# RF Exposure Report

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|---|---|
| **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 Hsin Chu Laboratory |
| **Lab Address:** | E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C. |

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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)<br>KDB 447498 D01 General RF Exposure Guidance v06<br>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 :** _____ , **Date:** Dec. 29, 2016

Midoli Peng / Specialist

**Approved by :** _____ , **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 ($mW/cm^2$) | 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 $mW/cm^2$

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 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 ($mW/cm^2$) | Limit ($mW/cm^2$) |
|---|---|---|---|---|---|
| 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 + ……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.**

**--- END ---**