

RF Exposure Report

Report No.: SA140311C18B

FCC ID: A8J-ENH900EXTA

Test Model: ENH900EXT

Received Date: Jan. 13, 2016

Test Date: Jan. 20 ~ Feb. 19, 2016

Issued Date: Feb. 24, 2016

Applicant: EnGenius Technologies

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

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A O T

Release Control Record

Issue No.	Description	Date Issued
SA140311C18B	Original release	Feb. 24, 2016



A O T

1 Certificate of Conformity

Product: Wireless Access Point

Brand: EnGenius

Test Model: ENH900EXT

Sample Status: Engineering Sample

Applicant: EnGenius Technologies

Test Date: Jan. 20 ~ Feb. 19, 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.

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Date:

Feb. 24, 2016

Approved by :

Ken Liu / Senior Manager

Date:

Feb. 24, 2016



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 38cm 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	29.12	9.77	38	0.427	1
5180-5240	17.93	11.77	38	0.051	1
5745-5825	27.86	11.77	38	0.506	1

Note:

2.4GHz: Directional gain = 5dBi +10log(3) = 9.77dBi

5.0GHz: Directional gain = 7dBi +10log(3) = 11.77dBi

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

$$\text{WLAN 2.4G} + \text{WLAN 5.0G} = 0.427 + 0.506 = 0.933$$

Therefore, the maximum calculation of this situation is 0.933, which is less than the "1" limit.

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