

FCC RF EXPOSURE REPORT

FCC ID: TE7WA801NV6

Project No. : 2002C019
Equipment : 300Mbps Wireless N Access Point
Brand Name : tp-link
Test Model : TL-WA801N
Series Model : N/A
Applicant : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Manufacturer : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Date of Receipt : Feb. 17, 2020
Date of Test : Feb. 19, 2020 ~ Mar. 02, 2020
Issued Date : Mar. 06, 2020
Report Version : R00
Test Sample : Engineering Sample No.: DG202002171
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.

Chay . Cai

Prepared by : Chay Cai

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	Mar. 06, 2020

1. 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

Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1		3101500977	Dipole	Weld	4.71
2		3101501026	Dipole	Weld	4.71

Note:

This EUT supports CDD, and all antennas have the same gain,

Directional gain = $G_{ANT} + \text{Array Gain}$.

For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$.

Directional gain = $G_{ANT} + \text{Array Gain} = G_{ANT} + 10 \log (N_{ANT}/N_{SS}) \text{ dB} = 4.71 + 10 \log (2/1) \text{ dB} = 7.72$.

Then, the power density limit is $8 - (7.72 - 6) = 6.28$.

For power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain = 4.71.

2. TEST RESULTS

Directional Gain (dBi)	Directional Gain (numeric)	Max. AVG Output Power (dBm)	Max. AVG Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
4.71	3.1623	23.62	7.7446	0.00487	1	Complies

Note: The calculated distance is 20 cm.

Output power including tune up tolerance (tune up tolerance: 0.5 dBm).

End of Test Report