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^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 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^2)	Limit (mW/cm^2)
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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