RF Exposure Report

Report No.:	SA160217E01A
FCC ID:	PY315400328
Test Model:	D6220
Received Date:	Mar. 07, 2016
Test Date:	Mar.10 to 22, 2016
Issued Date:	Apr. 07, 2016
Applicant:	HON HAI PRECISION IND. CO., LTD.
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.
Test Location (1):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, 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.

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Release Control Record

Issue No.	Description	Date Issued
SA160217E01A	Original release.	Apr. 07, 2016

1 Certificate of Conformity

Product:	AC1200 WiFi VDSL/ADSL Modem Router
Brand:	NETGEAR
Test Model:	D6220
Sample Status:	ENGINEERING SAMPLE
Applicant:	HON HAI PRECISION IND. CO., LTD.
Test Date:	Mar.10 to 22, 2016
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1-2005

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:** Apr. 07, 2016

Claire Kuan / Specialist

Approved by : _____ , **Date:** Apr. 07, 2016

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 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Ant. No.	Brand	Model	Antenna Gain (dBi)	Cable Length (mm)	Frequency range (GHz to GHz)	Antenna Type	Connecter Type
1	Master Wave	98619	2.62	140	2.4-2.4835	Dipole	i-pex(MHF)
			5.8	140	5.15-5.85		
2	Master Wave	98619	2.42	220	2.4-2.4835	Dipole	i-pex(MHF)
			5.59	220	5.15-5.85		

3 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	546.529	5.53	20	0.38846	1
5180-5240	382.476	8.71	20	0.56537	1
5745-5825	330.424	8.71	20	0.48843	1

NOTE:
2.4GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$ =5.53dBi
5GHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$ =8.71dBi

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 = 0.38846 + 0.56537 = 0.95383

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

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