FCC RF EXPOSURE REPORT

FCC ID: 2BCGWBS2100

Project No.	:	2402G028
Equipment	:	Smart Wi-Fi Light Switch, Dimmer
Brand Name	:	tp-link
Test Model	:	BS2100
Series Model	:	NA
Applicant	:	TP-LINK CORPORATION PTE. LTD.
Address	:	7 Temasek Boulevard #29-03 Suntec Tower One, Singapore 038987
Manufacturer	:	TP-LINK CORPORATION PTE. LTD.
Address	:	7 Temasek Boulevard #29-03 Suntec Tower One, Singapore 038987
Date of Receipt	:	Feb. 02, 2024
Date of Test	:	Mar. 12, 2024 ~ Apr. 02, 2024
Issued Date	:	Apr. 16, 2024
Report Version	:	R00
Test Sample	:	Engineering Sample No.: SSL2024020669 for WiFi 2.4G, SSL2024020667 for LE.
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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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-3-2402G028	R00	Original Report.	Apr. 16, 2024	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

Ant.	Manufacturer	Product Model	Antenna Type	Connector	Gain (dBi)
1	BIG FIELD GLOBAL PTE. LTD	BS2100(US)1.6	Dipole	N/A	2.93

Note: The antenna gain is 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
2.93	1.9634	7.32	5.3951	0.00211	1	Complies

For 2.4GHz:

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
2.93	1.9634	18.82	76.2079	0.02978	1	Complies

Note: The calculated distance is 20 cm.

End of Test Report