

RF EXPOSURE REPORT

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

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 Wi-Fi Range Extender with Power Outlet Pass-through		
Brand Name	TP-LINK		
Model	TL-WA860RE		
Additional Model & Model Difference	N/A		
Date of tests	Feb. 26, 2016 ~ Mar. 17, 2016		

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

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

Tested by Harry Li	Approved by Chris Chen	
Project Engineer/ EMC Department	Manager / EMC Department	

Date: Mar. 17, 2016

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Tel: +86 769 8593 5656 Fax: +86 769 8593 1080

Email: <u>customerservice.dg@cn.bureauveritas.com</u>



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Email: customerservice.dg@cn.bureauveritas.com



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS160226N029	Original release	Mar. 17, 2016

Tel: +86 769 8593 5656 Fax: +86 769 8593 1080

Email: customerservice.dg@cn.bureauveritas.com



1. CERTIFICATION

PRODUCT: 300Mbps Wi-Fi Range Extender with Power Outlet

Pass-through

BRAND NAME: TP-LINK

MODEL NO.: TL-WA860RE

ADDITIONAL MODEL: N/A

FCC ID: TE7WA860REV2

TEST SAMPLE: ENGINEERING SAMPLE

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.

TESTED DATE: Dec. 15, 2015

STANDARDS: FCC Part 2 (Section 2.1091)

KDB 447498 D01

IEEE C95.1

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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/cm²)	AVERAGE TIME (minutes)		
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE						
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/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

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**.

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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	2.0	F 01	Dipole Antenna
Chain 1	2.0	5.01	Dipole Antenna

Note: Total Gain=2.0+10log(N=2)=2.0+(3.01)=5.01dBi

6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm²)	LIMIT (mW/cm²)
WLAN 2.4GHz	348.885	5.01	20	0.22	1.0

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