

RF Exposure Report

Report No.: SA150527C04

FCC ID: SLY-WX1X33

Test Model: WX-1

Series Model: WX-1-B

Received Date: May 27, 2015

Test Date: Jun. 12 ~ Jun. 24, 2015

Issued Date: Jun. 29, 2015

Applicant: Pakedge Device and Software Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 RF Exposure	5
2.1 Limits For Maximum Permissible Exposure (MPE).....	5
2.2 Mpe Calculation Formula	5
2.3 Classification	5
3 Calculation Result Of Maximum Conducted Power	5



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Release Control Record


Issue No.	Description	Date Issued
SA150527C04	Original release.	Jun. 29, 2015




1 Certificate of Conformity

Product: 802.11a/b/g/n/ac wireless AP
Brand: PAKEDGE
Test Model: WX-1
Series Model: WX-1-B
Sample Status: Engineering sample
Applicant: Pakedge Device and Software Inc.
Test Date: Jun. 12 ~ Jun. 24, 2015
Standards: FCC Part 2 (Section 2.1091)
KDB 447498 D03
IEEE C95.1

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:** Jun. 29, 2015
Pettie Chen / Senior Specialist

Approved by :  , **Date:** Jun. 29, 2015
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

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

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

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**.

3 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	26.98	9.42	25	0.556	1
5180-5240	25.48	9.57	25	0.407	1
5745-5825	24.31	9.57	25	0.311	1

Note:

2.4GHz Band: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3]$ = 9.42 dBi

5.0GHz Band: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3]$ = 9.57 dBi

CONCLUSION:

Both of the WLAN 2.4G & WLAN 5G can transmit simultaneously, the formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 +etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4G + WLAN 5.0G = 0.556 + 0.407 = 0.963

Therefore, the maximum calculation of this situation is 0.963, which is less than the "1" limit.

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