FCC RF EXPOSURE REPORT

FCC ID: V7TAP4V2

Project No.	**: 1905C046**
Equipment	**: 300Mbps Wireless N Access Point**
Model Name	**: AP4**
Series Model	**: N/A**
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 & FCC Part 2.1091**

BTL INC.

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Certificate #5123.02

1. GENERAL SUMMARY

Equipment	:	300Mbps Wireless N Access Point
Brand Name	:	Tenda
Test Model	:	AP4
Series Model	:	N/A
Applicant	:	SHENZHEN TENDA TECHNOLOGY CO.,LTD
Manufacturer	:	SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address	:	6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Date of Test	:	May 17, 2019~Jun. 12, 2019
Test Sample	:	Engineering Sample No.: DG19051714
Standards	:	FCC Title 47 Part 2.1091, OET Bulletin 65 Supplement C

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-2-1905C046) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of A2LA according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

2. 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:

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:

(1) For Non-Beamforming Function:
Antenna Gain=5 dBi. This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain = G_{ANT}+10log(N)dBi, that is Directional gain =5+10log(2)dBi=8.01. So, the output power limit is 30-8.01+6=27.99, the power spectral density limit is 8-8.01+6=5.99.

(2) For Beamforming Function:
Beamforming Gain=3 dBi, Directional gain=3+5=8 dBi. So, the output power limit is 30-8+6=28, the power spectral density limit is 8-8+6=6.

Table for Antenna Configuration:

Operating Mode / TX Mode	1TX	2TX
802.11b	V (Ant. 2)	-
802.11g	V (Ant. 2)	-
802.11n(20 MHz)	-	V (Ant. 1 + Ant. 2)
802.11n(40 MHz)	-	V (Ant. 1 + Ant. 2)

3. TEST RESULTS

For 2.4GHz Non-Beamforming:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
8.01	6.3241	24.91	309.7419	0.38990	1	Complies

For 2.4GHz With Beamforming:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
8.00	6.3096	24.84	304.7895	0.38278	1	Complies

Note: The calculated distance is 20 cm.

End of Test Report