

RF Exposure Report

Report No.: SA150422C24A

FCC ID: TE7C2600

Test Model: Archer C2600

Received Date: Jul. 14, 2015

Test Date: Oct. 03 ~ Oct. 19, 2015

Issued Date: Nov. 03, 2015

Applicant: TP-LINK TECHNOLOGIES CO., LTD.

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Release Control Record

Issue No.	Description	Date Issued
SA150422C24A	Original release	Nov. 03, 2015



1 Certificate of Conformity

Product: AC2600 Wireless Dual Band Gigabit Router
Brand: TP-LINK
Test Model: Archer C2600
Sample Status: Prototype
Applicant: TP-LINK TECHNOLOGIES CO., LTD.
Test Date: Oct. 03 ~ Oct. 19, 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.

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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 ²)	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

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

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

2.3 Classification

The antenna of this product, under normal use condition, is at least 39cm 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 ²)	Limit (mW/cm ²)
CDD mode					
2412-2462	29.88	9.06	39	0.410	1
5180-5240	28.63	10.97	39	0.477	1
5745-5825	29.97	10.17	39	0.540	1
Beamforming mode					
2412-2462	26.67	9.06	39	0.196	1
5180-5240	25.00	10.97	39	0.207	1
5745-5825	25.81	10.17	39	0.207	1

Note:

2412 ~ 2462MHz: Directional gain = 3.04dBi + 10log(4) = 9.06dBi

5180 ~ 5240MHz: Directional gain = 4.95dBi + 10log(4) = 10.97dBi

5745 ~ 5825MHz: Directional gain = 4.15dBi + 10log(4) = 10.17dBi

CONCLUSION:

Both of the WLAN 2.4G & WLAN 5G can transmit simultaneously, the formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4G + WLAN 5.0G = 0.410 + 0.540 = 0.950

Therefore, the maximum calculation of this situation is 0.950, which is less than the "1" limit.

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