

RF Exposure Report

Report No.: SA180702E06

FCC ID: KA2IR2660A1

Test Model: DIR-2660

Received Date: Mar. 15, 2017

Test Date: Mar. 15, 2017 to Aug. 23, 2018

Issued Date: Dec. 12, 2018

Applicant: D-Link Corporation

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**FCC Registration /
Designation Number:** 723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
SA180702E06	Original release.	Dec. 12, 2018

1 Certificate of Conformity

Product: AC2600 Mesh-Enabled Smart Wi-Fi Router

Brand: D-Link

Test Model: DIR-2660

Sample Status: ENGINEERING SAMPLE

Applicant: D-Link Corporation

Test Date: Mar. 15, 2017 to Aug. 23, 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 EMC characteristics under the conditions specified in this report.

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Dec. 12, 2018

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Date:

Dec. 12, 2018

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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

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

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 38cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Connector Type
2.4~2.4835	10.06	Dipole	i-pex(MHF)
5.15~5.85	10.90	Dipole	i-pex(MHF)
Note: More detailed information, please refer to operating description.			

2.5 Calculation Result of Maximum Conducted Power

Operation Mode	Evaluation Frequency (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN 2.4GHz	2437	788.724	10.06	38	0.44070	1
WLAN 5GHz (U-NII-1)	5180	322.367	10.90	38	0.21856	1
WLAN 5GHz (U-NII-2A)	5310	161.371	10.90	38	0.10941	1
WLAN 5GHz (U-NII-2C)	5510	159.71	10.90	38	0.10828	1
WLAN 5GHz (U-NII-3)	5785	655.424	10.90	38	0.44437	1

Note:

2.4GHz: Directional gain = 10.06dBi

5GHz: Directional gain = 10.90dBi

Conclusion:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

$WLAN\ 2.4GHz + WLAN\ 5GHz = 0.44070 / 1 + 0.44437 / 1 = 0.88507$

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

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