

EN 50665:2017
EN IEC 62311:2020
BS EN 50665:2017
BS EN IEC 62311:2020
ASSESSMENT REPORT

For

Shenzhen Tenda Technology Co., Ltd.

6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052

Tested Model: R10
Multiple Models: T10


Report Type: Original Report	Product Type: N300 Wi-Fi Range Extender
Report Number:	2502U63953E
Report Date:	2025/7/29
Reviewed By:	Ivy Tang Project Engineer 
Approved By:	Rocky Xiao RF Supervisor
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2502U63953E	Original Report	2025/7/29

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Name:	N300 Wi-Fi Range Extender
EUT Model:	R10
Multiple Models:	T10
Model Difference:	Refer to Dos
Rated Input Voltage:	100-240Vac
Serial Number:	34D2-4
EUT Received Date:	2025/6/13
EUT Received Status:	Good

Objective

This report is prepared on behalf of *Shenzhen Tenda Technology Co., Ltd.* in accordance with EN 50665:2017 & BS EN 50665:2017 Generic standard for assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz); EN IEC 62311:2020 & BS EN IEC 62311:2020, Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz).

The objective is to determine the compliance of EUT with EN 50665:2017, EN IEC 62311:2020, BS EN 50665:2017, BS EN IEC 62311:2020.

Test Methodology

All measurements contained in this report were conducted with EN IEC 62311:2020 & BS EN IEC 62311:2020.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

Declarations

The information marked ▲ is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

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Each test item follows test standards and with no deviation.

Technical Requirements Specification in EN IEC 62311 & BS EN IEC 62311

General Description of Applied Standards

In general, the basic restrictions shall be used as exposure limits for the assessment of compliance. However, in most cases reference levels are used as limits. Such reference levels for exposure to electric, magnetic and electromagnetic fields are derived from the basic restrictions using realistic worst-case assumptions about exposure. If the reference levels are met, then the basic restrictions will also be met; if the reference levels are exceeded, that does not necessarily mean that the basic restrictions are exceeded. In some situations, it may be possible to show compliance with the basic restrictions directly. It may also be possible to derive compliance criteria that allow a simple measurement or calculation to demonstrate compliance with the basic restrictions. Often these compliance criteria can be derived using realistic assumptions about conditions under which exposures from a device may occur, rather than the conservative assumptions that are the basis for the reference levels.

RF Exposure Evaluation

Limit:

According to EN 50665:2017 & BS EN 50665:2017, the criteria listed in the below table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified table 2 of Council Recommendation 1999/519/EC.

Reference levels for electric, magnetic and electromagnetic fields
(0 Hz to 300 GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field(μ T)	Equivalent plane wave power density $S_{eq}(W/m^2)$
0-1 Hz	-	$3,2 \times 10^4$	4×10^4	-
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	-
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	-
0,8-3 kHz	$250/f$	5	6,25	-
3-150 kHz	87	5	6,25	-
0,15-1 MHz	87	$0,73/f$	$0,92/f$	-
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	-
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Notes:

1. f as indicated in the frequency range column.

Test method**Far Field:**

The antenna of the product, under normal use condition is at least 20cm away from the body of the user. So, this product under normal use is located on electromagnetic far field between the human body.

Far Field Calculation Formula

$$E = \frac{\sqrt{30PG(\theta, \phi)}}{r}$$

Where:

P= Tune-up average conducted power

G= antenna gain relative to an isotropic antenna

θ, ϕ = elevation and azimuth angles to point of investigation

r= distance from observation point to the antenna

Equivalent plane wave power density:**Equivalent plane wave power density Seq Calculation Formula**

$$\text{Power density Seq} = PG / (4 \pi r^2)$$

Where:

P= Tune-up average conducted power

G= antenna gain relative to an isotropic antenna

r= distance from observation point to the antenna

Test Data(Far Field Calculation)

RF Mode	Frequency	Tune-up EIRP Power	E-Field Strength	Limit	Result
	(MHz)	(dBm)	(V/m)	(V/m)	
Wi-Fi 2.4G	2412-2472	20	8.66	61	Pass

Note:

The distance from observation point to the antenna is 20cm.

Conclusion: Compliant

EXHIBIT A – EUT PHOTOGRAPHS

For photos in this section, please refer to report No.: 2502U63953E-02 EXHIBIT A.

DECLARATION OF SIMILARITY LETTER

SHENZHEN TENDA TECHNOLOGY CO., LTD.

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DECLARATION OF SIMILARITY

Date: 2025-06-11

FEDERAL COMMUNICATIONS COMMISSION

Authorization and Evaluation Division

7435 Oakland Mills Road

Columbia, MD 21046

Dear Sir or Madam:

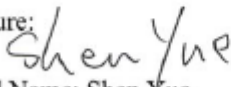
We, SHENZHEN TENDA TECHNOLOGY CO., LTD., hereby declare that the product: N300 Wi-Fi Range Extender, FCC ID: V7TR10, model: T10 is electrically identical with the model: R10 which was tested by Bay Area Compliance Laboratories Corp. (Dongguan).

A description of the differences between those models and that are declared similar are as follows:

They are just the different model name and color, the rest are the same.

Please contact me should there be need for any additional clarification or information.

Best Regards,

Signature: 
Printed Name: Shen Yue
Title: Engineer

*******END OF REPORT*******