

# 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,

TP-LINK TECHNOLOGIES CO., LTD.			
Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China			
300Mbps Wireless N Ceiling Mount Access Point			
TP-LINK			
CAP300			
N/A			
Apr. 07, 2016 ~ May 22, 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

Date: Nov. 08, 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: <a href="mailto:customerservice.dg@cn.bureauveritas.com">customerservice.dg@cn.bureauveritas.com</a>



## **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS160407N028	Original release	May 22, 2016
FS160927N056	Based on the original report FS160407N028 changed the model no. and replace adapter, add one of the function switch, It need to retested radiated emission below 1GHz and conducted emission after engineer evaluated.	Nov. 08, 2016

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#### 1. CERTIFICATION

PRODUCT: 300Mbps Wireless N Ceiling Mount Access Point

**BRAND NAME:** TP-LINK

MODEL NO.: CAP300

**ADDITIONAL MODEL:** N/A

FCC ID: TE7CAP300

TEST SAMPLE: ENGINEERING SAMPLE

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

**TESTED DATE:** Oct. 19, 2016

**STANDARDS:** FCC Part 2 (Section 2.1091)

KDB 447498 D01

**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/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/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**.

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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	3.2	6.21	Integral Antenna
Chain 1	3.2	0.21	Integral Antenna

Note: Total Gain=3.2+10log(N=2)=3.2+(3.01)=6.21dBi

## 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/cm²)
WLAN 2.4GHz	631.008	3.2	20	0.26228	1.0

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