FCC RF EXPOSURE REPORT

FCC ID: KA2APX1870A1

Project No.	:	2007H040A
Equipment	:	AX1800 Mesh Wi-Fi Extender
Brand Name	:	D-Link
Test Model	:	DAP-X1870
Series Model	:	N/A
Applicant	:	D-Link Corporation
Address	:	17595 Mt. Herrmann, Fountain Valley, California United State 92708
Manufacturer	:	D-Link Corporation
Address	:	17595 Mt. Herrmann, Fountain Valley, California United State 92708
Date of Receipt	:	Sep. 01, 2020
Date of Test	:	Sep. 01, 2020~Nov. 16, 2020
Issued Date	:	Dec.08,2020
Report Version	:	R00
Test Sample	:	Engineering Sample No.: SH20200721109
Standard(s)	:	FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091, OET Bulletin 65 Supplement C

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Maker Qi

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	This report is based on the regular report (BTL-FCCP-3-2007H040_MPE RLAN R01) , Only added the Band 2&3, and the power was lower than it in the regular report(BTL-FCCP-3-2007H040_MPE RLAN R01).So it has no effection to this report.Please refer to the regular report for the power value.	Dec.08,2020

1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

where:
S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Table for Filed Antenna
For 5G :

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	N/A	N/A	PCB	N/A	3	N/A
2	N/A	N/A	PCB	N/A	3	N/A

Note:

(1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R), all transmit signals are completely uncorrelated, then,
Direction gain = G_{ANT}, that is Directional gain =3.

(2) The EUT incorporates beamforming Function, so Directional gain = G_{ANT} + 10 log(N_{ANT}) dBi, that is Directional gain =3+10 log(2)dBi =6.01 dBi. the output power limit is 23.98-6.01+6=23.97, the power spectral density limit is UNII-2A, UNII-2C:11-6.01+6=10.99.

For 5G：

Operating Mode / TX Mode	Ant. 1	Ant. 2	Ant. 1 + Ant. 2
IEEE 802.11a	✓	✓	×
IEEE 802.11n (HT20)	✓	✓	✓
IEEE 802.11n (HT40)	✓	✓	✓
IEEE 802.11ac (VHT20)	✓	✓	✓
IEEE 802.11ac (VHT40)	✓	✓	✓
IEEE 802.11ac (VHT80)	✓	✓	✓
IEEE 802.11ax (HE20)	✓	✓	✓
IEEE 802.11ax (HE40)	✓	✓	✓
IEEE 802.11ax (HE80)	✓	✓	✓

End of Test Report