

RF Exposure Report

Report No.: SA160623E04

FCC ID: PY326200348

Test Model: C7000v2

Received Date: June 23, 2016

Test Date: July 14, 2016

Issued Date: Aug. 15, 2016

Applicant: NETGEAR, Inc.

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

Issue No.	Description	Date Issued
SA160623E04	Original release.	Aug. 15, 2016

1 Certificate of Conformity

Product: AC1900 WiFi Cable Modem Router

Brand: NETGEAR

Test Model: C7000v2

Sample Status: ENGINEERING SAMPLE

Applicant: NETGEAR, Inc.

Test Date: July 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 :  , **Date:** Aug. 15, 2016
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Approved by :  , **Date:** Aug. 15, 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/cm²

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 29cm away from the body of the user.

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

2.4 Antenna Gain

Transmitter Circuit	Brand	Model	Antenna Gain(dBi) <including cable loss>	Frequency range (MHz ~ MHz)	Antenna Type	Connector Type	Cable Length (mm)
Chain (2)	Masterwave	NA	2	2.4~2.4835	PCB	I-pex (MHF)	105
				5.15~5.85			
Chain (0)	Masterwave	NA	2	2.4~2.4835	PCB	I-pex (MHF)	70
				5.15~5.85			
Chain (1)	Masterwave	NA	2	2.4~2.4835	PCB	I-pex (MHF)	101
				5.15~5.85			

2.5 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	989.004	6.77	29	0.44483	1
5180-5240	966.405	6.77	29	0.43466	1
5745-5825	968.131	6.77	29	0.43544	1

NOTE:

2.4GHz: Directional gain = 2dBi + 10log(3) = 6.77dBi

5GHz:

UNII-1: Directional gain = 2dBi + 10log(3) = 6.77dBi

UNII-3: Directional gain = 2dBi + 10log(3) = 6.77dBi

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 = $0.44483 / 1 + 0.43544 / 1 = 0.88027$

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

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