

FCC RF EXPOSURE REPORT

FCC ID: 2BH7FC645D

Report No. : BTL-FCCP-5-2508C413
Equipment : Battery-Powered Dual-Lens Pan/Tilt Security Camera
Model Name : Tapo C645D
Brand Name : tp-link, tapo
Hardware Version : 1.0
Software Version : 1.X
Applicant : TP-Link Systems Inc.
Address : 10 Mauchly, Irvine, CA 92618
Manufacturer : TP-Link Systems Inc.
Address : 10 Mauchly, Irvine, CA 92618

Radio Function : Bluetooth Low Energy, WLAN 2.4GHz, WLAN 5GHz

FCC Rule Part(s) : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091
FCC Title 47 Part 2.1091 & KDB 447498 D01 v06

Date of Receipt : 2025/8/29
Date of Test : 2025/8/29 ~ 2025/10/15
Issued Date : 2025/11/5

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

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**BTL Inc.**

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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-5-2508C413	R00	Original Report.	2025/11/5	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

For BT LE:

Antenna	Manufacturer	P/N	Type	Connector	Gain (dBi)
1	TP-Link Systems Inc.	Tapo C645D 1.0	Dipole	N/A	0

For WLAN 2.4GHz:

Antenna	Manufacturer	P/N	Type	Connector	Gain (dBi)
1	TP-Link Systems Inc.	Tapo C645D 1.0	Dipole	N/A	0
2	TP-Link Systems Inc.	Tapo C645D 1.0	Dipole	N/A	0

For WLAN 5GHz:

Antenna	Manufacturer	P/N	Type	Connector	Gain (dBi)
1	TP-Link Systems Inc.	Tapo C645D 1.0	Dipole	N/A	0
2	TP-Link Systems Inc.	Tapo C645D 1.0	Dipole	N/A	0

Note:

- 1) Smart antenna system with two transmit/receive chains, but operating in a mode where only one transmit/receive chain is used.
- 2) The two antennas are exactly the same, and Ant. 1 is the worst case and recorded.
- 3) The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible

3. CALCULATED RESULT

For BT LE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0	1.0000	9.52	8.9536	0.00178	1	Pass

For 2.4GHz:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0	1.0000	26.05	402.7170	0.08016	1	Pass

For 5GHz:

Antenna Gain (dBi)	Antenna 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
0	1.0000	20.49	111.9438	0.02228	1	Pass

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
BT LE	2.4GHz			
0.00178	0.08016	0.08194	1	Pass

Note:

- (1) The calculated distance is 20 cm.
- (2) Ratio=Power Density (S) (mW/cm²)/Limit of Power Density (S) (mW/cm²)

End of Test Report