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
Lab Address:	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
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 : Wendy Wu , **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^2)	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	($180/f^2$)*	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

$Pd = (Pout*G) / (4*pi*r^2)$

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