

RF Exposure Report

Report No.: SA140318C23C

FCC ID: A8J-ENH1750EXTA

Test Model: ENH1750EXT

Received Date: Jan. 14, 2016

Test Date: Jan. 30 ~ Feb. 19, 2016

Issued Date: Feb. 23, 2016

Applicant: EnGenius Technologies

Address: 1580 Scenic Avenue, Costa Mesa, CA92626

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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Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 RF Exposure	5
2.1 Limits For Maximum Permissible Exposure (MPE).....	5
2.2 MPE Calculation Formula	5
2.3 Classification	5
3 Calculation Result Of Maximum Conducted Power	6



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Release Control Record

Issue No.	Description	Date Issued
SA140318C23C	Original release.	Feb. 23, 2016

1 Certificate of Conformity

Product: Wireless Access Point

Brand: EnGenius

Test Model: ENH1750EXT

Sample Status: Engineering sample

Applicant: EnGenius Technologies

Test Date: Jan. 30 ~ Feb. 19, 2016

Standard: FCC Part 2 (Section 2.1091)
KDB 447498 D01 (October 23, 2015)
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.

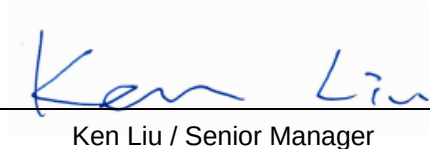
Prepared by :


Ivy Lin / Specialist

Date:

Feb. 23, 2016

Approved by :


Ken Liu / Senior Manager

Date:

Feb. 23, 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

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

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 37cm 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	29.88	9.80	37	0.540	1
5180-5240	24.76	11.77	37	0.261	1
5745-5825	27.11	11.77	37	0.449	1

Note:

1. 2.4GHz Band: Directional gain = 5dBi + 10log(3) = 9.80dBi
2. 5GHz Band: Directional gain = 7dBi + 10log(3) = 11.77dBi

Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 +etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + WLAN 5GHz = 0.540 + 0.449 = 0.989

Therefore the maximum calculations of above situation is less than the "1" limit.

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