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# EXPOSURE REPORT

**REPORT NO.:** SA140721C14

**MODEL NO.:** OM5P-AN

**FCC ID:** WT8-OM5PAN

**RECEIVED:** Jul. 21, 2014

**TESTED:** Nov. 13 ~ Nov. 28, 2014

**ISSUED:** Dec. 03, 2014

**APPLICANT:** Open Mesh, Inc.

**ADDRESS:** 7327 SW Barnes Rd #422, Portland, OR 97225

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

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## TABLE OF CONTENTS

RELEASE CONTROL RECORD.....	3
1. CERTIFICATION.....	4
2. RF EXPOSURE .....	5
2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) .....	5
2.2 MPE CALCULATION FORMULA.....	5
2.3 CLASSIFICATION.....	5
2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER .....	6



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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA140721C14	Original release	Dec. 03, 2014

## 1. CERTIFICATION

**PRODUCT:** Wireless 802.11a/b/g/n Mesh Router  
**MODEL NO.:** OM5P-AN  
**BRAND:** Open Mesh  
**APPLICANT:** Open Mesh, Inc.  
**TESTED:** Nov. 13 ~ Nov. 28, 2014  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**STANDARDS:** FCC Part 2 (Section 2.1091)  
**KDB 447498 D03**  
IEEE C95.1

The above equipment (model: OM5P-AN) 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.

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Celine Chou / Specialist

**APPROVED BY :** Ken Liu , **DATE :** Dec. 03, 2014  
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)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 2.2 MPE CALCULATION FORMULA

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

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 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



## 2.4 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	24.53	2.60	20	0.103	1
5180-5240	16.56	5.66	20	0.033	1
5745-5825	21.11	5.66	20	0.095	1

**NOTE:** 5GHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/N]$  = 5.66dBi

### CONCLUSION:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

$2.4\text{GHz} + 5\text{GHz} = 0.103 + 0.095 = 0.198$

Therefore the maximum calculations of above situations are less than the "1" limit.