中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

RF EXPOSURE EVALUATION

Applicant: **Xunison Inc**

Address: 11720 Amber Park Dr. Suite 160 Atlanta, GA 30009 United States

FCC ID: **2BAT3D60**

Product Name: **Xunison Hub**

Standard(s): **47 CFR §1.1310, 47 CFR §2.1091,**
47 CFR §15.247(i),47 CFR §15.407(f)
447498 D01 General RF Exposure Guidance v06

The above equipment has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR230205020-00D**

Date Of Issue: **2023/5/9**

Reviewed By: **Sun Zhong** Sun Zhong

Title: Manager

Test Laboratory: **China Certification ICT Co., Ltd (Dongguan)**
No. 113, Pingkang Road, Dalang Town, Dongguan,
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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230205020-00D	Original Report	2023/5/9

5. RF EXPOSURE EVALUATION

5.1 Applicable Standard

According to subpart §1.1310, systems operating under the provisions of this 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.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:

Mode	Frequency (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
2.4G WIFI	2412-2462	4.33	2.71	25	316.23	20.00	0.17	1.00
5G WIFI	5150-5850	6.74	4.72	23	199.53	20.00	0.19	1.00
LTE/NR B2	1850-1910	5.84	3.84	25	316.23	20.00	0.24	1.00
LTE B4	1710-1755	4.8	3.02	25	316.23	20.00	0.19	1.00
LTE/NR B5	824-849	3.37	2.17	25	316.23	20.00	0.14	0.55
LTE/NR B7	2500-2570	5.15	3.27	25	316.23	20.00	0.21	1.00
LTE/NR B12	699-716	3.87	2.44	25	316.23	20.00	0.15	0.47
LTE/NR B13	777-787	3.37	2.17	25	316.23	20.00	0.14	0.52
LTE/NR B14	788-798	3.37	2.17	25	316.23	20.00	0.14	0.53
LTE B17	704-716	3.87	2.44	25	316.23	20.00	0.15	0.47
LTE/NR B25	1850-1915	5.84	3.84	25	316.23	20.00	0.24	1.00
LTE/NR B26	814-849	3.37	2.17	25	316.23	20.00	0.14	0.54
LTE/NR B30	2305-2315	4.94	3.12	25	316.23	20.00	0.20	1.00
LTE/NR B38	2570-2620	4.57	2.86	28	630.96	20.00	0.36	1.00
LTE/NR B41	2496-2690	5.15	3.27	28	630.96	20.00	0.41	1.00
LTE B48	3550-3700	6.95	4.95	25	316.23	20.00	0.31	1.00
LTE/NR B66	1710-1780	4.8	3.02	25	316.23	20.00	0.19	1.00
LTE/NR B71	663-698	5.2	3.31	25	316.23	20.00	0.21	0.44
N77	3450-3550	6.95	4.95	28	630.96	20.00	0.62	1.00
N77	3700-3980	6.48	4.45	28	630.96	20.00	0.56	1.00
N78	3300-3800	6.95	4.95	28	630.96	20.00	0.62	1.00

The WIFI 2.4G, 5G, and WWAN can transmit simultaneously:

$$\sum_i \frac{S_i}{S_{Limit,i}}$$

$=S_{2.4WIFI}/S_{limit-\ 2.4WIFI}+ S_{5WIFI}/S_{limit-\ 5WIFI}+ S_{WWAN}/S_{limit-\ WWAN}$

$=0.17/1+0.19/1+0.62/1$

$=0.98$

< 1.0

Result: The device meet FCC MPE at 20 cm distance

===== END OF REPORT =====