

FCC RF EXPOSURE REPORT

FCC ID: TE7T6EV2

Project No. : 2003C118
Equipment : AC1300 Wireless Dual Band PCI Express Adapter
Brand Name : tp-link
Test Model : Archer T6E
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 : Mar. 20, 2020
Date of Test : Mar. 23, 2020 ~ Apr. 25, 2020
Issued Date : May 12, 2020
Report Version : R00
Test Sample : Engineering Sample No.: DG20200316141
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.	May 12, 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		AN2450-5506RS	Dipole	SMA Male Reverse	2.61
2		AN2450-5506RS	Dipole	SMA Male Reverse	2.61

Note:

This EUT supports CDD, and all antennas have the same gain, so Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows:

- 1) For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$. So Directional gain = $G_{ANT} + \text{Array Gain} = 10 \log (N_{ANT} / N_{SS}) \text{ dB} = 2.61 + 10 \log (2/1) \text{ dBi} = 5.62$.
- 2) For power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain = 2.61.

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1		AN2450-5506RS	Dipole	SMA Male Reverse	2.68
2		AN2450-5506RS	Dipole	SMA Male Reverse	2.68

Note:

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- 1) For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$. So Directional gain = $G_{ANT} + \text{Array Gain} = 10 \log (N_{ANT} / N_{SS}) \text{ dB} = 2.68 + 10 \log (2/1) \text{ dBi} = 5.69$.
- 2) For power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain = 2.68.

2. TEST RESULTS

For 2.4GHz:

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
2.61	1.8239	23.20	208.9296	0.07585	1	Complies

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
2.68	1.8535	19.19	82.9851	0.03062	1	Complies

For 5GHz UNII-2A:

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
2.68	1.8535	23.59	228.5599	0.08432	1	Complies

For 5GHz UNII-2C:

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
2.68	1.8535	23.79	239.3316	0.08830	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
2.68	1.8535	23.77	238.2319	0.08789	1	Complies

Note: The calculated distance is 20 cm.

End of Test Report