


FCC RF EXPOSURE REPORT

FCC ID: 2BH7FEAP668ODHD

Project No. : 2411G014
Equipment : AX3600 Indoor/Outdoor Wi-Fi 6 Access Point
Brand Name : tp-link
Test Model : EAP668-Outdoor HD
Series Model : N/A
Applicant : TP-Link Systems Inc.
Address : 10 Mauchly, Irvine, CA 92618
Manufacturer : TP-Link Systems Inc.
Address : 10 Mauchly, Irvine, CA 92618
Date of Receipt : Nov. 07, 2024
Date of Test : Nov. 08, 2024 ~ Mar. 26, 2025
Issued Date : Apr. 07, 2025
Report Version : R00
Test Sample : Engineering Sample No.: DG2025022845 for LE, DG2024110783 for 2.4GHz and 5GHz.
Standard(s) : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091
FCC Title 47 Part 2.1091 & KDB 447498 D01 v06

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 No.	Version	Description	Issued Date	Note
BTL-FCCP-5-2411G014	R00	Original Report.	Apr. 07, 2025	Valid

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

2. ANTENNA SPECIFICATION

For LE

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	TP-Link Systems Inc.	EAP668 Outdoor HD	Dipole	IPEX	5

Note: The antenna gain is provided by the manufacturer.

For 2.4GHz:

Ant.	Manufacturer	P/N	Antenna Type	Connector	Gain (dBi)
1	TP-Link Systems Inc.	3101507038	Dipole	IPEX	6
2	TP-Link Systems Inc.	3101507038	Dipole	IPEX	6
3	TP-Link Systems Inc.	3101507038	Dipole	IPEX	6
4	TP-Link Systems Inc.	3101507038	Dipole	IPEX	6

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=6.
- 2) Beamforming gain: 6dBi.
- 3) The antenna gain and beamforming gain are provided by the manufacturer.

For 5GHz:

Antenna P/N		3101507038			
Antenna Manufacturer		TP-Link Systems Inc.			
Ant. Type		Dipole			
Ant. Connector		IPEX			
5G Wifi Gain (dBi)		5150~5250MHz	5250~5350MHz	5470~5600MHz & 5650~5725MHz	5725~5850MHz
Antenna No.	1	3.30	3.70	5.00	6.00
	2	3.30	3.70	5.00	6.00
	3	3.30	3.70	5.00	6.00
	4	3.30	3.70	5.00	6.00
Power Directional gain		3.30	3.70	5.00	6.00
Beamforming Gain		6.00			

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 UNII-1 Directional gain=3.30, the UNII-2A Directional gain=3.70, the UNII-2C Directional gain=5.00, the UNII-3 Directional gain=6.00.
- 2) The antenna gain and beamforming gain are provided by the manufacturer.

3. CALCULATED RESULT

For LE:

Antenna Gain (dBi)	Antenna 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
5	3.1623	18.38	68.8652	0.01926	1	Complies

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
6	3.9811	29.8	954.9926	0.33633	1	Complies

For 5GHz:

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
6	3.9811	28.8	758.5776	0.26716	1	Complies

For the max simultaneous transmission MPE:

Ratio			Total	Limit of Ratio	Test Result
LE	2.4GHz	5GHz			
0.01926	0.33633	0.26716	0.62275	1	Complies

Note:

(1) The calculated distance is 30 cm.

(2) Ratio=Power Density (S) (mW/cm²)/Limit of Power Density (S) (mW/cm²)

End of Test Report