

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 1 of 11

Applicant : Guardian Shanghai Corp.
Address of Applicant : 368, Min Shen Rd, Songjiang, Shanghai, China

Product Name : Universal Keypad
Brand Name : N/A
Model Name : UWK, UWKB
Sample No. : E25090011-03#01

FCC ID : YJFUWK
Standards : FCC Part 2.1093

Date of Receipt : 2025-11-27
Date of Test : 2025-11-27~2025-12-08
Date of Issue : 2025-12-09

Remark:

This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

Prepared by:



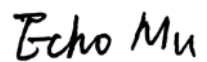
(Erik Yang)

Reviewed by:



(Jennifer Zhou)

Approved by:



(Authorized signatory: Echo Mu)

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 2 of 11

Contents

1

GENERAL INFORMATION

3

1.1

TESTING LABORATORY

3

1.2

DETAILS OF APPLICATION

3

1.3

DETAILS OF EUT

3

2

ASSESSMENT METHODS

4

3

CONCLUSION

5

4

APPENDIXES

6

4.1

EXTERNAL PHOTO OF THE SAMPLE

6

4.2

INTERNAL PHOTO OF THE SAMPLE

10

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 3 of 11

1 General Information

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Services (Shanghai) Co., Ltd.
Address	No.1298, Pingan Road, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Details of Application

Applicant Company Name	Guardian Shanghai Corp.
Applicant Company Address	368, Min Shen Rd, Songjiang, Shanghai, China
Contact Person	Vincent Chan
Telephone	+86-21-57684828
Email	vincent@adhguardian.com
Manufacturer Company Name	Guardian Shanghai Corp.
Manufacturer Company Address	368, Min Shen Rd, Songjiang, Shanghai, China
Factory Company Name	Guardian Shanghai Corp.
Factory Company Address	368, Min Shen Rd, Songjiang, Shanghai, China

1.3 Details of EUT

Product Name	Universal Keypad
Brand Name	N/A
Test Model Name	UWK
Series Model Name	UWKB
Difference Description	All the same except for the model name
FCC ID	YJFUWK
Operating Frequency	303MHz, 310MHz, 315MHz, 318MHz, 390MHz, 433.4MHz, 433.92MHz, 434.4MHz
Modulation Type	ASK
Antenna Type	Integral Antenna
Antenna Gain	-5dBi
Hardware Version	1.1
Software Version	1

Note:

1. The above information was declared by the manufacture.
2. For more details, please refer to the User's manual of the EUT.

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 4 of 11

2 Assessment methods

According to KDB 447498 D04 Interim General RF Exposure Guidance v01

Appendix B

Exemptions for Single RF Sources

SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thresholds in general for either available maximum time-averaged power or maximum time-averaged ERP, whichever is greater.

If the ERP of a device is not easily determined, such as for a portable device with a small form factor, the applicant may use the available maximum time-averaged power exclusively if the device antenna or radiating structure does not exceed an electrical length of $\lambda/4$.

As for devices with antennas of length greater than $\lambda/4$ where the gain is not well defined, but always less than that of a half-wave dipole (length $\lambda/2$), the available maximum time-averaged power generated by the device may be used in place of the maximum time-averaged ERP, where that value is not known.

The separation distance is the smallest distance from any part of the antenna or radiating structure for all persons, during operation at the applicable ERP. In the case of mobile or portable devices, the separation distance is from the outer housing of the device where it is closest to the antenna.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 5 of 11

The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

Test Data

Operating Frequency(MHz)	303	310	315	318	390	433.4	433.92	434.4
Field strength dBuV/m(peak)@3m	66.11	67.86	68.37	69.08	73.80	69.03	68.62	70.36
Peak Power (dBm)	-29.09	-27.34	-26.83	-26.12	-21.40	-26.17	-26.58	-24.84

Note: This report listed the worst case value, please refer to RF test Report No. SHE25090011-03AE Test Result Radiated Emission clause 4.1.4.

3 Conclusion

Per KDB 447498 D04 Interim General RF Exposure Guidance v01 Appendix B, when the minimum test separation distance is 5mm, a distance of 5mm is applied to determine SAR test exclusion. The test exclusion threshold is <26.91mW(f=0.390GHz).

RF Maximum Output Power is -21.40dBm; ERP =0.0044mW<26.91mW

So SAR testing is not required. RF exposure Evaluation Results: Compliance

RF EXPOSURE EVALUATION REPORT

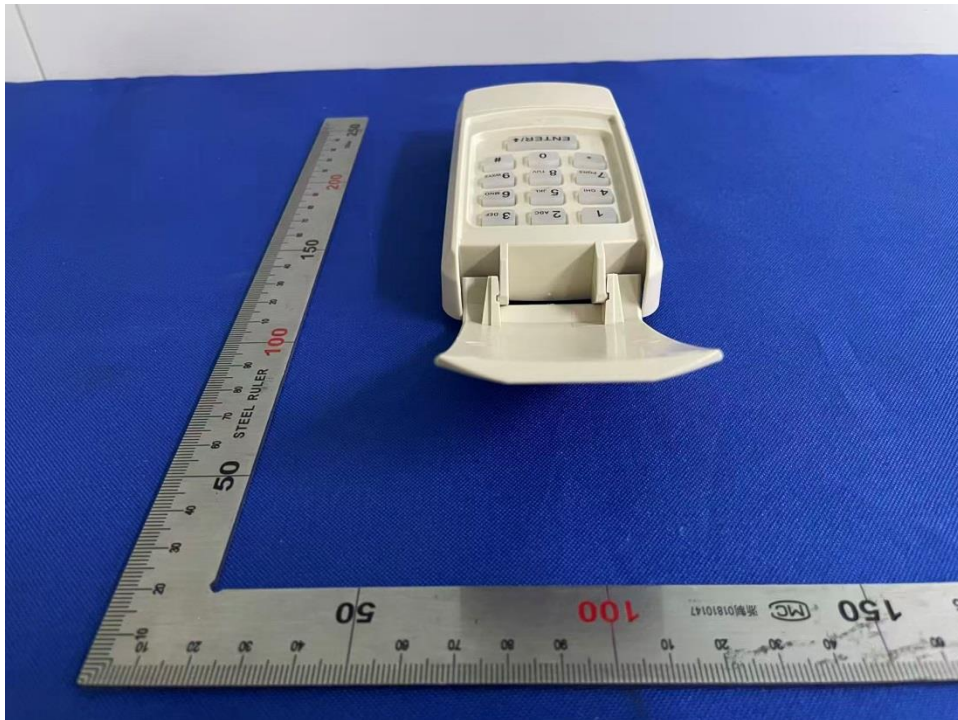
Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 6 of 11

4 Appendixes

4.1 External Photo of the Sample



Top view of EUT



Bottom view of EUT

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 7 of 11



Front view of EUT

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 8 of 11



Back view of EUT



Left view of EUT

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 9 of 11



Right view of EUT

RF EXPOSURE EVALUATION REPORT

Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 10 of 11

4.2 Internal Photo of the Sample



Open view-1 of EUT



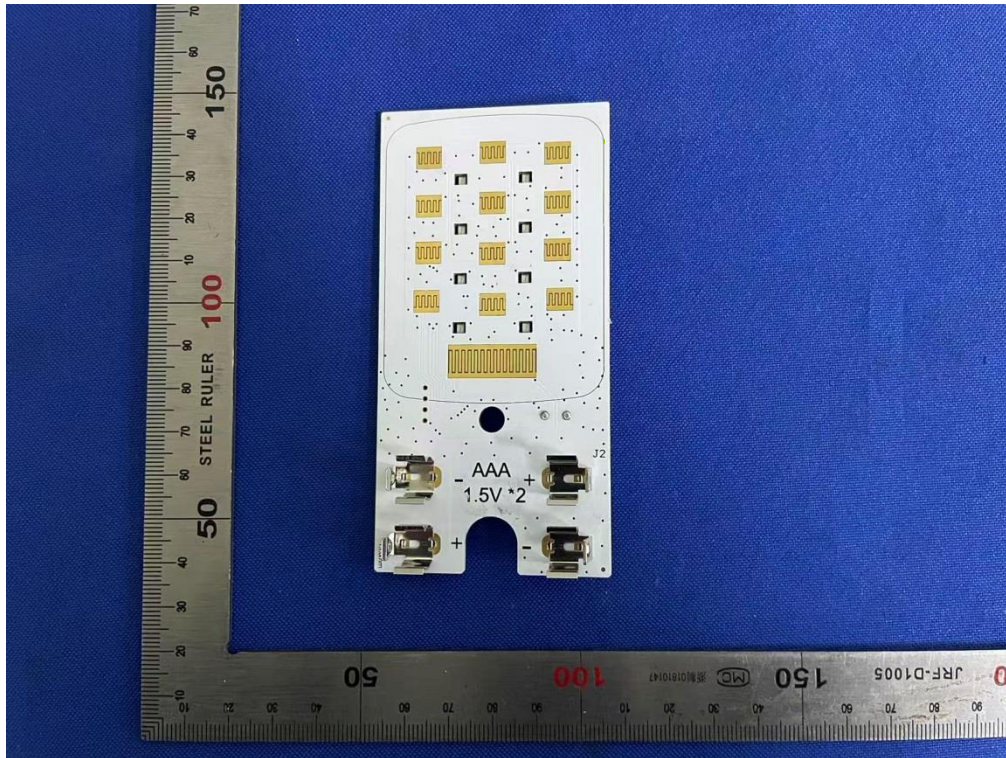
Open view-2 of EUT

RF EXPOSURE EVALUATION REPORT

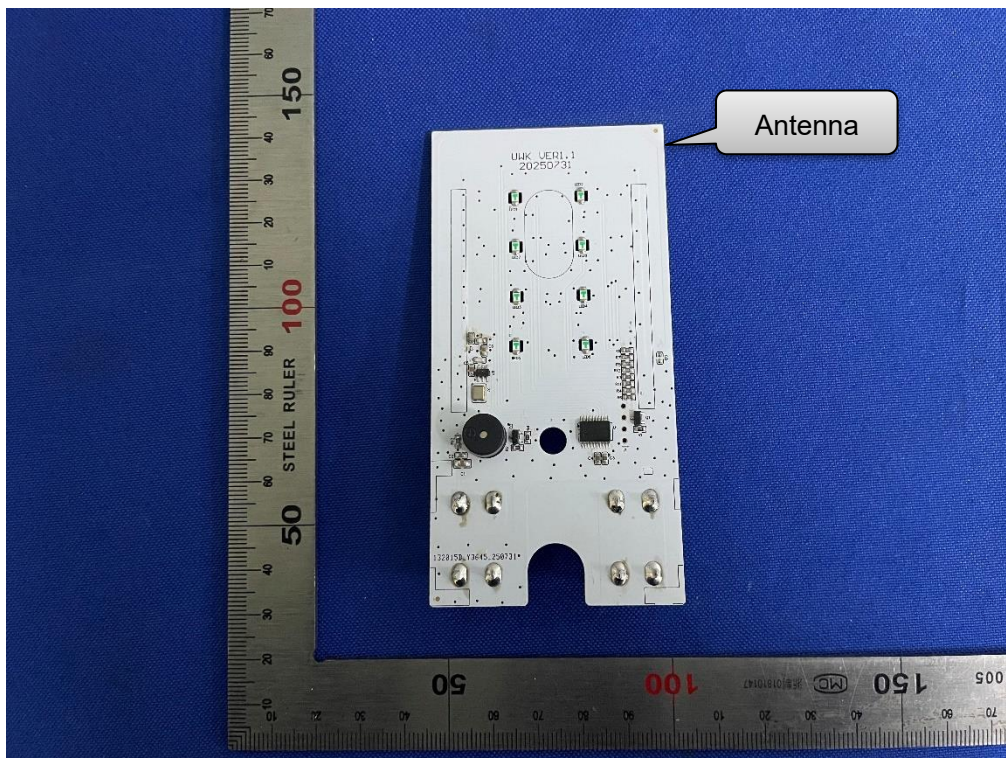
Report No.: SHE25090011-03CE

Date: 2025-12-09

Page 11 of 11



Internal view-1 of EUT



Internal view-2 of EUT

End of the report