

## RF Exposure Report

**Report No.:** SA200713E04

**FCC ID:** KA2AP2622A1

**Test Model:** DAP-2622

**Received Date:** July 13, 2020

**Test Date:** Sep. 04 to 09, 2020

**Issued Date:** Dec. 04, 2020

**Applicant:** D-Link Corporation

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
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**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 .....	5
2.5 Calculation Result of Maximum Conducted Power.....	6

### Release Control Record

Issue No.	Description	Date Issued
SA200713E04	Original release.	Dec. 04, 2020

## 1 Certificate of Conformity

**Product:** Nuclias Connect AC1200 Wave 2 Wall-Plated Access Point  
**Brand:** D-Link  
**Test Model:** DAP-2622  
**Sample Status:** ENGINEERING SAMPLE  
**Applicant:** D-Link Corporation  
**Test Date:** Sep. 04 to 09, 2020  
**Standards:** FCC Part 2 (Section 2.1091)  
IEEE C95.3 -2002  
**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 EMC characteristics under the conditions specified in this report.

**Prepared by :** Phoenix Huang , **Date:** Dec. 04, 2020  
Phoenix Huang / Specialist

**Approved by :** Clark Lin , **Date:** Dec. 04, 2020  
Clark Lin / Technical 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 20 cm away from the body of the user. So, this device is classified as **Mobile Device**.

### 2.4 Antenna Gain

Antenna No.	RF Chain No.	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	0	3	2.4~2.4835	PCB	i-pex(MHF)	55
		4.5	5.15~5.85			
2	1	2.8	2.4~2.4835	PCB	i-pex(MHF)	35
		4.1	5.15~5.85			

Note: 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.

## 2.5 Calculation Result of Maximum Conducted Power

Operation Mode	Evaluation Frequency (MHz)	Max. Average Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WLAN (2.4GHz)	2412-2462	469.872	5.91	20	0.36451	1
WLAN (U-NII-1)	5180-5240	503.477	7.31	20	0.53915	1
WLAN (U-NII-3)	5745-5825	545.899	7.31	20	0.58458	1

**Note:**

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. 2.4GHz: The directional gain =  $10 \log[(10^{G0/20} + 10^{G1/20}) / 2] = 5.91\text{dBi}$
3. 5GHz: The directional gain =  $10 \log[(10^{G0/20} + 10^{G1/20}) / 2] = 7.31\text{dBi}$

**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

$WLAN\ 2.4GHz + WLAN\ 5GHz = 0.36451 / 1 + 0.58458 / 1 = 0.94909$

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

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