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# RF EXPOSURE REPORT

**REPORT NO.:** SA131112D04

**MODEL NO.:** LAPN600

**FCC ID:** Q87-LAPN600

**RECEIVED:** Nov. 12, 2013

**TESTED:** Nov. 28 ~ Dec. 7, 2013

**ISSUED:** Dec. 16, 2013

**APPLICANT:** Linksys LLC

**ADDRESS:** 131 Theory Drive Irvine California 92617 United States

**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

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA131112D04	Original release	Dec. 16, 2013



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## 1. CERTIFICATION

**PRODUCT:** Wireless-N600 Dual Band Access Point with PoE  
**MODEL NO.:** LAPN600  
**BRAND:** Linksys  
**APPLICANT:** Linksys LLC  
**TESTED:** Nov. 28 ~ Dec. 7, 2013  
**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 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:** Dec. 16, 2013  
( Annie Chang / Supervisor )

**APPROVED BY :** Rex Lai , **DATE:** Dec. 16, 2013  
( 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

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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

## 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**.

## 5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

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	28.82	1.8	20	0.2295	1.00
5180 ~ 5240	16.27	3.5	20	0.0189	1.00
5745 ~ 5825	25.98	3.9	20	0.1935	1.00

### 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 (2.4G) + WLAN (5.0G BAND 1) =  $0.2295/1 + 0.0189/1 = 0.2484$

2. WLAN (2.4G) + WLAN (5.0G BAND 4) =  $0.2295/1 + 0.1935/1 = 0.4225$

Therefore, the maximum calculation of this situation is 0.4225, which is less than the “1” limit.

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