FCC RF EXPOSURE REPORT

FCC ID: V7TA301V4

Project No.	:	1909C113
Equipment	:	N300 Mini WiFi Range Extender
Brand Name	:	Tenda
Test Model	:	A301
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
Manufacturer	:	SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address	:	6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Date of Receipt	:	Sep. 19, 2019
Date of Test	:	Sep. 19, 2019 ~ Oct. 19, 2019
Issued Date	:	Oct. 23, 2019
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG201909206
Standard(s)	:	FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091 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.

Vincent Tan

Prepared by : Vincent Tan

Ethan Ma

Approved by : Ethan Ma

Certificate #5123.02

Add: No.3, Jinshagang 1st Road, Shixia, Dalang Town,Dongguan, Guangdong, China.

Tel: +86-769-8318-3000

Web: www.newbtl.com

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue	Oct. 23, 2019

1. 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

Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	**Tenda**	N/A	Dipole	N/A	3.46
2	**Tenda**	N/A	Dipole	N/A	3.46

Note:
The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R), any transmit signals are correlated with each other, so Directional gain = G_{ANT}+10log(N)dBi, that is Directional gain=3.46+10log(2)dBi=6.47.
So, the output power limit is 30-6.47+6=29.53
the power spectral density limit is 8-6.47+6=7.53

Table for Antenna Configuration:

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

2. TEST RESULTS

Tune up tolerance(dBm)
2.4GHz
1.5

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
6.47	4.4361	30.32	1076.4652	0.95050	1	Complies

Note: The calculated distance is 20 cm.
Output power including tune up tolerance(tune up tolerance: 1.5 dBm).

End of Test Report