

## RF Exposure Report

**Report No.:** SA170801C12

**FCC ID:** KA2WL6620APSA1

**Test Model:** DWL-6620APS

**Received Date:** Aug. 01, 2017

**Test Date:** Aug. 22 ~ Sep. 11, 2017

**Issued Date:** Sep. 12, 2017

**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

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

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

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



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### Release Control Record

Issue No.	Description	Date Issued
SA170801C12	Original release.	Sep. 12, 2017

## 1 Certificate of Conformity

**Product:** Unified AC Concurrent Dual-band PoE Access Point

**Brand:** D-Link Corporation

**Test Model:** DWL-6620APS

**Sample Status:** Identical Prototype

**Applicant:** D-Link Corporation

**Test Date:** Aug. 22 ~ Sep. 11, 2017

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

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1

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 :** Celine Chou , **Date:** Sep. 12, 2017  
Celine Chou / Specialist

**Approved by :** Ken Liu , **Date:** Sep. 12, 2017  
Ken Liu / Senior 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				
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 29cm 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	27.70	7.91	29	0.344	1
5180-5240	27.82	9.11	29	0.467	1
5745-5825	28.88	9.11	29	0.596	1
Beamforming Mode					
2412-2462	24.53	7.91	29	0.166	1
5180-5240	24.81	9.11	29	0.233	1
5745-5825	25.87	9.11	29	0.298	1

Note:

2.4GHz Directional gain = 4.9dBi + 10log(2) = 7.91dBi

5GHz Directional gain = 6.10dBi + 10log(2) = 9.11dBi

#### Conclusion:

2.4GHz & 5GHz technology 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

WALN 2.4GHz + WALN 5GHz = 0.344 + 0.596 = 0.940

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

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