RF EXPOSURE REPORT

REPORT NO.: SA120328C18

MODEL NO.: ESR750H, ESR600H

FCC ID: A8JESR750H

RECEIVED: Mar. 28, 2012

TESTED: Mar. 31 ~ Apr. 11, 2012

ISSUED: Apr. 16, 2012

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, 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 Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

TABLE OF CONTENTS

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA120328C18	Original release	Apr. 16, 2012

1. CERTIFICATION

PRODUCT:	802.11abgn Router
MODEL NO.:	ESR750H, ESR600H
BRAND:	EnGenius
APPLICANT:	EnGenius Technologies
TESTED:	Mar. 31 ~ Apr. 11, 2012
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: ESR750H) 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 : Apr. 16, 2012
Andrea Hsia / Specialist

APPROVED BY : _____ , DATE : Apr. 16, 2012
Gary Chang / Technical 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*r2)

where

Pd = power density in mW/cm2

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 20cm 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)	MODULATION MODE	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2412-2462	802.11b	18.30	5	20	0.043	1
	802.11g	25.65	5	20	0.231	1
	802.11n (20MHz)	25.40	5	20	0.218	1
	802.11n (40MHz)	25.90	5	20	0.245	1
5180-5240	802.11a	13.71	3.5	20	0.010	1
	802.11n (20MHz)	14.30	3.5	20	0.012	1
	802.11n (40MHz)	16.20	3.5	20	0.019	1
5745-5825	802.11a	24.43	3.5	20	0.124	1
	802.11n (20MHz)	28.00	3.5	20	0.281	1
	802.11n (40MHz)	28.00	3.5	20	0.281	1

NOTE:

CONCULSION:

Only 2.4 and 5GHz can transmit simultaneously, 2.4 and 2.4GHz does not. The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

1. WLAN 2.4G + WLAN 5.0G = 0.245 + 0.281 = 0.526

Therefore, the maximum calculation of this situation is 0.526, which is less than the “1” limit.