RF Exposure Report

Report No.:	SA160715C03
FCC ID:	PY316100334
Test Model:	EX6150v2
Received Date:	Jul. 11, 2016
Test Date:	Jul. 15 ~ Aug. 02, 2016
Issued Date:	Aug. 03, 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
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, 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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Release Control Record

Issue No.	Description	Date Issued
SA160715C03	Original release	Aug. 03, 2016

1 Certificate of Conformity

Product:	AC1200 WiFi Range Extender
Brand:	NETGEAR
Test Model:	EX6150v2
Sample Status:	Engineering sample
Applicant:	NETGEAR Inc.
Test Date:	Jul. 15 ~ Aug. 02, 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 : Celine Chou , **Date:** Aug. 03, 2016

Celine Chou / Specialist

Approved by : Ken Liu , **Date:** Aug. 03, 2016

Ken Liu / Senior 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 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

3 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
(CDD Mode)					
2412-2462	26.70	5.30	20	0.315	1
5180-5240	26.70	6.49	20	0.415	1
5745-5825	27.06	6.49	20	0.451	1
(Beamforming Mode)					
2412-2462	26.74	5.30	20	0.318	1
5180-5240	26.60	6.49	20	0.405	1
5745-5825	26.95	6.49	20	0.439	1

Note:
2.4GHz: Directional gain = 2.29dBi + 10log(2) = 5.30dBi
5GHz: Directional gain = 3.48dBi + 10log(2) = 6.49dBi

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 = 0.318 + 0.451 = 0.769
Therefore all the maximum calculations of above situations are less than the “1” limit.

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