

FCC RF EXPOSURE REPORT

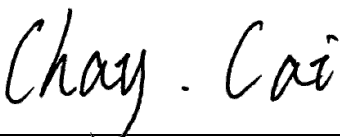
FCC ID: 2AXJ4EAP115V42

Project No. : 2205C171
Equipment : 300Mbps Wireless N Ceiling Mount Access Point
Brand Name : tp-link
Test Model : EAP115
Series Model : N/A
Applicant : TP-Link Corporation Limited
Address : Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road,
Tsim Sha Tsui, Kowloon, Hong Kong
Manufacturer : TP-Link Corporation Limited
Address : Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road,
Tsim Sha Tsui, Kowloon, Hong Kong
Date of Receipt : May 31, 2022
Date of Test : Jun. 01, 2022 ~ Jun. 13, 2022
Issued Date : Jun. 24, 2022
Report Version : R00
Test Sample : Engineering Sample No.: DG2022060123
Standard(s) : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091
FCC Title 47 Part 2.1091

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.



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TESTING CERT #5123.02

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-2-2205C171	R00	Original Report	Jun. 24, 2022	Valid

1. TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.

BTL's Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

2. 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	tp-link	Antenna_ EAP115(EU&US)4.20	PIFA	N/A	3.21
2	tp-link	Antenna_ EAP115(EU&US)4.20	PIFA	N/A	3.21

Note:

- 1) This EUT supports CDD, and all antennas have the same gain, Directional gain = $G_{ANT} + \text{Array Gain}$.

For power measurements, Array Gain=0dB ($N_{ANT} \leq 4$), so the Directional gain=3.21.

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

So the Directional gain= $G_{ANT} + \text{Array Gain} = G_{ANT} + 10\log(N_{ANT}/N_{SS})\text{dBi} = 3.21 + 10\log(2/1)\text{dBi} = 6.22$.

Then, the power spectral density limit is $8 - (6.22 - 6) = 7.78$.

- 2) The antenna gain is provided by the manufacturer.

Table for Antenna Configuration:

Operating Mode	TX Mode	2TX
IEEE 802.11b		V(Ant. 1 + Ant. 2)
IEEE 802.11g		V(Ant. 1 + Ant. 2)
IEEE 802.11n(HT20)		V(Ant. 1 + Ant. 2)
IEEE 802.11n(HT40)		V(Ant. 1 + Ant. 2)

3. TEST RESULTS

Directional Gain (dBi)	Directional Gain (numeric)	Max. Average Output Power (dBm)	Max. Average Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.21	2.0941	22.68	185.3532	0.07726	1	Complies

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

End of Test Report