

## RF Exposure Report

**Report No.:** SABDUI-WTW-P20110877A

**FCC ID:** KA2M15A1

**Test Model:** M15

**Received Date:** Feb. 25, 2021

**Test Date:** May 15 ~ Jul. 09, 2021

**Issued Date:** Jan. 20, 2022

**Applicant:** D-Link Corporation

**Address:** 14420 Myford Road Suite 100 Irvine California United States 92606

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

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

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
33383, Taiwan

**FCC Registration /  
Designation Number:** 788550 / TW0003



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**Release Control Record**

| Issue No.             | Description      | Date Issued   |
|-----------------------|------------------|---------------|
| SABDUI-WTW-P20110877A | Original release | Jan. 20, 2022 |

## 1 Certificate of Conformity

**Product:** AX1500 Wi-Fi 6 AI Mesh Router, AX1500 Wi-Fi 6 AI Mesh System,  
AX1500 Mesh Router, AX1500 Mesh System

**Brand:** D-Link

**Test Model:** M15

**Sample Status:** Engineering sample

**Applicant:** D-Link Corporation

**Test Date:** May 15 ~ Jul. 09, 2021

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

**References Test Guidance:** KDB 447498 D01 General RF Exposure Guidance v06

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 RF characteristics under the conditions specified in this report.

**Prepared by :** Pettie Chen, **Date:** Jan. 20, 2022  
Pettie Chen / Senior Specialist

**Approved by :** Jeremy Lin, **Date:** Jan. 20, 2022  
Jeremy Lin / Project Engineer

## 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 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 Average Power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|-------------------------|--------------------|---------------|-------------------------------------|-----------------------------|
| CDD Mode             |                         |                    |               |                                     |                             |
| 2412-2462            | 27.19                   | 5.45               | 20            | 0.365                               | 1                           |
| 5180-5240            | 24.48                   | 5.45               | 20            | 0.196                               | 1                           |
| 5260-5320            | 23.52                   | 5.55               | 20            | 0.161                               | 1                           |
| 5500-5700            | 21.53                   | 5.61               | 20            | 0.103                               | 1                           |
| 5745-5825            | 23.91                   | 5.58               | 20            | 0.177                               | 1                           |
| Beamforming Mode     |                         |                    |               |                                     |                             |
| 2412-2462            | 23.28                   | 5.45               | 20            | 0.149                               | 1                           |
| 5180-5240            | 21.23                   | 5.45               | 20            | 0.093                               | 1                           |
| 5260-5320            | 20.51                   | 5.55               | 20            | 0.080                               | 1                           |
| 5500-5700            | 18.52                   | 5.61               | 20            | 0.051                               | 1                           |
| 5745-5825            | 20.90                   | 5.58               | 20            | 0.088                               | 1                           |

\*Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Note:

1. Directional gain:

2.4GHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.45\text{dBi}$

5180-5240MHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.45\text{dBi}$

5260-5320MHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.55\text{dBi}$

5500-5700MHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.61\text{dBi}$

5745-5825MHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 5.58\text{dBi}$

2. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

#### Conclusion:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

The simultaneous operation mode was determined by client.

WLAN 2.4G+ 5GHz =  $0.365/1 + 0.196/1 = 0.561$

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