



RF Exposure Evaluation  
For

FE Technologies

V6 Self Loan Station

Test Model: LIB-232

Prepared for : FE Technologies  
Address : 129 Fyans Street Geelong,3220 Australia

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.  
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Date of receipt of test sample : November 18, 2024  
Number of tested samples : 2  
Sample No. : A241118151-1, A241118151-2  
Serial number : Prototype  
Date of Test : November 18, 2024 ~ March 21, 2025  
Date of Report : March 21, 2025





| RF Exposure Evaluation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Report Reference No. ....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LCSA11184096EB                                                                                                                 |
| Date of Issue.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | March 21, 2025                                                                                                                 |
| Testing Laboratory Name.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Shenzhen LCS Compliance Testing Laboratory Ltd.                                                                                |
| Address.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China     |
| Testing Location/ Procedure.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Full application of Harmonised standards ■<br>Partial application of Harmonised standards □<br>Other standard testing method □ |
| Applicant's Name.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FE Technologies                                                                                                                |
| Address.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 129 Fyans Street Geelong,3220 Australia                                                                                        |
| Test Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                |
| Standard.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06<br>FCC CFR 47 part1 1.1310<br>FCC CFR 47 part2 2.1091        |
| Test Report Form No.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TRF-4-E-215 A/0                                                                                                                |
| TRF Originator.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Shenzhen LCS Compliance Testing Laboratory Ltd.                                                                                |
| Master TRF.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Dated 2011-03                                                                                                                  |
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| Test Item Description.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | V6 Self Loan Station                                                                                                           |
| Trade Mark.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FE Technologies                                                                                                                |
| Test Model.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LIB-232                                                                                                                        |
| Ratings.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Input: 100-240V~, 50/60Hz, 100W                                                                                                |
| Result .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Positive                                                                                                                       |

Compiled by:

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Approved by:

Gavin Liang/ Manager



Shenzhen LCS Compliance Testing Laboratory Ltd.

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Scan code to check authenticity



## RF Exposure Evaluation

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| <b>Test Report No. :</b> LCSA11184096EB | <u>March 21, 2025</u><br>Date of issue |
|-----------------------------------------|----------------------------------------|

EUT..... : LIB-232

Test Model..... : V6 Self Loan Station

**Applicant..... : FE Technologies**

Address..... : 129 Fyans Street Geelong,3220 Australia

Telephone..... : /

Fax..... : /

**Manufacturer..... : FE Technologies**

Address..... : 129 Fyans Street Geelong,3220 Australia

Telephone..... : /

Fax..... : /

**Factory..... : FE Technologies**

Address..... : 129 Fyans Street Geelong,3220 Australia

Telephone..... : /

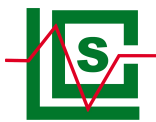
Fax..... : /

|                    |                 |
|--------------------|-----------------|
| <b>Test Result</b> | <b>Positive</b> |
|--------------------|-----------------|

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

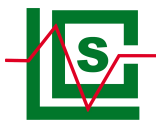




Revision History

| Report Version | Issue Date     | Revision Content | Revised By |
|----------------|----------------|------------------|------------|
| 000            | March 21, 2025 | Initial Issue    | ---        |
|                |                |                  |            |
|                |                |                  |            |

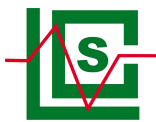




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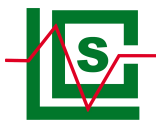
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**1. Product Information**

|                     |   |                                             |
|---------------------|---|---------------------------------------------|
| EUT                 | : | V6 Self Loan Station                        |
| Test Model          | : | LIB-232                                     |
| Ratings             | : | Input: 100-240V~, 50/60Hz, 100W             |
| Hardware Version    | : | V1.0                                        |
| Software Version    | : | V1.0                                        |
| NFC                 | : |                                             |
| Operating Frequency | : | 13.56MHz                                    |
| Modulation Type     | : | ASK                                         |
| Antenna Description | : | PCB Antenna, 0dBi(Max.)                     |
| Exposure category   | : | General population/uncontrolled environment |
| EUT Type            | : | Production Unit                             |
| Device Type         | : | Mobile Device                               |





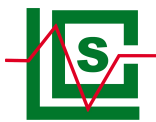
## 2. Evaluation method and Limit

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.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is  $\leq 1.0$ . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.





### 3. Limit

#### 3.1 Refer Evaluation Method

[ANSI C95.1-2019](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz

[FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices.

#### 3.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

| Frequency Range(MHz)                        | Electric Field Strength(V/m) | Magnetic Field Strength(A/m) | Power Density (mW/cm <sup>2</sup> ) | Averaging Time (minute) |
|---------------------------------------------|------------------------------|------------------------------|-------------------------------------|-------------------------|
| Limits for Occupational/Controlled Exposure |                              |                              |                                     |                         |
| 0.3 – 3.0                                   | 614                          | 1.63                         | (100) *                             | 6                       |
| 3.0 – 30                                    | 1842/f                       | 4.89/f                       | (900/f <sup>2</sup> )*              | 6                       |
| 30 – 300                                    | 61.4                         | 0.163                        | 1.0                                 | 6                       |
| 300 – 1500                                  | /                            | /                            | f/300                               | 6                       |
| 1500 – 100,000                              | /                            | /                            | 5                                   | 6                       |

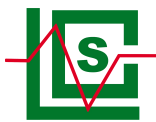
Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

| Frequency Range(MHz)                          | Electric Field Strength(V/m) | Magnetic Field Strength(A/m) | Power Density (mW/cm <sup>2</sup> ) | Averaging Time (minute) |
|-----------------------------------------------|------------------------------|------------------------------|-------------------------------------|-------------------------|
| Limits for Occupational/Uncontrolled Exposure |                              |                              |                                     |                         |
| 0.3 – 3.0                                     | 614                          | 1.63                         | (100) *                             | 30                      |
| 3.0 – 30                                      | 824/f                        | 2.19/f                       | (180/f <sup>2</sup> )*              | 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





#### 4. MPE Calculation Method

Predication of MPE limit at a given distance  
Equation from page 18 of OET Bulletin 65, Edition 97-01

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

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

#### 5. Conducted Power

##### Test Procedure

TX frequency range: 13.56MHz, Limit:  $824/13.56=60.77\text{V/m}$

Device category: Mobile device (Distance: 20cm)

Max. Field Strength:  $44.37\text{dBuV/m}$  @3m

@20cm=@3m+40\*log(3/0.2)=  $91.41\text{dBuV/m}$

For 13.56MHz:  $91.41\text{dBuV/m}=10^{(91.41/20)}/10^6=0.0316\text{V/m} < 60.77\text{V/m}$

#### 6. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

Test Firm Registration Number: 254912.

#### 7. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

#### 8. Measurement Uncertainty

NFC:

| Test Item              |   | Frequency Range | Uncertainty         | Note |
|------------------------|---|-----------------|---------------------|------|
| Radiation Uncertainty  | : | 9KHz~30MHz      | $\pm 3.10\text{dB}$ | (1)  |
|                        |   | 30MHz~200MHz    | $\pm 2.96\text{dB}$ | (1)  |
|                        |   | 200MHz~1000MHz  | $\pm 3.10\text{dB}$ | (1)  |
|                        |   | 1GHz~26.5GHz    | $\pm 3.80\text{dB}$ | (1)  |
|                        |   | 26.5GHz~40GHz   | $\pm 3.90\text{dB}$ | (1)  |
| Conduction Uncertainty | : | 150kHz~30MHz    | $\pm 1.63\text{dB}$ | (1)  |
| Power disturbance      | : | 30MHz~300MHz    | $\pm 1.60\text{dB}$ | (1)  |

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

-----THE END OF REPORT-----

