

## RF Exposure Report

**Report No.:** SA160419E08A

**FCC ID:** PY326200345

**Test Model:** WAC740

**Received Date:** June 16, 2016

**Test Date:** Sep. 14, 2016

**Issued Date:** Dec. 29, 2016

**Applicant:** NETGEAR, Inc.

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

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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### Release Control Record

Issue No.	Description	Date Issued
SA160419E08A	Original release.	Dec. 29, 2016

## 1 Certificate of Conformity

**Product:** ProSAFE Dual Band Wireless AC Access Point

**Brand:** NETGEAR

**Test Model:** WAC740

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** NETGEAR, Inc.

**Test Date:** Sep. 14, 2016

**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 EMC characteristics under the conditions specified in this report.

**Prepared by :** Midoli Peng , **Date:** Dec. 29, 2016  
Midoli Peng / Specialist

**Approved by :** May Chen , **Date:** Dec. 29, 2016  
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 <sup>2</sup> )	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/cm<sup>2</sup>

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 37cm away from the body of the user.

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

## 2.4 Antenna Gain

Frequency range (GHz)	Directional Antenna Gain (dBi)
5180 ~ 5240	5.98
5260 ~ 5320	5.98
5500 ~ 5700	5.88
5745 ~ 5825	5.88

## 2.5 Calculation Result Of Maximum Conducted Power

For 2.4GHz and 5GHz (UNII-1 & UNII-3) data were copied from the original test report (Report No.: SA160419E08)

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	970.785	11.02	37	0.71369	1
5180-5240	819.499	5.98	37	0.18877	1
5260-5320	246.234	5.98	37	0.05672	1
5500-5700	245.976	5.88	37	0.05537	1
5745-5825	909.707	5.88	37	0.20478	1

**NOTE:**

2.4GHz: Directional gain = 5dBi + 10log(4) = 11.02dBi

5GHz:

UNII-1 & UNII-2A: Directional gain = 5.98dBi

UNII-2C & UNII-3: Directional gain = 5.88dBi

**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 =  $0.71369 / 1 + 0.20478 / 1 = 0.91847$

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

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