

RF Exposure Report

Report No.: SA160629E03

FCC ID: W59XWR3100

Test Model: XWR-3100

Received Date: June 29,2016

Test Date: July 07 to 14, 2016

Issued Date: Aug. 09, 2016

Applicant: Luxul Wireless

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

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Release Control Record

Issue No.	Description	Date Issued
SA160629E03	Original release.	Aug. 09, 2016

1 Certificate of Conformity

Product: Dual-Band AC3100 Gigabit Router

Brand: Luxul

Test Model: XWR-3100

Sample Status: ENGINEERING SAMPLE

Applicant: Luxul Wireless

Test Date: July 07 to 14, 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 :

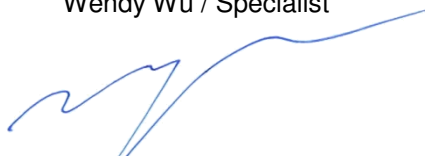


Date:

Aug. 09, 2016

Wendy Wu / Specialist

Approved by :



Date:

Aug. 09, 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

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

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 38cm away from the body of the user.

So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Antenna No	Brand	Model	Antenna Net Gain (dBi)	Frequency range (MHz ~ MHz)	Antenna Type	Connector Type	Cable Length	Cable Loss
1	NA	290-20268	3.88	2.4~2.4835	Dipole	R-SMA	200mm	0.53
			3.62	5.15~5.25				0.83
			2.9	5.25~5.35				0.83
			2.34	5.47~5.850				0.83
2	NA	290-20268	3.88	2.4~2.4835	Dipole	R-SMA	200mm	0.53
			3.62	5.15~5.25				0.83
			2.9	5.25~5.35				0.83
			2.34	5.47~5.850				0.83
3	NA	290-20268	3.88	2.4~2.4835	Dipole	R-SMA	200mm	0.53
			3.62	5.15~5.25				0.83
			2.9	5.25~5.35				0.83
			2.34	5.47~5.850				0.83
4	NA	290-20268	3.88	2.4~2.4835	Dipole	R-SMA	200mm	0.53
			3.62	5.15~5.25				0.83
			2.9	5.25~5.35				0.83
			2.34	5.47~5.850				0.83

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	920.645	9.9	38	0.49581	1
5180-5240	851.538	9.64	38	0.43194	1
5745-5825	984.837	8.36	38	0.37204	1

NOTE:

2.4GHz: Directional gain = 3.88dBi + 10log(4) = 9.9dBi

5GHz: UNII-1: Directional gain = 3.62dBi + 10log(4) = 9.64dBi

UNII-3: Directional gain = 2.34dBi + 10log(4) = 8.36dBi

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