RF EXPOSURE REPORT

REPORT NO.: SA140224C17

MODEL NO.: EAP1750H, EWS360AP

FCC ID: A8J-EAP1750H

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TESTED: Mar. 13 ~ Mar. 20, 2014

ISSUED: Mar. 28, 2014

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.	REASON FOR CHANGE	DATE ISSUED
SA140224C17	Original release	Mar. 28, 2014

1. CERTIFICATION

PRODUCT:	Dual Band AC1750 Access Point
MODEL:	EAP1750H, EWS360AP
BRAND:	EnGenius
APPLICANT:	EnGenius Technologies
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS:	**FCC Part 2 (Section 2.1091)**
	FCC OET Bulletin 65, Supplement C (01-01)
	IEEE C95.1

The above equipment (Model: EAP1750H) 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 :** Mar. 28, 2014

Pettie Chen / Senior Specialist

APPROVED BY : _____ **, DATE :** Mar. 28, 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

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 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 30cm away from the body of the user. So, this device is classified as **Mobile Device**.

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	28.69	8.77	30	0.493	1
5180-5240	16.72	9.77	30	0.039	1
5745-5825	27.74	9.77	30	0.498	1

NOTE:
2.4GHz Band: Directional gain = 4dBi + 10log(3) = 8.77dBi
5.0GHz Band: Directional gain = 5dBi + 10log(3) = 9.77dBi

CONCULSION:

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

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

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4G + WLAN 5.0G = 0.493 + 0.498 = 0.991
Therefore, the maximum calculation of this situation is 0.991, which is less than the “1” limit.