

MAXIMUM PERMISSIBLE EXPOSURE EVALUATION REPORT

Applicant: SHENZHEN TENDA TECHNOLOGY CO., LTD.

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Product Name: AC1200 Dual-Band Wi-Fi Range Extender

FCC ID: V7TA18P

Standard(s): 47 CFR §1.1310, 47 CFR §2.1091,
47 CFR §15.247(i), 47 CFR §15.407(f)

Report Number: 2402Z107017E-RF-00D

Report Date: 2025/1/4

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

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1. GENERAL INFORMATION

1.1 General Description of Equipment under Test

EUT Name:	AC1200 Dual-Band Wi-Fi Range Extender
EUT Model:	A18 Pro
Multiple Models:	A18
Rated Input Voltage:	100-240Vac
Serial Number:	2V5L-2
EUT Received Date:	2024/11/28
EUT Received Status:	Good

Note: The difference between Model A18 Pro and Multiple model A18 is: The AN8801RN is a Gigabit chip, the A18 Pro supports gigabit RJ45 port, and the A18 without the AN8801RF chip only supports 100Mbit RJ45 port. Please refer to the declaration letter for more detail, which was provided by manufacturer.

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
/	/	/	/

2. RF EXPOSURE EVALUATION

2.1 RF Exposure Evaluation

2.1.1 Applicable Standard

According to subpart 15.247(i), 15.407(f) and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

2.1.2 Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

2.1.3 Calculated Data:

Operation Modes	Frequency (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance [▲]		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
2.4G Wifi	2412-2462	6.13	4.10	28.5	707.95	20.00	0.578	1.0
5.2G Wifi	5150-5250	7.93	6.21	25.0	316.23	20.00	0.391	1.0
5.8G Wifi	5725-5850	7.93	6.21	23.5	223.87	20.00	0.277	1.0

Note:

The Conducted output power including Tune-up Tolerance provided by manufacturer.

The antenna gain was the maximum directional gain (in Beamforming mode)

2.4G Wifi and 5G Wifi can't transmit simultaneously.

Result: Compliant. The device compliant Simultaneous transmission at 20cm distances.

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402Z107017E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402Z107017E-RF-INP EUT INTERNAL PHOTOGRAPHS.

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