

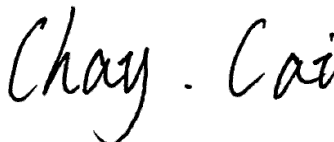
FCC RF EXPOSURE REPORT

FCC ID: 2AXJ4X50

Project No. : 2507C244
Equipment : AX3000 Whole Home Mesh Wi-Fi 6 System
Brand Name : tp-link
Test Model : Deco X50
Model Name : Deco X50, Deco X55
Hardware Version : V1.3
Software Version : V1.3
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 : Please refer to the original report.
Date of Test : Please refer to the original report.
Issued Date : Sep. 30, 2025
Test Sample : Please refer to the original report.
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. (Dongguan)

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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-3-2507C244	R00	Original Report.	Sep. 30, 2025	Valid

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

2. ANTENNA SPECIFICATION

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
1	2	tp-link	3101502756	Dipole Antenna	I-PEX	1.93	0.9
2	1	tp-link	3101502757	Dipole Antenna	I-PEX	1.94	0.97

Note: The above information was declared by manufacturer.

<For 2.4GHz Function>

For IEEE 802.11b/g/n/ax mode (2TX, 2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

<For 5GHz Function>

For IEEE 802.11a/n/ac/ax mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

Note: The antenna gain is provided by the manufacturer.

3. CALCULATED RESULT

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)
2.4G;D1D	1.94	29.15	31.09	0.50	31.59	1.44212	20	0.28690	1.00000
5.2G;D1D	0.97	26.19	27.16	0.50	27.66	0.58345	20	0.11607	1.00000
5.3G;D1D	0.97	20.95	21.92	0.50	22.42	0.17458	20	0.03473	1.00000
5.8G;D1D	0.97	26.45	27.42	0.50	27.92	0.61944	20	0.12323	1.00000

Simultaneous Transmission Analysis Mode: WLAN 2.4GHz+WLAN 5GHz

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;D1D	1.94	29.15	31.09	0.50	31.59	1.44212	20	0.2869	1.00000	0.2869
5.8G;D1D	0.97	26.45	27.42	0.50	27.92	0.61944	20	0.12323	1.00000	0.12323
									Sum Ratio	0.41013
									Ratio Limit	1

Note: The above antenna gain was declared by manufacturer.

Note: The Output Power test results please refer to the test report number: FA171316, issued date is Sep. 24, 2021, and issued by:

Test Laboratory: Sporton International Inc. Hsinchu Laboratory

Address: No. 8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C).

End of Test Report