

## RF Exposure Report

**Report No.:** SA160202C08

**FCC ID:** PY316100336

**Test Model:** C3000v2, C3700v2

**Received Date:** Feb. 02, 2016

**Test Date:** Nov. 02, 2016

**Issued Date:** Mar. 30, 2017

**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
SA160202C08	Original release.	Mar. 30, 2017

## 1 Certificate of Conformity

**Product:** Cable Gateway

**Brand:** Netgear

**Test Model:** C3000v2, C3700v2

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** NETGEAR, Inc.

**Test Date:** Nov. 02, 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 :**



**Date:**

Mar. 30, 2017

Cindy Hsin / Specialist

**Approved by :**



**Date:**

Mar. 30, 2017

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 23cm away from the body of the user.

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

### 2.4 Antenna Gain

Antenna No.	Brand	Model	Antenna Gain(dBi)	Frequency range (GHz ~ GHz)	Antenna Type
1	NA	NA	3.84	2.4~2.4835	PCB
			4.78	5.15~5.25	
			4.58	5.725~5.85	
2	NA	NA	3.84	2.4~2.4835	PCB
			4.78	5.15~5.25	
			4.58	5.725~5.85	

## 2.5 Calculation Result of Maximum Conducted Power

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	447.744	6.85	23	0.32611	1
5180-5240	399.052	7.79	23	0.36088	1
5745-5825	893.368	7.59	23	0.77155	1

**NOTE:**

2.4GHz: Directional gain = 3.84dBi + 10log(2) = 6.85dBi

5GHz:

UNII-1: Directional gain = 4.78dBi Directional gain = 4.78dBi + 10log(2) = 7.79dBi

UNII-3: Directional gain = 4.58dBi Directional gain = 4.58dBi + 10log(3) = 7.59dBi

**NOTE:** 1. This power include tune-up tolerance range that specified in C3700v2 Tune Up power table

**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 = 0.32611 / 1 + 0.77155 / 1 = 1.09766

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

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