

## RF Exposure Report

**Report No.:** SA170120D01

**FCC ID:** PY316400360

**Test Model:** R6120

**Received Date:** Jan. 20, 2017

**Test Date:** Jan. 23 ~ Feb. 18, 2017

**Issued Date:** Feb. 20, 2017

**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
SA170120D01	Original release.	Feb. 20, 2017

## 1 Certificate of Conformity

**Product:** AC1200 WiFi Router

**Brand:** NETGEAR

**Test Model:** R6120

**Sample Status:** Engineering sample

**Applicant:** NETGEAR INC.

**Test Date:** Jan. 23 ~ Feb. 18, 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 EMC characteristics under the conditions specified in this report.

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**Approved by :** Rex Lai , **Date:** Feb. 20, 2017  
Rex Lai / Assistant 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 20cm 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 <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	26.18	4.52	20	0.2337	1
5180-5240	24.84	6.04	20	0.2436	1
5745-5825	24.59	6.37	20	0.2482	1

**NOTE:**

2.4GHz: Directional gain = 4.52dBi

5180-5240MHz: Directional gain = 6.04dBi

5745-5825MHz: Directional gain = 6.37dBi

**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 = 0.2337 + 0.2482 = 0.4819

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

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