RF Exposure Report

Report No.:	SA200713E04
FCC ID:	KA2AP2622A1
Test Model:	DAP-2622
Received Date:	July 13, 2020
Test Date:	Sep. 04 to 09, 2020
Issued Date:	Dec. 04, 2020
Applicant:	D-Link Corporation
Address:	17595 Mt. Herrmann Street Fountain Valley, CA92708 USA
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
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / Designation Number:	723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
SA200713E04	Original release.	Dec. 04, 2020

1 Certificate of Conformity

Product:	Nuclias Connect AC1200 Wave 2 Wall-Plated Access Point
Brand:	D-Link
Test Model:	DAP-2622
Sample Status:	ENGINEERING SAMPLE
Applicant:	D-Link Corporation
Test Date:	Sep. 04 to 09, 2020
Standards:	FCC Part 2 (Section 2.1091) IEEE C95.3 -2002
References Test Guidance:	KDB 447498 D01 General RF Exposure Guidance v06

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 : Phoenix Huang , **Date:** Dec. 04, 2020

Phoenix Huang / Specialist

Approved by : , **Date:** Dec. 04, 2020

Clark Lin / Technical 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 20 cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Antenna No.	RF Chain No.	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	0	3	2.4~2.4835	PCB	i-pex(MHF)	55
		4.5	5.15~5.85			
2	1	2.8	2.4~2.4835	PCB	i-pex(MHF)	35
		4.1	5.15~5.85			

Note: The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

2.5 Calculation Result of Maximum Conducted Power

Operation Mode	Evaluation Frequency (MHz)	Max. Average Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN (2.4GHz)	2412-2462	469.872	5.91	20	0.36451	1
WLAN (U-NII-1)	5180-5240	503.477	7.31	20	0.53915	1
WLAN (U-NII-3)	5745-5825	545.899	7.31	20	0.58458	1

Note:
1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. 2.4GHz: The directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$) / 2] = 5.91dBi
3. 5GHz: The directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$) / 2] = 7.31dBi

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 = 0.36451 / 1 + 0.58458 / 1 = 0.94909

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

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