

RF Exposure Report

Report No.: SA120531C10L

FCC ID: A8J-EAP600

Test Model: EAP600, EWS310AP

Received Date: May 09, 2012

Test Date: Jul. 16 ~ Jul. 30, 2015

Issued Date: Aug. 04, 2015

Applicant: EnGenius Technologies

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

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Release Control Record

Issue No.	Description	Date Issued
SA120531C10L	Original release	Aug. 04, 2015

1 Certificate of Conformity

Product: Wireless-N 300+300Mbps Ceiling Mount Dual Band Concurrent AP

Brand: EnGenius

Test Model: EAP600, EWS310AP

Sample Status: Engineering sample

Applicant: EnGenius Technologies

Test Date: Jul. 16 ~ Jul. 30, 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.

Prepared by :



Date:

Aug. 04, 2015

Suntee Liu / Specialist

Approved by :



Date:

Aug. 04, 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	29.91	5.01	20	0.618	1
5180-5240	27.34	5.01	20	0.342	1
5745-5825	26.47	5.01	20	0.280	1

Note:

2412-2462MHz Directional gain = 2dBi + 10log(2) = 5.01dBi

5180-5240MHz Directional gain = 2dBi + 10log(2) = 5.01dBi

5745-5825MHz Directional gain = 2dBi + 10log(2) = 5.01dBi

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 = 0.618 + 0.342 = 0.960

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

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