FCC RF EXPOSURE REPORT

FCC ID: V7TFH1201

Project No.	:	**1406C022**
Equipment	:	**High Power Wireless AC1200 Dual-band Router Router**
Model	:	**FH1201**
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**

BTL Inc.

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

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

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)	Note
0	Tenda	Q5115	Internal	N/A	3.09	
1	Tenda	Q5115	Internal	N/A	3.09	

5G

Ant.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)	Note
0	Tenda	Q5117	Internal	N/A	4.85	
1	Tenda	Q5117	Internal	N/A	4.85	

TEST RESULTS

2.4G

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature：	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode ：	TX B MODE /CH01, CH06, CH11		

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
3.09	2.0370	24.17	261.2161	0.10591327	1	Complies
3.09	2.0370	25.01	316.9567	0.12851398	1	Complies
3.09	2.0370	24.97	314.0509	0.12733576	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature：	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode ：	TX G MODE /CH01, CH06, CH11		

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
3.09	2.0370	27.83	606.7363	0.24600865	1	Complies
3.09	2.0370	27.92	619.4411	0.25115994	1	Complies
3.09	2.0370	27.97	626.6139	0.25406823	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_ Total /CH01, CH06, CH11		

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
3.09	2.0370	27.45	555.9043	0.22539816	1	Complies
3.09	2.0370	28.28	672.9767	0.27286659	1	Complies
3.09	2.0370	28.28	672.9767	0.27286659	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_Total /CH03, CH06, CH09		

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
3.09	2.0370	25.60	363.0781	0.14721443	1	Complies
3.09	2.0370	27.01	502.3426	0.20368093	1	Complies
3.09	2.0370	27.10	512.8614	0.20794590	1	Complies

BAND 1

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE / CH36, CH40, CH48		

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
4.85	3.0549	12.23	16.7109	0.01016133	1	Complies
4.85	3.0549	12.09	16.1808	0.00983899	1	Complies
4.85	3.0549	14.24	26.5461	0.01614174	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_Total / CH36, CH40, CH48		

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
4.85	3.0549	16.68	46.5586	0.02831068	1	Complies
4.85	3.0549	16.72	46.9894	0.02857264	1	Complies
4.85	3.0549	18.83	76.3836	0.04644622	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N40 MODE_ Total /CH38, CH46		

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
4.85	3.0549	14.76	29.9226	0.01819493	1	Complies
4.85	3.0549	12.88	19.4089	0.01180186	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-20M MODE_Total /CH36, CH40, CH48		

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
4.85	3.0549	14.61	28.9068	0.01757723	1	Complies
4.85	3.0549	14.73	29.7167	0.01806968	1	Complies
4.85	3.0549	14.66	29.2415	0.01778076	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-40M MODE_ Total /CH38, CH46		

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
4.85	3.0549	14.65	29.1743	0.01773987	1	Complies
4.85	3.0549	12.38	17.2982	0.01051842	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-80M MODE_Total /CH44		

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
4.85	3.0549	12.39	17.3380	0.01054266	1	Complies

BAND 4

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE / CH149, CH157, CH165		

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
4.85	3.0549	24.59	287.7398	0.17496467	1	Complies
4.85	3.0549	24.51	282.4880	0.17177121	1	Complies
4.85	3.0549	24.28	267.9168	0.16291098	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_Total / CH149, CH157, CH165		

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
4.85	3.0549	26.22	418.7936	0.25465392	1	Complies
4.85	3.0549	26.24	420.7266	0.25582935	1	Complies
4.85	3.0549	26.19	415.9106	0.25290090	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N40 MODE_ Total /CH151, CH159		

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
4.85	3.0549	26.14	411.1497	0.25000596	1	Complies
4.85	3.0549	26.01	399.0249	0.24263328	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-N20 MODE / CH149, CH157, CH165		

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
4.85	3.0549	26.05	402.7170	0.24487834	1	Complies
4.85	3.0549	26.21	417.8304	0.25406823	1	Complies
4.85	3.0549	27.53	566.2393	0.34431058	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-40M MODE_Total / CH151, CH159		

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
4.85	3.0549	25.75	375.8374	0.22853376	1	Complies
4.85	3.0549	25.96	394.4573	0.23985588	1	Complies

EUT：	High Power Wireless AC1200 Dual-band Router	Model Name :	FH1201
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-80M MODE_ Total /CH155		

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
4.85	3.0549	25.47	352.3709	0.21426457	1	Complies

Note: the calculated distance is 20 cm.