RF EXPOSURE REPORT

FCC ID: 2AVFNLCE4121S

Test Report No……..:	RF231214003-02-004
Product(s) Name……...:	Mesh WIFI 6 AX3000 Router
Model(s)……..:	LCE4121S
Trade Mark……....:	X-Link
Applicant……..:	Leax Arkivator Telecom USA Inc.
Address……..…...:	833 E Arapaho Rd. Suite 203 Richardson, TX 75081
Receipt Date……..:	2023.12.20
Test Date……....:	2023.12.22~2024.01.18
Issued Date……..…:	2024.01.18
Standards……..:	FCC Guidelines for Human Exposure IEEE C95.1
	FCC Title 47 Part 2.1091
	KDB 447498 D01 General RF Exposure Guidance v06
Testing Laboratory……:	Shenzhen Haiyun Standard Technical Co., Ltd.

Prepared By:	Checked By:	Approved By:	
Black Ding	Tim Zhang	Misue Su	
Black Ding	Tim.zhang	Misue Su	

History of this test report

Original Report Issue Date: 2024.01.18

● No additional attachment

○ Additional attachments were issued following record

Attachment No.	Issue Date	Description

1.. MPE CALCULATION METHOD

Radio Frequency Exposure Limit

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)
300-1,500	--	--	f/1500
1,500-100,000	--	--	1.0

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

Table for Filed Antenna

For 2.4GWiFi

Antenna gain		Antenna Type
Ant1: 3.1dBi	Ant2: 2.43dBi	PCB antenna

For 5GWiFi:

Antenna gain		Antenna Type
Ant1: 1.84dBi	Ant2: 2.74dBi	PCB antenna

2.. TEST RESULTS

Worst case as below

Operating Mode	Freq.	Maximum conducted output power	Directional Antenna Gain	Calculated maximum EIRP		MPE Limit	MPE Value
	(MHz)	(dBm)	(dBi)	(dBm)	(mW)	(mW/cm^2)	
2.4G Wifi ant1	2412-2462	12.62	3.10	15.72	37.33	1	0.007
2.4G Wifi ant2	2412-2462	12.61	2.43	15.04	31.92	1	0.006
5G Wifi ant1	5180-5825	13.78	1.84	15.62	36.48	1	0.007
5G Wifi ant2	5180-5825	16.73	2.74	19.47	88.51	1	0.018

Note: 1. The calculated distance is 20 cm.
2. The 2.4G Wifi function can transmit at the same time with the 5G Wifi function

Simultaneous transmitting consideration

The ratio= $MPE_{2.4G\ Wifi\ ant1}$/limit+ $MPE_{2.4G\ Wifi\ ant2}$/limit +$MPE_{5G\ Wifi\ ant1}$/limit+$MPE_{5G\ Wifi\ ant2}$/limit
=0.007/1+0.006/1+0.007/1+0.018/1=0.038<1.0

Result: Complies

Statement

1. The report is invalid without the official seal or special seal of Shenzhen Haiyun Standard Technology Co., Ltd. (hereinafter referred to as the unit).

2. The report is invalid without the signature of the approver.

3. The report is invalid if altered arbitrarily.

4. The report shall not be partially copied without the written approval of the unit.

5. The reported test results are only valid for the tested samples.

6. If there is any objection to the test report, it shall be submitted to the test unit within 15 days from the date of receiving the report, and the overdue shall not be accepted.

Shenzhen Haiyun Standard Technology Co., Ltd.

Address: Room 110, 111, 112, 113, 115, 116, Block B, Jinyuan Business Building, No. 302, Xixiang Avenue, Labor Community, Xixiang Street, Baoan District, Shenzhen, China

Tel: 0755-26024411

Email: service@hy-lab.cn

(END OF REPORT)