

RF Exposure Report

Report No.: SA120530E05E

FCC ID: KA2AP2690B1

Test Model: DAP-2690

Received Date: Oct. 26, 2015

Test Date: Nov. 09, 2015

Issued Date: Nov. 17, 2015

Applicant: D-Link Corporation

Address: No.289, Sinhu 3rd Rd., Neihu District, Taipei City 114, Taiwan, R.O.C.

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

Lab Address: No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin
Chu Hsien 307, Taiwan R.O.C.

Test Location (1): No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin
Chu Hsien 307, Taiwan R.O.C.

Test Location (2): No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin
Chu Hsien 307, Taiwan R.O.C.

Test Location (3): E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan R.O.C.

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by any government agencies.



Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 RF Exposure	5
2.1 Limits For Maximum Permissible Exposure (MPE).....	5
2.2 MPE Calculation Formula	5
2.3 Classification	5
3 Antenna Gain	6
4 Calculation Result Of Maximum Conducted Power	7



A D T

Release Control Record

Issue No.	Description	Date Issued
SA120530E05E	Original release.	Nov. 17, 2015

1 Certificate of Conformity

Product: DAP-2690 AirPremier N Dual Band Concurrent PoE Access Point

Brand: D-Link

Test Model: DAP-2690

Sample Status: MASS-PRODUCTION

Applicant: D-Link Corporation

Test Date: Nov. 09, 2015

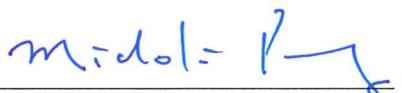
Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D03

IEEE C95.1

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 :

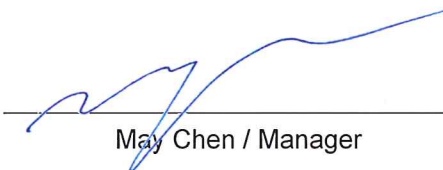


Date:

Nov. 17, 2015

Midoli Peng / Specialist

Approved by :



Date:

Nov. 17, 2015

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				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

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

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 23cm away from the body of the user.

So, this device is classified as **Mobile Device**.

3 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

For 2.4GHz					
Transmitter Circuit	Manufacture	Model name	Antenna Gain Gain (dBi)	Antenna Type	Connector
Chain (0)	WHA YU GROUP	NP-9022	4.29	Dipole	SMA Plug Reverse
Chain (1)	WHA YU GROUP	NP-9022	4.29	Dipole	SMA Plug Reverse
For 5GHz					
Transmitter Circuit	Manufacture	Model name	Antenna Gain Gain (dBi)	Antenna Type	Connector
Chain (0)	WHA YU GROUP	SSR-12968	5G Band1: 5.646 5G Band2: 6.270 5G Band3: 5.428 5G Band4: 5.264	Dipole	SMA Plug Reverse
Chain (1)	WHA YU GROUP	SSR-12968	5G Band1: 5.646 5G Band2: 6.270 5G Band3: 5.428 5G Band4: 5.264	Dipole	SMA Plug Reverse

4 Calculation Result Of Maximum Conducted Power

For 2.4GHz Maximum Conducted Power data was copied from the original test report (Report No.: SA120530E05)

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	424.097	7.3	23	0.34261	1
5180-5240	523.384	8.66	23	0.57830	1
5745-5825	477.909	8.27	23	0.48270	1

NOTE:

2.4GHz: Directional gain = 4.29dBi + 10log(2) = 7.3dBi

5GHz (5180-5240MHz): Directional gain = 5.646dBi + 10log(2) = 8.66dBi

5GHz (5745-5825MHz): Directional gain = 5.264dBi + 10log(2) = 8.27dBi

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 = 0.34261 + 0.57830 = 0.921

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

--- END ---