

FCC RF EXPOSURE REPORT

FCC ID: TE7WA901NV6

Project No. : 2001C031
Equipment : 450Mbps Wireless N Access Point
Brand Name : tp-link
Test Model : TL-WA901N
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 : Jan. 06, 2020
Date of Test : Jan. 06, 2020~Feb. 14, 2020
Issued Date : Feb. 18, 2020
Report Version : R00
Test Sample : Engineering Sample No.: DG2020011610
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.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue	Feb. 18, 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

Table for Filed Antenna

Ant.	Brand	P/N	Antenna Type	Connector	Gain(dBi)
1		3101501026	Dipole	Weld	4.71
2		3101501087	Dipole	Weld	4.71
3		3101501276	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, Array Gain = $10\log(N_{ANT}/N_{SS})$ dB,

that is Directional gain = $4.71 + 10\log(3/1)\text{dBi} = 9.48$. So, the power density limit is $8 - (9.48 - 6) = 4.52$

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. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
4.71	2.9580	22.47	176.6038	0.10398	1	Complies

Note: The calculated distance is 20 cm.
Output power including tune up tolerance.

End of Test Report