

FCC RF EXPOSURE REPORT

FCC ID: V7TAC5

Project No. : 1711C142
Equipment : AC1200 Smart Dual-Band WiFi Router
Model : AC5
Applicant : SHENZHEN TENDA TECHNOLOGY CO., LTD.
Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen China

According: : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091

B T L I N C .

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna

2.4G WIFI

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	5
2	N/A	N/A	Dipole	N/A	5

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R), all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}** , that is Directional gain=5.

5G WIFI

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
3	N/A	N/A	Dipole	N/A	5
4	N/A	N/A	Dipole	N/A	5

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R), all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}** , that is Directional gain=5.

TEST RESULTS

EUT :	AC1200 Smart Dual-Band WiFi Router	Model Name :	AC5
Temperature :	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		

2.4G WIFI

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5	3.1623	29.45	881.0489	0.55456	1	Complies

5G Band UNII-1

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5	3.1623	23.00	199.5262	0.12559	1	Complies

5G Band UNII-3

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5	3.1623	24.11	257.6321	0.16216	1	Complies

For 2.4G+5G simultaneous transmission MPE:

$$0.55456 / 1 + 0.16216 / 1 = 0.71672$$

Note: the calculated distance is 20 cm.