



RF Exposure Evaluation Report

APPLICANT : Wistron NeWeb Corporation
EQUIPMENT : LGA Module
BRAND NAME : Wistron Neweb Corporation
MODEL NAME : M18Q2, M18Q2F, M18Q2G, M18Q2FG
FCC ID : NKRM18Q2
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.

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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.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958 |

| Applicant | |
|--------------|---|
| Company Name | Wistron NeWeb Corporation |
| Address | 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C |

| Manufacturer | |
|--------------|---|
| Company Name | Wistron NeWeb Corporation |
| Address | 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C |

2. Description of Equipment Under Test (EUT)

| Product Feature & Specification | |
|---|--|
| EUT Type | LGA Module |
| Brand Name | Wistron Neweb Corporation |
| Model Name | M18Q2, M18Q2F, M18Q2G, M18Q2FG |
| FCC ID | NKRM18Q2 |
| Wireless Technology and Frequency Range | WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz |
| Mode | <ul style="list-style-type: none"> · RMC 12.2Kbps · HSDPA · HSUPA · DC-HSDPA · HSPA+ (16QAM uplink is not supported) · LTE: QPSK, 16QAM |
| Antenna Type | WWAN: Fixed External Antenna |
| HW Version | v1.0 |
| SW Version | M18Q2_v12.03 |
| EUT Stage | Identical Prototype |

Note:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are four types of EUT, the details are summary as the following table.

| Function | Model Name | | | |
|----------|---------------|---------------|---------------|---------------|
| | M18Q2 | M18Q2F | M18Q2G | M18Q2FG |
| LTE | Supported | Supported | Supported | Supported |
| UMTS | Not Supported | Supported | Not Supported | Supported |
| Voice | Not Supported | Not Supported | Not Supported | Not Supported |
| AGPS | Not Supported | Not Supported | Supported | Supported |
| VoLTE | Not Supported | Not Supported | Not Supported | Not Supported |

All the functions are enabled or disabled by software; the hardware part is electrically identical for each model.

According to the difference list above, we evaluate MPE based on the model M18Q2F.



3. Maximum RF average output power among production units

| Mode | WCDMA Band V | WCDMA Band II |
|--------------|--------------------|---------------|
| | average power(dBm) | |
| RMC 12.2Kbps | 25.5 | 25.5 |

| LTE Band 12 | | | | |
|--------------------|----------|---------|------------|--------------|
| average power(dBm) | | | | |
| Modulation | BW (MHz) | RB size | Target MPR | Target Power |
| QPSK | 10 | ≤ 12 | 0 | 25 |
| QPSK | 10 | > 12 | 1 | 24 |
| 16QAM | 10 | ≤ 12 | 1 | 24 |
| 16QAM | 10 | > 12 | 2 | 23 |
| QPSK | 5 | ≤ 8 | 0 | 25 |
| QPSK | 5 | > 8 | 1 | 24 |
| 16QAM | 5 | ≤ 8 | 1 | 24 |
| 16QAM | 5 | > 8 | 2 | 23 |
| QPSK | 3 | ≤ 4 | 0 | 25 |
| QPSK | 3 | > 4 | 1 | 24 |
| 16QAM | 3 | ≤ 4 | 1 | 24 |
| 16QAM | 3 | > 4 | 2 | 23 |
| QPSK | 1.4 | ≤ 5 | 0 | 25 |
| QPSK | 1.4 | > 5 | 1 | 24 |
| 16QAM | 1.4 | ≤ 5 | 1 | 24 |
| 16QAM | 1.4 | > 5 | 2 | 23 |

| LTE Band 5 | | | | |
|--------------------|----------|---------|------------|--------------|
| average power(dBm) | | | | |
| Modulation | BW (MHz) | RB size | Target MPR | Target Power |
| QPSK | 10 | ≤ 12 | 0 | 25 |
| QPSK | 10 | > 12 | 1 | 24 |
| 16QAM | 10 | ≤ 12 | 1 | 24 |
| 16QAM | 10 | > 12 | 2 | 23 |
| QPSK | 5 | ≤ 8 | 0 | 25 |
| QPSK | 5 | > 8 | 1 | 24 |
| 16QAM | 5 | ≤ 8 | 1 | 24 |
| 16QAM | 5 | > 8 | 2 | 23 |
| QPSK | 3 | ≤ 4 | 0 | 25 |
| QPSK | 3 | > 4 | 1 | 24 |
| 16QAM | 3 | ≤ 4 | 1 | 24 |
| 16QAM | 3 | > 4 | 2 | 23 |
| QPSK | 1.4 | ≤ 5 | 0 | 25 |
| QPSK | 1.4 | > 5 | 1 | 24 |
| 16QAM | 1.4 | ≤ 5 | 1 | 24 |
| 16QAM | 1.4 | > 5 | 2 | 23 |



| LTE Band 4 | | | | |
|--------------------|----------|---------|------------|--------------|
| average power(dBm) | | | | |
| Modulation | BW (MHz) | RB size | Target MPR | Target Power |
| QPSK | 20 | ≤ 18 | 0 | 25 |
| QPSK | 20 | > 18 | 1 | 24 |
| 16QAM | 20 | ≤ 18 | 1 | 24 |
| 16QAM | 20 | > 18 | 2 | 23 |
| QPSK | 15 | ≤ 16 | 0 | 25 |
| QPSK | 15 | > 16 | 1 | 24 |
| 16QAM | 15 | ≤ 16 | 1 | 24 |
| 16QAM | 15 | > 16 | 2 | 23 |
| QPSK | 10 | ≤ 12 | 0 | 25 |
| QPSK | 10 | > 12 | 1 | 24 |
| 16QAM | 10 | ≤ 12 | 1 | 24 |
| 16QAM | 10 | > 12 | 2 | 23 |
| QPSK | 5 | ≤ 8 | 0 | 25 |
| QPSK | 5 | > 8 | 1 | 24 |
| 16QAM | 5 | ≤ 8 | 1 | 24 |
| 16QAM | 5 | > 8 | 2 | 23 |
| QPSK | 3 | ≤ 4 | 0 | 25 |
| QPSK | 3 | > 4 | 1 | 24 |
| 16QAM | 3 | ≤ 4 | 1 | 24 |
| 16QAM | 3 | > 4 | 2 | 23 |
| QPSK | 1.4 | ≤ 5 | 0 | 25 |
| QPSK | 1.4 | > 5 | 1 | 24 |
| 16QAM | 1.4 | ≤ 5 | 1 | 24 |
| 16QAM | 1.4 | > 5 | 2 | 23 |



| LTE Band 2 | | | | |
|--------------------|----------|---------|------------|--------------|
| average power(dBm) | | | | |
| Modulation | BW (MHz) | RB size | Target MPR | Target Power |
| QPSK | 20 | ≤ 18 | 0 | 24.5 |
| QPSK | 20 | > 18 | 1 | 23.5 |
| 16QAM | 20 | ≤ 18 | 1 | 23.5 |
| 16QAM | 20 | > 18 | 2 | 22.5 |
| QPSK | 15 | ≤ 16 | 0 | 24.5 |
| QPSK | 15 | > 16 | 1 | 23.5 |
| 16QAM | 15 | ≤ 16 | 1 | 23.5 |
| 16QAM | 15 | > 16 | 2 | 22.5 |
| QPSK | 10 | ≤ 12 | 0 | 24.5 |
| QPSK | 10 | > 12 | 1 | 23.5 |
| 16QAM | 10 | ≤ 12 | 1 | 23.5 |
| 16QAM | 10 | > 12 | 2 | 22.5 |
| QPSK | 5 | ≤ 8 | 0 | 24.5 |
| QPSK | 5 | > 8 | 1 | 23.5 |
| 16QAM | 5 | ≤ 8 | 1 | 23.5 |
| 16QAM | 5 | > 8 | 2 | 22.5 |
| QPSK | 3 | ≤ 4 | 0 | 24.5 |
| QPSK | 3 | > 4 | 1 | 23.5 |
| 16QAM | 3 | ≤ 4 | 1 | 23.5 |
| 16QAM | 3 | > 4 | 2 | 22.5 |
| QPSK | 1.4 | ≤ 5 | 0 | 24.5 |
| QPSK | 1.4 | > 5 | 1 | 23.5 |
| 16QAM | 1.4 | ≤ 5 | 1 | 23.5 |
| 16QAM | 1.4 | > 5 | 2 | 22.5 |

Remark:

1. By design, maximum LTE RF power of smaller supported bandwidth does not exceed the RF power of largest supported bandwidth; the information is included in “tune-up procedure” exhibit
2. LTE MPR implementation is the same for normal mode and power reduction mode.

The table below summarized necessary items addressed in KDB 941225 D05 v02.

| FCC ID | NKRM18Q2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------------|---|--------|--------|--------|----------|--|----------|---------|---------|-------|--------|--------|--------|------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|
| EUT | LGA Module | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Frequency Range of each LTE transmission band | LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Channel Bandwidth | LTE Band 5: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 4: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 2: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12: 1.4MHz, 3MHz, 5MHz, 10MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E category, uplink modulations used | Category 4, QPSK, and 16QAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LTE Voice / Data requirements | Data only | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LTE MPR permanently built-in by design | Yes, per 3GPP TS 36.101 v11.0.0 Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3 <table border="1"> <thead> <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> </thead> <tbody> <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> </tbody> </table> | Modulation | Channel bandwidth / Transmission bandwidth (RB) | | | | | | MPR (dB) | 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz | QPSK | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 | 16 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 | 16 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2 |
| Modulation | Channel bandwidth / Transmission bandwidth (RB) | | | | | | MPR (dB) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| QPSK | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LTE A-MPR | In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Base station simulator used for Testing | Anritsu MT8820C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| 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) | 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 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) | 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 | | | | |
| 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 |



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/f ²) | 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/f ²) | 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 ERP (dBm) | Maximum ERP (W) | Maximum EIRP (dBm) | Maximum EIRP (W) | Maximum Output Power Limit (W) | Average EIRP (mW) | Power Density at 20cm (mW/cm ²) | Limit (mW/cm ²) |
|---------------|-----------------|--------------------|---------------------|-------------------|-----------------|--------------------|------------------|--------------------------------|-------------------|---|-----------------------------|
| WCDMA Band V | 826.4 | 8.0 | 25.5 | 31.350 | 1.365 | 33.500 | 2.239 | 7.000 | 2238.721 | 0.446 | 0.551 |
| WCDMA Band II | 1852.4 | 7.5 | 25.5 | 30.850 | 1.216 | 33.000 | 1.995 | 2.000 | 1995.262 | 0.397 | 1.000 |
| LTE Band 12 | 699.7 | 8.0 | 25.0 | 30.850 | 1.216 | 33.000 | 1.995 | 3.000 | 1995.262 | 0.397 | 0.466 |
| LTE Band 5 | 824.7 | 8.0 | 25.0 | 30.850 | 1.216 | 33.000 | 1.995 | 7.000 | 1995.262 | 0.397 | 0.550 |
| LTE Band 4 | 1710.7 | 5.0 | 25.0 | 27.850 | 0.610 | 30.000 | 1.000 | 1.000 | 1000.000 | 0.199 | 1.000 |
| LTE Band 2 | 1850.7 | 7.5 | 24.50 | 29.850 | 0.966 | 32.000 | 1.585 | 2.000 | 1584.893 | 0.315 | 1.000 |

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

5.2. Collocated Power Density Calculation

Note:

1. This MPE analysis is applicable to any collocated transmitters with transmit power for WLAN is less than or equal to 27dBm and for Bluetooth is less than or equal to 26dBm.
2. A maximum antenna gain of 4 dBi for WLAN /BT has been assumed for all collocated antennas.

| 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 5 | 826.4 | 5.0 | 25.5 | 30.5 | 1.12 | 1122.02 | 0.446 | 0.551 | 0.810 |
| WCDMA Band 2 | 1852.4 | 7.5 | 25.5 | 33.0 | 2.00 | 1995.26 | 0.397 | 1.000 | 0.397 |
| LTE Band 12 | 699.7 | 7.0 | 25.0 | 32.0 | 1.58 | 1584.89 | 0.315 | 0.466 | 0.676 |
| LTE Band 5 | 824.7 | 5.0 | 25.0 | 30.0 | 1.00 | 1000.00 | 0.397 | 0.550 | 0.722 |
| LTE Band 4 | 1710.7 | 5.0 | 25.0 | 30.0 | 1.00 | 1000.00 | 0.199 | 1.000 | 0.199 |
| LTE Band 2 | 1850.7 | 7.5 | 24.50 | 32.0 | 1.58 | 1584.89 | 0.315 | 1.000 | 0.315 |
| WLNA2.4GHz Band | 2412.0 | 4.0 | 23.0 | 27.0 | 0.50 | 501.19 | 0.100 | 1.000 | 0.100 |
| WLNA5GHz Band | 5180.0 | 4.0 | 23.0 | 27.0 | 0.50 | 501.19 | 0.100 | 1.000 | 0.100 |
| Bluetooth | 2402.0 | 4.0 | 22.0 | 26.0 | 0.40 | 398.11 | 0.079 | 1.000 | 0.079 |

Note:

1. For colocation analysis, WCDMA Band 5 is chosen for summation due to the highest (power density/limit) among all WWAN wireless modes.
2. Σ (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 + Bluetooth.
3. Considering the WWAN module collocation with the WLAN and Bluetooth transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 3 collocated transmitters is compliant

| Max WLAN Power Density / Limit | Max Bluetooth Power Density / Limit | Max WWAN Power Density / Limit | Σ (Power Density / Limit) of WWAN + WLAN + Bluetooth |
|--------------------------------|-------------------------------------|--------------------------------|---|
| 0.10 | 0.079 | 0.810 | 0.989 |



Conclusion:

Based on 47 CFR §2.1091, the analysis concludes that this product when transmitting in standalone within a host device, is compliant with the FCC RF exposure requirements in mobile exposure condition, provided the conducted power and antenna gain do not exceed the limits for each given frequency band per wireless technology as follow table:

| Device | Technology | Frequency (MHz) | Maximum Conducted Power (dBm) | Standalone Maximum Antenna Gain (dBi) | Collocated Maximum Antenna Gain (dBi) |
|--------------------------------|-------------|-----------------|-------------------------------|---------------------------------------|---------------------------------------|
| M18Q2, M18Q2F, M18Q2G, M18Q2FG | WCDMA | 826.4 | 25.5 | 8.0 | 5.0 |
| | | 1852.4 | 25.5 | 7.5 | 7.5 |
| | LTE Band 12 | 699.7 | 25.0 | 8.0 | 7.0 |
| | LTE Band 5 | 824.7 | 25.0 | 8.0 | 5.0 |
| | LTE Band 4 | 1710.7 | 25.0 | 5.0 | 5.0 |
| | LTE Band 2 | 1850.7 | 24.5 | 7.5 | 7.5 |
| Collocated Transmitters | WLAN | 2412.0 | 23.0 | / | 4.0 |
| | WLAN | 5180.0 | 23.0 | | 4.0 |
| | BT | 2402.0 | 22.0 | | 4.0 |