

## RF Exposure Report

**Report No.:** SA150326C26E

**FCC ID:** TE7C3200

**Test Model:** Archer C3200

**Received Date:** May 10, 2016

**Test Date:** May 29 ~ Jun. 07, 2016

**Issued Date:** Jun. 14, 2016

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

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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## Table of Contents

<b>Release Control Record</b> .....	<b>3</b>
<b>1 Certificate of Conformity</b> .....	<b>4</b>
<b>2 RF Exposure</b> .....	<b>5</b>
2.1 Limits for Maximum Permissible Exposure (MPE).....	5
2.2 MPE Calculation Formula .....	5
2.3 Classification .....	5
<b>3 Calculation Result Of Maximum Conducted Power</b> .....	<b>6</b>

### Release Control Record

Issue No.	Description	Date Issued
SA150326C26E	Original release	Jun. 14, 2016

## 1 Certificate of Conformity

**Product:** AC3200 Wireless Tri-Band Gigabit Router

**Brand:** TP-LINK

**Test Model:** Archer C3200

**Sample Status:** Prototype

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

**Test Date:** May 29 ~ Jun. 07, 2016

**Standards:** FCC Part 2 (Section 2.1091)  
KDB 447498 D01 (October 23, 2015)  
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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Celine Chou / Specialist

**Approved by :** Ken Liu , **Date:** Jun. 14, 2016  
Ken Liu / Senior Manager

## 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 <sup>2</sup> )	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/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

### 2.3 Classification

The antenna of this product, under normal use condition, is at least 27cm 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 <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	29.66	6.57	27	0.458	1
Beamforming off					
5180-5240	26.63	6.57	27	0.228	1
5745-5825	29.99	6.57	27	0.494	1
Beamforming on					
5180-5240	26.88	6.57	27	0.242	1
5745-5825	29.29	6.57	27	0.421	1

Note: Directional gain = 1.8dBi + 10log(3) = 6.57dBi

#### 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 = 0.458 + 0.494 = 0.952

WLAN 5.0G (5180-5240MHz) + WLAN 5.0G (5745-5825MHz) = 0.242 + 0.494 = 0.736

Therefore, the maximum calculation of this situation is 0.952, which is less than the "1" limit.

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