

# Fanless DIN-Rail Edge Controller Feature with 13th Gen Intel® Core™ I CPU Startup Manual

### Packing List

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

1. UNO-148 V2 (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 M2x4L screws for mPCIe card installation
6. 1 x Earth-ground cable
7. Startup Manual
8. China RoHS sheet
9. 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](http://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-148 V2 at:



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

<http://www.register.advantech.com>



### 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® Core™ i3-1315UE, 1.2 GHz (up to 4.5 GHz)
- Intel® Core™ i5-1335UE, 1.3 GHz (up to 4.5 GHz)
- Intel® Core™ i7-1365UE, 1.7 GHz (up to 4.9 GHz)

#### Memory

- Built-in 8 GB DDR5, 4800 MHz (up to 64GB with 2 slots)

#### Graphics

- Intel® UHD Graphics for CPU i3 & i5
- Intel Iris X for CPU i7
- I/O: I/O Board (UNOB-UH11/UNOB-UH11A)

#### Serial Ports

- 4 x RS-232/422/485 (terminal block)  
 50 bps ~115.2 kbps (isolation protection: 2500 V<sub>DC</sub>)

#### Ethernet

- 2 x Intel® i226-ITGbE, IEEE802.1AS, 802.3az
- 1 x Intel® i219-LM GbE, IEEE802.1AS, 802.3az

#### Storage

- 2 x M.2 M-Key 2280 NVME SSD (PCIe x4 signal)

#### Expansion

- 1 x Full-size mPCIe (PCIe/USB 2.0 signal)
- 1 x M.2 (E-Key) 2230 Wi-Fi modules (PCIe/USB 2.0 signal)
- 1 x Nano SIM card slot

#### External I/O

- **Display:** 2 x DP 1.4, up to 3840 x 2160 (4K) @ 60 Hz
- **USB:** 2 x USB 3.2 Gen2, 1 x USB 3.2 Gen1x USB 2.0
- **Serial:** 4 x RS-232/422/485 (terminal block)  
 50 bps ~115.2 kbps (isolation protection: 2500 V<sub>DC</sub>)

## Specifications (Cont.)

### Power Requirements

- **Power type:** AT
- **Power Input Voltage:** 10 ~ 36 V<sub>DC</sub>
- **Power Connector:** 1 x 2-pin terminal block
- **Minimum Power Input:** 12V<sub>DC</sub> 5A, 24V<sub>DC</sub> 2.5A

This product is intended to be supplied by a UL certified power supply or UL certified DC source rated 19Vdc, 4.74A 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:** TDP@15W, -20°C~60°C (-40°F ~140°F with 0.7 m/s airflow)
- **Storage Temperature:** -40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity:** 95% RH @ 40 °C/104 °F, non-condensin

### Physical Characteristics

- **Dimensions (W x H x D):** 53 mm x 200 mm x 140 mm  
(1.4 in x 4.1 in x 5.9 in)
- **Weight:** 1.8 kg (3.96lb)

## Battery

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

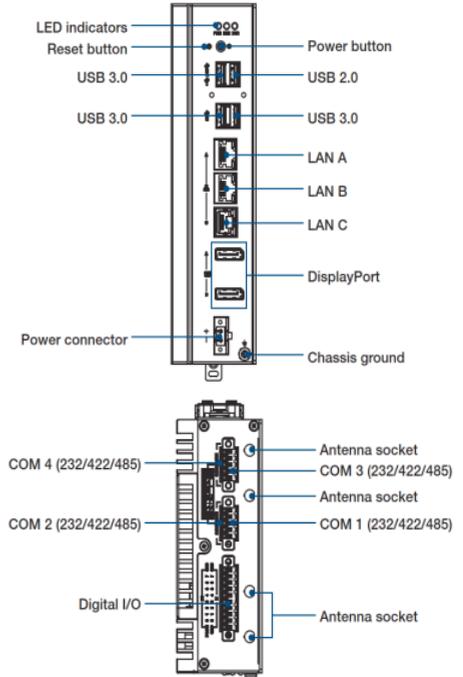
## Declaration of Conformity

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.

**Warning:** To avoid electromagnetic interference, this product should not be installed or used in residential environments.

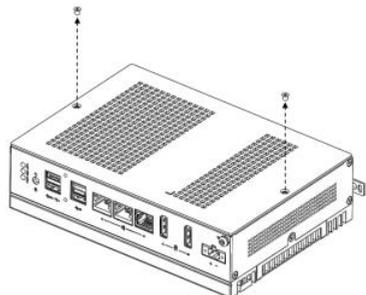
## System I/O Interface



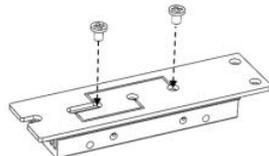
## Simple Maintenance Process

### NVME Installation

1. Remove the two screws from the bottom cover.

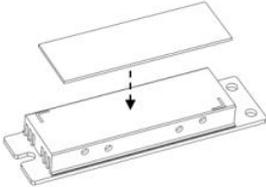


2. Secure the heatsink and NVME bracket with screws.

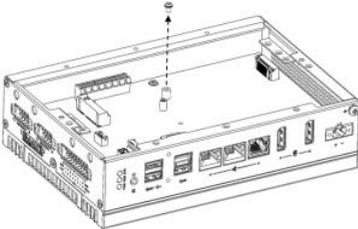


## Simple Maintenance Process (Cont.)

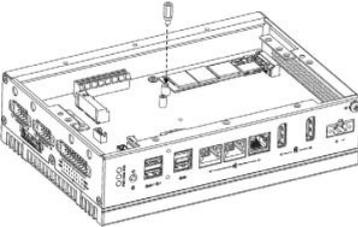
3. Apply the thermal pad to the heatsink



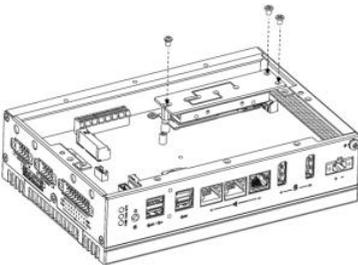
4. Remove the screws that are pre-installed in the system.



5. Install the NVME and secure it with the post.



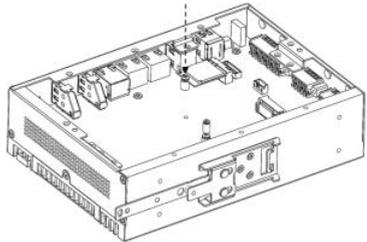
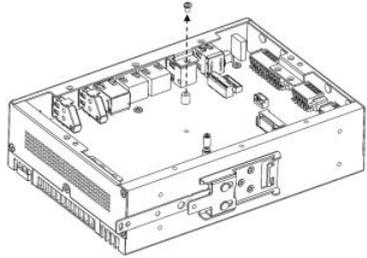
6. Attach the heatsink to the system using three screws.



## Simple Maintenance Process (Cont.)

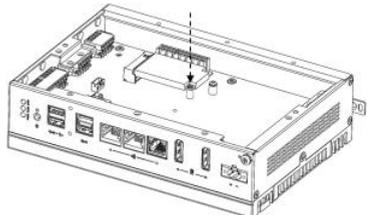
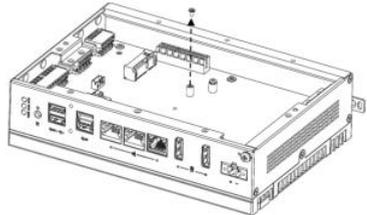
### M.2 2230 Installation

Remove the pre-installed screws from the system. Install the M.2 2230 module. Reinstall and secure the screws.



### mPCIe Installation

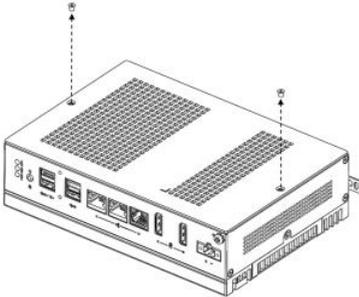
Remove the pre-installed screws from the system. Install the mPCIe module. Reinstall and secure the screws.



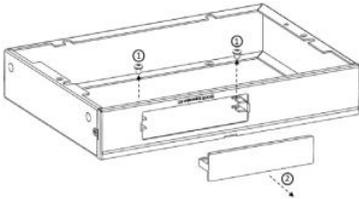
## Simple Maintenance Process (Cont.)

### iDoor Module

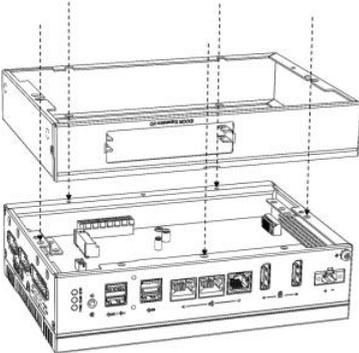
1. Remove 2 screws from bottom cover



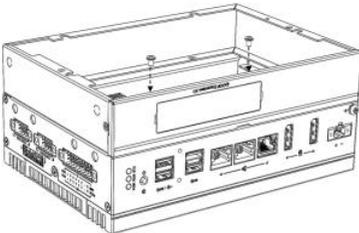
2. Remove iDoor cover.



3. Secure 5 screws on 2nd stack to combine base unit.

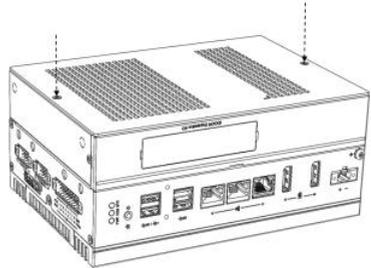


4. Secure the iDoor cover back.



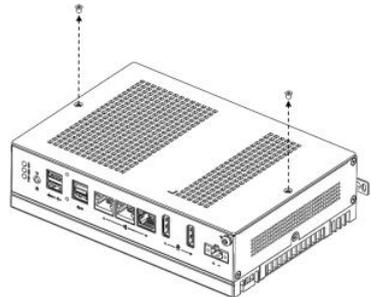
## Simple Maintenance Process (Cont.)

5. Lock screws back to bottom cover.

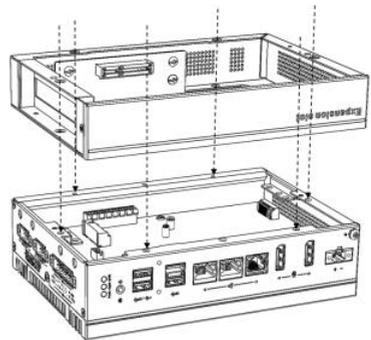


### PCIE Module

1. Remove the 2 screws from the bottom cover.

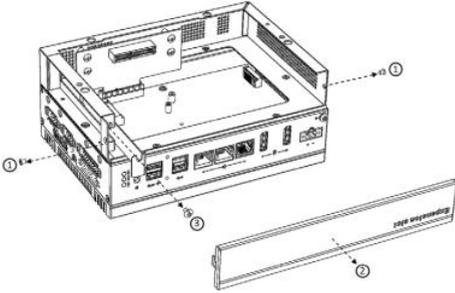


2. Secure 6 screws on 2nd stack to combine base unit.

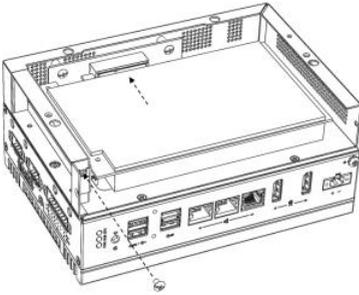


## Simple Maintenance Process (Cont.)

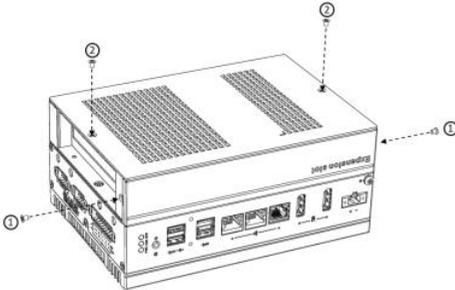
- Secure the extension module on 2nd stack and remove the front cover and the PCIe-bracket.



- Install PCIe card and secure with screws.



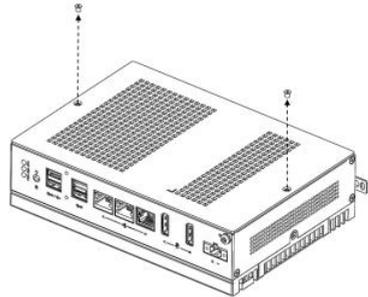
- Place front cover and bottom cover back then secure with screws.



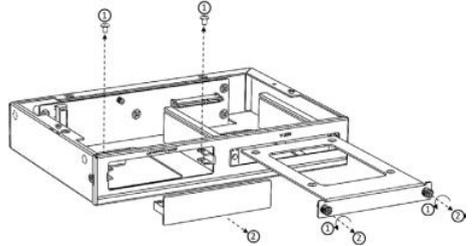
## Simple Maintenance Process (Cont.)

### iDoor&HDD Module

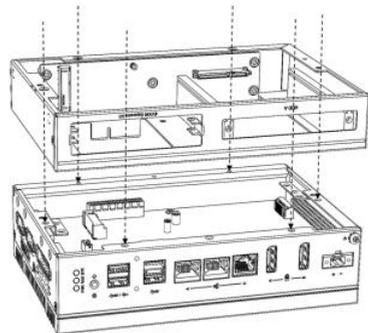
- Remove 2 screws from the bottom cover.



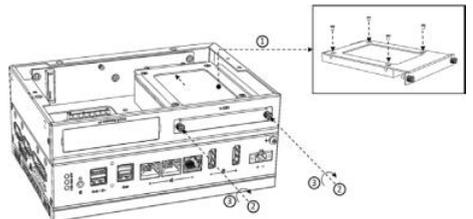
- Remove iDoor cover and HDD tray.



- Secure the 6 screws on 2nd stack to combine base unit.

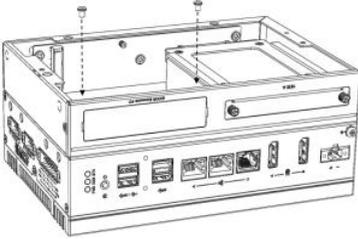


- HDD extension slot: lock HDD into HDD tray and insert HDD tray on the track then tighten the screws.

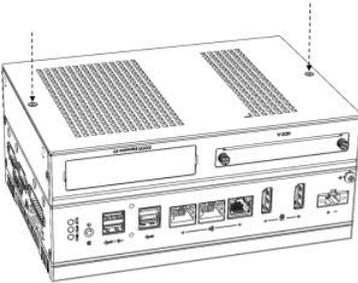


## Simple Maintenance Process (Cont.)

5. iDoor extension slot: lock 2 screws on iDoor cover.

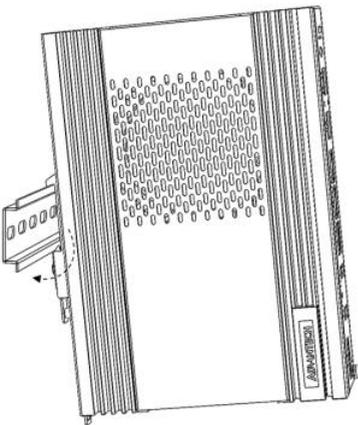


6. Secure the screws on bottom cover.



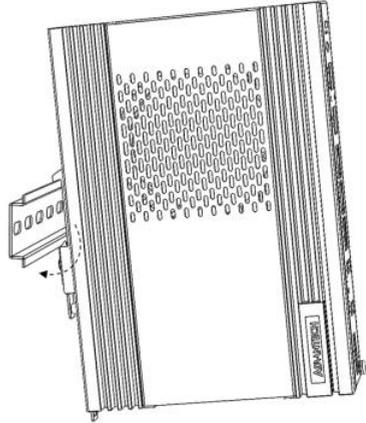
## Din-Rail

1. Hang up the Din Rail and buckle inwards.



## Simple Maintenance Process (Cont.)

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



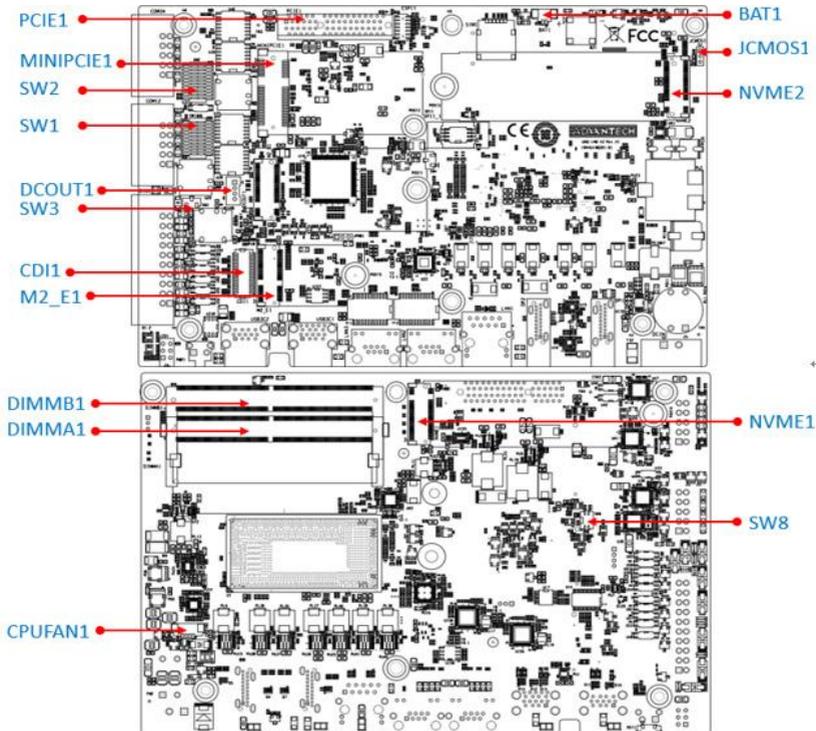
## Safety Instructions

1. Read these safety instructions carefully.
2. Retain this user manual for future reference.
3. Disconnect the equipment from all power outlets before cleaning. Use only a damp cloth for cleaning. Do not use liquid or spray detergents.
4. For pluggable equipment, the power outlet socket must be located near the equipment and be easily accessible.
5. Protect the equipment from humidity.
6. Place the equipment on a reliable surface during installation. Dropping or letting the equipment 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. Ensure that the voltage of the power source is correct before connecting the equipment to a power outlet.
9. Position the power cord away from high-traffic areas. 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 from transient overvoltage.
12. Never pour 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 any of the following occurs, have the equipment checked by service personnel:
  - The power cord or plug is damaged.

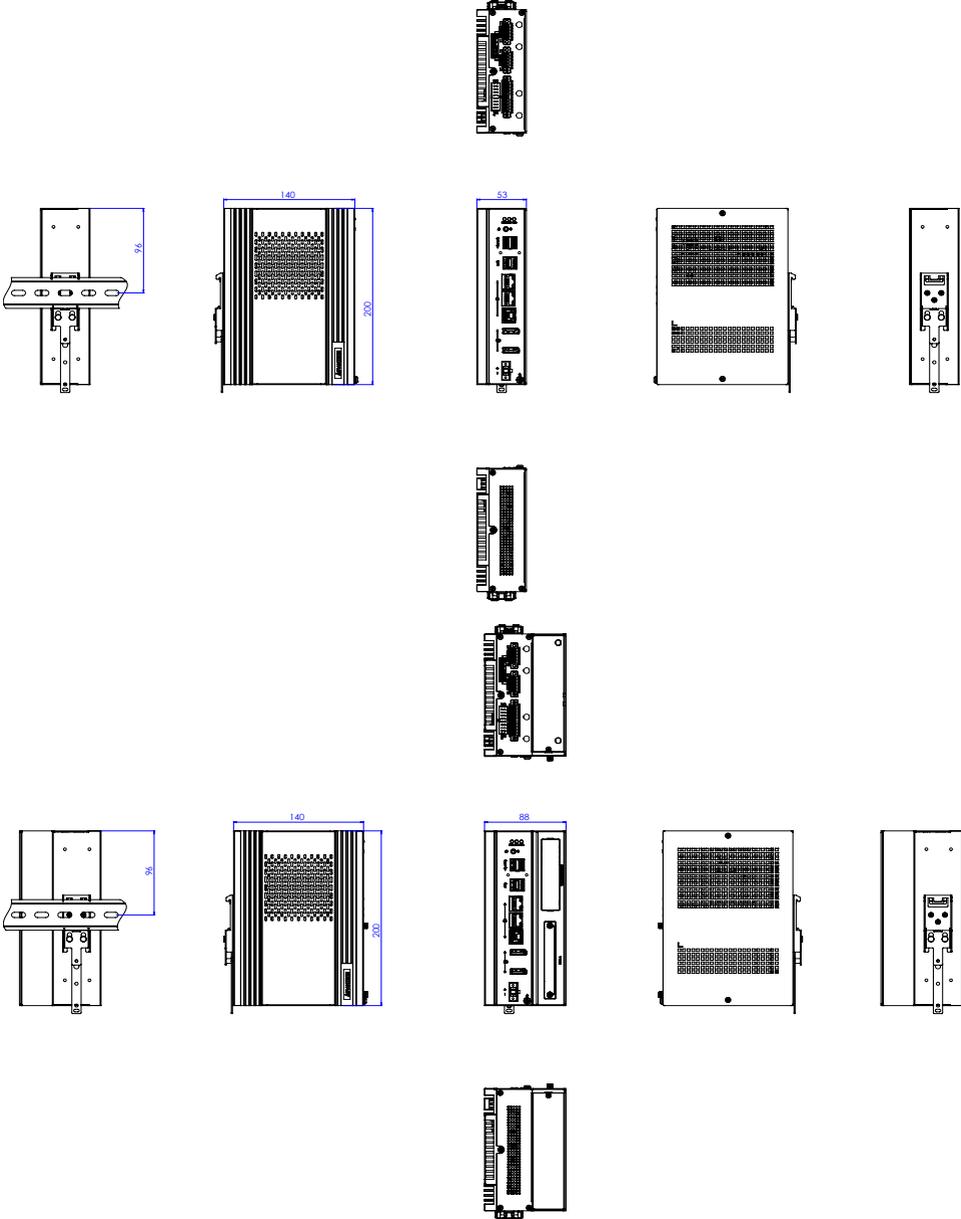
## Safety Instructions (Cont.)

- Liquid has penetrated the equipment.
  - The equipment has been exposed to moisture.
  - The equipment is malfunctioning, or does not operate according to the user manual.
  - The equipment has been dropped and damaged.
  - The equipment shows obvious signs of breakage.
15. Do not leave the equipment in an environment with a storage temperature of below  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ) or above  $85^{\circ}\text{C}$  ( $185^{\circ}\text{F}$ ) as this may damage the components. The equipment should be kept in a controlled environment.
  16. CAUTION: Batteries are at risk of exploding if incorrectly replaced. Replace only with the same or equivalent type as recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.
  17. In accordance with IEC 704-1:1982 specifications, the sound pressure level at the operator's position does not exceed 70 dB (A).
  18. RESTRICTED ACCESS AREA: The equipment should only be installed in a restricted access area.
  19. DISCLAIMER: These instructions are provided according to IEC 704-1 standards. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

## IO Connectors



# System Dimensions



## UNO-148 V2

### 无风扇 DIN-Rail 边缘控制器, 搭载第 13 代 Intel®

### Core™ I CPU

### 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-148V2 (支持 DIN 导轨安装)
2. 1 x 2x5 Plug-in block (用于串行端口)
3. 1 x 2x1 Plug-in block (用于电源线)
4. 1 x 2x10 Plug-in block (用于数字量 I/O)
5. 1 x M2x4L 螺丝 (用于 mPCIe 卡安装)
6. 1 x 接地线
7. 快速入门手册
8. China RoHS sheet
9. 保修卡

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](http://get.adobe.com/reader) (Acrobat 为 Adobe 的商标)

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<http://www.advantech.com>



如需技术支持和服务, 请访问研华支持网站的 UNO-148 V2 页面:



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>



料号: 2001M14800  
中国印刷

第一版  
2024 年 6 月

#### 包装清单 (续)

注: 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。

#### 产品规格

##### 处理器系统

- Intel® Core™ i3-1315UE, 1.2 GHz (高达 4.5 GHz)
- Intel® Core™ i5-1335UE, 1.3 GHz (高达 4.5 GHz)
- Intel® Core™ i7-1365UE, 1.7 GHz (高达 4.9 GHz)

##### 内存

- 内置 8 GB DDR5, 4800 MHz, 最高容量可达 64 GB

##### 显示

- Intel® UHD Graphics for CPU i3 & i5
- Intel Iris X for CPU i7

##### 扩展卡

- I/O Board (UNOB-UH11/UNOB-UH11A)

##### 串口

- 4 x RS-232/422/485 (接线端子)  
50 bps ~115.2 kbps (隔离保护: 2500 V<sub>DC</sub>)

##### 以太网

- 2 x Intel® i226-ITGbE, IEEE802.1AS, 802.3az
- 1 x Intel® i219-LM GbE, IEEE802.1AS, 802.3az

##### 存储

- 2 x M.2 M-Key 2280 NVME SSD (PCIe x4 信号)

##### 扩展

- 1 x 全长 mPCIe (PCIe/USB 2.0 信号)
- 1 x M.2 (E-key) 2230 Wi-Fi 模块 (PCIe/USB 2.0 信号)
- 1 x Nano SIM 卡插槽

##### 外部 I/O

- 显示: 2 x DP 1.4, 高达 3840 x 2160 (4K) @ 60 Hz
- USB: 2 x USB 3.2 Gen2、1 x USB 3.2 Gen1x USB 2.0
- 串口: 4 x RS-232/422/485 (接线端子)  
50 bps ~115.2 kbps (隔离保护: 2500 V<sub>DC</sub>)

##### 电源要求

- 电源类型: AT
  - 输入电压: 10 ~ 36 V<sub>DC</sub>
  - 电源接口: 1 x 2-pin 接线端子
  - 最小输入功率: 12 V<sub>DC</sub> 5 A, 24 V<sub>DC</sub> 2.5 A
- 本产品可采用经 UL 认证的电源或 DC 电源, 支持 19

## 产品规格 (续)

Vdc, 4.74 A, 最低 Tma 50 ° C。(安全证书规定的操作温度: 40 ° C), 若您需要其他帮助, 请联系我们获取更多信息。

### 环境规格

- 工作温度: TDP@15W, -20 ° C ~ 60 ° C (-40 ° F ~ 140 ° F, 气流速度为 0.7 m/s)
- 储存温度: -40 ~ 85 ° C (-40 ~ 185 ° F)
- 相对湿度: 95% RH @ 40 ° C/104 ° F, 非凝结

### 物理规格

- 尺寸 (W x H x D): 53 mm x 200 mm x 140 mm (1.4 in x 4.1 in x 5.9 in)
- 重量: 1.8 kg (3.96 lb)

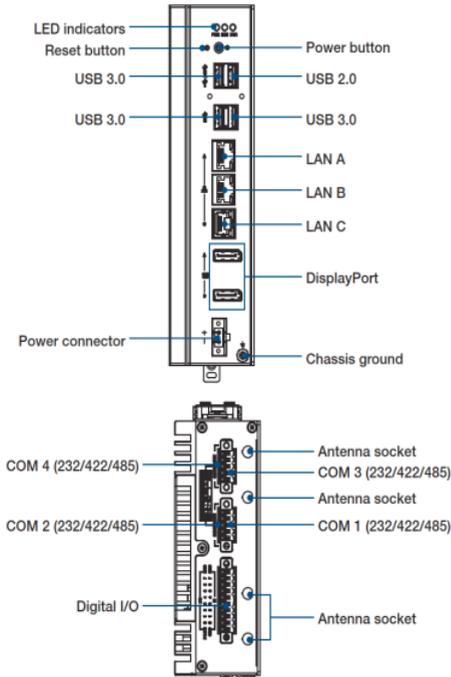
## 符合性声明

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。

警告: 为避免电磁干扰, 不得在住宅环境中安装或使用本产品。

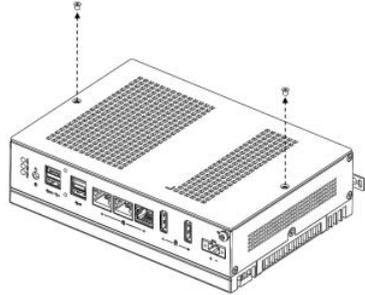
## 系统 I/O 接口



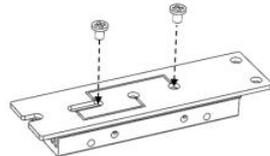
## 简单安装步骤

### 安装 NVME

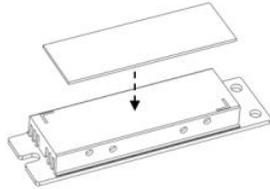
1. 拆卸底盖上的 2 颗螺丝。



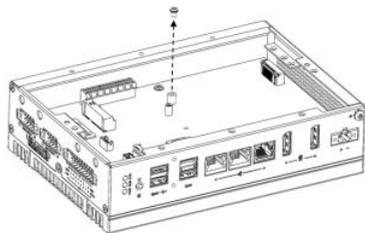
2. 用螺丝固定散热器和 NVME 支架。



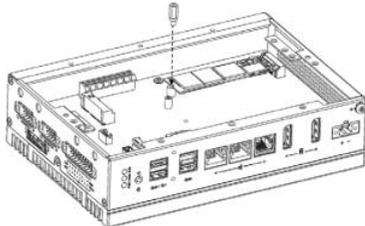
3. 粘贴散热垫于散热器上。



4. 拆卸螺丝。

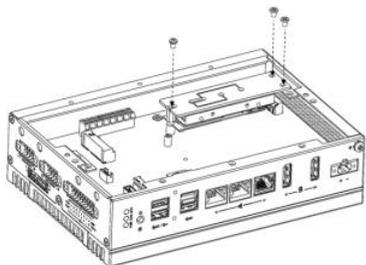


5. 安装 NVME, 并用铜柱锁附。



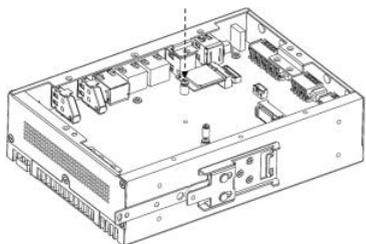
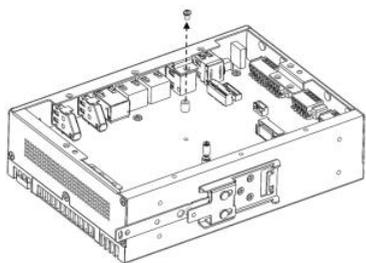
## 简单安装步骤 (续)

- 最后用 3 颗螺丝将散热器固定在系统上。



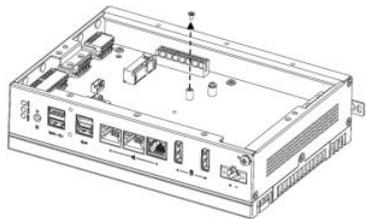
## 安装 M.2 2230

拆除螺丝，安装 M.2 2230，然后锁回螺丝。

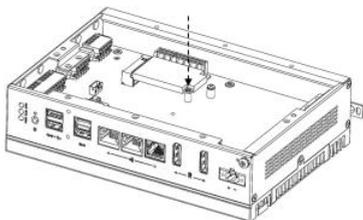


## 安装 mPCIe

拆除螺丝，安装 mPCIe，然后锁回螺丝。

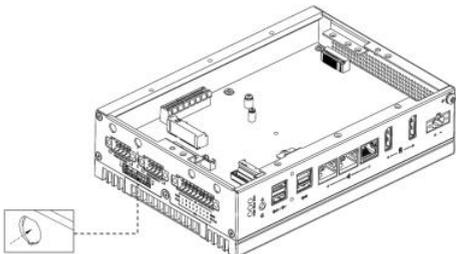


## 简单安装步骤 (续)

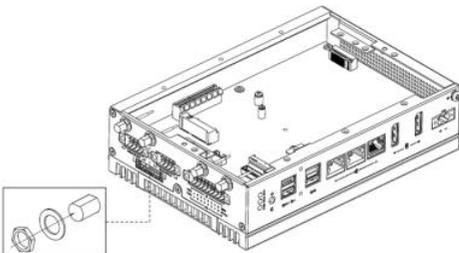


## 天线预留孔

- 将天线预留孔内(外)压(折)即可移除。

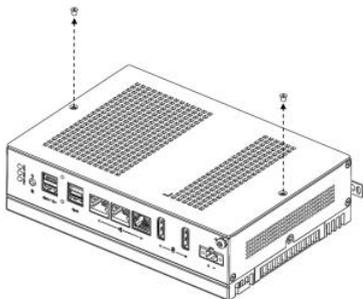


- 将 SMA Conn. 组装于预留孔，最后拧紧垫片及螺母。



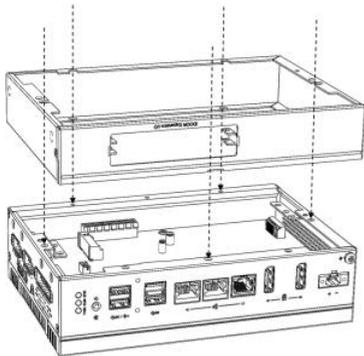
## iDoor 模块

- 拆掉底盖上的 2 颗螺丝。

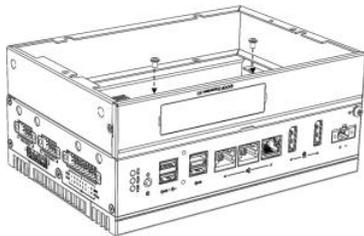


## 简单安装步骤（续）

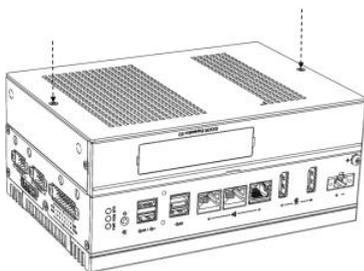
2. 用 5 颗螺丝将第二层的扩展机壳固定于第一层机壳上。



3. 锁回 iDoor 门盖。

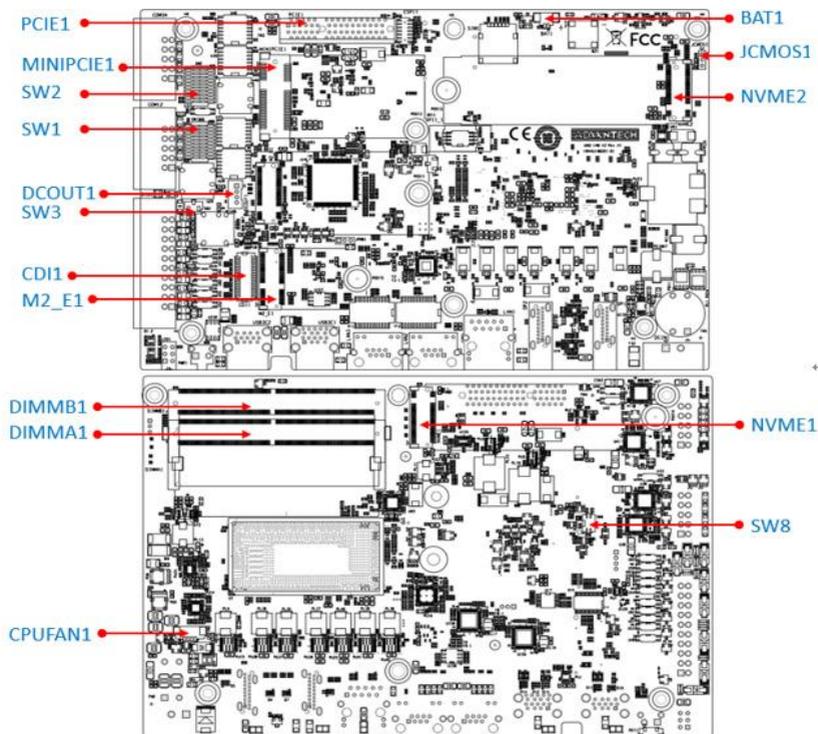


4. 将螺丝锁回底座。

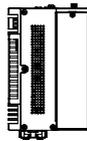
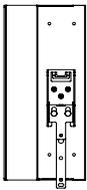
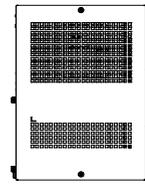
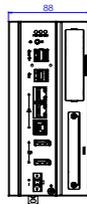
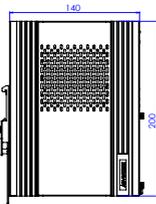
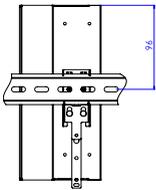
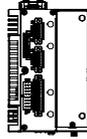
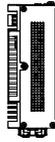
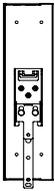
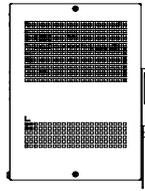
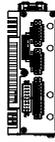
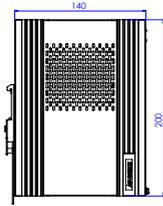
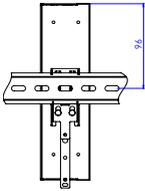


## 安全指示

1. 请仔细阅读此安全操作说明。
2. 请妥善保管此用户手册供日后参考。
3. 用湿抹布清洗设备前，请从插座拔下电源线。请不要使用液体或去污喷雾剂清洗设备。
4. 对于使用电源线的设备，设备周围必须有容易接触到的电源插座。
5. 请不要在潮湿环境中使用设备。
6. 请在安装前确保设备放置在可靠的平面上，意外跌落可能会导致设备损坏。
7. 设备外壳的开口是用于空气对流，从而防止设备过热。请不要覆盖这些开口。
8. 当您连接设备到电源插座前，请确认电源插座的电压是否符合要求。
9. 请将电源线布置在人们不易绊到的位置，并不要在电源线上覆盖任何杂物。
10. 请注意设备上的所有警告标识。
11. 如果长时间不使用设备，请将其同电源插座断开，避免设备被超标的电压波动损坏。
12. 请不要让任何液体流入通风口，以免引起火灾或者短路。
13. 请不要自行打开设备。为了确保您的安全，请由经过认证的工程师来打开设备。
14. 如遇下列情况，请由专业人员来维修：
  - 电源线或者插头损坏；
  - 设备内部有液体流入；
  - 设备曾暴露在过于潮湿的环境中使用；
  - 设备无法正常工作，或您无法通过用户手册来使其正常工作；
  - 设备跌落或者损坏；
  - 设备有明显的外观破损。
15. 请不要把设备放置在超出我们建议的储存温度范围的环境，即不要低于  $-40^{\circ}\text{C}$  ( $40^{\circ}\text{F}$ ) 或高于  $85^{\circ}\text{C}$  ( $185^{\circ}\text{F}$ )，否则可能会损坏设备。
16. 注意：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。
17. 根据 IEC 704-1:1982 的规定，操作员所在位置的声压级不可高于 70dB (A)。
18. 限制访问区域：本设备只能安装在限制访问区域。
19. 免责声明：该安全指示符合 IEC 704-1 的要求。研华公司对其内容的准确性不承担任何法律责任。



# 系统尺寸



## UNO-148 V2

無風扇 DIN-Rail 邊緣控制器,  
配備第 13 代 Intel® Core™ i CPU  
快速入門手冊

## 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-148V2 (支援 DIN 導軌安裝)
2. 1 x 2x5 Plug-in block (用於串行端口)
3. 1 x 2x1 Plug-in block (用於電源線)
4. 1 x 2x10 Plug-in block (用於數位 I/O 串聯)
5. 1 x M2x4L 螺絲 (用於 mPCIe 卡安裝)
6. 1 x 接地線
7. 快速入門手冊
8. China RoHS sheet
9. 保固卡

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](http://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.com>



如需技術支援和服務，請訪問研華支援網站的 UNO-148 V2 頁面：



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>



料號：2001M14800  
中國印刷

第一版  
2024 年 6 月

## 包裝清單 (續)

註： 如果電池更換不當，會有爆炸危險。僅用相同的東西替換或製造商建議的同等類型，根據製造商的說明處理用過的電池。

## 產品規格

## 處理器系統

- Intel® Core™ i3-1315UE, 1.2 GHz (高達 4.5 GHz)
- Intel® Core™ i5-1335UE, 1.3 GHz (高達 4.5 GHz)
- Intel® Core™ i7-1365UE, 1.7 GHz (高達 4.9 GHz)

## 記憶體

- 內置 8 GB DDR5, 4800 MHz, 最高容量可達 64 GB

## 顯示

- Intel® UHD Graphics for CPU i3 & i5
- Intel Iris X for CPU i7

## 擴充卡

- I/O Board (UNOB-UH11/UNOB-UH11A)

## 串口

- 4 x RS-232/422/485 (接線端子)  
50 bps ~115.2 kbps (隔離保護: 2500 V<sub>DC</sub>)

## 乙太網

- 2 x Intel® i226-ITGbE, IEEE802.1AS, 802.3az
- 1 x Intel® i219-LM GbE, IEEE802.1AS, 802.3az

## 儲存裝置

- 2 x M.2 M-Key 2280 NVME SSD (PCIe x4 信号)

## 擴充

- 1 x 全長 mPCIe (PCIe/USB 2.0 訊號)
- 1 x M.2 (E-key) 2230 Wi-Fi 模組 (PCIe/USB 2.0 訊號)
- 1 x Nano SIM 卡插槽

## 外部 I/O

- 顯示: 2 x DP 1.4, 高達 3840 x 2160 (4K) @ 60 Hz
- USB: 2 x USB 3.2 Gen2、1 x USB 3.2 Gen1x USB 2.0
- 串口: 4 x RS-232/422/485 (接線端子)  
50 bps ~115.2 kbps (隔離保護: 2500 V<sub>DC</sub>)

## 電源要求

- 電源類型: AT
  - 輸入電壓: 10 ~ 36 V<sub>DC</sub>
  - 電源介面: 1 x 2-pin 接線端子
  - 最小輸入功率: 12 V<sub>DC</sub> 5 A, 24 V<sub>DC</sub> 2.5 A
- 本產品可採用經 UL 認證的電源或 DC 電源，支援 19

## 产品规格 (续)

V<sub>dc</sub>, 4.74 A, 最低 T<sub>ma</sub> 50 °C。(安全證書規定的操作溫度: 40 °C), 若您需要其他說明, 請聯絡我們獲取更多資訊。

「本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」

## 環境規格

- 工作溫度: TDP@15W, -20 ~ 60 °C (-40 ~ 140 °F, 氣流速度為 0.7 m/s)
- 儲存溫度: -40 ~ 85 °C (-40 ~ 185 °F)
- 相對濕度: 95% RH @ 40 °C/104 °F, 非凝結

## 物理規格

- 尺寸 (W x H x D): 53 mm x 200 mm x 140 mm (1.4 in x 4.1 in x 5.9 in)
- 重量: 1.8 kg (3.96 lb)

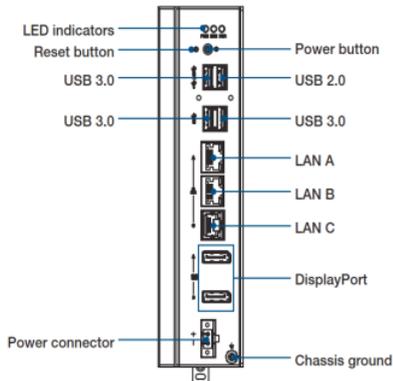
## 符合性聲明

本品符合 FCC 規則第 15 款限制。操作符合下列兩種情況:

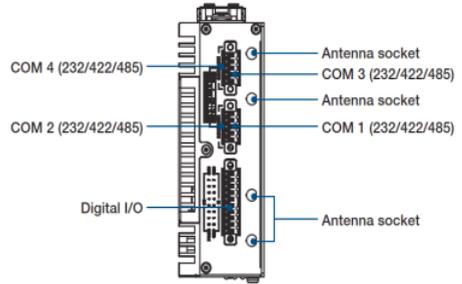
1. 此裝置不可產生干擾, 且
2. 此裝置可以接受任何干擾, 包括可能導致非預期操作的干擾。

警告: 為避免電磁干擾, 不得在住宅環境中安裝或使用本產品。

## 系統 I/O 介面



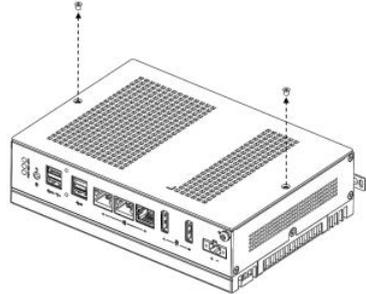
## 系統 I/O 介面 (續)



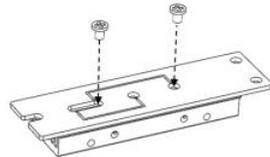
## 簡單安裝步驟

### 安裝 NVME

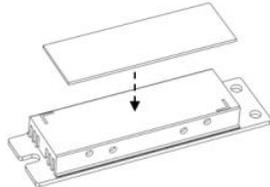
1. 拆卸底蓋上的 2 顆螺絲。



2. 用螺絲固定散熱器和 NVME 支架。

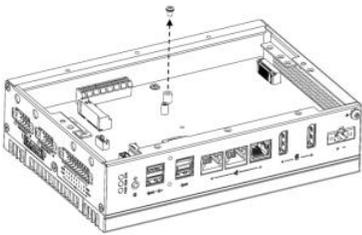


3. 粘貼散熱墊於散熱器上。

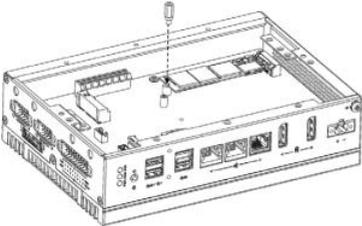


## 簡單安裝步驟 (續)

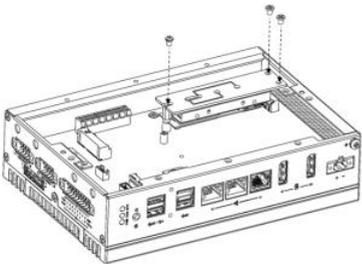
4. 拆卸螺絲。



5. 安裝 NVME，並用銅柱鎖附。

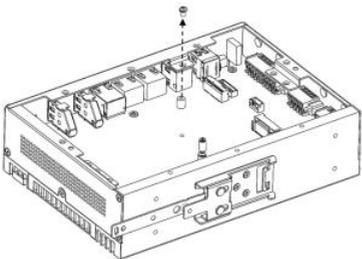


6. 最後用 3 顆螺絲將散熱器固定在系統上。



## 安裝 M.2 2230

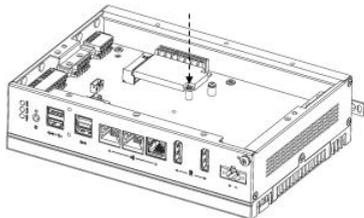
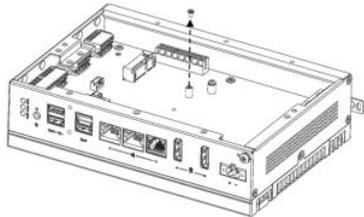
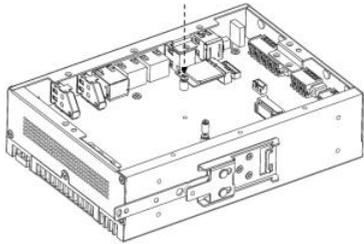
拆除螺絲，安裝 M.2 2230，然後鎖回螺絲。



## 簡單安裝步驟 (續)

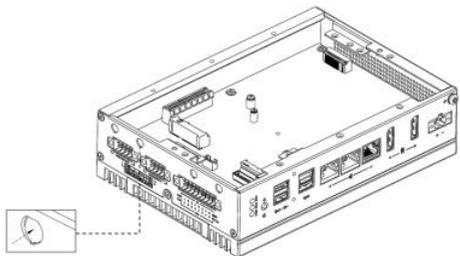
### 安裝 mPCIe

拆除螺絲，安裝 mPCIe，然後鎖回螺絲。



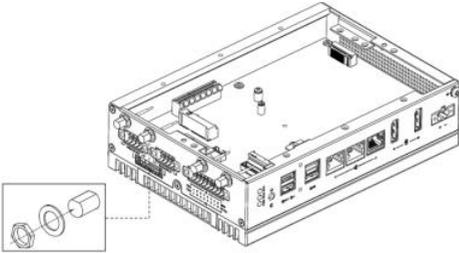
### 天線預留孔

1. 將天線預留孔內 (外) 壓 (折) 即可移除。



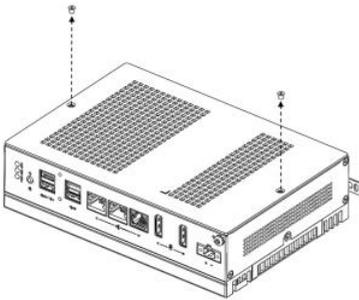
## 簡單安裝步驟 (續)

- 將 SMA Conn. 組裝于預留孔, 最後擰緊墊片及螺母。

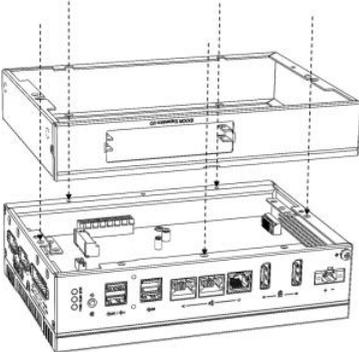


## iDoor 模組

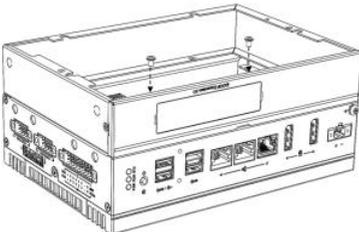
- 拆掉底蓋上的 2 顆螺絲。



- 用 5 顆螺絲將第二層的擴展機殼固定於第一層機殼上。

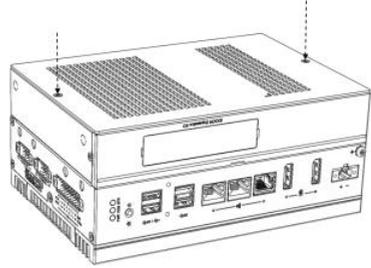


- 鎖回 iDoor 門蓋。



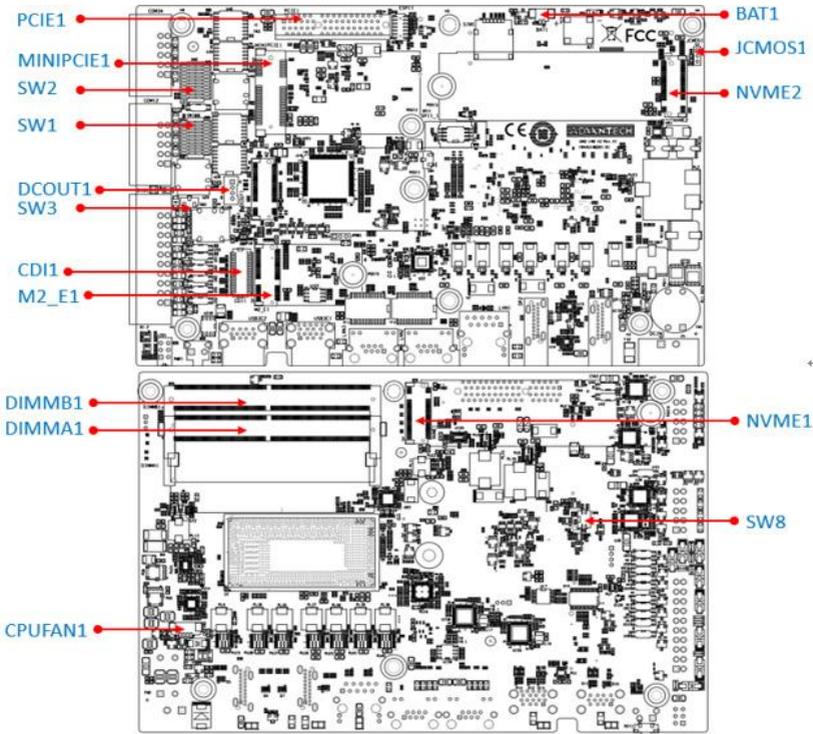
## 簡單安裝步驟 (續)

- 將螺絲鎖回底蓋。



## 安全指示

- 請仔細閱讀此安全操作說明。
- 請妥善保存此用戶手冊供日後參考。
- 用濕抹布清洗設備前, 請從插座拔下電源線。請不要使用液體或去汙噴霧劑清洗設備。
- 對於使用電源線的設備, 設備周圍必須有容易接觸到的電源插座。
- 請不要在潮濕環境中使用設備。
- 請在安裝前確保設備放置在可靠的平面上, 意外跌落可能會導致設備損壞。
- 設備外殼的開口是用於空氣對流, 從而防止設備過熱。請不要覆蓋這些開口。
- 當您連接設備到電源插座上, 請確認電源插座的電壓是否符合要求。
- 請將電源線佈置在人們不易絆到的位置, 並不要在電源線上覆蓋任何雜物。
- 請注意設備上的所有警告和注意標語。
- 如果長時間不使用設備, 請將其同電源插座斷開, 避免設備被超目標電壓波動損壞。
- 請不要讓任何液體流入通風口, 以免引起火災或者短路。
- 請不要自行打開設備。為了確保您的安全, 請由經過認證的工程師來打開設備。
- 如遇下列情況, 請由專業人員來維修:
  - 電源線或者插頭損壞;
  - 設備內部有液體流入;
  - 設備曾暴露在過於潮濕的環境中使用;
  - 設備無法正常工作, 或您無法通過用戶手冊來使其正常工作;
  - 設備跌落或者損壞;
  - 設備有明顯的外觀破損。
- 請勿將設備放置在超出建議溫度範圍的環境, 即不要低於  $-40^{\circ}\text{C}$  ( $40^{\circ}\text{F}$ ) 或高於  $85^{\circ}\text{C}$  ( $158^{\circ}\text{F}$ ), 否則可能會造成設備損壞。
- 注意: 若電池更換不正確, 將有爆炸危險。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。
- 根據 IEC 704-1:1982 規定, 操作員所在位置音量不可高於 70 分貝。
- 限制區域: 請勿將設備安裝於限制區域使用。
- 免責聲明: 該安全指示符合 IEC 704-1 要求。研華公司對其內容之準確性不承擔任何法律責任。



# 系統尺寸

