

## RF Exposure Report

**Report No.:** SA140710C17D

**FCC ID:** PY314200260

**Test Model:** C6300BD

**Received Date:** July 14, 2015

**Test Date:** Aug. 17, 2015

**Issued Date:** Sep. 10, 2015

**Applicant:** NETGEAR, INC.

**Address:** 350 East Plumeria Drive San Jose, CA 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.

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

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

**Test Location (3):** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan R.O.C.

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### Release Control Record

| Issue No.    | Description       | Date Issued   |
|--------------|-------------------|---------------|
| SA140710C17D | Original release. | Sep. 10, 2015 |

## 1 Certificate of Conformity

**Product:** Wireless Cable Data Gateway

**Brand:** NETGEAR

**Test Model:** C6300BD

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** NETGEAR, INC.

**Test Date:** Aug. 17, 2015

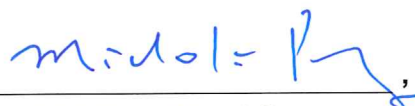
**Standards:** FCC Part 2 (Section 2.1091)

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. 10, 2015

Midoli Peng / Specialist

**Approved by :**



**Date:**

Sep. 10, 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

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

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 35cm away from the body of the user.

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

### 3 Antenna Gain

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

| For 2.4GHz used |                     |             |              |              |                    |                |
|-----------------|---------------------|-------------|--------------|--------------|--------------------|----------------|
| Ant. No.        | Transmitter Circuit | Brand       | Model        | Antenna Type | Antenna Gain (dBi) | Connector type |
| 1               | Chain (0)           | Master Wave | 98P92UIPF030 | PCB          | 2                  | I-PEX          |
| 2               | Chain (1)           |             | 98P92UIPF031 |              | 2                  |                |
| 3               | Chain (2)           |             | 98P92UIPF033 |              | 2                  |                |
| For 5GHz used   |                     |             |              |              |                    |                |
| Ant. No.        | Transmitter Circuit | Brand       | Model        | Antenna Type | Antenna Gain (dBi) | Connector type |
| 4               | Chain (0)           | Master Wave | 98P92UIPF033 | PCB          | 2                  | I-PEX          |
| 5               | Chain (1)           |             | 98P92UIPF034 |              | 2                  |                |
| 6               | Chain (2)           |             | 98P92UIPF034 |              | 2                  |                |

#### 4 Calculation Result of Maximum Conducted Power

For 2.4GHz & 5GHz (U-NII-1 / U-NII-2A / U-NII-2C) data was referenced from the original test report (Report No.: SA150708E07B).

| 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          | 683.701        | 6.77               | 35            | 0.21112                             | 1                           |
| 5180 ~ 5240          | 269.654        | 6.77               | 35            | 0.16235                             | 1                           |
| 5260 ~ 5320          | 189.964        | 6.77               | 35            | 0.05866                             | 1                           |
| 5500 ~ 5700          | 209.626        | 6.77               | 35            | 0.06473                             | 1                           |
| 5745-5825            | 243.142        | 6.77               | 35            | 0.07508                             | 1                           |

**NOTE:** 2.4GHz & 5GHz: Directional gain = 2dBi + 10log(3) = 6.77dBi

#### 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 = 0.21112 / 1 + 0.16235 / 1 = 0.37347

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

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