Report No.:	SA171024E05B
FCC ID:	KA2AP2680A1
Test Model:	DAP-2680
Received Date:	Oct. 24, 2017
Test Date:	Nov. 13 to 14, 2017
Issued Date:	Jan. 25, 2018
Applicant:	D-Link Corporation
Address:	No.289, Xinhu 3rd Rd., Neihu District, Tapei City 11494, Taiwan
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
SA171024E05B	Original release.	Jan. 25, 2018

1 Certificate of Conformity

Product:	Wireless AC1750 Wave 2 Dual-Band PoE Access Point
Brand:	D-Link
Test Model:	DAP-2680
Sample Status:	ENGINEERING SAMPLE
Applicant:	D-Link Corporation
Test Date:	Nov. 13 to 14, 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 EMC characteristics under the conditions specified in this report.

Prepared by : Wendy Wu , **Date:** Jan. 25, 2018

Wendy Wu / Specialist

Approved by : , **Date:** Jan. 25, 2018

May Chen / 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^2)	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	($180/f^2$)*	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

$Pd = (Pout*G) / (4*pi*r^2)$

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 32cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Antenna No.	Model	Antenna Gain (dBi)	Frequency range (GHz)	Antenna Type	Connecter Type	Cable Length (mm)
1	NYS3072	3.6	2.4~2.4835	PIFA	i-pex (MHF)	60
		4.2	5.15~5.85			
2	NYS3073	3.6	2.4~2.4835	PIFA	i-pex (MHF)	70
		4.2	5.15~5.85			
3	NYS3074	3.5	2.4~2.4835	PIFA	i-pex (MHF)	160
		4	5.15~5.85			

2.5 Calculation Result

For 2.4GHz, 5GHz (U-NII-1 & UNII-3 band) data was copied from the original test report (Report No.: SA171024E05)

Frequency (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	779.921	8.34	32	0.41356	1
5180-5240	676.99	8.91	32	0.40933	1
5260-5320	246.757	8.91	32	0.14920	1
5500-5700	246.496	8.91	32	0.14904	1
5745-5825	341.892	8.91	32	0.20672	1

NOTE:
2.4GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 8.34$dBi
5GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 8.91$dBi

Conclusion:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + WLAN 5GHz = 0.41356 / 1 + 0.40933 / 1 = 0.82289

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

--- END ---