

## RF Exposure Report

**Report No.:** SA140224C17J

**FCC ID:** WT8-MR1750

**Test Model:** MR1750

**Received Date:** Jan. 13, 2016

**Test Date:** Jan. 19 ~ Feb. 02, 2016

**Issued Date:** Feb. 17, 2016

**Applicant:** Open Mesh, Inc.

**Address:** 5 Centerpointe Drive, Suite 400, Lake Oswego, OR 97035, USA

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

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)



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### Release Control Record

Issue No.	Description	Date Issued
SA140224C17J	Original release	Feb. 17, 2016

## 1 Certificate of Conformity

**Product:** Wireless a/b/g/n/AC Access Point

**Brand:** Open Mesh

**Test Model:** MR1750

**Sample Status:** Engineering Sample

**Applicant:** Open Mesh, Inc.

**Test Date:** Jan. 19 ~ Feb. 02, 2016

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-2005

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 :** Celine Chou , **Date:** Feb. 17, 2016  
Celine Chou / Specialist

**Approved by :** Ken Liu , **Date:** Feb. 17, 2016  
Ken Liu / Senior 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)
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

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

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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 30cm away from the body of the user. So, this device is classified as **Mobile Device**.

## 3 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	28.69	8.77	30	0.493	1
5180-5240	27.35	9.77	30	0.456	1
5745-5825	24.94	9.77	30	0.262	1

Note:

2.4GHz Band: Directional gain = 4dBi + 10log(3) = 8.77dBi

5.0GHz Band: Directional gain = 5dBi + 10log(3) = 9.77dBi

### CONCLUSION:

Both of the WLAN 2.4G & WLAN 5G can transmit simultaneously, the formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$\text{WLAN 2.4G} + \text{WLAN 5.0G} = 0.493 + 0.456 = 0.949$$

Therefore, the maximum calculation of this situation is 0.949, which is less than the "1" limit.

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