



RF EXPOSURE REPORT

REPORT NO.: SA140710C34

MODEL NO.: WM2500RP

FCC ID: PY314300289

RECEIVED: Jul. 04, 2014

TESTED: Jul. 11 ~ Sep. 10, 2014

ISSUED: Sep. 12, 2014

APPLICANT: NETGEAR INC.

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USA

ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA140710C34	Original release	Sep. 12, 2014



1. CERTIFICATION

PRODUCT: MoCA 2.0 N600 WiFi bridge / extender
MODEL NO.: WM2500RP
BRAND: NETGEAR
APPLICANT: NETGEAR INC.
TESTED: Jul. 11 ~ Sep. 10, 2014
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 2 (Section 2.1091)**
KDB 447498 D03
IEEE C95.1

The above equipment (model: WM2500RP) 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. 12, 2014
Polly Chien / Specialist

APPROVED BY :  , **DATE** : Sep. 12, 2014
Ken Liu / Senior 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

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

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 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2412-2462	26.37	6.01	20	0.344	1
5180-5240	15.57	6.01	20	0.029	1
5745-5825	22.68	6.01	20	0.147	1

NOTE:

Directional gain = 3dBi + 10log(2) = 6.01dBi

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 = 0.344 + 0.147 = 0.491

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