

RF Exposure Report

Report No.: SA150716E03

FCC ID: PY313300241

Test Model: C3700-100NAS

Received Date: Mar. 10, 2015

Test Date: Apr. 14 to 15, 2015

Issued Date: Aug. 31, 2015

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
SA150716E03	Original release.	Aug. 31, 2015

1 Certificate of Conformity

Product: N600 WIFI Cable Modem Router

Brand: NETGEAR

Test Model: C3700-100NAS

Sample Status: ENGINEERING SAMPLE

Applicant: NETGEAR, Inc.

Test Date: Apr. 14 to 15, 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 :



Midoli Peng / Specialist

Date:

Aug. 31, 2015

Approved by :



May Chen / Manager

Date:

Aug. 31, 2015

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

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

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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:

Antenna No.	PCB Chain No.	Ant. Gain(dBi) <Including cable loss>	Frequency range (GHz to GHz)	Ant. Type	Connector Type
1	Left	0.3	2.4~2.4835	PIFA	i-pex(MHF)
2		2.6	5.15~5.85		
3	Right	2.3	2.4~2.4835	PIFA	i-pex(MHF)
4		1.8	5.15~5.85		

3 Calculation Result of Maximum Conducted Power

For 2.4GHz data was referenced from the original test report (Report No.: FR372430).

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	130.1068	2.3	20	0.043980	1
5180-5240, 5745-5825	332.024	2.6	20	0.12020	1

CONCLUSION:

Both of the 2.4GHz and 5GHz can transmit simultaneously, the formula of calculated the MPE is:

$$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

Therefore, the worst-case situation is $0.043980 / 1 + 0.12020 / 1 = 0.16418$, which is less than "1".

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