

RF Exposure Report

Report No.: SA150415D03A

FCC ID: PY315200306

Test Model: D7000

Received Date: Jul. 7, 2015

Test Date: Jul. 8 ~ Oct. 12, 2015

Issued Date: Oct. 13, 2015

Applicant: NETGEAR INC.

Address: 350 East Plumeria Drive, San Jose, CA 95134, USA

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

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Release Control Record

Issue No.	Description	Date Issued
SA150415D03A	Original release.	Oct. 13, 2015

1 Certificate of Conformity

Product: AC1900 WiFi VDSL/ADSL Modem Router

Brand: NETGEAR

Test Model: D7000

Sample Status: Engineering sample

Applicant: NETGEAR INC.

Test Date: Jul. 8 ~ Oct. 12, 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 :



(Celia Chen / Senior Specialist)

, **Date:** Oct. 13, 2015

Approved by :



(Rex Lai / Assistant Manager)

, **Date:** Oct. 13, 2015

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

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

where

Pd = power density in mW/cm²

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 25cm away from the body of the user.

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

3 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	29.53	5.77	25	0.4314	1
5745-5825	28.88	7.07	25	0.5011	1

NOTE:

2.4GHz: Directional gain = 1dBi + 10log(3) = 5.77dBi

5.0GHz: Directional gain = 2.3dBi + 10log(3) = 7.07dBi

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 = 0.4314 + 0.5011 = 0.9325

Therefore the maximum calculation of this situation is 0.9325, which is less than the “1” limit.

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