



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

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RELEASE CONTROL RECORD

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

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1. CERTIFICATION

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

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**.



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 ²)	LIMIT (mW/cm ²)
2412-2462	20	5	20	0.0629	1.0

--- END ---