

## RF Exposure Report

**Report No.:** SA150126C16

**FCC ID:** TE7WA901NDV4

**Test Model:** TL-WA901ND

**Received Date:** Jan. 26, 2015

**Test Date:** Feb. 02 ~ May 05, 2015

**Issued Date:** May 07, 2015

**Applicant:** TP-LINK TECHNOLOGIES CO., LTD.

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**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, R.O.C.

**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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### Release Control Record

| Issue No.   | Description      | Date Issued  |
|-------------|------------------|--------------|
| SA150126C16 | Original release | May 07, 2015 |



**1 Certificate of Conformity**

**Product:** 450Mbps Wireless N Access Point  
**Brand:** TP-LINK  
**Test Model:** TL-WA901ND  
**Sample Status:** PROTOTYPE  
**Applicant:** TP-LINK TECHNOLOGIES CO., LTD.  
**Test Date:** Feb. 02 ~ May 05, 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 :**           *Rolly Chien*           , **Date:**           May 07, 2015            
Rolly Chien / Specialist

**Approved by :**           *Ken Liu*           , **Date:**           May 07, 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 <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

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

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 24cm 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 <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462            | 28.82           | 9.77               | 24            | 0.999                               | 1                           |

Note:

$$\text{Directional gain} = 5\text{dBi} + 10\log(3) = 9.77\text{dBi}$$

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