

## RF Exposure Report

**Report No.:** SA180328E06A

**FCC ID:** KA2AP2662A1

**Test Model:** DAP-2662

**Received Date:** Mar. 28, 2018

**Test Date:** May 03, 2018

**Issued Date:** July 30, 2018

**Applicant:** D-Link Corporation

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

**Lab Address:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan R.O.C.

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan R.O.C.

**FCC Registration /  
Designation Number:** 723255 / TW2022

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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        |
| 2.4   Antenna Gain .....                                 | 6        |
| 2.5   Calculation Result .....                           | 7        |

### Release Control Record

| Issue No.    | Description       | Date Issued   |
|--------------|-------------------|---------------|
| SA180328E06A | Original release. | July 30, 2018 |

## 1 Certificate of Conformity

**Product:** Wireless AC1200 Wave 2 Dual-Band PoE Access Point

**Brand:** D-Link

**Test Model:** DAP-2662

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** D-Link Corporation

**Test Date:** May 03, 2018

**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 :**

Mary Ko

**Date:**

July 30, 2018

Mary Ko / Specialist

**Approved by :**

May Chen

**Date:**

July 30, 2018

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 |                               |                               |                                     |                        |
| 0.3-1.34                                              | 614                           | 1.63                          | (100)*                              | 30                     |
| 1.34-30                                               | 824/f                         | 2.19/f                        | (180/f <sup>2</sup> )*              | 30                     |
| 30-300                                                | 27.5                          | 0.073                         | 0.2                                 | 30                     |
| 300-1500                                              | ...                           | ...                           | f/1500                              | 30                     |
| 1500-100,000                                          | ...                           | ...                           | 1.0                                 | 30                     |

f = Frequency in MHz ; \*Plane-wave equivalent power density

### 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 26cm away from the body of the user.  
So, this device is classified as **Mobile Device**.

## 2.4 Antenna Gain

| Ant No. | Transmitter Circuit | Antenna Gain (dBi) | Frequency rang (GHz) | Antenna type | Connector type |
|---------|---------------------|--------------------|----------------------|--------------|----------------|
| 1       | Chain (1)           | 3.7                | 2.4~2.4835           | PIFA         | i-pex(MHF)     |
| 2       | Chain (0)           | 3.8                | 2.4~2.4835           | PIFA         | i-pex(MHF)     |
| 3       | Chain (1)           | 3.8                | 5.15~5.85            | PIFA         | i-pex(MHF)     |
| 4       | Chain (0)           | 3.9                | 5.15~5.85            | PIFA         | i-pex(MHF)     |

## 2.5 Calculation Result

For 2.4GHz, 5GHz (U-NII-1 & UNII-3 band) data was copied from the original test report (Report No.: SA180328E06)

| 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            | 990.758         | 6.76               | 26            | 0.55311                             | 1                           |
| 5180-5240            | 690.612         | 6.86               | 26            | 0.39453                             | 1                           |
| 5260-5320            | 250.774         | 6.86               | 26            | 0.14326                             | 1                           |
| 5500-5700            | 250.265         | 6.86               | 26            | 0.14297                             | 1                           |
| 5745-5825            | 660.014         | 6.86               | 26            | 0.37705                             | 1                           |

Note:

2.4GHz: Directional gain =  $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 6.76\text{dBi}$

5GHz: Directional gain =  $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 6.86\text{dBi}$

### Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + WLAN 5GHz =  $0.55311 / 1 + 0.39453 / 1 = 0.94764$

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

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