

## RF Exposure Report

**Report No.:** SA160725C16

**FCC ID:** XIA-NRB51B

**Test Model:** NRB-51

**Received Date:** Feb. 18, 2016

**Test Date:** Aug. 02 ~ Aug. 09, 2016

**Issued Date:** Aug. 11, 2016

**Applicant:** NetComm Wireless Limited

**Address:** Level 2, 18-20 Orion Road, Lane Cove, NSW 2066, Sydney Australia

**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.)



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## Table of Contents

<b>Release Control Record</b> .....	<b>3</b>
<b>1 Certificate of Conformity</b> .....	<b>4</b>
<b>2 RF Exposure</b> .....	<b>5</b>
2.1 Limits for Maximum Permissible Exposure (MPE).....	5
2.2 MPE Calculation Formula .....	5
2.3 Classification .....	5
<b>3 Calculation Result of Maximum Conducted Power</b> .....	<b>5</b>

### Release Control Record

Issue No.	Description	Date Issued
SA160725C16	Original release	Aug. 11, 2016

## 1 Certificate of Conformity

**Product:** Outdoor LTE Router

**Brand:** Netcomm

**Test Model:** NRB-51

**Sample Status:** Engineering sample

**Applicant:** NetComm Wireless Limited

**Test Date:** Aug. 02 ~ Aug. 09, 2016

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06, section 7

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 :**



Pettie Chen / Senior Specialist

**Date:**

Aug. 11, 2016

**Approved by :**



Ken Liu / Senior Manager

**Date:**

Aug. 11, 2016

## 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 <sup>2</sup> )	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

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

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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 20cm 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)	EIRP (dBm)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
LTE Band 2 (Channel Bandwidth 1.4MHz)	31.4	20	0.275	1
LTE Band 2 (Channel Bandwidth 3MHz)	31.4	20	0.275	1
LTE Band 2 (Channel Bandwidth 5MHz)	31.4	20	0.275	1
LTE Band 2 (Channel Bandwidth 10MHz)	31.7	20	0.294	1
LTE Band 2 (Channel Bandwidth 15MHz)	31.8	20	0.301	1
LTE Band 2 (Channel Bandwidth 20MHz)	32.0	20	0.315	1
LTE Band 30 (Channel Bandwidth 5MHz)	28.3	20	0.135	1
LTE Band 30 (Channel Bandwidth 10MHz)	28.5	20	0.141	1

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