UNO-137 V3
Small-Size Integrated DIN-Rail IPC with Intel® Atom® 7433RE
Startup Manual

Packing List

Before you begin installing your card, please make sure that the following items have been shipped:

1. UNO-137 V3 (with DIN-rail mount)
2. 1 x 2x5 Plug-in block for COM port
3. 1 x 2x1 Plug-in block for power wiring
4. 1 x 2x10 Plug-in block for digital I/O wiring
5. 1 x Earth-ground cable
6. Startup Manual
7. China RoHs sheet
8. Warranty card

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: get.adobe.com/reader (Acrobat is a trademark of Adobe)

For more information on this and other Advantech products, please visit our website at:

http://www.advantech.com

For technical support and service, please visit our support website for UNO-137 V3 at:

Register your products on our website and get 2 months extra warranty for free at:

http://www.register.advantech.com

Part No. 204C137V00 1st Edition
Printed in China October 2026

Packing List (Cont.)

Caution: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

Attention: DANGER D'EXPLOSION SI LA BATTERIE EST INEXACTEMENT REMPLACÉE. REMPLACEZ SEULEMENT AVEC LA MÊME CHOSE OU LE TYPE ÉQUIVALENT RECOMMANDÉ PAR LE FABRICANT, JETTENT LES BATTERIES UTILISÉES INSTRUCTIONS DE S SELON FABRICANT DES.

Specifications

Processor System
- Intel® Atom® 7433RE, 1.5 GHz (up to 3.4 GHz)

Memory
- 262-pin DDR5 4800 MHz SODIMM (up to 16GB)

Graphics
- Intel® UHD Graphics Up to 32EUs

Serial Ports
- 2 x RS-232/422/485 (terminal block)
  50 bps ~115.2 kbps (isolation protection: 2500 VDC)

Ethernet
- 2 x Intel® i226-IT GbE, IEEE802.1AS, 802.3az

Storage
- 1 x M.2 (B-key) 3052 (PCIex1/SATA signal)
- 1 x M.2 (M-key) 2242 (PCIex2 signal)

Expansion
- 1 x M.2 (B-key) 3052 (PCIex1/SATA/USB3.0 signal)
- 1 x M.2 (M-key) 2242 (PCIex2 signal)
- 1 x M.2 (E-key) 2230 Wi-Fi modules (PCIe x1 + USB2.0 signal)
  (B-key & M-key share with storage)

External I/O
- **Display:** 1 x DP 1.4b, up to 4096 x 2160 @ 60 Hz
- **USB:** 3 x USB3.2 Gen2 (Type-A), 1 x USB2.0 (Type-A), 1 x USB3.2 Gen2 (Type-C)
- **Serial:** 2 x RS-232/422/485 (terminal block)
  50 bps ~115.2 kbps (isolation protection: 2500 V_{DC})

Specifications (Cont.)

Power Requirement

- **Power Type:** ATX
- **Power Input Voltage:** 10 V ~ 36 V_{DC}
- **Power Connector:** 1 x 2-pin terminal block
- **Minimum Power Input:** 10~36V, 6.28A~1.74A

This product is intended to be supplied by a UL-certified power supply or UL-certified DC source rated 19 Vdc, 4.74 A minimum, TMA 50°C minimum (safety certificate operation temperature 40°C), if you need further assistance, please contact Advantech for further information.

Environment

- **Operation Temperature:**
  CPU x7433RE: -40°C ~ 70°C/-40°F ~ 158°F with 0.7m/s airflow, with wide-temperature (-40°C ~ 85°C/-40°F ~ 185°F) peripherals
- **Storage Temperature:** -40°C ~ 85°C (-40°F ~ 185°F)
- **Relative Humidity:** 95% RH @ 40°C/104°F, non-condensing

Physical Characteristics

- **Dimensions (W x H x D):** 46.8 x 105 x 150 mm (1.9 x 4.1 x 5.9 in)
- **Weight:** 0.8 kg (1.7 lb)

Battery

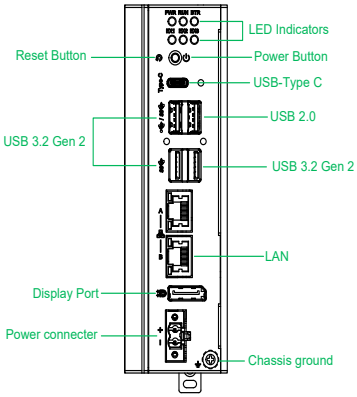
The computer is supplied with a battery-powered realtime clock circuit. There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

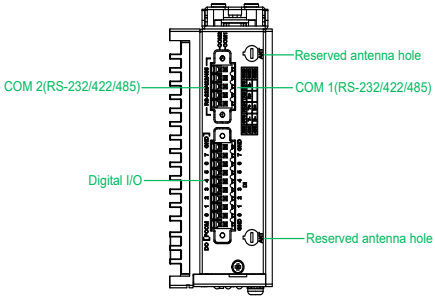
Declaration of Conformity

This device complies with the requirements in Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

System I/O Interface

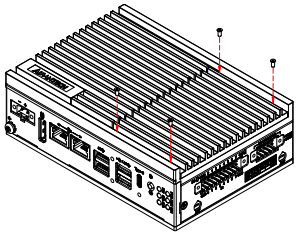




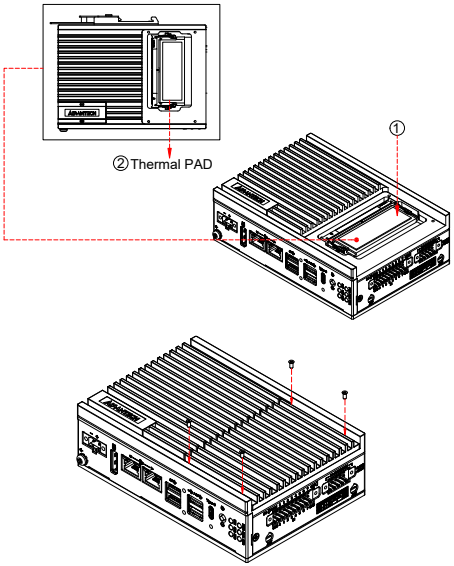
Simple Maintenance Process

DIMM Installation

1. Remove the four screws from the DIMM cover.



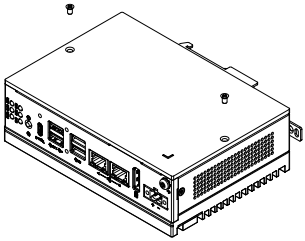
2. Insert the DIMM into the slot, attach the Thermal Pad and replace the DIMM cover, then reattach with four screws.



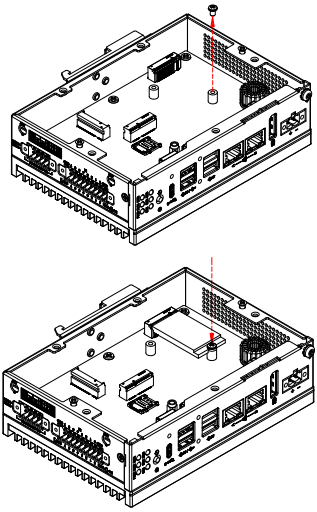
Simple Maintenance Process (Cont.)

M.2 (2242 M-Key) Installation

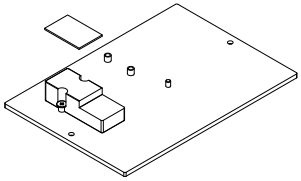
1. Unscrew the bottom cover.



2. Remove the provided screws from the board. Insert the M.2 2242 card into the location. Then secure it with the provided screws.

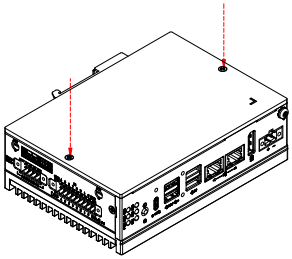


3. Paste the thermal pad onto the aluminum block.



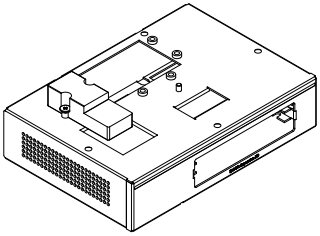
Simple Maintenance Process (Cont.)

4. Attach the back cover with the provided screws.

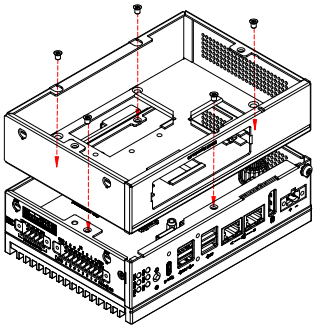


OPTIONAL: Expansion for the second stack

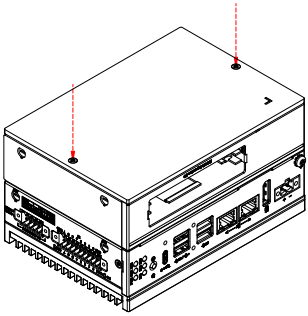
5. If a second UNO-137 V3 stack is needed, the aluminum column on the base unit should be removed and placed on the second stack.



6. Secure the second stack with 5 screws on the base unit.



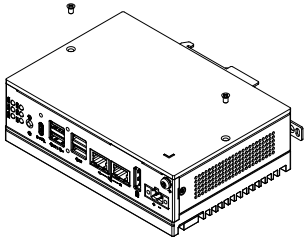
7. Attach the back cover with the provided screws.



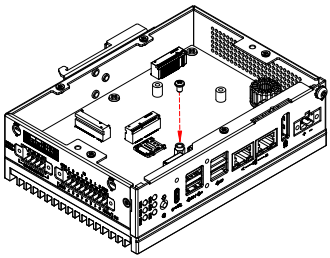
Simple Maintenance Process (Cont.)

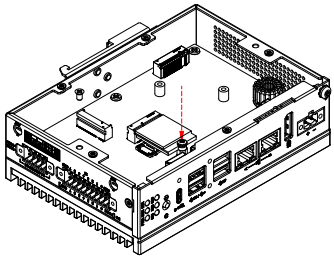
M.2 (2230 E-Key) Installation

1. Remove 2 screws from the UNO back cover.

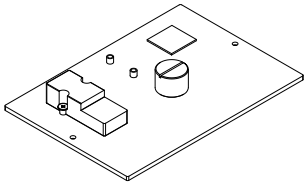


2. Remove the pre-installed screw and insert the M.2.2230 card, then put the screw back in place.



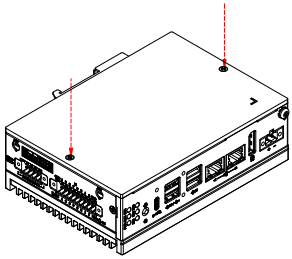


3. Stick the thermal pad on the aluminum column.



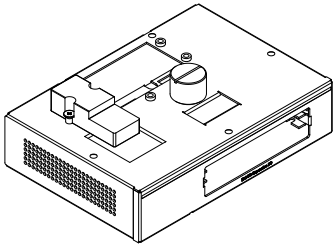
Simple Maintenance Process (Cont.)

4. Attach the back cover with the provided screws.

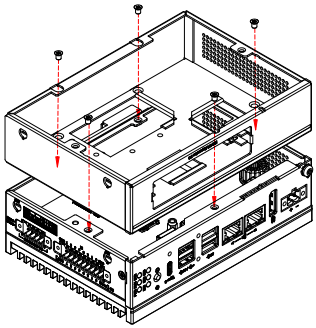


OPTIONAL: Expansion for the second stack

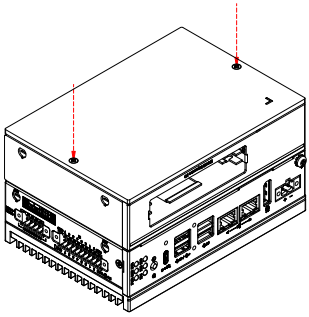
5. If a second UNO-137 V3 stack is needed, the aluminum column on the base unit should be removed and placed on the second stack.



6. Attach the second stack with 5 screws on the base unit.



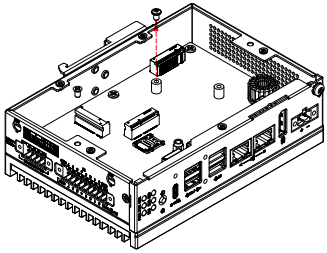
7. Attach the back cover with the provided screws.

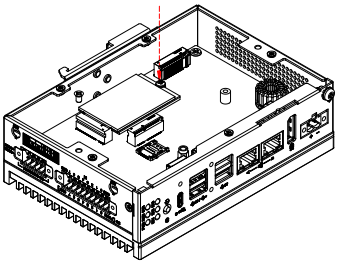


Simple Maintenance Process (Cont.)

M.2 (3052 B-Key) Installation

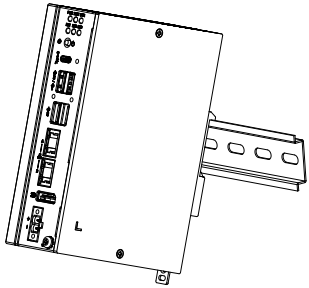
1. Remove 2 screws from the UNO back cover.
2. Remove the pre-installed screw and insert M.2 3052 card. Then put the screw back in place.



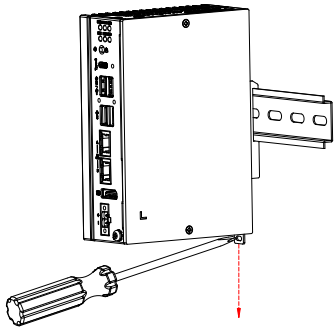


DIN-Rail Mount Installation

1. Install the UNO-137 V3 on the rail and secure it to the rail.



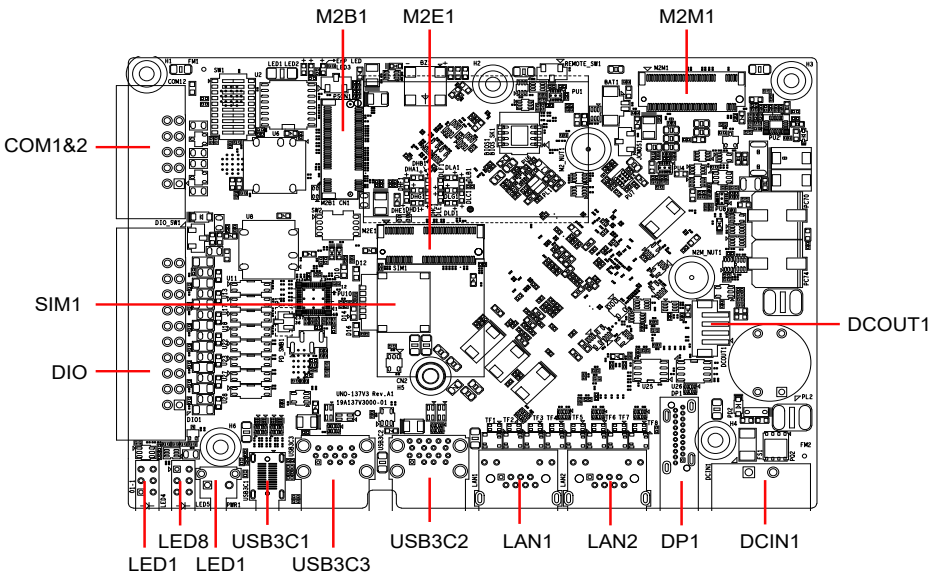
2. Pull down the “Release Latch” for disassembly using a screwdriver.

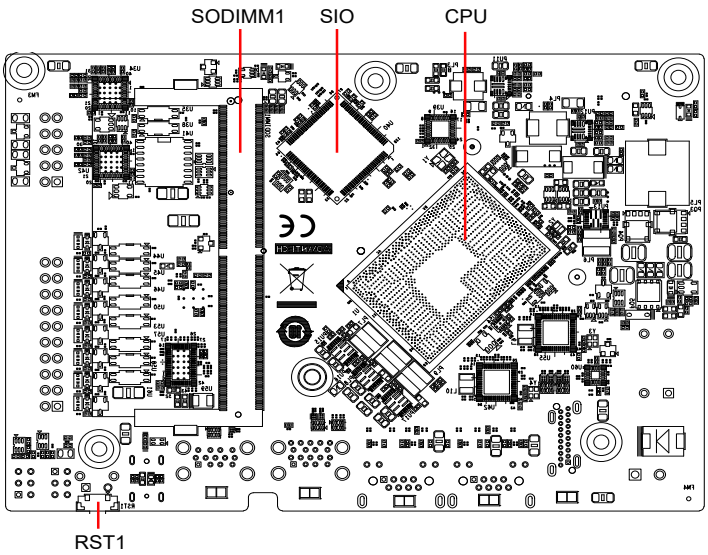


Safety Instructions

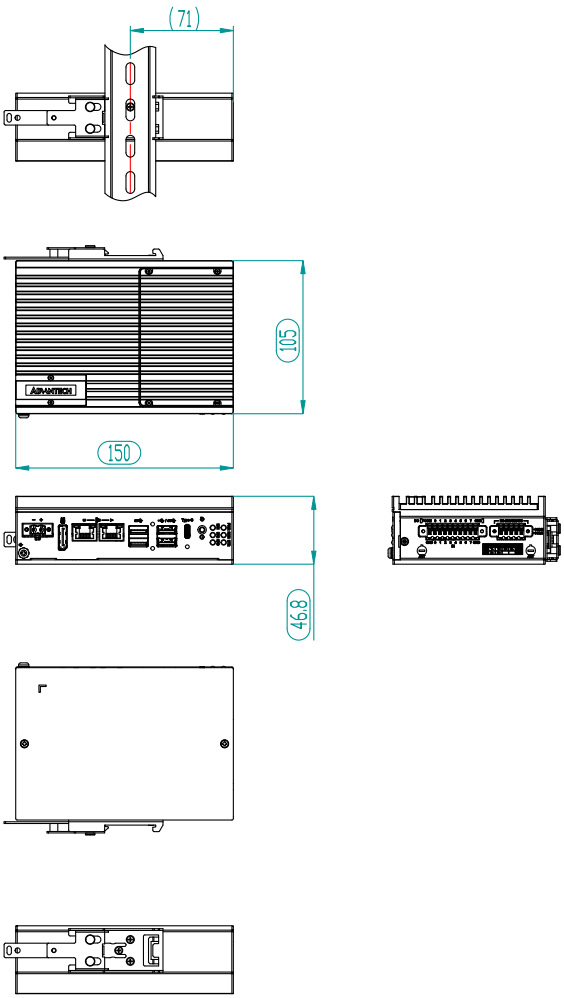
1. Read these safety instructions carefully.
2. Keep this startup manual for future reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following situations arises, get the equipment checked by service personnel:
    - The power cord or plug is damaged
    - Liquid has penetrated into the equipment
    - The equipment has been exposed to moisture
    - The equipment does not work well, or you cannot get it to work according to the user manual
    - The equipment has been dropped or damaged
    - The equipment has obvious signs of breakage
15. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -40°C (-40°F) OR ABOVE 85°C (185°F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.
16. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
17. The sound pressure level at the operator's position according to IEC 704-1:1982 should be no more than 70 dB (A).
18. RESTRICTED ACCESS AREA: The equipment should only be installed in a restricted access area.
19. DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

IO Connectors





System Dimensions



UNO-137 V3
搭载 Intel® Atom® 7433RE 处理器的无风扇工业计算机
快速入门手册

包装清单

安装系统之前，用户需确认包装中含有下面所列各项：

1. UNO-137 V3 准系统 x 1
2. UNO-137 V3 快速入门手册 x 1
3. 接地线 x 1
4. 1 2x5 Plug-in block（用于串行端口）
5. 1 2x1 Plug-in block（用于电源线）
6. 1 2x10 Plug-in block（用于数字量I/O）

如果其中任何一项缺失或损坏，请立即与经销商或业务代表联系。

注：　阅读 PDF 档需要使用 Acrobat Reader。用户可从以下路径下载 Acrobat Reader：get. adobe. com/reader（Acrobat 为 Adobe 的商标）

如需更多有关这款产品及其它研华产品的信息，请访问研华网站：

http://www.advantech.tw

如需技术支持和服务，请访问研华支持网站的 UNO-137 V3 页面：

https://advt.ch/mic770spt

请在研华网站注册您的产品，即可免费获得两个月额外保修服务：

http://www.register.advantech.com

本手册适用于 UNO-137 V3 系列 Rev.A1。

料号：204C137V00　　第一版
中国印刷　　2026 年 10 月

产品规格

处理器

- Intel® Atom® 7433RE (1.5 GHz)，(高达 3.4 GHz)

内存

- 262-pin DDR5 4800 MHz SODIMM（最高 16 GB）

显示

- Intel® UHD Graphics Up to 32EUs

串行端口

- 2 x RS-232/422/485, 50 bps ~ 115.2 kbps

以太网

- 2 x Intel® i226-IT GbE, IEEE802.1AS, 802.3az

存储

- 1 x M.2 (B-key) 3052 (PCIex1/SATA 信号)
- 1 x M.2 (M-key) 2242 (PCIex2 信号)

扩展

- 1 x M.2 (B-key) 3052 (PCIex1/SATA/USB3.0 信号)
- 1 x M.2 (M-key) 2242 (PCIex2 信号)
- 1 x M.2 (E-key) 2230 Wi-Fi 模块 (PCIe x1 + USB2.0 信号)
  (B-key 与 M-key 与存储接口共用)

外部 I/O

- 显示：1 x DP 1.4b, 高达 4096 x 2160 @ 60 Hz
- USB：3 x USB3.2 Gen2 (Type-A), 1 x USB2.0 (Type-A), 1 x USB3.2 Gen2 (Type-C)

电源

- 输入电压：10 V ~ 36 V_{DC}, 21 W (typical),47 W (max.)

环境规格

- 工作温度：-40° C ~ 70° C/-40° F ~ 158° F 有气流，速度为 0.7m/s
- 储存温度：-40° C ~ 85° C (-40° F ~ 185° F)
- 相对湿度：95% @ 40 ° C（非凝结）

物理规格

- 尺寸（W x H x D）：46.8 x 105 x 150 mm (1.9 x 4.1 x 5.9 in)
- 重量：0.8 kg (1.7 lb)

电池

计算机配置了由电池供电的实时时钟电路，如果电池更换不正确，将有爆炸的危险。因此，只可以使用制造商推荐的同一种或者同等型号的电池进行替换。请按照制造商的指示处理旧电池。

警告使用者：

这是甲类信息产品，在居住环境中使用时，可能会造成射频干扰。在这种情况下，使用者会被要求采取某些适当对策。

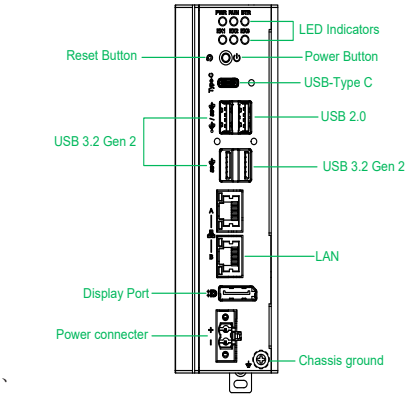
产品于国内装置使用时，其电源仅限使用机架电源模块所提供直流电源输入，不得使用交流电源及附加其他电源转换装置提供电源，其电源输入电压及电流请依说明书规定使用。

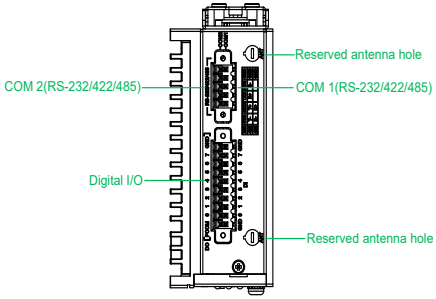
符合性声明

本品符合 FCC 规则第 15 款限制。操作符合下列两种情况：

1. 此装置不可产生干扰，且
2. 此装置必须接受任何干扰，包括可能导致非预期造作的干扰。

系统 I/O 接口

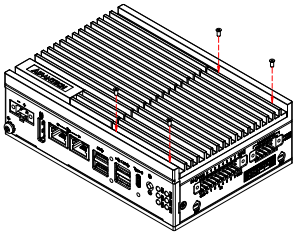




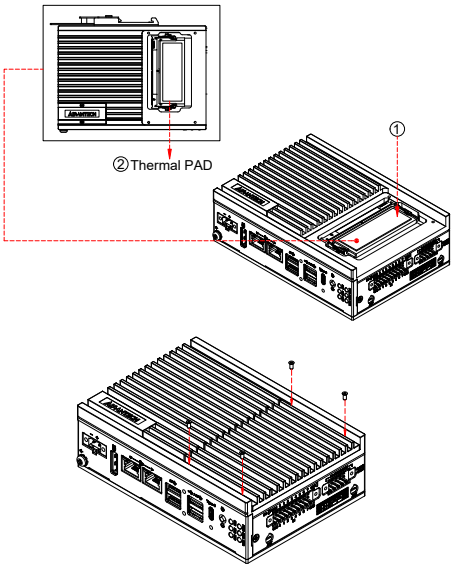
简单安装步骤

安装 DIMM

1. 卸下 DIMM 盖板上的 4 颗螺丝。



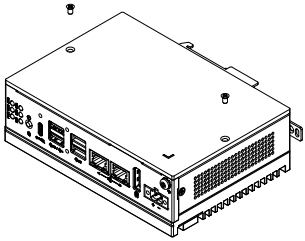
2. 插入 DIMM 并贴上散热片后盖回盖板，拧紧所有螺丝。



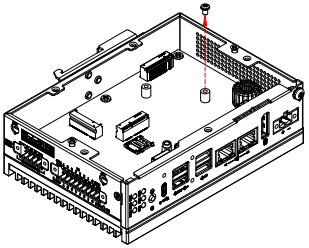
简单安装步骤（续）

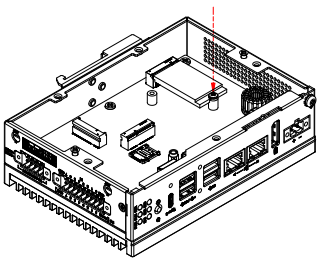
安装 M.2 (2242 M-Key)

1. 拆卸底盖上的 2 颗螺丝。

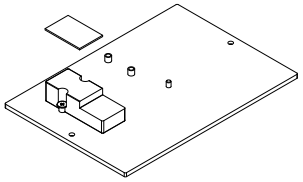


2. 拆卸预锁螺丝后装上 2242 卡片，再把螺丝锁回。



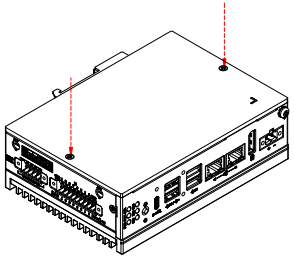


3. 粘贴散热垫于铝块上。



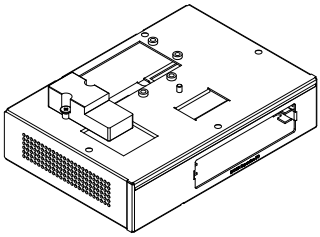
简单安装步骤（续）

4. 装回底盖，并用螺丝进行固定。

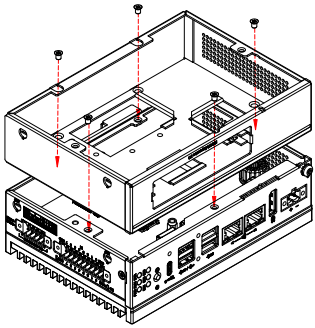


扩展第二层：

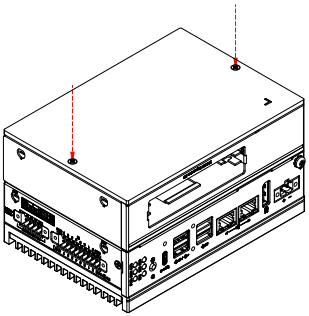
5. 若有扩展第二层需求，需拆卸原第一层的铝块安装于第二层。



6. 再用 5 颗螺丝将第二层的扩展机壳固定于第一层机壳。



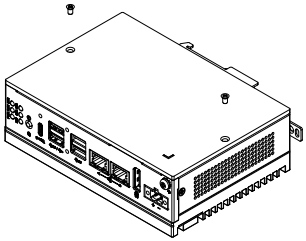
7. 装回底盖并用螺丝固定。



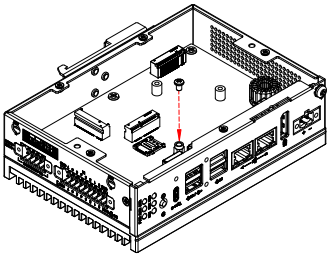
简单安装步骤（续）

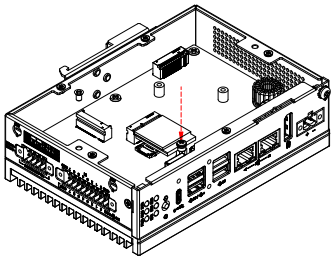
安装 M.2 (2230 E-Key)

1. 拆卸底盖上的 2 颗螺丝。

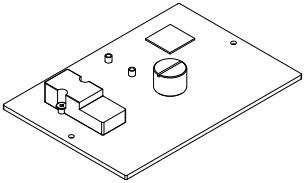


2. 拆卸预锁螺丝后装上 2230 卡片，再把螺丝锁回。



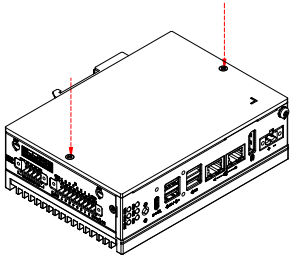


3. 粘贴散热垫于铝块上。



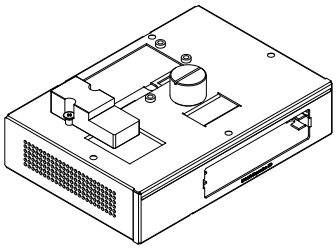
简单安装步骤（续）

4. 装回底盖，并用螺丝进行固定。

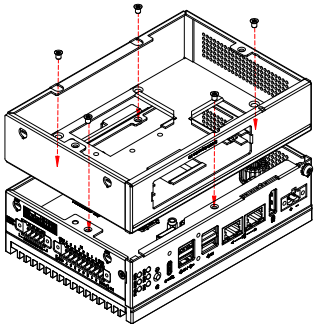


扩展第二层：

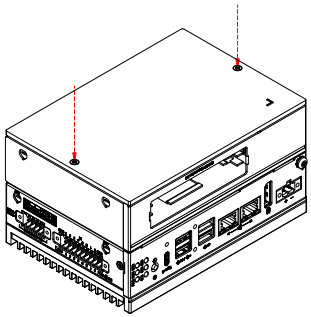
5. 若有扩展第二层需求，需拆卸原第一层的铝块安装于第二层。



6. 再用 5 颗螺丝将第二层的扩展机壳固定于第一层机壳。



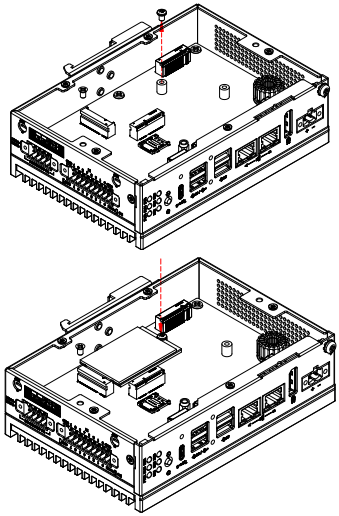
7. 装回底盖并用螺丝固定。



简单安装步骤（续）

安装 M.2 (3052 B-Key)

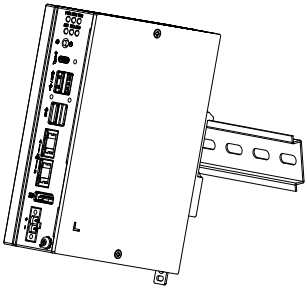
1. 拆卸底盖上的 2 颗螺丝。
2. 拆卸预锁螺丝后装上 M.2 3052 卡片，再把螺丝锁回。



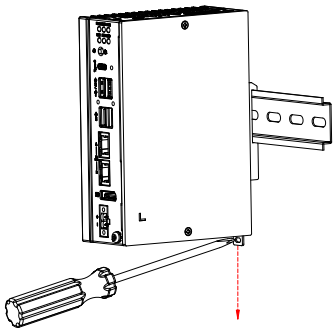
简单安装步骤（续）

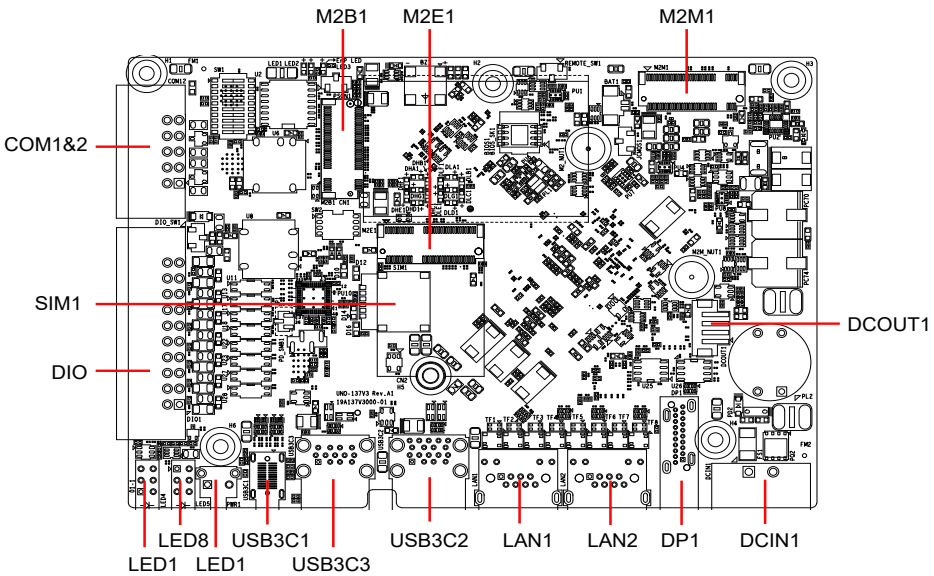
DIN 导轨安装

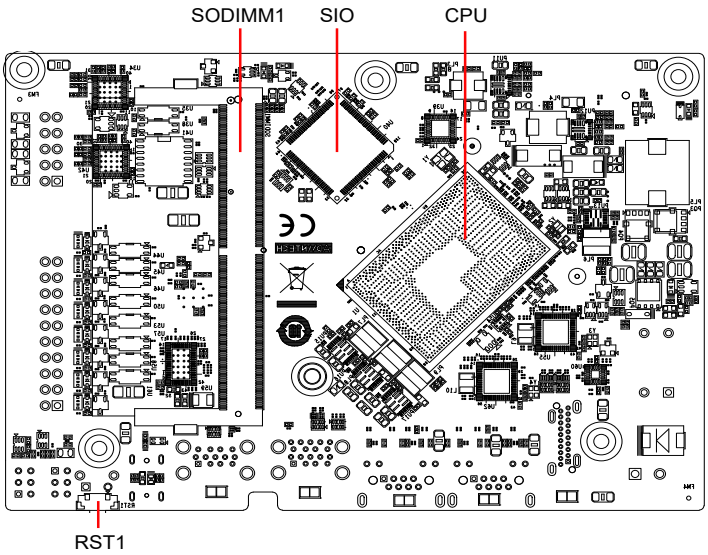
1. 挂上 DIN 导轨，向内扣住。



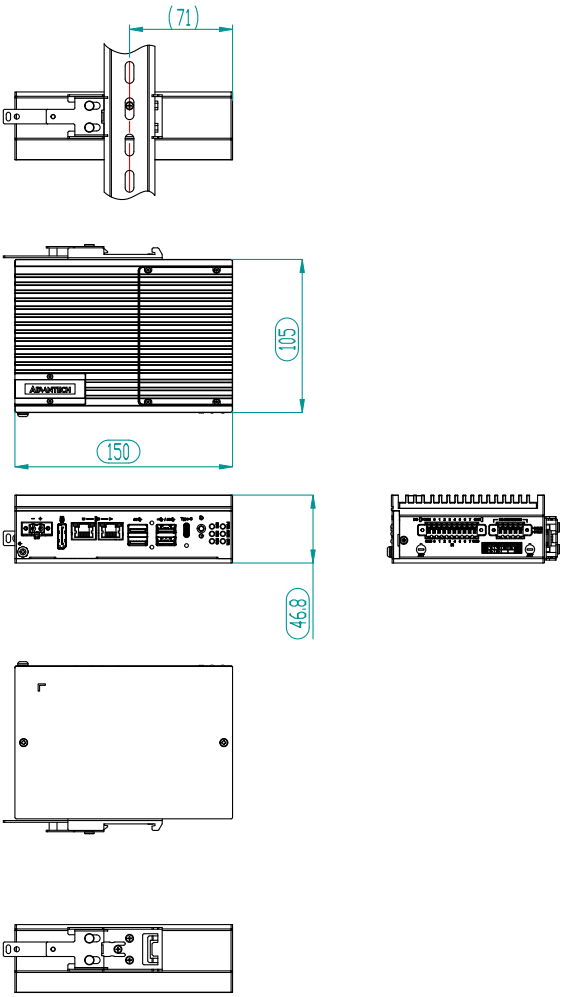
2. 将螺丝刀插入椭圆孔内，向下拉，使卡勾退出，然后取下机器。




M2B1
M2E1
M2M1
COM1&2
SIM1
DIO
DCOUT1
LED1
LED8
LED1
USB3C1
USB3C3
USB3C2
LAN1
LAN2
DP1
DCIN1


SODIMM1
SIO
CPU
RST1

系统尺寸



ADVANTECH

UNO-137 V3
搭載 Intel® Atom® 7433RE 处理器的無風扇工業电脑
快速入门手册

包裝清單

安裝系統之前，使用者需確認包裝中含有下面所列各項：

1. UNO-137 V3 準系統 x 1
2. UNO-137 V3 快速入門手冊 x 1
3. 接地線 x 1
4. 1 2x5 Plug-in block (用於序列埠)
5. 1 2x1 Plug-in block (用於電源線)
6. 1 2x10 Plug-in block (用於數位I/O)

如果其中任何一項缺失或損壞，請立即與經銷商或業務代表聯繫。

註: 閱讀 PDF 檔需要使用 Acrobat Reader。使用者可從以下路徑下載 Acrobat Reader：get.adobe.com/reader (Acrobat 為 Adobe 的商標)

如需更多有關這款產品及其它研華產品的資訊，請訪問研華網站：

http://www.advantech.tw

如需技術支援和服務，請訪問研華支援網站的 UNO-137 V3 頁面：

https://advt.ch/mic770spt

請在研華網站註冊您的產品，即可免費獲得兩個月額外保修服務：

http://www.register.advantech.com

本手冊適用於 UNO-137 V3 系列 Rev.A1。

料號：204C137V00 第一版
中國印刷 2026 年 10 月

產品規格

處理器

- Intel® Atom® 7433RE (1.5 GHz), (高達 3.4 GHz)

記憶體

- 262-pin DDR5 4800 MHz SODIMM（最高 16 GB）

顯示

- Intel® UHD Graphics Up to 32EUs

序列埠

- 2 x RS-232/422/485, 50 bps ~ 115.2 kbps

乙太網

- 2 x Intel® i226-IT GbE, IEEE802.1AS, 802.3az

儲存裝置

- 1 x M.2 (B-key) 3052 (PCIex1/SATA signal)
- 1 x M.2 (M-key) 2242 (PCIex2 signal)

擴充

- 1 x M.2 (B-key) 3052 (PCIex1/SATA/USB3.0 signal)
- 1 x M.2 (M-key) 2242 (PCIex2 signal)
- 1 x M.2 (E-key) 2230 Wi-Fi modules (PCIe x1 + USB2.0 signal)
  （B-key 與 M-key 與儲存介面共用）

外部 I/O

- 顯示：1 x DP 1.4b, 高達 4096 x 2160 @ 60 Hz
- USB：3 x USB3.2 Gen2 (Type-A), 1 x USB2.0 (Type-A), 1 x USB3.2 Gen2 (Type-C)

電源

- 輸入電壓：10 V ~ 36 V_{DC}, 21 W (typical),47 W (max.)

環境規格

- 工作溫度：-40° C ~ 70° C/-40° F ~ 158° F 有氣流，速度為 0.7 m/s
- 儲存溫度：-40° C ~ 85° C (-40° F ~ 185° F)
- 相對濕度：95% @ 40° C（非凝結）

物理規格

- 尺寸（W x H x D）：46.8 x 105 x 150 mm (1.9 x 4.1 x 5.9 in)
- 重量：0.8 kg (1.7 lb)

電池

電腦配置了由電池供電的即時時鐘電路，如果電池更換不正確，將有爆炸的危險。因此，只可以使用製造商推薦的同一種或者同等型號的電池進行替換。請按照製造商的指示處理舊電池。

警告使用者：

這是甲類資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當對策。

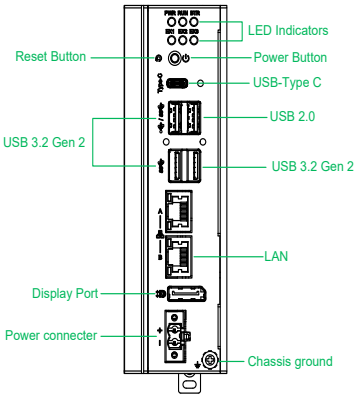
產品於國內裝置使用時，其電源僅限使用機架電源模組所提供直流電源輸入，不得使用交流電源及附加其他電源轉換裝置提供電源，其電源輸入電壓及電流請依說明書規定使用。

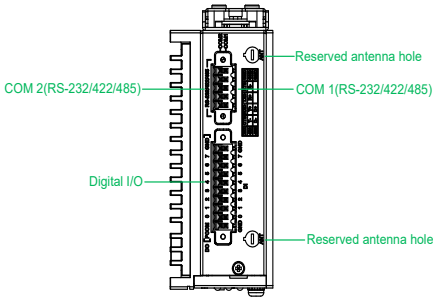
符合性聲明

本品符合 FCC 規則第 15 款限制。操作符合下列兩種情況：

1. 此裝置不可產生干擾，且
2. 此裝置可以接受任何干擾，包括可能導致非預期操作的干擾。

系統 I/O 接頭

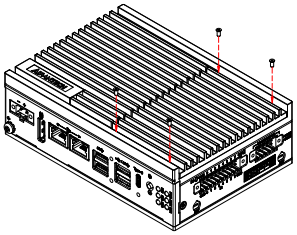




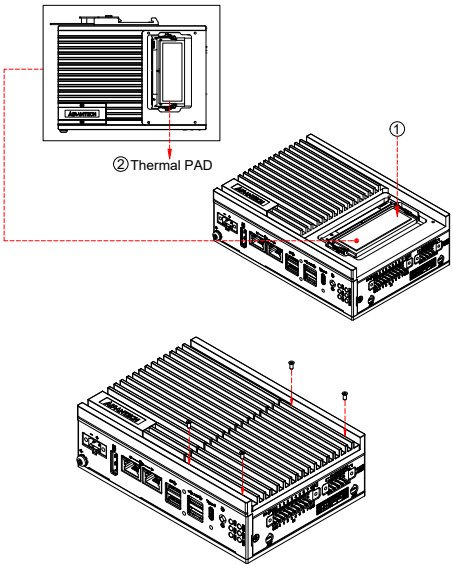
簡單安裝步驟

安裝 DIMM

1. 卸下 DIMM 蓋板上的 4 顆螺絲。



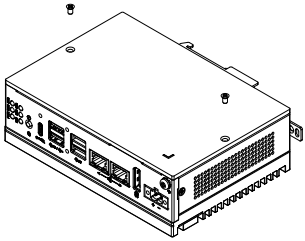
2. 插入 DIMM 並貼上散熱片後蓋回蓋板，鎖緊所有螺絲。



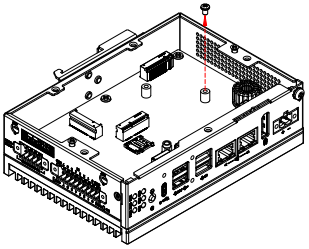
簡單安裝步驟（續）

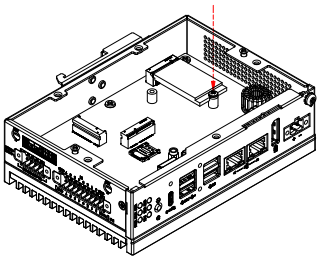
安裝 M.2 (2242 M-Key)

1. 拆卸底蓋 2 個螺絲。

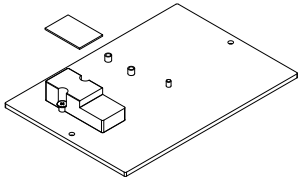


2. 先把預鎖螺絲拆卸再裝上 2242 卡片，並把螺絲鎖回。



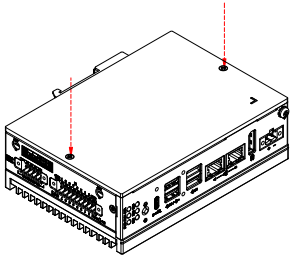


3. 黏貼 Thermal Pad 於鋁塊上。



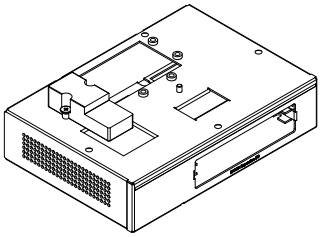
簡單安裝步驟（續）

4. 把底蓋裝回，並鎖上螺絲。

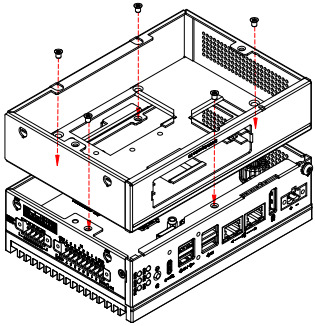


擴充第二層：

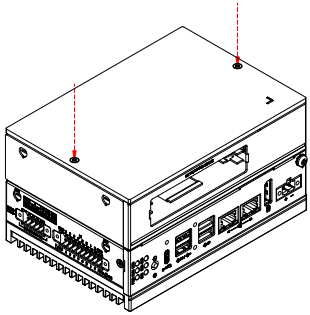
5. 若需擴充第二層需求，原第一層的鋁塊需拆卸安裝於第二層。



6. 再把第二層的擴充機殼鎖上5-顆螺絲於第一層機殼。



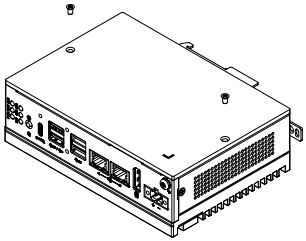
7. 最後把底蓋螺絲鎖上。



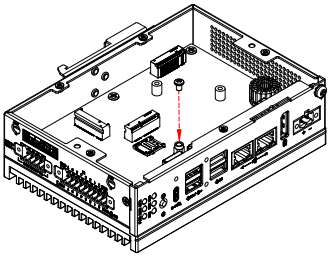
簡單安裝步驟（續）

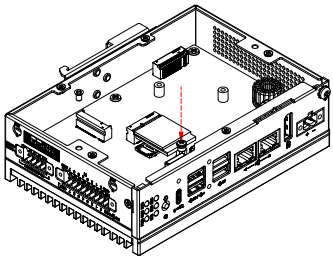
安裝M.2 (2230 E-Key)

1. 拆卸底蓋 2 個螺絲。

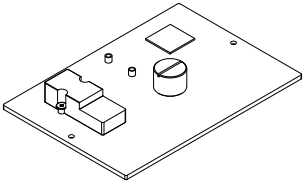


2. 先把預鎖螺絲拆卸再裝上2230卡片，並把螺絲鎖回。



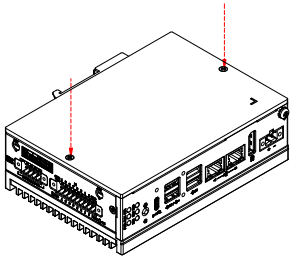


3. 黏貼散熱貼於鋁柱上。



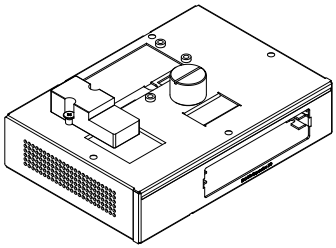
簡單安裝步驟（續）

4. 把底蓋裝回，並鎖上螺絲。

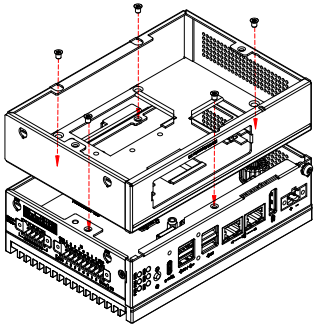


擴充第二層：

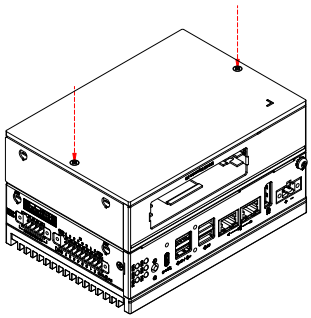
5. 若需擴充第二層需求，原第一層的鋁塊需拆卸安裝於第二層。



6. 再把第二層的擴充機殼鎖上5-顆螺絲於第一層機殼。



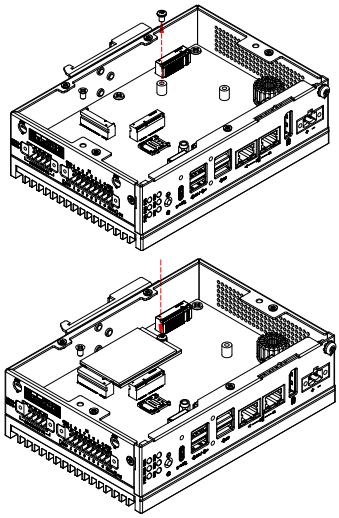
7. 最後把底蓋螺絲鎖上。



簡單安裝步驟（續）

安裝 M.2 (3052 B-Key)

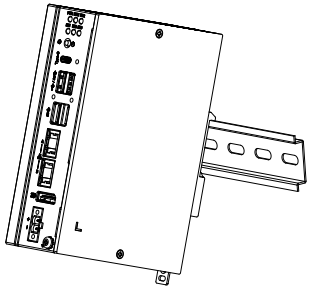
1. 拆卸底蓋 2 個螺絲。
2. 先把預鎖螺絲拆卸再裝上 M.2 3052 卡片，並把螺絲鎖回。



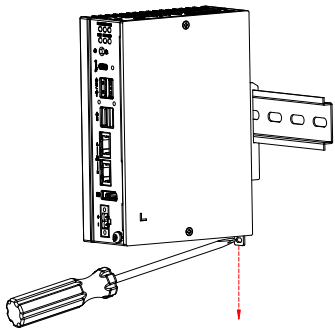
簡單安裝步驟（續）

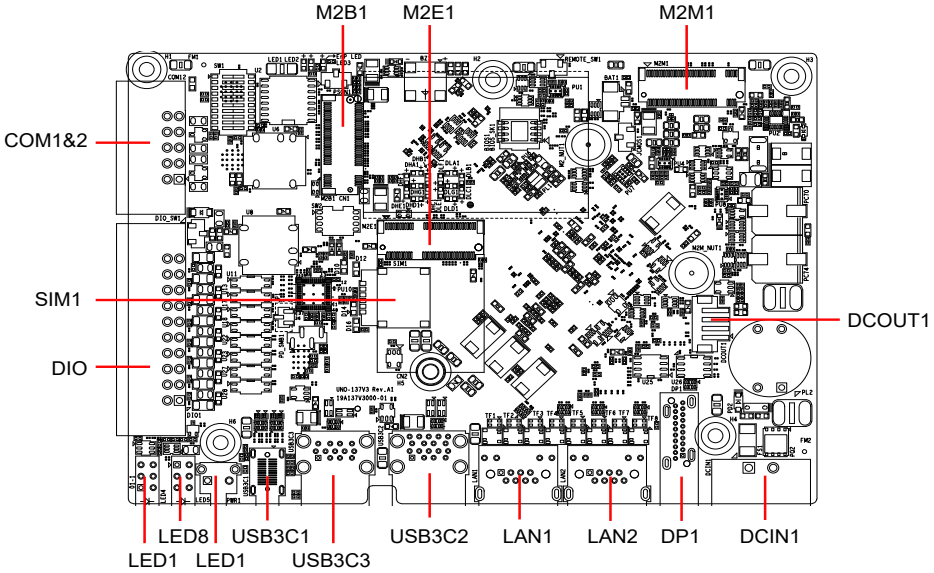
DIN 導軌安裝

1. 掛上 DIN 導軌，向內扣住。



2. 利用手工具插入橢圓孔內，向下拉，使卡勾退出並取下機器。




M2B1
M2E1
M2M1
COM1&2
SIM1
DIO
DCOUT1
LED1
LED8
LED1
USB3C1
USB3C3
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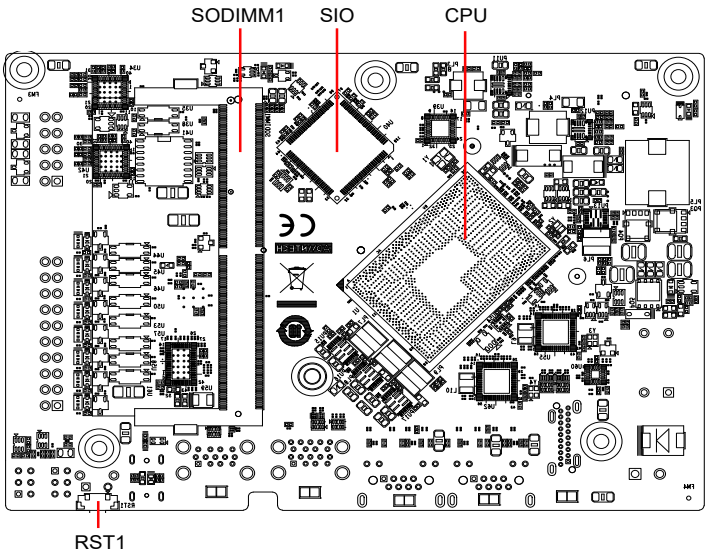
LAN1
LAN2
DP1
DCIN1


SODIMM1
SIO
CPU
RST1

系統尺寸

