

# **RF Exposure Report**

**Report No.:** SA160411C02

FCC ID: PY316100335

Test Model: EX6200v2

Received Date: Mar. 31, 2016

Test Date: Mar. 31 ~ Jun. 04, 2016

Issued Date: Jun. 04, 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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(R.O.C.)

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City

33383, TAIWAN (R.O.C.)





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The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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### **Release Control Record**

Issue No.	Description	Date Issued
SA160411C02	Original release.	Jun. 04, 2016



### 1 Certificate of Conformity

Product: AC 1200 WiFi Range Extender

Brand: Netgear

Test Model: EX6200v2

Sample Status: Engineering sample

Applicant: NETGEAR, INC.

**Test Date:** Mar. 31 ~ Jun. 04, 2016

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 (October 23, 2015)

**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: Jun. 04, 2016

My Lin / Specialist

**Approved by :** , **Date:** Jun. 04, 2016

Ken Liu / Senior Manager



## 2 RF Exposure

# 2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Magnetic Field Strength (V/m) 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**.

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#### 3 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/cm²)			
(CDD Mode)								
2412-2462	26.57	4.79	20	0.272	1			
5180-5240	28.46	4.87	20	0.428	1			
5745-5825	28.75	4.87	20	0.458	1			
(Beamforming Mode)								
2412-2462	25.89	4.79	20	0.233	1			
5180-5240	28.44	4.87	20	0.426	1			
5745-5825	28.86	4.87	20	0.470	1			

Note:

**2.4GHz:** Directional gain = 1.78dBi + 10log(2) = 4.79dBi **5.0GHz:** Directional gain = 1.86dBi + 10log(2) = 4.87dBi

#### **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 = 0.272 + 0.470 = 0.742

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

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