

## RF Exposure Report

**Report No.:** SA140220D04D

**FCC ID:** Q87-LAPAC1750

**Test Model:** LAPAC1750

**Received Date:** May 4, 2016

**Test Date:** May 4 ~ 11, 2016

**Issued Date:** May 19, 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

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan  
(R.O.C.)



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### Report Issue History Record

Issue No.	Description	Date Issued
SA140220D04	Original	Apr. 14, 2014
SA140220D04C	Upgraded the standard to section 15.407 under new rule for U-NII-1 and U-NII-3 band.	Apr. 7, 2016
SA140220D04D	Upgraded the standard to section 15.407 under new rule (16-24) for U-NII-1 and U-NII-3 band.	May 19, 2016

### Release Control Record

Issue No.	Description	Date Issued
SA140220D04D	Original release.	May 19, 2016

## 1 Certificate of Conformity

**Product:** AC1750 Dual Band Access Point

**Brand:** Linksys

**Test Model:** LAPAC1750

**Sample Status:** Engineering sample

**Applicant:** Linksys LLC

**Test Date:** May 4 ~ 11, 2016

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

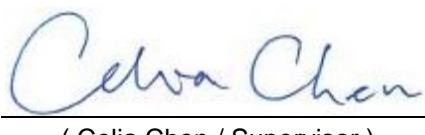
KDB 447498 D03

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 :**



Celia Chen  
( Celia Chen / Supervisor )

, **Date:** May 19, 2016

**Approved by :**



Rex Lai  
( Rex Lai / Assistant Manager )

, **Date:** May 19, 2016

## 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 25cm 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)	28.91	6.77	25	0.4709	1
5180 ~ 5240	27.63	6.77	25	0.3507	1
5745 ~ 5825	29.03	6.77	25	0.4841	1

**NOTE:** 1. Directional gain = $2\text{dBi} + 10\log(3) = 6.77\text{dBi}$

2. Driver Version: v1.1.00.005

### CONCULSION:

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) = 0.4709/1 + 0.4841/1 = 0.9550

**Therefore, the maximum calculation of this situation is 0.9550, which is less than the “1” limit.**

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