RF Exposure Report

Report No.: SA151109C01

FCC ID: SLY-WX1O33

Test Model: WX-1-O

Received Date: Nov. 09, 2015

Test Date: Nov. 16 ~ Dec. 07, 2015

Issued Date: Dec. 09, 2015

Applicant: Pakedge Device and Software Inc.

Address: 3847 Breakwater Ave., Hayward, California, United States, 94545

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
SA151109C01	Original release.	Dec. 09, 2015

1   Certificate of Conformity

Product:	802.11ac Dual Band Access Point
Brand:	PAKEDGE
Test Model:	WX-1-O
Sample Status:	Engineering sample
Applicant:	Pakedge Device and Software Inc.
Test Date:	Nov. 16 ~ Dec. 07, 2015
Standards:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01 (October 23, 2015)
	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:** _____Dec. 09, 2015_____
                         Polly Chien / Specialist

Approved by : _____ , **Date:** _____Dec. 09, 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/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 22cm 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	27.46	8.532	22	0.653	1
5180-5240	15.00	10.418	22	0.057	1
5745-5825	22.01	10.970	22	0.327	1

Note:

2.4GHz: Directional gain =3.762dBi + 10log(3) = 8.532

5GHz:

5180 ~ 5240MHz: Directional gain =5.648dBi + 10log(3) = 10.418dBi

5745 ~ 5825MHz: Directional gain =6.200dBi + 10log(3) = 10.970dBi

CONCULSION:

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 = 0.653 + 0.327 = 0.980

Therefore, the maximum calculation of this situation is 0.980, which is less than the "1" limit.

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