RF Exposure Report

Report No.:	SA160606E02
FCC ID:	W59XWOBAP1
Test Model:	XWO-BAP1
Received Date:	June 06, 2016
Test Date:	June 29 to 30, 2016
Issued Date:	July 26, 2016
Applicant:	Luxul Wireless
Address:	14203 Minuteman Dr Suite 201 Draper UT 84020 USA
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.

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Release Control Record

Issue No.	Description	Date Issued
SA160606E02	Original release.	July 26, 2016

1 Certificate of Conformity

Product:	High Power AC1200 Dual-Band Outdoor Bridging AP
Brand:	Luxul
Test Model:	XWO-BAP1
Sample Status:	ENGINEERING SAMPLE
Applicant:	Luxul Wireless
Test Date:	June 29 to 30, 2016
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1-1992

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 : Wendy Wu , **Date:** July 26, 2016

Wendy Wu / Specialist

Approved by : , **Date:** July 26, 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 40cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

2.4GHz				
Transmitter Circuit	Antenna Gain(dBi)	Frequency range (MHz ~ MHz)	Antenna Type	Connecter Type
Chain (0)	6	2400~2483.5	Patch	NA
Chain (1)	6			
5GHz				
Transmitter Circuit	Antenna Gain(dBi)	Frequency range (MHz ~ MHz)	Antenna Type	Connecter Type
Chain (0)	10	5150~5875	Patch	NA
Chain (1)	10			

2.5 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	747.622	9.01	40	0.29604	1
5180-5240	97.338	13.01	40	0.09682	1
5745-5825	395.908	13.01	40	0.39379	1

NOTE:
2.4GHz: Directional gain = 6dBi + 10log(2) = 9.01dBi
5GHz: Directional gain = 10dBi + 10log(2) = 13.01dBi

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 = 0.29604 / 1 + 0.39379 / 1 = 0.68983

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

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