

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 : EED32R80589104
FCC ID : V7TMESH3EP
Date of Issue : Jun. 04, 2025
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

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2 General Information

2.1 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

2.2 General Description of EUT

Product Name:	BE3600 Whole Home Mesh Wi-Fi 7 System
Model No.:	Mesh3EP, ME3 Pro, EE3 Pro
Test Model No.:	Mesh3EP
Trade mark:	N/A

2.3 Product Specification subjective to this standard

Frequency Range:	2.4G Wi-Fi: IEEE 802.11b/g/n(HT20)/ax(HE20)/be(EHT20): 2412MHz to 2462MHz IEEE 802.11n(HT40)/11ax(HE40)/be(EHT40): 2422MHz to 2452MHz 5G Wi-Fi: U-NII-1: 5150-5250MHz U-NII-2A: 5250-5350MHz U-NII-3:5745-5825MHz
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) : OFDMA (1024QAM, 256QAM, 64QAM, 16QAM,QPSK,BPSK) IEEE for 802.11be(EHT20 and EHT40) : OFDMA (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(VHT20/VHT40/VHT80/VHT160): OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) IEEE 802.11ax(HE20/HE40/HE80/HE160): OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM,1024QAM) IEEE 802.11be(EHT20/EHT40/EHT80/EHT160): OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM,1024QAM, 4096QAM)
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 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 U-NII-3: ANT0: 3.80 dBi, ANT1: 3.90 dBi, ANT2: 3.94 dBi Beamforming Gain: 3dBi	
Power Supply:	Adapter:	DC 12V
Sample Received Date:	Apr. 24, 2025	
Sample tested Date:	Apr. 24, 2025 to May 30, 2025	
Remark: Model No.:Mesh3EP, ME3 Pro, EE3 Pro Only the model Mesh3EP was tested, Their electrical circuit design, layout, components used and internal wiring are identical, They are just model names are different, the rest are the same.		

2.4 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 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.

2.7 Other Information Requested by the Customer

None.

3 SAR Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and ERP20cm is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

3.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3.1.3 EUT RF Exposure Evaluation

For Stand alone:

2.4G Wi-Fi SISO:

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@2.4GHz	20	20.88	4.09	22.82	191.426	3060	0.0626	Pass
@5GHz Band 1	20	22.98	3.38	24.21	263.636	3060	0.0862	Pass
@5GHz Band 2	20	21.65	4.15	23.65	231.739	3060	0.0757	Pass
@5GHz Band 4	20	23.38	3.94	25.17	328.852	3060	0.1075	Pass

Note:

- ① EIRP=conducted power+antenna gain;
- ② $ERP = EIRP - 2.15$;
- ③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;
- ④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;
- ⑤ The estimation distance is 20cm;
- ⑥ The test data please refer to the report of EED32R80589101, EED32R80589102 and only the worst case data was recorded in the report.

For Simultaneous Transmission:

As MPE ratio (2.4G Wi-Fi+5G Wi-Fi)= $0.0626^2 + 0.1075^2 = 0.0155 < 1$, it's deemed to fulfil the RF exposure requirement.

Statement

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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;
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*** End of Report ***