

## RF Exposure Report

**Report No.:** SA131112D04B

**FCC ID:** Q87-LAPN600

**Test Model:** LAPN600

**Received Date:** Mar. 1, 2016

**Test Date:** Mar. 25 ~ 31, 2016

**Issued Date:** Apr. 7, 2016

**Applicant:** Linksys LLC

**Address:** 121 Theory Drive Irvine California 92617 United States

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

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## Table of Contents

<b>Release Control Record</b> .....	<b>3</b>
<b>1      Certificate of Conformity</b> .....	<b>4</b>
<b>2      RF Exposure</b> .....	<b>5</b>
2.1    Limits For Maximum Permissible Exposure (MPE).....	5
2.2    MPE Calculation Formula .....	5
2.3    Classification .....	5
<b>3      Calculation Result Of Maximum Conducted Power</b> .....	<b>6</b>

**Report Issue History Record**

Issue No.	Description	Date Issued
SA131112D04	Original	Dec. 16, 2013
SA131112D04B	Upgraded the standard to section 15.407 under new rule for U-NII-1 and U-NII-3 band.	Apr. 7, 2016

**Release Control Record**

Issue No.	Description	Date Issued
SA131112D04B	Original release.	Apr. 7, 2016

## 1 Certificate of Conformity

**Product:** Wireless-N600 Dual Band Access Point with PoE

**Brand:** Linksys

**Test Model:** LAPN600

**Sample Status:** Engineering sample

**Applicant:** Linksys LLC

**Test Date:** Mar. 25 ~ 31, 2016

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D03

KDB 447498 D01

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: Arp. 7, 2016

Annie Chang / Senior Specialist

**Approved by :**



, Date: Arp. 7, 2016

Rex Lai / Assistant 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 <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

### 2.2 MPE Calculation Formula

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

where

Pd = power density in mW/cm<sup>2</sup>

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**.

### 3 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 (Original Approved)	28.82	4.81	20	0.4589	1
5180 ~ 5240	27.61	6.51	20	0.5137	1
5745 ~ 5825	26.12	6.91	20	0.3997	1

**NOTE:** 1. Directional gain = $1.8\text{dBi} + 10\log(2) = 4.81\text{dBi}$   
Directional gain = $3.5\text{dBi} + 10\log(2) = 6.51\text{dBi}$   
Directional gain = $3.9\text{dBi} + 10\log(2) = 6.91\text{dBi}$   
2. Driver Version: v1.0.14.001

#### CONCLUSION:

Both of the modules 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 BAND 1) =  $0.4589/1 + 0.5137/1 = 0.9726$

Therefore, the maximum calculation of this situation is 0.9726, which is less than the "1" limit.

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