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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

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 Tsuen, Kwei
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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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.

PREPARED BY : Celine Chou , **DATE :** Dec. 03, 2014
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 ²)	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

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

where

P_d = power density in mW/cm²

P_{out} = 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 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



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2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
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.