



BUREAU  
VERITAS

Test Report No.: FS170512N051

## RF EXPOSURE REPORT

Applicant	SHENZHEN TENDA TECHNOLOGY CO.,LTD.
Address	6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052

Manufacturer or Supplier	SHENZHEN TENDA TECHNOLOGY CO.,LTD.
Address	6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Product	300Mbps Ultimate Coverage Wi-Fi Router
Brand Name	Tenda
Model	FH456
Additional Model & Model Difference	N/A
Date of tests	May 15, 2017 ~ Jun. 16, 2017

**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 Andy Zhu Project Engineer / EMC Department	Approved by Chris Chen Manager / EMC Department

Date: Jul. 04, 2017

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification



BUREAU  
VERITAS

Test Report No.: FS170512N051

## Table of Contents

RELEASE CONTROL RECORD .....	3
1. CERTIFICATION.....	4
2. RF EXPOSURE LIMIT .....	5
3. MPE CALCULATION FORMULA.....	5
4. CLASSIFICATION.....	5
5. ANTENNA GAIN .....	6
6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	6



**BUREAU  
VERITAS** Test Report No.: FS170512N051

## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS170512N051	Original release	Jul. 04, 2017

**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.: FS170512N051

## 1. CERTIFICATION

<b>FCC ID:</b>	V7TFH456-16
<b>PRODUCT:</b>	300Mbps Ultimate Coverage Wi-Fi Router
<b>BRAND NAME:</b>	Tenda
<b>MODEL NO.:</b>	FH456
<b>ADDITIONAL NO.:</b>	N/A
<b>TEST SAMPLE:</b>	Engineering Sample
<b>APPLICANT:</b>	SHENZHEN TENDA TECHNOLOGY CO.,LTD.
<b>STANDARDS:</b>	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/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

## 3. MPE CALCULATION FORMULA

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P<sub>d</sub> = power density in mW/cm<sup>2</sup>

P<sub>out</sub> = output power to antenna in mW

G = gain of antenna in linear scale

P<sub>i</sub> = 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)	Antenna Type
Chain 0	5	Dipole Antenna

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
802.11b	2412-2462	15	+2	13	17
802.11g	2412-2462	13	+2	11	15
802.11n(20MHz)	2412-2462	15	+5	10	20
802.11n(40MHz)	2422-2452	12	+2	10	14

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
802.11b	2437	15.19
802.11g	2437	14.62
802.11n(20MHz)	2437	19.25
802.11n(40MHz)	2437	13.82

FREQUENCY BAND (MHz)	UPPER TOLERANCE (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412-2462	20	5	20	0.0629	1.0

--- END ---