## EXPOSURE REPORT

REPORT NO.: SA141229C15
MODEL NO.: EAP110
FCC ID: TE7EAP110
IC: 8853A-EAP110
RECEIVED: Dec. 29, 2014
TESTED: Jan. 06 ~ Jan. 19, 2015
ISSUED: Jan. 20, 2015

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.
ADDRESS: Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China

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 Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

## TABLE OF CONTENTS

RELEASE CONTROL RECORD ..... 3

1. CERTIFICATION ..... 4
2. RF EXPOSURE ..... 5
2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) ..... 5
2.2 MPE CALCULATION FORMULA ..... 6
2.3 CLASSIFICATION ..... 6
2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER ..... 7

## RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
| :--- | :--- | :--- |
| SA141229C15 | Original release | Jan. 20, 2015 |

## 1. CERTIFICATION

PRODUCT: 300Mbps Wireless N Access Point<br>MODEL NO.: EAP110<br>BRAND: TP-LINK<br>APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.<br>TESTED: Jan. 06 ~ Jan. 19, 2015

TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: FCC Part 2 (Section 2.1091)
KDB 447498 D03
IEEE C95.1
RSS-102 Issue 4 (2010-03)

The above equipment (model: EAP110) 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.


## 2. RF EXPOSURE

### 2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

For FCC Part 2 (Section 2.1091)

| FREQUENCY <br> RANGE (MHz) | ELECTRIC FIELD <br> STRENGTH (V/m) | MAGNETIC FIELD <br> STRENGTH (A/m) | POWER DENSITY <br> $\left(\mathrm{mW} / \mathrm{cm}^{2}\right)$ | AVERAGE TIME <br> (minutes) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE |  |  |  |  |  |
| $300-1500$ | $\ldots$ | $\ldots$ | F/1500 | 30 |  |
| $1500-100,000$ | $\ldots$ | $\ldots$ | 1.0 | 30 |  |

$$
\mathrm{F}=\text { Frequency in MHz }
$$

For RSS-102 Issue 4 (2010-03)

| FREQUENCY <br> RANGE (MHz) | ELECTRIC FIELD <br> STRENGTH (V/m) | MAGNETIC FIELD <br> STRENGTH (A/m) | POWER DENSITY <br> $\left(\mathbf{W} / \mathbf{m}^{2}\right)$ | AVERAGE TIME <br> (minutes) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE |  |  |  |  |  |  |
| $300-1500$ | $\ldots$ | $\ldots$ | F/150 | 6 |  |  |
| $1500-100,000$ | $\ldots$ | $\ldots$ | 10 | 6 |  |  |

$\mathrm{F}=$ Frequency in MHz

### 2.2 MPE CALCULATION FORMULA

For FCC Part 2 (Section 2.1091)
$\mathrm{Pd}=\left(\right.$ Pout $\left.{ }^{*} \mathrm{G}\right) /\left(4^{\star} \mathrm{pi}^{\star} \mathrm{r}^{2}\right)$
where
$\mathrm{Pd}=$ power density in $\mathrm{mW} / \mathrm{cm}^{2}$
Pout = output power to antenna in mW
G = gain of antenna in linear scale
$\mathrm{Pi}=3.1416$
$R=$ distance between observation point and center of the radiator in cm

For RSS-102 Issue 4 (2010-03)
Pd = (Pout*G) / (4*pi*r2)
where
$\mathrm{Pd}=$ power density in $\mathrm{W} / \mathrm{m}^{2}$
Pout = output power to antenna in W
G = gain of antenna in linear scale
$\mathrm{Pi}=3.1416$
$R=$ distance between observation point and center of the radiator in meter

### 2.3 CLASSIFICATION

For FCC Part 2 (Section 2.1091)
The antenna of this product, under normal use condition, is at least 20 cm away from the body of the user. So, this device is classified as Mobile Device.

## For RSS-102 Issue 4 (2010-03)

The antenna of this product, under normal use condition, is at least 0.20 m away from the body of the user. So, this device is classified as Mobile Device.

### 2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For FCC Part 2 (Section 2.1091)

| FREQUENCY <br> BAND <br> $(\mathrm{MHz})$ | MAX POWER <br> $(\mathrm{dBm})$ | ANTENNA <br> GAIN <br> $(\mathrm{dBi})$ | DISTANCE <br> $(\mathrm{cm})$ | POWER <br> DENSITY <br> $(\mathbf{m W / c m})^{2}$ | LIMIT <br> $\left(\mathbf{m W} / \mathrm{cm}^{2}\right)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2412 \sim 2462$ | 26.94 | 6.01 | 20 | 0.392 | 1 |

NOTE: Directional gain $=3 \mathrm{dBi}+10 \log (2)=6.01 \mathrm{dBi}$

For RSS-102 Issue 4 (2010-03)

| FREQUENCY <br> BAND <br> $(\mathrm{MHz})$ | MAX POWER <br> $\mathbf{( d B m})$ | ANTENNA <br> GAIN <br> $(\mathbf{d B i})$ | DISTANCE <br> $(\mathbf{m})$ | POWER <br> DENSITY <br> $\left(\mathbf{W} / \mathbf{m}^{2}\right)$ | LIMIT <br> $\left(\mathbf{W} / \mathbf{m}^{\mathbf{2}}\right)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2412 \sim 2462$ | 26.94 | 6.01 | 0.2 | 3.924 | 10 |

NOTE: Directional gain $=3 \mathrm{dBi}+10 \log (2)=6.01 \mathrm{dBi}$

