



RF Exposure Report

Report No.: SA150129C16

FCC ID: I88WRE2206

Test Model: WRE2206

Received Date: Jan. 29, 2015

Test Date: Feb. 26 ~ Apr. 27, 2015

Issued Date: Apr. 30, 2015

Applicant: ZyXEL Communications Corporation

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

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Release Control Record

| Issue No. | Description | Date Issued |
|-------------|------------------|---------------|
| SA150129C16 | Original release | Apr. 30, 2015 |

1 Certificate of Conformity

Product: Wireless N300 Range Extender

Brand: ZyXEL

Test Model: WRE2206

Sample Status: Engineering sample

Applicant: ZyXEL Communications Corporation

Test Date: Feb. 26 ~ Apr. 27, 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 :


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Date:

Apr. 30, 2015

Approved by :


Ken Liu / Senior Manager

Date:

Apr. 30, 2015

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 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) | Max Power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm ²) | Limit (mW/cm ²) |
|----------------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462 | 26.94 | 5.01 | 20 | 0.312 | 1 |

Note: Directional gain = 2dBi + 10log(2) = 5.01dBi

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