

## RF Exposure Report

**Report No.:** SA120524E01G

**FCC ID:** PY312200202

**Test Model:** WNDAP620

**Received Date:** May 24, 2012

**Test Date:** May 31 to June 01, 2012 and Sep. 21, 2015

**Issued Date:** Sep. 30, 2015

**Applicant:** Netgear Incorporated.

**Address:** 350 East Plumeria Drive San Jose California United States 95134

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

**Lab Address:** No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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**Test Location (2):** No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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### Release Control Record

Issue No.	Description	Date Issued
SA120524E01G	Original release.	Sep. 30, 2015

## 1 Certificate of Conformity

**Product:** ProSafe 3x3 Single Radio, Dual Band Wireless-N Access Point

**Brand:** Netgear

**Test Model:** WNDAP620

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** Netgear Incorporated.

**Test Date:** May 31 to June 01, 2012 and Sep. 21, 2015

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D03

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 :**  , **Date:** Sep. 30, 2015  
Claire Kuan / Specialist

**Approved by :**  , **Date:** Sep. 30, 2015  
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

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

Internal Antenna (For 2.4GHz / 5GHz)					
Transmitter Circuit	Antenna Type	Peak Gain (dBi)			
		2.4GHz	5GHz Band 1	5GHz Band 4	
Chain (0)	Dipole	2.3	5.9	5.3	
Chain (1)	Dipole	2.3	5.9	4.9	
Chain (2)	Dipole	2.3	5	5.2	
External Antenna (For 2.4GHz)					
Model	Antenna Type	Gain (dBi) (Exclude cable loss )	Cable Loss (dB)	Net Gain (dBi) (Include cable loss)	Connector Type
ANT-32405	Dipole	5	3.68	1.32	SMA Plug Reverse

### 3 Calculation Result of Maximum Conducted Power

15.247 (2.4GHz) data was copied from the original test report (Report No.: SA120524E01)

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	587.684	7.07	20	0.59549	1
5180-5240	45.508	10.38	20	0.09881	1
5745-5825	140.777	9.91	20	0.27432	1

NOTE:

2.4GHz: Directional gain = 2.3dBi + 10 log (3)= 7.07 dBi

5GHz (5150-5250MHz): Directional gain = 10 log[(10<sup>G1/20</sup> + 10<sup>G2/20</sup> + 10<sup>G3/20</sup>)<sup>2</sup> / 3] = 10.38dBi

5GHz (5725-5850MHz): Directional gain = 10 log[(10<sup>G1/20</sup> + 10<sup>G2/20</sup> + 10<sup>G3/20</sup>)<sup>2</sup> / 3] = 9.91dBi

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