

## RF Exposure Report

**Report No.:** SABDUI-WTW-P20110876A

**FCC ID:** KA2R15A1

**Test Model:** R15

**Received Date:** Feb. 20, 2021

**Date of Evaluation:** Aug. 24, 2021

**Issued Date:** May 24, 2022

**Applicant:** D-Link Corporation

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**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 /** 788550 / TW0003  
**Designation Number:**



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### Release Control Record

Issue No.	Description	Date Issued
SABDUI-WTW-P20110876A	Original Release	May 24, 2022

## 1 Certificate of Conformity

**Product:** AX1500 Wi-Fi 6 AI Router, AX1500 SMART ROUTER

**Brand:** D-Link

**Test Model:** R15

**Sample Status:** Engineering Sample

**Applicant:** D-Link Corporation


**Date of Evaluation:** Aug. 24, 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 :** \_\_\_\_\_, **Date:** May 24, 2022  
Lena Wang / Specialist

  
**Approved by :** \_\_\_\_\_, **Date:** May 24, 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				
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 21cm 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> )
<b>WLAN</b>					
<b>CDD Mode</b>					
2412-2462	27.92	7.81	21	0.675	1
5180-5240	23.83	8.31	21	0.295	1
5260-5320	23.71	8.31	21	0.287	1
5500-5720	23.46	8.31	21	0.271	1
5745-5825	24.03	8.31	21	0.309	1
<b>Beamforming Mode</b>					
2412-2462	22.00	7.81	21	0.173	1
5180-5240	20.71	8.31	21	0.144	1
5260-5320	20.70	8.31	21	0.144	1
5500-5720	20.45	8.31	21	0.136	1
5745-5825	21.02	8.31	21	0.155	1

Note: 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 =  $10\log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 7.81 \text{ dBi}$

5GHz: Directional gain =  $10\log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 8.31 \text{ dBi}$

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 =  $0.675/1 + 0.309/1 = 0.984$

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

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