

FCC RF EXPOSURE REPORT

FCC ID: TE7CPE510V32

Project No. : 1908C025
Equipment : 5GHz 300Mbps 13dBi Outdoor CPE
Brand Name : tp-link
Test Model : CPE510
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 : Aug. 05, 2019
Date of Test : Aug. 07, 2019 ~ Sep. 22, 2019
Issued Date : Oct. 10, 2019
Report Version : R00
Test Sample : Engineering Sample No.: DG19080731
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.	Oct. 10, 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

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		N/A	PCB	N/A	11.6
2		N/A	PCB	N/A	11.6

Note:

This EUT supports CDD, and all antennas have the same gain, so Directional gain= $G_{ANT} + \text{Array Gain}$. For Output Power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain=11.6.

The antenna were fixed point to point, so the Output Power and Power Spectral Density limit not need to be reduced.

2. TEST RESULTS

For 5GHz UNII-1:

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
11.6	14.4544	25.36	343.5579	0.98844	1	Complies

For 5GHz UNII-3:

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
11.6	14.4544	22.21	166.3413	0.47858	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