

RF Exposure Report

Report No.: SA180424C02

FCC ID: KA2WL8620APEA1

Model: DWL-8620APE

Received Date: Apr. 24, 2018

Test Date: May 16 ~ Jun. 25, 2018

Issued Date: Jun. 29, 2018

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:



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specifically mentioned, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 RF Exposure	5
2.1 Limits for Maximum Permissible Exposure (MPE).....	5
2.2 MPE Calculation Formula	5
2.3 Classification	5
3 Calculation Result of Maximum Conducted Power	6

Release Control Record

Issue No.	Description	Date Issued
SA180424C02	Original release.	Jun. 29, 2018

1 Certificate of Conformity

Product: Unified AC Concurrent Dual-Band PoE Access Point

Brand: D-Link Corporation

Model: DWL-8620APE

Sample Status: Engineering sample

Applicant: D-Link Corporation

Test Date: May 16 ~ Jun. 25, 2018

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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:** Jun. 29, 2018

Suntee Liu / Specialist

Approved by :



, **Date:** Jun. 29, 2018

Bruce Chen / 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 ²)	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/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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 37cm 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 ²)	Limit (mW/cm ²)
CDD Mode					
2412-2462	29.54	9.02	37	0.417	1
5180-5240	28.15	10.02	37	0.381	1
5745-5825	29.65	10.02	37	0.539	1
Beamforming Mode					
2412-2462	28.00	3.78	37	0.088	1
5180-5240	26.38	5.77	37	0.095	1
5745-5825	27.88	5.77	37	0.135	1

Note:

1. The above Max Power is tune-up power which client declared.

2. Antenna gain:

CDD Mode:

2.4GHz Band: Directional gain = 3dBi + 10log(4) = 9.02dBi

5GHz Band: Directional gain = 4dBi + 10log (4) = 10.02dBi

Beamforming Mode:

2.4GHz Band: Beamforming gain = 3.78dBi

5GHz Band: Beamforming gain = 5.77dBi

Conclusion:

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

The formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

1. WLAN 2.4GHz + WLAN 5GHz Band 1 = 0.417 + 0.381 = 0.798

2. WLAN 2.4GHz + WLAN 5GHz Band 4 = 0.417 + 0.539 = 0.956

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

---END---