

## RF Exposure Report

**Report No.:** SA170706C25

**FCC ID:** PY317100376

**Test Model:** C7500

**Received Date:** July 06, 2017

**Test Date:** Aug. 09 to 11, 2017

**Issued Date:** Sep. 06, 2017

**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

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### Release Control Record

Issue No.	Description	Date Issued
SA170706C25	Original release.	Sep. 06, 2017

## 1 Certificate of Conformity

**Product:** AC3200 WiFi Cable Modem Router

**Brand:** NETGEAR

**Test Model:** C7500

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** NETGEAR INC.

**Test Date:** Aug. 09 to 11, 2017

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

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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. 06, 2017

Wendy Wu / Specialist

**Approved by :**



**Date:**

Sep. 06, 2017

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				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

f = Frequency in MHz ; \*Plane-wave equivalent power density

### 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 25cm away from the body of the user.

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

## 2.4 Antenna Gain

2.4GHz					
Antenna No.	Transmitter Circuit	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
1	Chain (0)	2.47	2.4~2.4835	Dipole	i-pex(MHF)
2	Chain (1)	2.47			
3	Chain (2)	2.47			
4	Chain (3)	2.47			
5GHz					
Antenna No.	Transmitter Circuit	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
1	Chain (0)	2.13	5.15~5.25	Dipole	i-pex(MHF)
		1.19	5.725~5.85		
2	Chain (1)	2.13	5.15~5.25	Dipole	i-pex(MHF)
		1.19	5.725~5.85		
3	Chain (2)	2.13	5.15~5.25	Dipole	i-pex(MHF)
		1.19	5.725~5.85		
4	Chain (3)	2.13	5.15~5.25	Dipole	i-pex(MHF)
		1.19	5.725~5.85		

## 2.5 Calculation Result Of Maximum Conducted Power

### CDD Mode

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	984.906	8.49	25	0.88574	1
5180-5240	836.579	8.15	25	0.69569	1
5745-5825	992.311	7.21	25	0.66459	1

NOTE:

2.4GHz: Directional gain = 2.47dBi + 10log(4) = 8.49dBi

5GHz:

UNII-1: Directional gain = 2.13dBi + 10log(4) = 8.15dBi

UNII-3: Directional gain = 1.19dBi + 10log(4) = 7.21dBi

### Beamforming Mode (Nss=1)

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	558.355	8.49	25	0.50213	1
5180-5240	608.681	8.15	25	0.50617	1
5745-5825	755.931	7.21	25	0.50628	1

NOTE:

2.4GHz: Directional gain = 2.47dBi + 10log(4) = 8.49dBi

5GHz:

UNII-1: Directional gain = 2.13dBi + 10log(4) = 8.15dBi

UNII-3: Directional gain = 1.19dBi + 10log(4) = 7.21dBi

### Beamforming Mode (Nss=2)

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	799.826	5.48	25	0.35967	1
5180-5240	990.45	5.14	25	0.41185	1
5745-5825	991.062	4.20	25	0.33190	1

NOTE:

2.4GHz: Directional gain = 2.47dBi + 10log(2) = 5.48dBi

5GHz:

UNII-1: Directional gain = 2.13dBi + 10log(2) = 5.14dBi

UNII-3: Directional gain = 1.19dBi + 10log(2) = 4.20dBi

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