

# **RF Exposure Report**

Report No.: SA171218E02B

FCC ID: TLZ-NM333

Test Model: AW-NM333

Received Date: Mar. 31, 2018

Test Date: Apr. 19, 2018

Issued Date: Apr. 30, 2018

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

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Taiwan R.O.C.

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

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FCC Registration / Designation Number:

723255 / TW2022

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### **Release Control Record**

| Issue No.    | Description       | Date Issued   |
|--------------|-------------------|---------------|
| SA171218E02B | Original release. | Apr. 30, 2018 |

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Report No.: SA171218E02B Reference No.: 180331E03



#### 1 Certificate of Conformity

Product: IEEE 802.11 1X1 b/g/n Wireless LAN Module

Brand: AzureWave

Test Model: AW-NM333

Sample Status: ENGINEERING SAMPLE

**Applicant:** AzureWave Technologies, Inc.

Test Date: Apr. 19, 2018

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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: Apr. 30, 2018

Phoenix Huang / Specialist

**Approved by:** , **Date:** Apr. 30, 2018

May Chen / Manager



### 2 RF Exposure

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

| Frequency Range<br>(MHz)                              | Electric Field<br>Strength (V/m) | Magnetic Field<br>Strength (A/m) | Power Density<br>(mW/cm <sup>2</sup> ) | Average Time (minutes) |  |
|---|----------------------------------|----------------------------------|--|------------------------|--|
| 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 <sup>2</sup> )*                 | 30                     |  |
| 30-300  | 27.5                             | 0.073                            | 0.2                                    | 30                     |  |
| 300-1500  |                                  |                                  | f/1500                                 | 30                     |  |
| 1500-100,000  |                                  |                                  | 1.0                                    | 30                     |  |

f = Frequency in MHz; \*Plane-wave equivalent power density

#### 2.2 MPE Calculation Formula

 $Pd = (Pout*G) / (4*pi*r^2)$ 

where

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

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

#### 2.3 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 **Mobile Device**.

#### 2.4 Antenna Gain

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

| Antenna Gain(dBi) | Frequency range<br>(GHz to GHz) | Antenna Type | Antenna Connector |
|-------------------|---------------------------------|--------------|-------------------|
| 2.01              | 2.4~2.4835                      | PCB          | NA                |



## 2.5 Calculation Result of Maximum Conducted Power

| Frequency Band (MHz) | Max Power<br>(mW) | Antenna Gain<br>(dBi) | Distance<br>(cm) | Power Density (mW/cm <sup>2</sup> ) | Limit<br>(mW/cm²) |
|----------------------|-------------------|-----------------------|------------------|-------------------------------------|-------------------|
| 2412-2462            | 381.944           | 2.01                  | 20               | 0.12071                             | 1                 |

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|--|----|---|---|--|
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