

## RF Exposure Report

**Report No.:** SA200417E02

**FCC ID:** MAD-G08RRH-46-06B

**Test Model:** G08RRH-46-06B

**Received Date:** Apr. 17, 2020

**Test Date:** May 23, 2020

**Issued Date:** June 18, 2020

**Applicant:** Microelectronics Technology Inc.

**Address:** No. 1, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan,  
R.O.C.

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

**Lab Address:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan

**FCC Registration /  
Designation Number:** 723255 / TW2022

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

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### Release Control Record

| Issue No.   | Description       | Date Issued   |
|-------------|-------------------|---------------|
| SA200417E02 | Original release. | June 18, 2020 |

## 1 Certificate of Conformity

**Product:** LionHead 2x40W B5 RRH

**Brand:** MTI

**Test Model:** G08RRH-46-06B

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** Microelectronics Technology Inc.

**Test Date:** May 23, 2020

**Standards:** FCC Part 2 (Section 2.1091)  
IEEE C95.3 -2002

**References Test Guidance:** KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan 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 :** Vivian Huang , **Date:** June 18, 2020  
Vivian Huang / Specialist

**Approved by :** Clark Lin , **Date:** June 18, 2020  
Clark Lin / Technical Manager

## 2 RF Exposure

### 2.1 Limits for Maximum Permissible Exposure (MPE)

| Frequency Range (MHz)                                    | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm <sup>2</sup> ) | Average Time (minutes) |
|----------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| (A)Limits For Occupational / Control Exposures           |                               |                               |                                     |                        |
| 300-1500                                                 | ...                           | ...                           | F/300                               | 6                      |
| 1500-100,000                                             | ...                           | ...                           | 5                                   | 6                      |
| (B)Limits For General Population / Uncontrolled Exposure |                               |                               |                                     |                        |
| 300-1500                                                 | ...                           | ...                           | F/1500                              | 30                     |
| 1500-100,000                                             | ...                           | ...                           | 1.0                                 | 30                     |

F = Frequency in MHz

### 2.2 MPE Calculation Formula

$$Pd = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

P<sub>out</sub> = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

### 2.3 Classification

The antenna of this product, under normal use condition, is at least 400 cm away from the body of the user. So, this device is classified as fixed station and installations by professional service personnel device.

### 3 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

| Antenna Gain (dBi) | Frequency range(MHz) | Antenna Type | Connector Type  |
|--------------------|----------------------|--------------|-----------------|
| 18                 | 806-894              | Sector       | 4×4.3-10 Female |

#### 4 Calculation Result

##### For LTE Band 5

| Frequency Band (MHz) | Conducted Average Power - Per Chain (dBm/MHz) |         | Max Conducted Average Power - Total (dBm/MHz) | Antenna Gain (dBi) | Max EIRP Power (dBm/MHz) | Max EIRP Power (mW/MHz) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|-----------------------------------------------|---------|-----------------------------------------------|--------------------|--------------------------|-------------------------|---------------|-------------------------------------|-----------------------------|
|                      | CHAIN 0                                       | CHAIN 1 |                                               |                    |                          |                         |               |                                     |                             |
| 871.5~891.5          | 39.13                                         | 39.11   | 42.13                                         | 18                 | 60.13                    | 1030386.12              | 400           | 0.51251                             | 0.581                       |

EIRP Power = Conducted Power+ Antenna gain

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