



A D T

RF EXPOSURE REPORT

REPORT NO.: SA110323C15

MODEL NO.: WZR-HP-G450H

FCC ID: FDI-09101912-0

ACCORDING: FCC Guidelines for Human Exposure
IEEE C95.1

APPLICANT: BUFFALO INC.

ADDRESS: Akamon-dori Bldg, 30-20, Ohsu 3-chome,
Naka-ku ,Nagoya 460-8315, Japan

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

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang,
Taipei Hsien 244, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

This test report consists of 6 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced, except in full, without the written approval of our laboratory. The client should not use it to claim product, certification, approval, or endorsement by any government agency. The test results in the report only apply to the tested sample.



A D T

TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1. CERTIFICATION	4
2. RF EXPOSURE.....	5
2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE).....	5
2.2 MPE CALCULATION FORMULA	5
2.3 CLASSIFICATION	5
2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	6



A D T

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	May 17, 2011



A D T

1. CERTIFICATION

PRODUCT: Nfiniti High Power Wireless N Router & Access Point

MODEL NO.: WZR-HP-G450H

BRAND: Buffalo

APPLICANT: BUFFALO INC.

TESTED: Mar. 26 ~ May 12, 2011

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Guidelines for Human Exposure

IEEE C95.1

The above equipment (Model: WZR-HP-G450H) 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 : Polly Chien , DATE: May 17, 2011
Polly Chien / Specialist

APPROVED BY : Gary Chang , DATE: May 17, 2011
Gary Chang / Assistant Manager



A D T

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/cm²

Pout = 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**.



A D T

2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

MODULATION MODE	FREQUENCY BAND (MHz)	MAX CONDUCTED POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
802.11b	2412-2462	24.7	9.77	20	0.557	1
802.11g	2412-2462	25.9	9.77	20	0.734	1
802.11n (20MHz)	2412-2462	26.0	9.77	20	0.751	1
802.11n (40MHz)	2422-2452	25.8	9.77	20	0.717	1

NOTE:

(802.11 b/g/n): Directional gain =5dBi+10log(3)=9.77dBi