

## RF Exposure Report

**Report No.:** SA190726C11

**FCC ID:** KA2BA2520PA1

**Model:** DBA-2520P

**Received Date:** Jun. 28, 2019

**Test Date:** Jul. 11 ~ Aug. 01, 2019

**Issued Date:** Aug. 06, 2019

**Applicant:** D-Link Corporation

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**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
SA190726C11	Original release	Aug. 06, 2019

## 1 Certificate of Conformity

**Product:** Nuclias Cloud-Managed AC1900 Wave 2 Access Point

**Brand:** D-Link Corporation

**Model:** DBA-2520P

**Sample Status:** Engineering sample

**Applicant:** D-Link Corporation

**Test Date:** Jul. 11 ~ Aug. 01, 2019

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

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.3 -2002

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:** Aug. 06, 2019  
Polly Chien / Specialist

**Approved by :** , **Date:** Aug. 06, 2019  
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				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 2.2 MPE Calculation Formula

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

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 30cm 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> )
CDD Mode					
2412-2462	27.69	7.77	30	0.311	1
5180-5240	27.68	8.77	30	0.390	1
5745-5825	29.98	8.77	30	0.663	1
Beamforming Mode					
2412-2462	22.86	7.77	30	0.102	1
5180-5240	22.91	8.77	30	0.130	1
5745-5825	25.21	8.77	30	0.221	1

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

Note:

1. Directional gain:

2.4GHz Band: Directional gain = 3dBi + 10log(3) = 7.77dBi

5GHz Band: Directional gain = 4dBi + 10log (3) = 8.77dBi

2. The above Max Power is Turn-up Power which client declared.

#### Conclusion:

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

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

1. WLAN 2.4GHz + WLAN 5GHz Band 1 = 0.311 / 1 + 0.390 / 1 = 0.701

2. WLAN 2.4GHz + WLAN 5GHz Band 4 = 0.311 / 1 + 0.663 / 1 = 0.974

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

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