

FCC RF EXPOSURE REPORT

FCC ID: V7TMESH3

Project No. : 1707C145
Equipment : Whole Home Mesh WiFi System
Model : Mesh3, MW6
Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD
**Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan
Road, Nanshan District, Shenzhen, China. 518052**

According: : FCC Guidelines for Human Exposure IEEE C95.1

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

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

5G

Ant.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)
1	N/A	N/A	PCB	N/A	3
2	N/A	N/A	PCB	N/A	3

TEST RESULTS

WIFI 2.4G Non-Beamforming:

EUT:	Whole Home Mesh WiFi System	Model Name :	MESH3, MW6
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX G Mode_CH01/06/11		

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
2	1.5849	29.37	864.9679	0.27286659	1	Complies
2	1.5849	29.78	950.6048	0.29988198	1	Complies
2	1.5849	29.41	872.9714	0.27539140	1	Complies

WIFI 2.4G with Beamforming:

EUT:	Whole Home Mesh WiFi System	Model Name :	MESH3, MW6
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N40 Mode_CH03/06/09_ANT 1+ANT 2		

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
2	1.5849	29.35	860.9938	0.27161289	1	Complies
2	1.5849	29.21	833.6812	0.26299674	1	Complies
2	1.5849	29.22	835.6030	0.26360301	1	Complies

UNII-1 Non-Beamforming:

EUT:	Whole Home Mesh WiFi System	Model Name :	MESH3, MW6
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-1/TX N40 Mode _ANT 1+ANT 2		

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
3	1.9953	22.66	184.5015	0.07327408	1	Complies
3	1.9953	29.38	866.9619	0.34431058	1	Complies

UNII-1 with Beamforming:

EUT:	Whole Home Mesh WiFi System	Model Name :	MESH3, MW6
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-1/TX N40 Mode _ANT 1+ANT 2		

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
3	1.9953	22.71	186.6380	0.07412255	1	Complies
3	1.9953	29.02	797.9947	0.31692053	1	Complies

UNII-3 Non-Beamforming:

EUT:	Whole Home Mesh WiFi System	Model Name :	MESH3, MW6
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-3/TX A Mode		

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
3	1.9953	29.45	881.0489	0.34990518	1	Complies
3	1.9953	29.42	874.9838	0.34749645	1	Complies
3	1.9953	29.32	855.0667	0.33958646	1	Complies

UNII-3 with Beamforming:

EUT:	Whole Home Mesh WiFi System	Model Name :	MESH3, MW6
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	UNII-3/TX AC20 Mode_ANT 1+ANT 2		

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
3	1.9953	29.53	897.4288	0.35641040	1	Complies
3	1.9953	29.40	870.9636	0.34589985	1	Complies
3	1.9953	28.77	753.3556	0.29919227	1	Complies

For 2.4G+5G simultaneous transmission MPE:

$$0.2999/1+0.3564/1=0.6563<1$$

Note: the calculated distance is 20 cm.