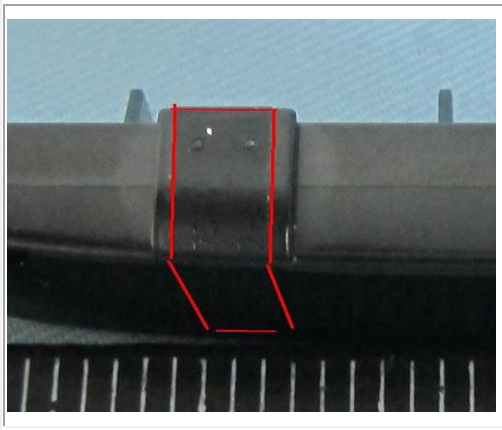
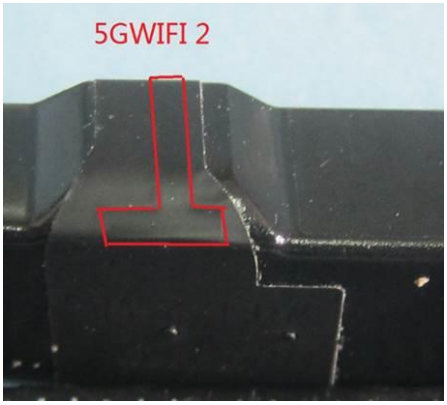
[ZTE Corporation]

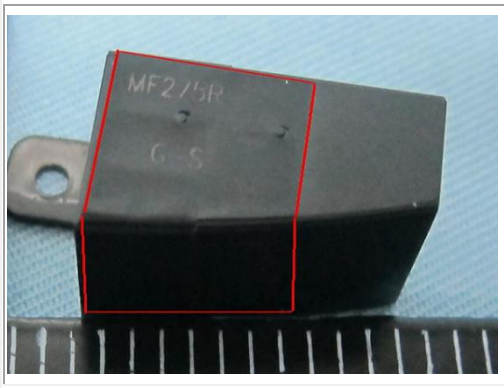
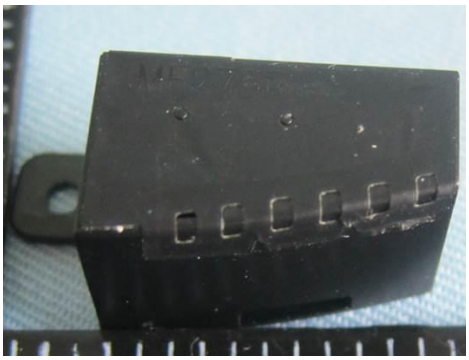
## SOFTWARE MODIFICATIONS:

Protocol Stack changes: NO
MMS/STK changes: NO
JAVA changes: NO
Other changes detailed: 1)change SSID name
2)change APN
3)added the LTE Band V(Changed the VN)

## HARDWARE MODIFICATION:

Band changes: NO
Power Amplifier changes: NO
Antenna changes: yes, Wifi and GPS antenna change

| Original Wifi 2 Ant | Variant |
|---|---|
|  |  |
| Original 5G Wifi 2 | Variant |
|  |  |
| Original 5G Wifi main | Variant |
| | |
| | |
| | |
| | |

| Original GPS Ant | Variant |
| --- | --- |
|  |  |

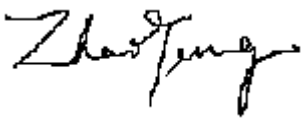
PCB Layout changes: NO
Components on PCB changes: NO
LCD changes: NO
Speaker changes: NO
Camera changes: NO
Vibrator changes: NO
Bluetooth changes: NO
FM changes: NO
Other changes:

## MECHANICAL MODIFICATIONS:

Use new metal front/back cover or keypad: NO
Mechanical shell changes: NO
Other changes detailed: NO

## ACCESSORY MODIFICATIONS:

Battery changes: NO
AC Adaptor changes: NO
Earphone changes: NO



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