

## RF Exposure Report

**Report No.:** SA190412C01B

**FCC ID:** KA2BA2720PA1

**Original FCC ID:** KA2WL7620APA1

**Test Model:** DBA-2720P

**Received Date:** Nov. 11, 2019

**Test Date:** Dec. 03, 2019 ~ Jan. 07, 2020

**Issued Date:** Feb. 21, 2020

**Applicant:** D-Link Corporation

**Address:** 17595 Mt. Herrmann, Fountain Valley, California, United States, 92708

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

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**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
SA190412C01B	Original release	Feb. 21, 2020

## 1 Certificate of Conformity

**Product:** Business Cloud Access Point  
/ Nuclias Cloud-Managed AC2200 Wave 2 Access Point

**Brand:** D-Link Corporation

**Model:** DBA-2720P

**Sample Status:** Identical Prototype

**Applicant:** D-Link Corporation

**Test Date:** Dec. 03, 2019 ~ Jan. 07, 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 RF characteristics under the conditions specified in this report.

**Prepared by :** Pettie Chen, **Date:** Feb. 21, 2020  
Pettie Chen / Senior Specialist

**Approved by :** Bruce Chen, **Date:** Feb. 21, 2020  
Bruce Chen / Senior 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

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

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 24cm 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 Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	26.79	6.26	24	0.279	1
5180-5240	28.60	7.31	24	0.539	1
5260-5320	23.65	7.31	24	0.172	1
5500-5720	23.50	7.31	24	0.166	1
5745-5825	29.62	7.31	24	0.681	1

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

Note:

2.4GHz Band: Directional gain =  $3.25\text{dBi} + 10\log(2) = 6.26\text{dBi}$

5GHz Band: Directional gain =  $4.3\text{dBi} + 10\log(2) = 7.31\text{dBi}$

#### Conclusion:

2.4GHz & 5GHz Band 1, 2 or 2.4GHz & 5GHz Band 3 or 2.4GHz & 5GHz Band 4 can transmit at same time.

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

1. WLAN 2.4GHz + WLAN 5GHz Band 1 =  $0.279 + 0.539 = 0.818$

2. WLAN 2.4GHz + WLAN 5GHz Band 3 =  $0.279 + 0.166 = 0.445$

3. WLAN 2.4GHz + WLAN 5GHz Band 4 =  $0.279 + 0.681 = 0.960$

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

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