

## RF Exposure Report

**Report No.:** SA160311D14

**FCC ID:** KA2DAP1860A1

**Test Model:** DAP-1860

**Received Date:** Mar. 14, 2016

**Test Date:** Mar. 21 ~ Apr. 19, 2016

**Issued Date:** May 13, 2016

**Applicant:** D-Link Corporation

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**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.	Description	Date Issued
SA160311D14	Original release.	May 13, 2016



## 1 Certificate of Conformity

**Product:** AC2600 Wi-Fi Range Extender

**Brand:** D-Link

**Test Model:** DAP-1860

**Sample Status:** Engineering sample

**Applicant:** D-Link Corporation

**Test Date:** Mar. 21 ~ Apr. 19, 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.

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**Approved by :** Rex Lai , **Date:** May 13, 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 30cm 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	28.18	8.02	30	0.3686	1
5180 ~ 5240	26.61	9.02	30	0.3233	1
5745 ~ 5825	26.42	9.02	30	0.3094	1

**NOTE:**

2.4GHz: Directional gain = 2dBi + 10log(4) = 8.02dBi

5.0GHz: Directional gain = 3dBi + 10log(4) = 9.02dBi

**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

WLAN 2.4GHz + WLAN 5GHz (Band 1) = 0.3686 + 0.3233 = 0.6919

WLAN 2.4GHz + WLAN 5GHz (Band 4) = 0.3686 + 0.3094 = 0.6780

**Therefore the maximum calculations of above situations are less than the “1” limit.**

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