

## RF Exposure Report

**Report No.:** SA160822E04

**FCC ID:** KA2AP2610A1

**Test Model:** DAP-2610

**Received Date:** Aug. 22, 2016

**Test Date:** Sep. 19, 2016

**Issued Date:** Oct. 28, 2016

**Applicant:** D-Link Corporation

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

| Issue No.   | Description       | Date Issued   |
|-------------|-------------------|---------------|
| SA160822E04 | Original release. | Oct. 28, 2016 |

## 1 Certificate of Conformity

**Product:** Wireless AC1300 Concurrent Dual Band PoE Access Point

**Brand:** D-Link

**Test Model:** DAP-2610

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** D-Link Corporation

**Test Date:** Sep. 19, 2016

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

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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:**

Oct. 28, 2016

Wendy Wu / Specialist

**Approved by :**



**Date:**

Oct. 28, 2016

May Chen / 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

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

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

### 2.3 Classification

The antenna of this product, under normal use condition, is at least 22cm away from the body of the user.

So, this device is classified as **Mobile Device**.

### 2.4 Antenna Gain

| Antenna No | Brand | Model     | Antenna Gain (dBi)<br><Including cable loss> | Frequency range<br>(GHz ~ GHz) | Antenna Type | Connector Type | Cable Length (mm) |
|------------|-------|-----------|----------------------------------------------|--------------------------------|--------------|----------------|-------------------|
| Chain (1)  | NA    | 290-20302 | 3.07                                         | 2.4~2.4835                     | PIFA         | i-pex(MHF)     | 47                |
|            |       |           | 3.46                                         | 5.15~5.85                      |              |                |                   |
| Chain (2)  | NA    | 290-20301 | 2.85                                         | 2.4~2.4835                     | PIFA         | i-pex(MHF)     | 81                |
|            |       |           | 3.75                                         | 5.15~5.85                      |              |                |                   |

## 2.5 Calculation Result Of Maximum Conducted Power

| Frequency Band (MHz) | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462            | 861.713        | 5.97               | 22            | 0.56015                             | 1                           |
| 5180-5240            | 426.809        | 6.62               | 22            | 0.32224                             | 1                           |
| 5745-5825            | 459.267        | 6.62               | 22            | 0.34674                             | 1                           |

NOTE:

2.4GHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 5.97\text{dBi}$

5GHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.62\text{dBi}$

### Conclusion:

The formula of calculated the MPE is:

$\text{CPD1} / \text{LPD1} + \text{CPD2} / \text{LPD2} + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

$\text{WLAN 2.4GHz} + \text{WLAN 5GHz} = 0.56015 / 1 + 0.34674 / 1 = 0.90689$

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

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