

RF Exposure Evaluation Report

Product : BE3600 Whole Home Mesh Wi-Fi 7 System
Trade mark : N/A
Model/Type reference : Mesh3EP, ME3 Pro, EE3 Pro
Serial Number : N/A
Report Number : EED32R80588403
Date of Issue : Jun. 05, 2025
EN 50665:2017
Test Standards : EN IEC 62311:2020
BS EN 50665:2017
BS EN IEC 62311:2020
Test result : PASS

Prepared for:

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1 Version

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3 General Information

3.1 Client Information

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

3.2 General Description of EUT

Product Name:	BE3600 Whole Home Mesh Wi-Fi 7 System
Model No.:	Mesh3EP, ME3 Pro, EE3 Pro
Model Difference:	Only the model Mesh3EP was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being color of appearance, pack and model name.
Trade Mark:	N/A
EUT Supports Radios application:	2.4G Wi-Fi, 5G Wi-Fi
Frequency Range:	2.4G Wi-Fi: IEEE 802.11b/g/n(HT20)/ax(HE20)/be(EHT20): 2412MHz to 2472MHz IEEE 802.11n(HT40)/11ax(HE40)/be(EHT40): 2422MHz to 2462MHz 5G Wi-Fi: U-NII-1: 5150-5250MHz U-NII-2A: 5250-5350MHz
Modulation Type:	2.4G Wi-Fi: IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM,QPSK,BPSK) IEEE for 802.11ax(HE20 and HE40) : OFDM (1024QAM, 256QAM, 64QAM, 16QAM,QPSK,BPSK) IEEE for 802.11be(EHT20 and EHT40) : OFDM (4096QAM, 1024QAM, 256QAM, 64QAM, 16QAM,QPSK,BPSK) 5G Wi-Fi: IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11n(HT20/HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11ac(HT20/HT40/HT80/HT160): OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) IEEE 802.11ax(HT20/HT40/HT80/HT160): OFDM (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11be(EHT20/EHT40/EHT80/EHT160): OFDM (4096QAM, 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)

Sample Type:	Fixed-Use	
Test Power Grade:	default	
Test Software of EUT:	QATool_Dbg.exe	
Antenna Type:	PCB Antenna	
Antenna Gain:	2.4G Wi-Fi: ANT0: 4.09dBi ANT1: 3.9dBi Beamforming Gain: 3dBi 5G Wi-Fi: U-NII-1: ANT0: 3.86 dBi, ANT1: 3.49 dBi, ANT2: 3.64 dBi U-NII-2A: ANT0: 4.15 dBi, ANT1: 3.67 dBi, ANT2: 3.77 dBi	
Power Supply:	Adapter:	DC 12V
Test voltage:	DC 12V	
Sample Received Date:	Apr. 24, 2025	
Sample tested Date:	Apr. 24, 2025 to May 22, 2025	

3.3 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 3368 3668 Fax: +86 (0) 755 3368 3385

No tests were sub-contracted.

3.4 Deviation from Standards

None.

3.5 Abnormalities from Standard Conditions

None.

3.6 Other Information Requested by the Customer

None.

4 Technical Requirements Specification in EN 50665 & BS EN 50665

4.1 General Description of Applied Standards

EN 50665 & BS EN 50665 Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz–300 GHz) is to demonstrate the compliance of apparatus with the basic restrictions or reference levels on exposure of the general public related to electric, magnetic, electromagnetic fields as well as induced and contact current

4.2 RF Exposure Evaluation

Limit

For equipment intended for use by the general public the relevant exposure restrictions in Council Recommendation 1999/519/EC shall be applied

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 (μT)	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.
2. For frequencies between 100 kHz and 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any six-minute period.
3. For frequencies exceeding 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any $68/f^{1/05}$ -minute period (f in GHz).
4. No E-field value is provided for frequencies < 1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.

4.2.1 Human Exposure Assessment

Exposure evaluation	
<p>Given</p> $E = \frac{\sqrt{30 \times TP}}{D}$ $D = \frac{\sqrt{30 \times TP}}{E}$	<p>Where:</p> <ul style="list-style-type: none"> ● E: E field strength ● TP: Transmitted power in watt ● D: Distance from the transmitting antenna in meter

2.4G Wi-Fi:

Frequency	EIRP (dBm)	TP (W)	D (m)	Electric Field (V/m)	Limit of Electric Field (V/m)	Ratio	Result
@2.4GHz	19.95	0.0989	0.2	8.6105	61	0.14	Pass

5G Wi-Fi:

Frequency	EIRP (dBm)	TP (W)	D (m)	Electric Field (V/m)	Limit of Electric Field (V/m)	Ratio	Result
@5GHz	28.19	0.6592	0.2	22.2347	61	0.36	Pass

Note: The test data refer to the report of No.: EED32R80588401, EED32R80588402

For Simultaneous Transmission:

As MPE Ratio (2.4G Wi-Fi+5G Wi-Fi) = $0.14^2 + 0.36^2 = 0.1492 < 1$,
it's deemed to fulfil the RF exposure requirement.

Conclusion:

→ $E = 22.2347 \text{ V/m (max)}$ is the E-Field strength when safety distance between the EUT and human body is 0.2m, which is below 61V/m as required 1999/519/EC Annex III Table 2

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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*** End of Report ***