IEI Integration Corp.

Model:

RHEA-I420A / I512A

Supercapacitor Backup Board, Four 3V 200F (Five 3V 120F) Capacitors, Internal,12-28V DC Input, 12V Output

User Manual

Rev. 1.00 – October 29, 2025

RoHS Lead Free

Revision

Date	Version	Changes
October 29, 2025	1.00	Initial release

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WARNING / AVERTISSEMENT

Warnings appear where overlooked details may cause damage to the equipment or result in personal injury. Warnings should be taken seriously.

Des avertissements apparaissent lorsque des détails négligés peuvent endommager l'équipement ou entraîner des blessures. Les avertissements doivent être pris au sérieux.

CAUTION / ATTENTION

Cautionary messages should be heeded to help reduce the chance of losing data or damaging the product.

Les messages de mise en garde doivent être respectés afin de réduire les risques de perte de données ou d'endommagement du produit.

NOTE / REMARQUE

These messages inform the reader of essential but non-critical information. These messages should be read carefully as any directions or instructions contained therein can help avoid making mistakes.

Ces messages informent le lecteur d'informations essentielles mais non critiques. Ces messages doivent être lus attentivement car toutes les instructions ou instructions qu'ils contiennent peuvent aider à éviter de commettre des erreurs.

HOT SURFACE / SURFACE CHAUDE

This symbol indicates a hot surface that should not be touched without taking care.

Ce symbole indique une surface chaude qui ne doit pas être touchée sans précaution.

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1.1 Overview

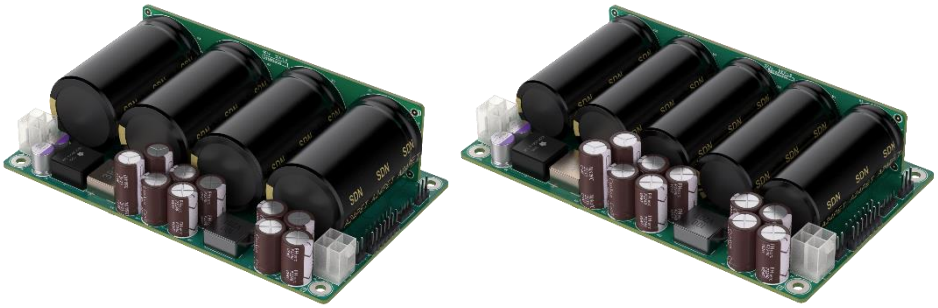


Figure 1-1: RHEA-I420A / I512A Series Module

The RHEA-I420A / I512A Series Supercapacitor Backup Board is equipped with four 3V 200F (I420A) and five 3V 120F (I512A) capacitors, which can support a maximum load of 60W (I420A) and 45W (I512A). It can ensure uninterrupted power supply for about 20-25 seconds at a typical temperature of 30°C, providing sufficient time for data saving and safe shutdown. This helps prevent damage to the computer system and data caused by an unexpected power failure.

The RHEA-I420A / I512A Series supports 12V-28V inputs, 12V output.

The RHEA-I420A / I512A Series can be connected to the host via a USB Type-A cable. the IEI supercapacitor management tool provides two sets of power switches, and allows configuration of shutdown time and methods after power failure, enabling users to manage backup actions after the input terminal is powered off.

1.2 Features

The features of the RHEA-I420A / I512A Series are listed below:

- Four 3V 200F (I420A) and five 3V 120F (I512A) Supercapacitors
- 12V-28V inputs, 12V output
- Maximum load of 60W at 2.5V and 30°C, lasting 20 seconds (I420A)
- Maximum load of 45W at 2.5V and 30°C, lasting 25 seconds (I512A)
- -40°C to 60°C wide temperature environment
- 500,000 charging and discharging life cycles
- Long supercapacitor lifespan, up to 10 years
- User-friendly power management software for easier control
- Shutdown via software or hardware

1.3 Technical Specifications

The **RHEA-I420A / I512A** technical specifications are listed below.

Model Name	RHEA-I420A	RHEA-I512A
Battery type	Super Capacitor	Super Capacitor
Capacitance	4 x 3V 200F	5 x 3V 120F
Expected Lifespan	>10 years (when the capacitor works at 2.7V and 20°C)	
Lifecycle	500,000 charging and discharging cycles	
Input Voltage	12-28V DC	
Output Voltage	12V DC	
Output Power	60W	45W
LED Indication	Red / Yellow	
Backup Time	20 seconds (under 60W load at 2.5V@30°C)	25 seconds (under 45W load at 2.5V@30°C)
I/O Connector	1 x DC input (2x2 pin) 1 x DC output (2x2 pin) 1 x USB 2.0 connector (1x4 pin) 1 x Debug connector (1x3 pin) 1 x Firmware flash connector (2x7 pin) 1 x Power button (1x2 pin)	
Security	Overload/Overvoltage protection	
Dimension(mm)	81 x 135 x 33.6	81 x 135 x 25.6
Weight	0.25kg	0.22kg
Operating Temperature	-40℃ ~ 60℃	
Storage Temperature	-40℃ ~ 70℃	

Table 1-1: Technical Specifications

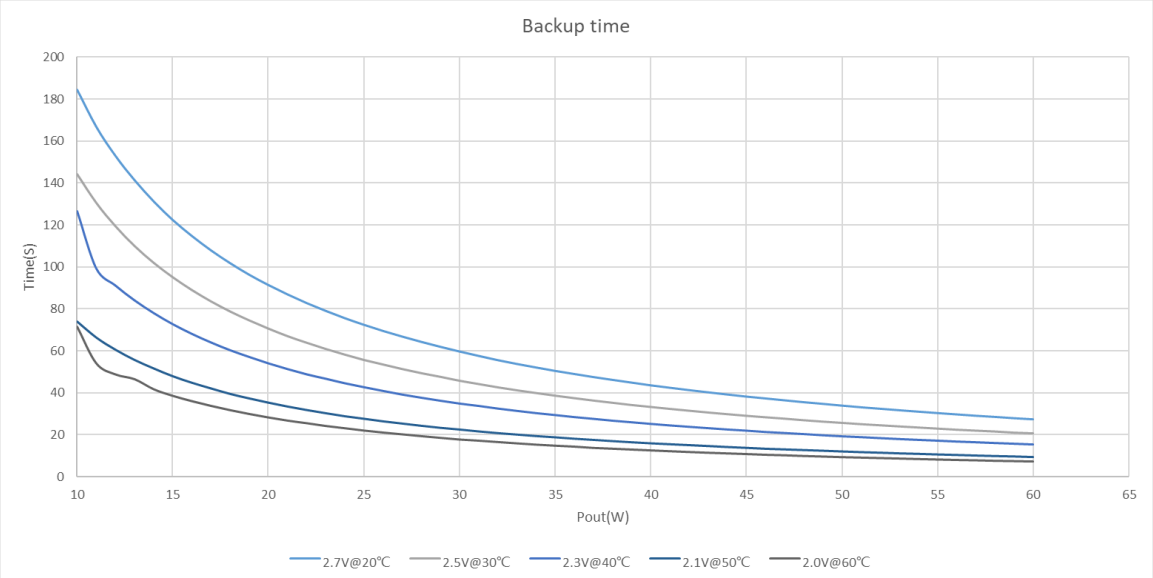
1.4 Backup Time Specifications

1.4.1 Backup Time Test in Lab Environment

Test Conditions:

- Power supply equipment: NGI N3612-080-060 DC programmable power source
- Load: NGI N6206-60-50 power load machine
- RHEA-I420A Setting: 12V, 10W - 60W, with the current automatically adjusted according to the power. For example, the current is 5A set for 60W, and 2.5A for 30W.
- RHEA-I512A Setting: 12V, 10W - 45W, with the current automatically adjusted according to the power. For example, the current is 3.75A set for 45W, and 2.5A for 30W

The result of the RHEA-I420A's backup time test is shown below.



The result of the RHEA-I512A's backup time test is shown below.

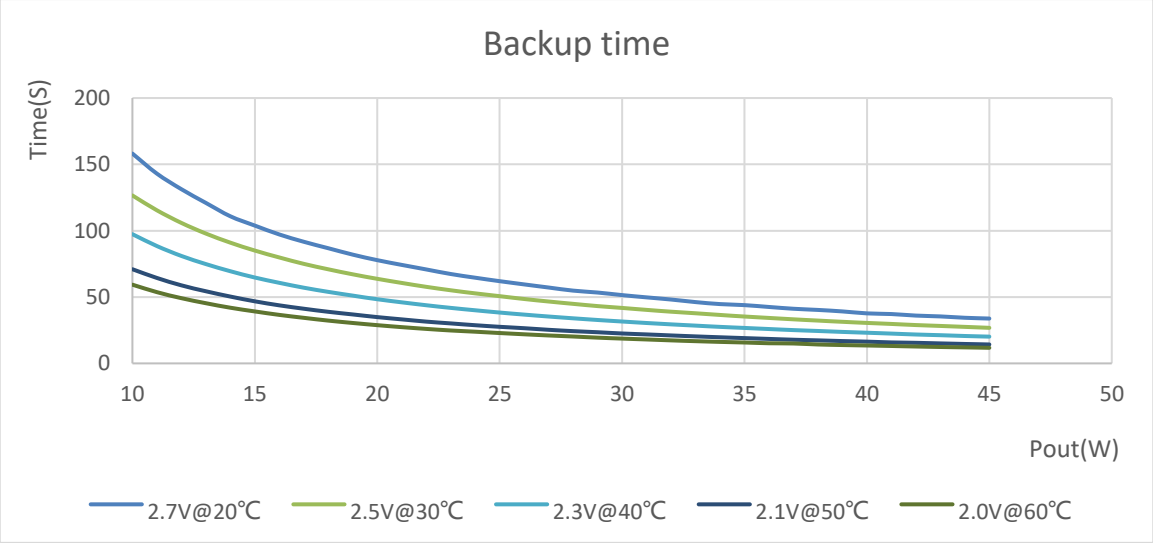


Figure 1-2: Backup Time Curve

NOTE:

Backup time depends on battery capacitance, loads and temperatures. Reduction of backup time may occur at an extremely high or low temperature.

1.5 I/O Interface

The I/O interface panel of the RHEA-I420A / I512A Series has the following standard connectors:

- 1 x Power input (2 x 2 pin)
- 1 x Power output (2 x 2 pin)
- 1 x USB 2.0 connector (1x4 pin)
- 1 x Debug connector (1 x 3 pin)
- 1 x Firmware flash connector (2 x 7 pin)
- 1 x Power button (1 x 2 pin)

The standard I/O interface connectors are shown in **Figure 1-3**.

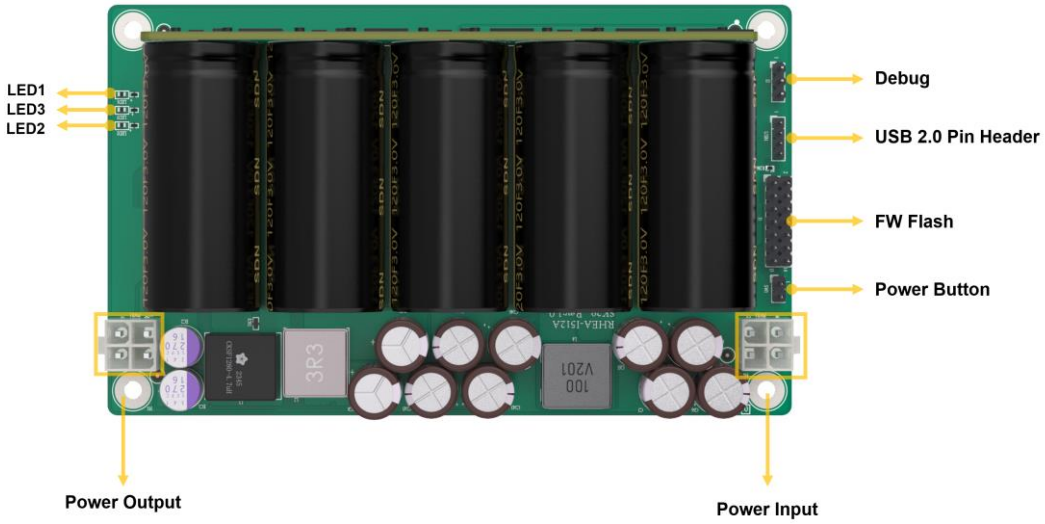


Figure 1-3: Standard I/O Interface Connectors

1.6 Physical Dimensions

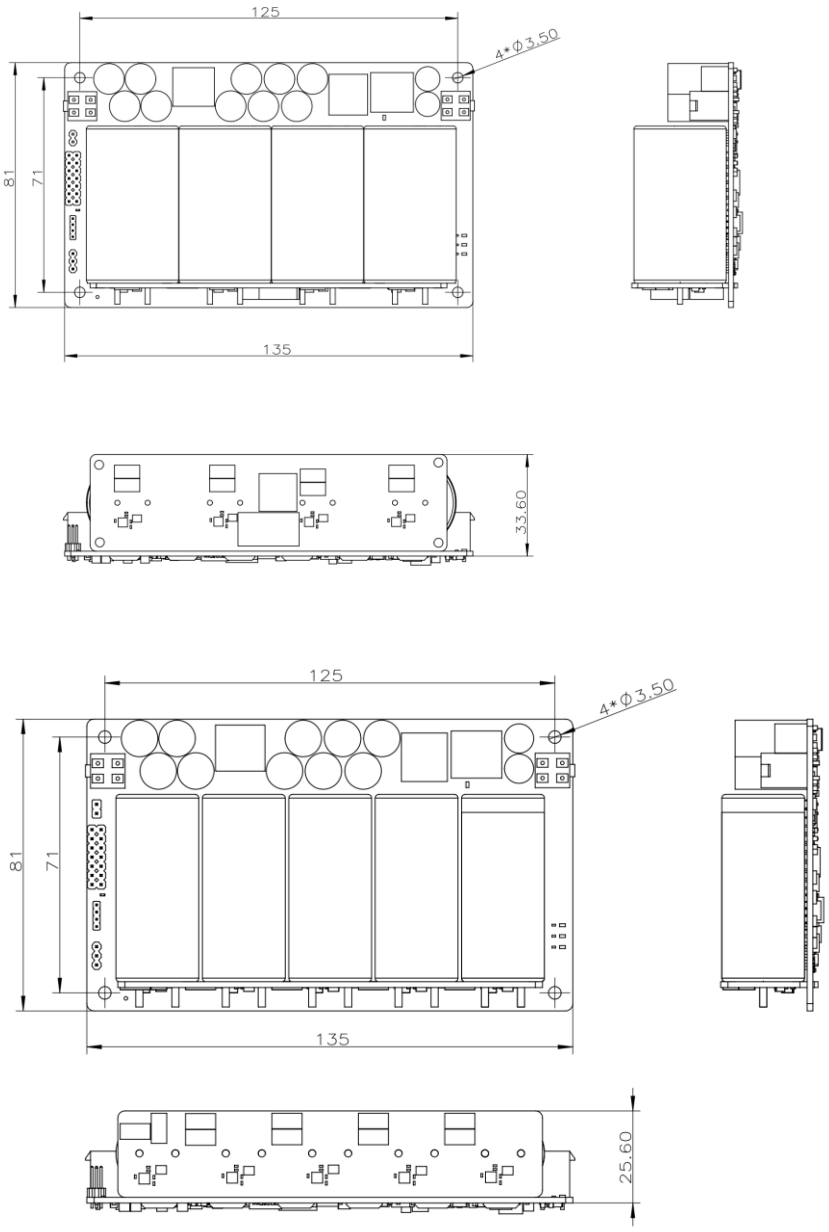


Figure 1-4: RHEA-I420A / I512A Dimensions (Unit: mm)

Chapter

2

Unpacking

2.1 Unpacking

When the RHEA-I420A / I512A Series is unpacked, please do the following:

- Follow the anti-static precautions outlined in **Section 2.2**.
- Make sure the packing box is facing upwards, so the RHEA-I420A / I512A Series does not fall out of the box.
- Make sure all the components shown in **Section 2.2** are present.

2.2 Unpacking Checklist

NOTE:

If some of the components listed in the checklist below are missing, please do not proceed with the installation. Contact the IEI reseller or vendor you have purchased the RHEA-I420A / I512A Series from or an IEI sales representative directly. To contact an IEI sales representative, please send an email to sales@ieiworld.com.tw.

The RHEA-I420A / I512A Series is shipped with the following components:

Quantity	Item	Image
1	RHEA-I420A / I512A Series module	
1	USB cable	
1	USB cable	

Table 2-1: Packing List

The following table lists the optional items that can be purchased separately.

Item and Part Number	Image
Power input cable (**P/N**: 19T00-002500-100-RS)	
Power output cable (**P/N**: 32102-030000-200-RS)	
Power cable (**P/N**: 32102-018804-100-RS)	

Table 2-2: Optional Packing List

Chapter

3

Installation

3.1 Anti-Static Precautions

WARNING

Failure to take ESD precautions during the maintenance of the RHEA-I420A / I512A Series may result in permanent damage to the RHEA-I420A / I512A Series and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the RHEA-I420A / I512A Series. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the RHEA-I420A / I512A Series is accessed internally, or any other electrical component is handled, the following anti-static precautions need to be strictly adhered to.

- ***Wear an anti-static wristband***: Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- ***Self-grounding***: Before handling the board touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: When configuring the RHEA-I420A / I512A Series, place it on an anti-static pad. This reduces the possibility of ESD damaging the RHEA-I420A / I512A Series.
- ***Only handle the edges of the PCB***: When handling the PCB, hold the PCB by the edges.

3.2 Installation Precautions

When installing the power module, please follow the precautions listed below:

- **Power off**: When installing the power module, make sure the power is off. Failure to turn off the power might cause severe injury to the body and/or damage to the system.
- **Certified engineers**: Only certified engineers can install and modify onboard functionalities.

- **Anti-static discharge**: If a user opens the top cover of the power module to configure the jumpers or plug in added peripheral devices, ground themselves first and wear an anti-static wristband.

3.3 Connection Diagram

The RHEA-I420A / I512A Series is a power backup board pre-installed with supercapacitors. The following figure provides an overview of the I/O connection.

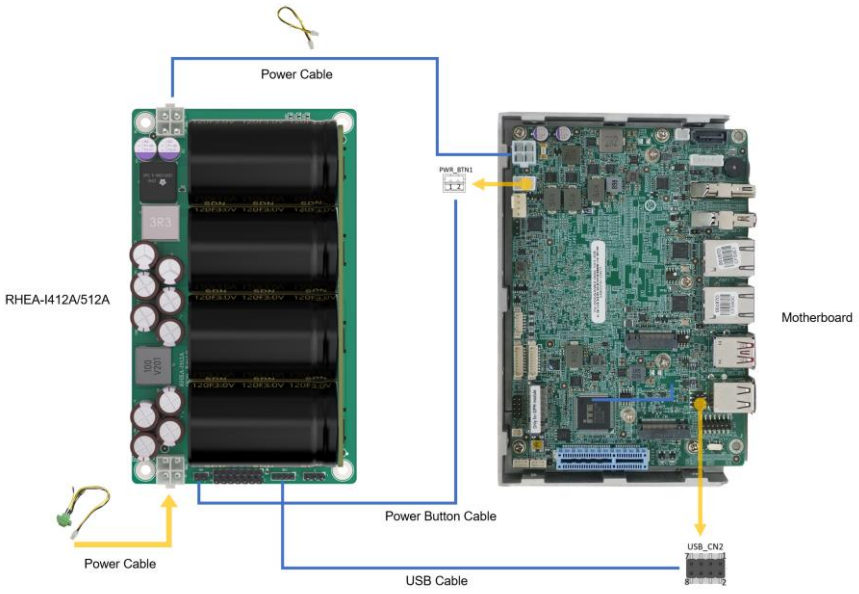


Figure 3-1**: Connection Diagram**

3.4 Indicator Light

The RHEA-I420A / I512A Series provides 3 LED indicators on the board (**Figure** 3-2). You can check the operating status of the RHEA-I420A / I512A Series by observing the LED. See **Table 3-1** for details.

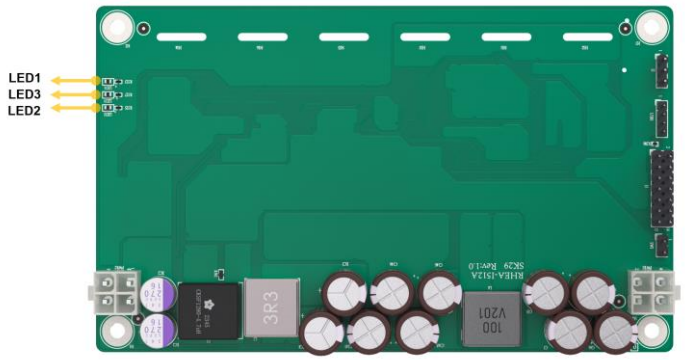


Figure 3-2**: LED Indicators**

LED Number	Always On	Flashing
1 (Red)	Too low capacitor voltage	
2 (Yellow)	The capacitor is discharging	
3 (Yellow)	The capacitor is full	The capacitor is charging

Table 3-1: LED status

3.5 Internal Peripheral Connectors

The following diagram shows the connector locations of the RHEA-I420A / I512A Series.

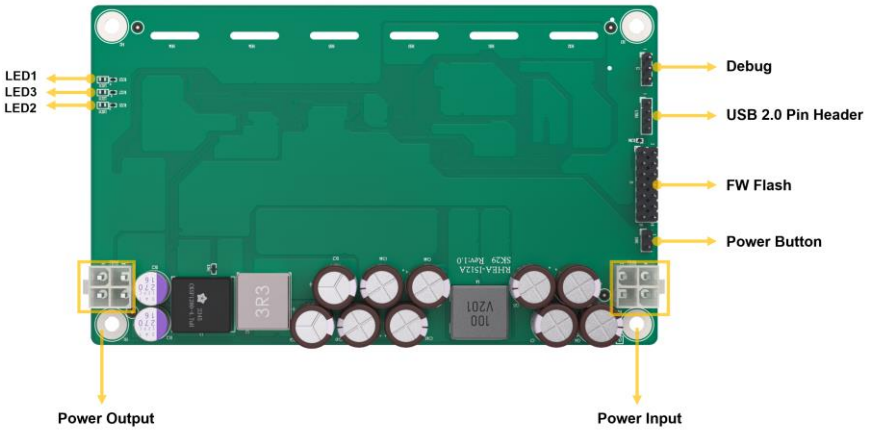


Figure 3-3: RHEA-I420A / I512A Series Layout

The table below lists all the internal peripheral connectors on the board.

Connector	Type	Label
Power input connector	4-pin ATX 12V female	PWR1
Power output connector	4-pin ATX 12V female	PWR2
Power button connector	2-pin header	SW1
Flash connector	14-pin header	J1
USB 2.0 connector	4-pin header	USB1
Debug connector	3-pin header	J2

Table 3-2: Peripheral Interface Connectors

3.5.1 Power Input Connector

CN Label: **PWR1**

CN Type: 4-pin ATX 12V female, p=4.2 mm

CN Location: See **Figure 3-4**

CN Pinouts: See **Table 3-3**

This Power Input Connector allows users to connect to an external power supply for DC input. Connect to a 12-28V input source according to the specification.

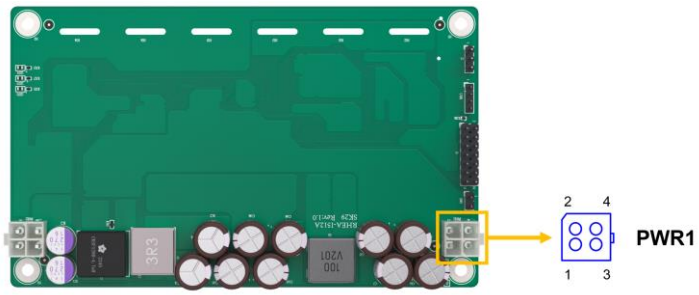


Figure 3-4: Power Input Connector Location

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	GND
3	VCC	4	VCC

Table 3-3: Power Input Pinouts

3.5.2 Power Output Connector

CN Label: **PWR2**

CN Type: 4-Pin ATX 12V female, p=4.2 mm

CN Location: See **Figure 3-5**

CN Pinouts: See **Table 3-4**

This power output connector allows users to connect a load. The RHEA-I420A / I512A Series supports a maximum load of 60W (I420A) and 45W (I512A), output voltage is 12V DC.

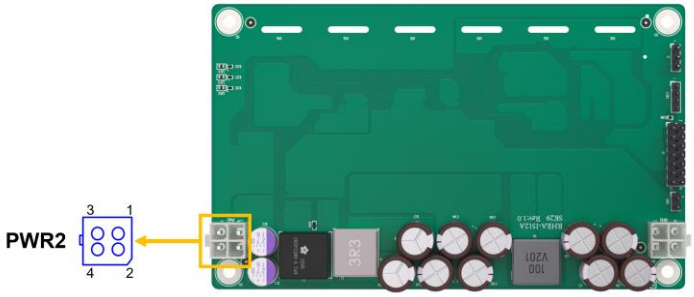


Figure 3-5: Power Output Connector Location

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	GND
3	VCC	4	VCC

Table 3-4: Power Output Pinouts

3.5.3 USB Connector

CN Label:	**USB1**
CN Type:	4-pin header, p=2.00 mm
CN Location:	See **Figure 3-6**
CN Pinouts:	See **Table 3-5**

This USB connector provides a USB pin header communication link port. Use a USB cable to connect with motherboard.

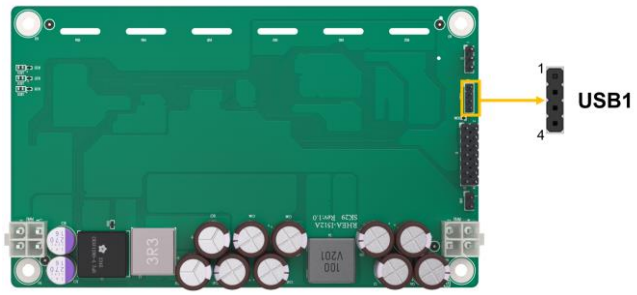


Figure 3-6: USB Connector Location

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC	2	D-
3	D+	4	GND

Table 3-5: USB Connector Pinouts

3.5.4 Firmware Flash Connector

CN Label: **J1**

CN Type: 14-pin header, p=2.54 mm

CN Location: See **Figure 3-7**

CN Pinouts: See **Table 3-6**

The firmware flash connector is used for debugging by technical personnel.

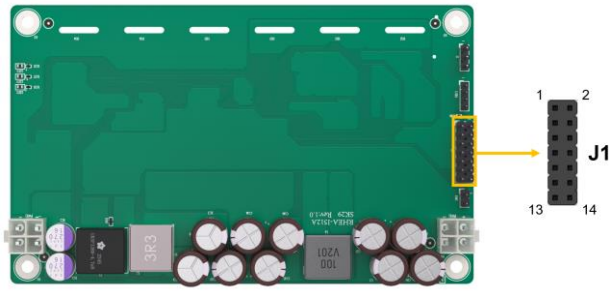


Figure 3-7: Firmware Flash Connector Location

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	N/A	2	GND
3	N/A	4	RSTPU
5	TOOL0	6	T_RESET
7	N/A	8	+3V3
9	+3V3	10	RST
11	N/A	12	GND
13	RST	14	GND

Table 3-6: Firmware Flash Connector Pinouts

3.5.5 Power Button Connector

CN Label:	**SW1**
CN Type:	2-pin header, p=2.54 mm
CN Location:	See **Figure 3-8**
CN Pinouts:	See **Table 3-7**

Users can trigger an end device connected to the power button connector via the switching signal. The trigger time can be set in software-driven methods.

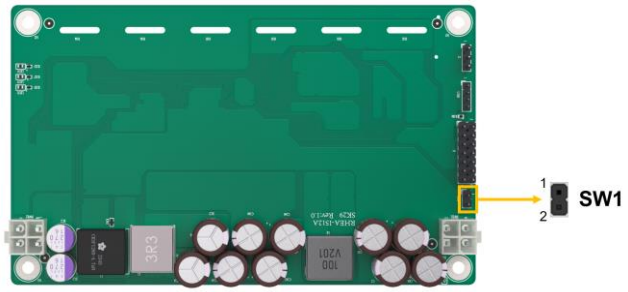


Figure 3-8: Power Button Connector Location

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	PWR_BTN	2	GND

Table 3-7: Power Button Connector

3.5.6 Debug Connector

CN Label: **J2**

CN Type: 3-pin header, p=2.54 mm

CN Location: See **Figure 3-9**

CN Pinouts: See **Table 3-8**

The debug connector is used for debugging by technical personnel.

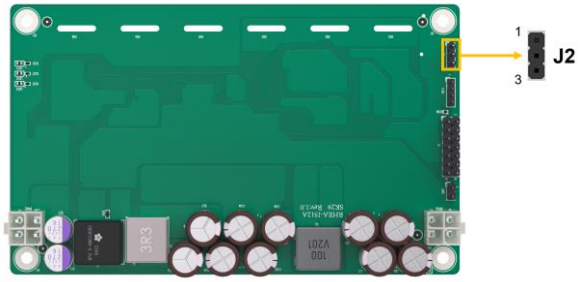


Figure 3-9: Debug Connector Location

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	TXD1	2	TXD1
3	GND		

Table 3-8: Debug Connector Pinouts

Chapter

4

Software Application

4.1 Introduction

The IEI Supercapacitor management tool obtains the basic status of the supercapacitor backup board via a USB Type-A cable. And you can set different working modes, shutdown methods notification time, etc. It is recommended to run this application on Windows 10 or later.

4.2 Driver Installation

Please follow the steps below to complete the driver installation.

Step 1: After connecting the USB Type-A cable to the supercapacitor backup board, a new USB serial port will appear in the driver list and the system will prompt that the corresponding driver needs to be installed.

Figure 4-1: Device Manager (before Installation)

Step 2: Download the SuperCap setup file from the IEI Resource Download Center (https://download.ieiworld.com). Run the CDMxxx_Setup.exe file.

Figure 4-2: Driver File

Step 3: A prompt message shown in **Figure 4-3** appears. Click **Run** to continue the installation process.

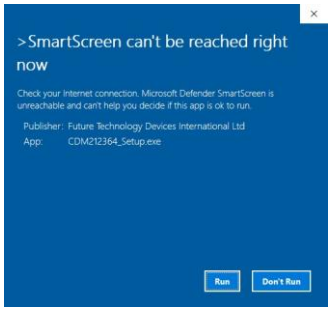


Figure 4-3: Prompt Message

Step 4: The Setup Wizard starts installing the driver.

Step 5: The installation completion window appears (**Figure 4-4**). Click **Finish** to exit.

Figure 4-4: Installation Complete

Step 6: The Device Manager shows that a driver is installed for the USB port.

Figure 4-5: Device Manager (After Installation)

4.3 Application Installation

Please follow the steps below to complete the IEI Supercapacitor Management Tool installation.

Step 1: Download the SuperCap setup file from the IEI Resource Download Center. Run the SuperCap_Vxxx _win64.exe file.

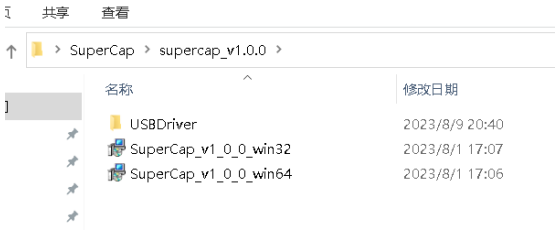


Figure 4-6: Driver File

Step 2: A prompt message shown in **Figure 4-7** appears. Click **Run** to continue the installation process.

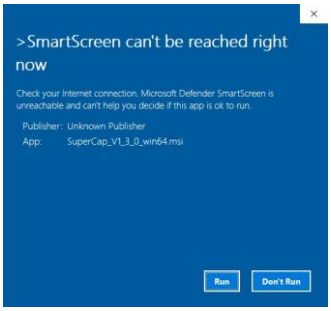


Figure 4-7: Welcome Screen

Step 3: The Setup Wizard starts installing the application.

Step 4: The installation completion window appears (**Figure 4-8**). Click **Close** to exit.

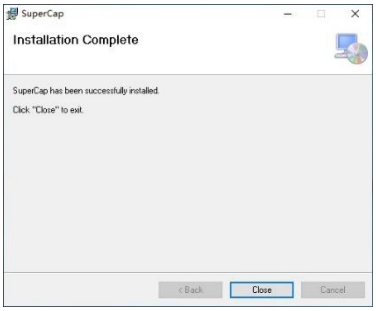


Figure 4-8: Installation Complete

Step 5: To start the application, double click the shortcut (**Figure 4-9**) on the desktop.

Figure 4-9: Application Icon

4.4 Supercapacitor Management Tool Overview

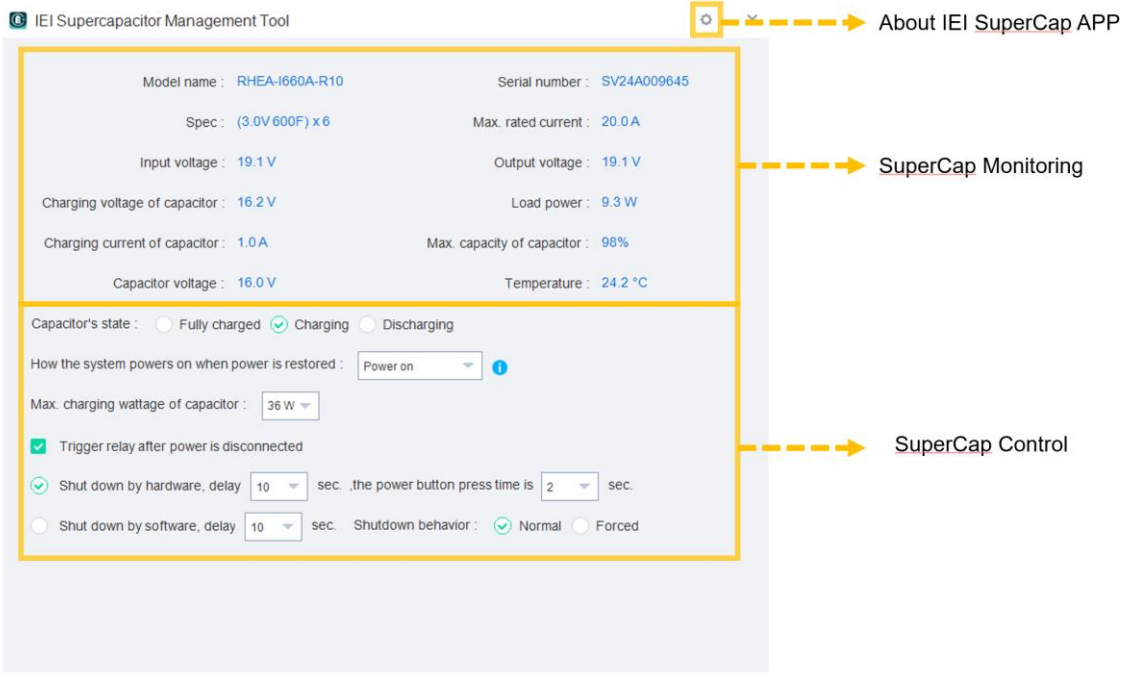


Figure 4-10: IEI Supercapacitor Management Tool Overview

4.5 Monitoring

Through the USB connection, the upper part of the supercapacitor management tool user interface displays various information on the supercapacitor backup board. The following sections describe the status information in detail.

Figure 4-11: IEI Supercapacitor Management Tool- Monitoring Overview

4.5.1 Model name information

Show the model name of this product.

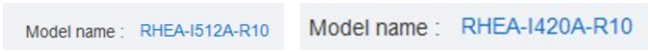


Figure 4-12: Model Name Information

4.5.2 Serial Number Information

Display the serial number of this product.

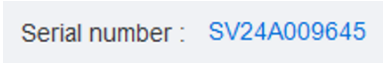


Figure 4-13: Serial Number Information

4.5.3 Spec Information

Display the specification of a single supercapacitor and the total number of supercapacitors in the product.

Figure 4-14: Spec Information

4.5.4 Max. Rated Current Information

Display the product's highest rated operating current.

Figure 4-15: Max. Rated Current Information

4.5.5 Input Voltage Information

Detect and identify the input power and display the voltage value. The product requires an input power supply of 12-28V DC, and will not work outside this range.

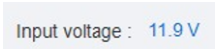


Figure 4-16: Input Voltage Information

4.5.6 Output Voltage Information

Display the output voltage value.

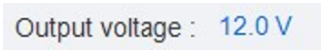


Figure 4-17: Output Voltage Information

4.5.7 Charging Voltage of Capacitor Information

Display the real-time charging voltage of the supercapacitor.

Figure 4-18: Charging Current of Capacitor Information

4.5.8 Load Power Information

Display the real-time output load power.

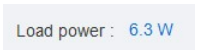


Figure 4-19: Load Power Information

4.5.9 Charging Current of Capacitor Information

Display the real-time charging current of the supercapacitor.

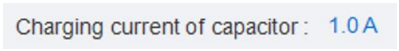


Figure 4-20: Charging Current of Capacitor Information

4.5.10 Max. Capacity of Capacitor Information

Display the current capacity of the supercapacitor. It enables users to confirm if the capacitor is fully charged. The displayed capacity will typically vary slightly between 95% and 100%, which is normal.

Figure 4-21: Max. Capacity of Capacitor Information

4.5.11 Capacitor Voltage Information

Display the charging voltage of the supercapacitor (the charging voltage of 4 or 5 capacitors in total).

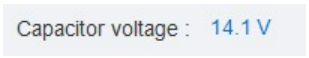


Figure 4-22: Capacitor Voltage Information

4.5.12 Temperature Information

Display the real-time temperature of the supercapacitor backup board.

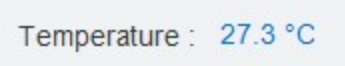


Figure 4-23: Temperature Information

4.5.13 Capacitor's State Information

Display the current status of the supercapacitor: fully charged, charging or discharging. Users can confirm the status of the supercapacitor through this function.

Figure 4-24: Capacitor's State Information

4.6 Remote Control

IEI Supercapacitor management tool allows the host to modify some basic functions of the supercapacitor backup board via USB, such as charging power, shutdown behavior, shutdown mode, operating temperature and voltage adjustment.

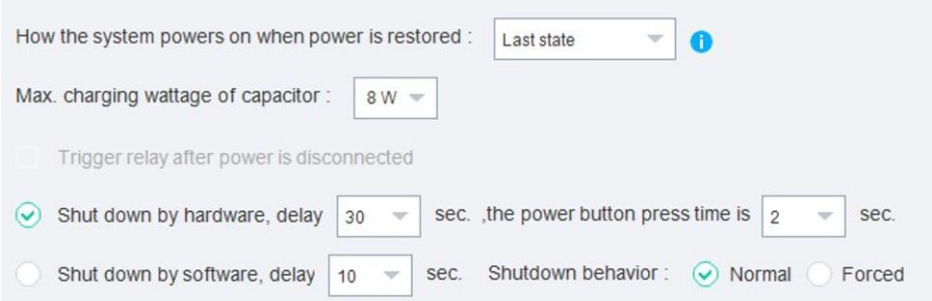


Figure 4-25: IEI Supercapacitor Management Tool- Control Overview

4.6.1 How the System Powers on when Power is Restored

Users can modify the motherboard's working state upon power recovery through the APP, including settings for power off, power on, and restoring the last state. These changes will be applied in the BIOS setting. This setting only supports products in the IEI Compatibility List.

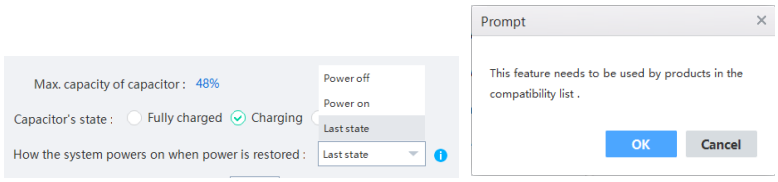


Figure 4-26: Power on when Power is Restored

4.6.2 Max. Charging Wattage of Capacitor

Users can adjust the charging power of the supercapacitor backup board after power on. After configuration, the supercapacitor will operate at the set power consumption of 24W@2A, 12W@1A, 6W@0.5A (RHEA-I420A) or 30W@2A, 15W@1A, 8W@0.5A (RHEA-I512A), and the charging current of capacitor will display the real-time current as settings.

When it is set to a maximum of 30W, please choose an adapter with a power rating of at least 30W higher than the maximum power consumption of the load. This will prevent the charging current from being too high when the supercapacitor backup power board is powered on, which could avoid the load startup failure.

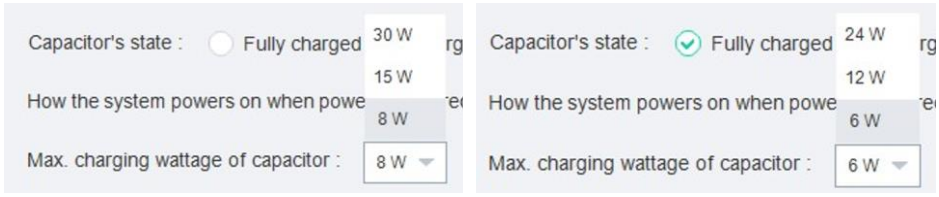


Figure 4-27: Max. Charging Wattage of Capacitor

4.6.3 Shutdown Behavior

Users can set shutdown behavior via software after power failure.

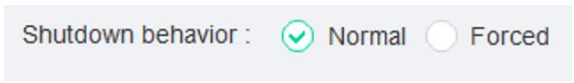


Figure 4-28: Shutdown Behavior

- Normal: When operating in Normal mode, the IEI Supercapacitor Management Tool will automatically shut down itself after the set countdown completes, and then notify

the operating system to shut down. Once closed, the tool stops working. But it needs users' manual operation if any other software interferes with the shutdown.

- Forced: After the software counts down to the set time, the IEI Supercapacitor Management Tool will end all ongoing software processes, and then notify the system to shut down. With no processes running, the computer can be safely shut down.

4.6.4 Shutdown via Hardware/Software

The IEI supercapacitor board provides two shutdown control methods:

Method 1: Please refer to **Section 3.5.5** to connect a power button cable first. After power off, the supercapacitor backup board will close the IEI Supercapacitor APP following a countdown set by the APP (the default value can be configured between 10 and 60 seconds). It will then trigger the two power button switches on the backup board. The trigger time is preset to 2 seconds (adjustable between 2 and 8 seconds). The hardware switch will directly control the load device to shut down it (ensure the behavior of the hardware switch is configured in the load device system beforehand).

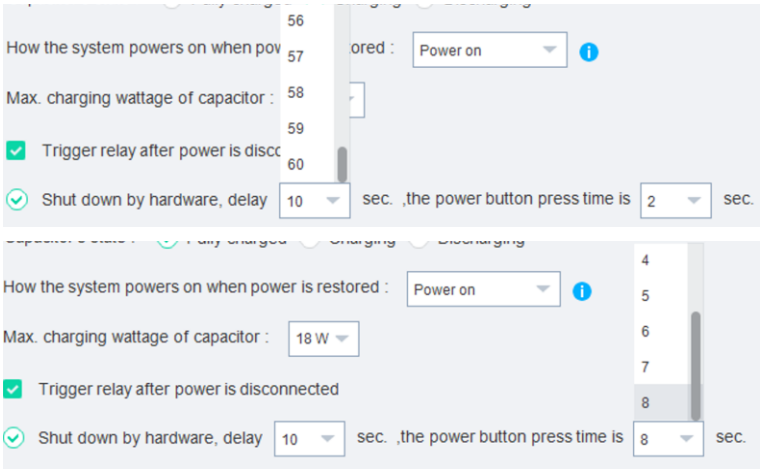


Figure 4-29: Shut Down via Hardware

Method 2: After a power failure, the supercapacitor backup board will count down to 10 seconds as the APP's setting (the default value can be configured between 10 and 120 seconds), and then perform a software shutdown operation according to the shutdown behavior settings.

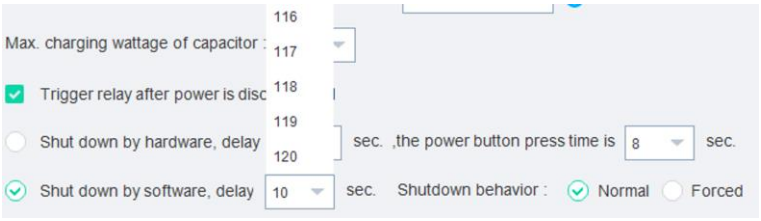


Figure 4-30: Shut Down via Software

4.6.5 Temperature and Life

The supercapacitor backup board uses six 3V 600F capacitors, and the safe working voltage of the capacitor is 2.7V. To ensure the supercapacitor's lifespan is more than 6 or 7 years, the capacitor will automatically adjust its working voltage at different temperatures. The details of this adjustment are shown in the following table.

Temperature (℃)	Voltage (V)	Life (Years)
≤35	2.7	>10
40	2.7	≈7
45	2.6	≈7
50	2.4	≈9
55	2.3	≈8
60	2.2	≈7

Table 4-1: Relationship between Temperature, Capacitor Voltage and Life

4.7 Language

Users can choose the display language of the supercapacitor management tool. English and Simplified Chinese have been supported so far.

After changing the language, the application needs to be restarted to take effect.

Figure 4-31: Language

4.8 About

Users can view the application software and firmware version on the **About** page, and can also upgrade them locally. The latest software and firmware update package can be downloaded from the IEI website.

Follow the steps below to update the application software and firmware.

Step 1: Click **Browse** on the **About** page.

Figure 4-32: About

Step 2: Find the local update file (the update file is a compressed package, please do not decompress it), and then click **Update**.

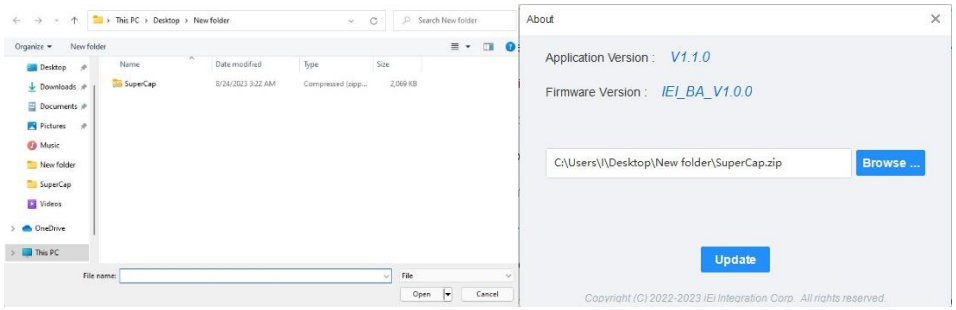


Figure 4-33: File Selection

Step 3: . A prompt message shows that there is a version that needs to be updated, click **OK** to continue.

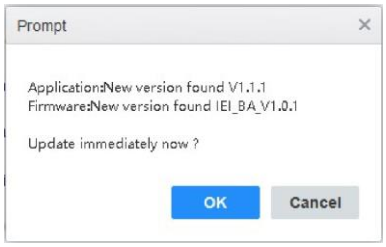


Figure 4-34: Version Prompt

Step 4: Before updating, it will prompt "Please keep the power unblocked when updating". Click **OK** to continue.

Figure 4-35: Prompt

Step 5: When both the application and firmware need to be updated, the firmware will be updated first. During the firmware update, the application interface will show an “updating” message, while LED 1, LED 3 and LED 2 will blink in sequence, and the 7-segment display will remain off.

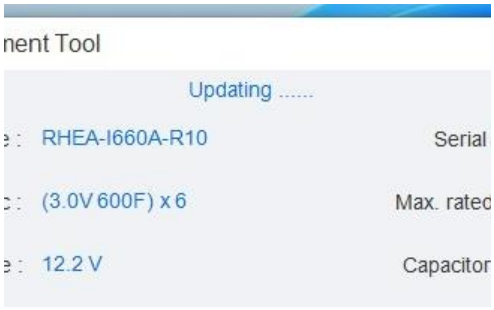


Figure 4-36: Firmware Updating

Step 6: Once the firmware update completes, the application installation procedure will start. Please continue to update the application to the latest version. Refer to **Section 4.3** for the application installation procedure.

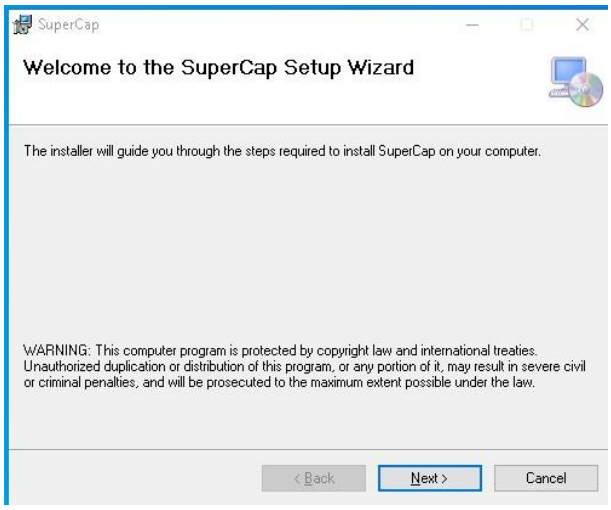


Figure 4-37: Application Update Installation

Step 7: After updating the application, restart the software and confirm the version (see **Figure 4-32**).

Appendix

A

Safety Precautions

5.1 Product Disposal

CAUTION:

Risk of explosion if the battery is replaced by an incorrect type;

The replacement of a battery with an incorrect type might defeat a safeguard (for example, in the case of some lithium battery types);

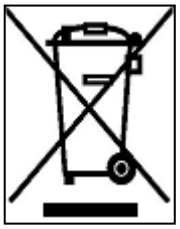
The disposal of a battery in fire or a hot oven, or mechanically crushing or cutting of a battery might result in an explosion;

Leaving a battery in an extremely high-temperature surrounding environment might result in an explosion or the leakage of flammable liquid or gas;

A battery subjected to extremely low air pressure might result in an explosion or the leakage of flammable liquid or gas.

Dispose of used batteries according to instructions and local regulations.

- Outside the European Union - If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.
- Within the European Union:



EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product. The mark on electrical and electronic products only applies to the current European Union Member States.

Please follow the national guidelines for electrical and electronic product disposal.

Appendix

B

Hazardous Materials Disclosure

The details provided in this appendix are to ensure that the product is compliant with the People's Republic of China (China) RoHS standards. The table below acknowledges the presence of small quantities of certain materials in the product and is applicable to China RoHS only.

A label will be placed on each product to indicate the estimated "Environmentally Friendly Use Period" (EFUP). This is an estimate of the number of years that these substances would "not leak out or undergo abrupt change." This product may contain replaceable sub-assemblies/components that have a shorter EFUP such as batteries and lamps. These components will be separately marked.

Please refer to the following table.

Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Housing	O	O	O	O	O	O
Display	O	O	O	O	O	O
Printed Circuit Board	O	O	O	O	O	O
Metal Fasteners	O	O	O	O	O	O
Cable Assembly	O	O	O	O	O	O
Fan Assembly	O	O	O	O	O	O
Power Supply Assemblies	O	O	O	O	O	O
Battery	O	O	O	O	O	O

O: This toxic or hazardous substance is contained in all of the homogeneous materials for the part is below the limit requirement in SJ/T11363-2006 (now replaced by GB/T 26572-2011).

X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006 (now replaced by GB/T 26572-2011).

此附件旨在确保本产品符合中国 RoHS 标准。以下表格标示此产品中某有毒物质的含量符合中国 RoHS 标准规定的限量要求。

本产品上会附有"环境友好使用期限"的标签，此期限是估算这些物质"不会有泄漏或突变"的年限。本产品可能包含有较短的环境友好使用期限的可替换元件，像是电池或灯管，这些元件将会单独标示出来。

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (CR(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
壳体	O	O	O	O	O	O
显示	O	O	O	O	O	O
印刷电路板	O	O	O	O	O	O
金属螺帽	O	O	O	O	O	O
电缆组装	O	O	O	O	O	O
风扇组装	O	O	O	O	O	O
电力供应组装	O	O	O	O	O	O
电池	O	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有物质材料中的含量均在 SJ/T 11363-2006 (现由 GB/T 26572-2011 取代) 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 (现由 GB/T 26572-2011 取代) 标准规定的限量要求。