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# RF EXPOSURE REPORT

**REPORT NO.:** SA141124D08

**MODEL NO.:** EA2750

**FCC ID:** Q87-EA2750

**RECEIVED:** Nov. 24, 2014

**TESTED:** Jan. 9 ~ 20, 2015

**ISSUED:** Feb. 12, 2015

**APPLICANT:** Linksys LLC

**ADDRESS:** 121 Theory Drive, Irvine, California 92617, United State

**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. )

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA141124D08	Original release	Feb. 12, 2015



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## 1. CERTIFICATION

**PRODUCT:** Wireless Network  
**BRAND NAME:** Linksys  
**MODEL NO.:** EA2750  
**APPLICANT:** Linksys LLC  
**TESTED:** Jan. 9 ~ 20, 2015  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**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 :** Annie Chang , **DATE:** Feb. 12, 2015  
( Annie Chang / Supervisor )

**APPROVED BY :** Rex Lai , **DATE:** Feb. 12, 2015  
( Rex Lai / Assistant Manager )



## 2. RF EXPOSURE LIMIT

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm <sup>2</sup> )	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

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

where

P<sub>d</sub> = power density in mW/cm<sup>2</sup>

P<sub>out</sub> = 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

## 4. 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**.



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## 5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

Drive Version: 1.1.5.165608

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412 ~ 2462	27.88	4.77	20	0.3662	1.00
5180 ~ 5240	23.67	5.95	20	0.1823	1.00
5745 ~ 5825	21.33	5.95	20	0.1063	1.00

**NOTE:** Directional gain =  $1.76\text{dBi} + 10\log(2) = 4.77\text{dBi}$

Directional gain =  $2.94\text{dBi} + 10\log(2) = 5.95\text{dBi}$

### CONCLUSION:

Both of the modules 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

1. WLAN (2.4GHz) + WLAN (5.0GHz) =  $0.3662/1 + 0.1823/1 = 0.5485$

Therefore, the maximum calculation of this situation is **0.5485**, which is less than the "1" limit.

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