





# RF EXPOSURE REPORT

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

Manufacturer or Supplier	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
Product	300Mbps Wireless N Router
Brand Name	TP-Link
Model	TL-WR845N
Additional Model & Model Difference	N/A
Date of tests	Dec. 05, 2016 ~ Dec. 19, 2016

- FCC Part 2 (Section 2.1091)
- KDB 447498 D01 V06
- IEEE C95.1

**CONCLUSION:** The submitted sample was found to COMPLY with the test requirement

Tested by Harry Li Project Engineer/ EMC Department	Approved by Glyn He Supervisor / EMC Department
	
	Date: Dec. 30, 2016

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**BUREAU**  
**VERITAS**

Test Report No.: FS161101N042

## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS161101N042	Original release	Dec. 30, 2016

**Bureau Veritas Shenzhen Co., Ltd.**  
**Dongguan Branch**

No. 34, Chenwulu Section, Guantai Rd., Houjie  
Town, Dongguan City,  
Guangdong 523942, China

Tel: +86 769 8593 5656  
Fax: +86 769 8593 1080  
Email: [customerservice.dg@cn.bureauveritas.com](mailto:customerservice.dg@cn.bureauveritas.com)



**BUREAU VERITAS** Test Report No.: FS161101N042

## 1. CERTIFICATION

**PRODUCT:** 300Mbps Wireless N Router  
**BRAND NAME:** TP-Link  
**MODEL NO.:** TL-WR845N  
**ADDITIONAL MODEL:** N/A  
**FCC ID:** TE7WR845NV3  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**APPLICANT:** TP-Link Technologies Co., Ltd.  
**TESTED DATE:** Dec. 19, 2016  
**STANDARDS:** FCC Part 2 (Section 2.1091)  
KDB 447498 D01 V06  
IEEE C95.1



## 2. RF EXPOSURE LIMIT

### 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)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

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

## 4. 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**.



## 5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Total Gain (dBi)	Antenna Type
Chain 0	4.71	7.72	Dipole Antenna
Chain 1	4.71		Dipole Antenna

Note: Total Gain=4.71+10log(N=2)=4.71+(3.01)=7.72 dBi

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
WLAN 2.4GHz	134.445	4.71	20	0.0791	1.0

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