

RF Exposure Report

Report No.: SA150417C34

FCC ID: WT8OM5PAC

Test Model: OM5P-AC

Received Date: Apr. 28, 2015

Test Date: May 16 ~ May 19, 2015

Issued Date: May 21, 2015

Applicant: Open Mesh, Inc.

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Release Control Record

Issue No.	Description	Date Issued
SA150417C34	Original release	May 21, 2015

1 Certificate of Conformity

Product: Wireless Access Point

Brand: Open Mesh

Test Model: OM5P-AC

Sample Status: Engineering sample

Applicant: Open Mesh, Inc.

Test Date: May 16 ~ May 19, 2015

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D03

IEEE C95.1

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.

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Celine Chou / Specialist

Approved by : Ken Liu , **Date:** May 21, 2015
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

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

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**.

3 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	26.73	6.15	20	0.386	1
5180-5240	16.95	6.15	20	0.041	1
5745-5825	26.57	6.15	20	0.372	1

Note: Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 6.15 \text{ dBi}$

CONCLUSION:

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

$$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$\text{WLAN 2.4G} + \text{WLAN 5.0G} = 0.386 + 0.372 = 0.758$$

Therefore, the maximum calculation of this situation is 0.758, which is less than the "1" limit.

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