RF Exposure Report

Report No.:	SA170801C12B
FCC ID:	KA2WL6620APSA1
Test Model:	DWL-6620APS
Received Date:	Aug. 01, 2017
Test Date:	Aug. 22 ~ Sep. 11, 2017
Issued Date:	Jun. 25, 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 / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
SA170801C12B	Original release.	Jun. 25, 2018

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 C95.1-1992

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 : Celine Chou , **Date:** Jun. 25, 2018

Celine Chou / Specialist

Approved by : Bruce Chen , **Date:** Jun. 25, 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

$Pd = (Pout*G) / (4*pi*r^2)$
where
Pd = power density in mW/cm^2
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 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^2)	Limit (mW/cm^2)
CDD Mode					
2412-2462	27.70	7.91	29	0.344	1
5180-5240	27.82	9.11	29	0.467	1
5260-5320	22.69	9.11	29	0.143	1
5500-5720	22.93	9.11	29	0.151	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
5260-5320	19.68	9.11	29	0.072	1
5500-5720	19.92	9.11	29	0.076	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 = 6.1dBi + 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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