FCC RF EXPOSURE REPORT

FCC ID: 2BCGWX60V4

Project No.	:	2404G007
Equipment	:	AX5400 Whole Home Mesh Wi-Fi 6 System
Brand Name	:	tp-link
Test Model	:	Deco X60
Series Model	:	Deco XM73
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	:	Apr. 02, 2024
Date of Test	:	Apr. 02, 2024 ~ Jun. 17, 2024
Issued Date	:	Jun. 26, 2024
Report Version	:	R00
Test Sample	:	Engineering Sample No.: SSL202404027
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-4-2404G007	R00	Original Report.	Jun. 26, 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

For 2.4GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	tp-link	N/A	Dipole	IPEX	1.90
2	tp-link	N/A	Dipole	IPEX	1.91

Note:
1) This EUT supports CDD, and all antenna gains are not equal, Directional gain = G_{ANT}+Array Gain. For power measurements, Array Gain=0dB (N_{ANT}≤4), so the Directional gain=1.91.
2) The antenna gain is provided by the manufacturer.

For 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	tp-link	N/A	Dipole	IPEX	0.88
2	tp-link	N/A	Dipole	IPEX	0.89
3	tp-link	N/A	Dipole	IPEX	0.87
4	tp-link	N/A	Dipole	IPEX	0.90

Note:
1) This EUT supports CDD, and all antenna gains are not equal, Directional gain = G_{ANT}+Array Gain. For power measurements, Array Gain=0dB (N_{ANT}≤4), so the Directional gain=0.90.
2) The antenna gain is provided by the manufacturer.

3. TABLE FOR ANTENNA CONFIGURATION

For 2.4GHz:

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)
IEEE 802.11ax(HE20)	V(Ant. 1 + Ant. 2)
IEEE 802.11ax(HE40)	V(Ant. 1 + Ant. 2)

For 5GHz:

Operating Mode / TX Mode	4TX
IEEE 802.11a	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11n(HT20)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11n(HT40)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11ac(VHT20)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11ac(VHT40)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11ac(VHT80)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11ac(VHT160)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11ax(HE20)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11ax(HE40)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11ax(HE80)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)
IEEE 802.11ax(HE160)	V(Ant. 1 + Ant. 2 + Ant. 3 + Ant. 4)

4. CALCULATED RESULT

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
1.91	1.5524	26.01	399.0249	0.12330	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
0.90	1.2303	29.48	887.1560	0.21725	1	Complies

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
2.4GHz	5GHz			
0.12330	0.21725	0.34055	1	Complies

Note: The calculated distance is 20 cm.

End of Test Report