

RF Exposure Report

Report No.: SA180315D06

FCC ID: PY318100410

Test Model: WAC124

Received Date: Oct. 5, 2017

Test Date: Oct. 31 ~ Dec. 11, 2017

Issued Date: Apr. 9, 2018

Applicant: NETGEAR INC.

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

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Release Control Record

Issue No.	Description	Date Issued
SA180315D06	Original release.	Apr. 9, 2018

1 Certificate of Conformity

Product: AC2000 Smart WiFi Access Point and Router

Brand: NETGEAR

Test Model: WAC124

Sample Status: Engineering sample

Applicant: NETGEAR INC.

Test Date: Oct. 31 ~ Dec. 11, 2017

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 RF characteristics under the conditions specified in this report.

Prepared by :

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Date: Apr. 9, 2018

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Approved by :

Rex Lai

Date: Apr. 9, 2018

Rex Lai / Associate 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				
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 25cm away from the body of the user.

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

2.4 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	27.73	5.89	25	0.2930	1
5180-5240	28.60	6.92	25	0.4538	1
5745-5825	29.19	7.28	25	0.5648	1

NOTE:

2.4GHz: Directional gain = 5.89dBi

5180-5240MHz: Directional gain = 6.92dBi

5745-5825MHz: Directional gain = 7.28dBi

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 = 0.2930 + 0.5648 = 0.8578

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