FCC RF EXPOSURE REPORT

For

AX5400 Wall Plate Wi-Fi 6 Extender

MODEL NUMBER: EAP673-Extender

REPORT NUMBER: 4791358424-1-RF-5

ISSUE DATE: August 20, 2024

FCC ID: 2BCGWEAP673EXTR

Prepared for

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Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	August 20, 2024	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	TP-LINK CORPORATION PTE. LTD.
Address:	7 Temasek Boulevard #29-03 Suntec Tower One, Singapore 038987

Manufacturer Information

Company Name:	TP-LINK CORPORATION PTE. LTD.
Address:	7 Temasek Boulevard #29-03 Suntec Tower One, Singapore 038987

EUT Information

EUT Name:	AX5400 Wall Plate Wi-Fi 6 Extender
Model:	EAP673-Extender
Brand:	tp-link
Sample Received Date:	June 7, 2024
Sample Status:	Normal
Sample ID:	7328379
Date of Tested:	August 7, 2024 to August 20, 2024

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC 47CFR§2.1091	**PASS**
KDB-447498 D01 V06	**PASS**

Prepared By:

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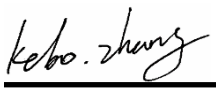
Engineer Project Associate

Checked By:



Kebo Zhang

Senior Project Engineer

Approved By:

Stephen Guo

Operations Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 and KDB 447498 D01 General RF Exposure Guidance v06.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules **ISED (Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046. **VCCI (Registration No.: G-20192, C-20153, T-20155 and R-20202)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20192 and R-20202 Shielding Room B, the VCCI registration No. is C-20153 and T-20155

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.

4. DESCRIPTION OF EUT

EUT Name:		AX5400 Wall Plate Wi-Fi 6 Extender
Model/PMN:		EAP673-Extender
FVIN:		V1.0
Product Description (2.4G WLAN)	Frequency Range:	2412 MHz to 2462 MHz
	Type of Modulation:	IEEE 802.11b: DSSS(CCK, DQPSK, DBPSK) IEEE 802.11g/n: OFDM(64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11ax: OFDM(1024-QAM, 64-QAM, 16-QAM, QPSK, BPSK)
	Radio Technology:	IEEE 802.11b/g/n HT20/11n HT40/ax HE20/ax HE40
Product Description (5G RLAN)	Frequency Range:	5180 MHz to 5240 MHz 5260 MHz to 5320 MHz 5500 MHz to 5700 MHz 5745 MHz to 5825 MHz
	Type of Modulation:	IEEE 802.11a: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDMA(1024QAM,256QAM, 64QAM, 16QAM, QPSK, BPSK)
	Radio Technology:	IEEE802.11a/n HT20/n HT40/ ac VHT20/ac VHT40/ac VHT80/ac VHT160/ ax HE20/ax HE40/ax HE80/ax HE160
Product Description (BLE)	Frequency Range:	2402 MHz to 2480 MHz
	Type of Modulation:	GFSK
	Data Rates:	1Mbps
Normal Test Voltage:		AC 120 V, 60 Hz
Power Supply:		100-240V～ 50/60Hz 0.5A

5. REQUIREMENT

LIMIT AND CALCULATION METHOD

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

RF EXPOSURE LIMIT

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (Minutes)
0.3 -- 1.34	614	1.63	(100)*	30
1.34 -- 30	824/f	2.19/f	($180/f^2$)*	30
30 -- 300	27.5	0.073	0.2	30
300 -- 1500	--	--	f/1500	30
1500 -- 100,000	--	--	1.0	30

CALCULATION METHOD

$S=PG/4\pi R^2$

Where:

S=power density

P=power input to 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

CALCULATED RESULTS

Radio Frequency Radiation Exposure Evaluation

(Worst case)				
Operating Mode	Max. Tune up Power	Max. Directional Antenna Gain	Power density	Limit
	(dBm)	(dBi)	(mW/ cm^2)	
WIFI 2.4G	26	2	0.12552	1

(Worst case)				
Operating Mode	Max. Tune up Power	Max. Directional Antenna Gain	Power density	Limit
	(dBm)	(dBi)	(mW/ cm^2)	
WIFI 5G	29	2	0.25046	1

(Worst case)				
Operating Mode	Max. Tune up Power	Max. Directional Antenna Gain	Power density	Limit
	(dBm)	(dBi)	(mW/ cm^2)	
BLE	16	2	0.01255	1

Note:
1. The calculated distance is 20 cm.
2. The power comes from operation description.
3. The manufacturer declared that the EUT can support WIFI 2.4G&WIFI 5Gsimultaneous emission.
2.4 GHz WiFi + 5 GHz WiFi + BLE = 0.12552+ 0.25046 + 0.01255 = 0.38852 (mW/cm^2)
Therefor the maximum calculations of above situations are less than the “1” limit.

END OF REPORT