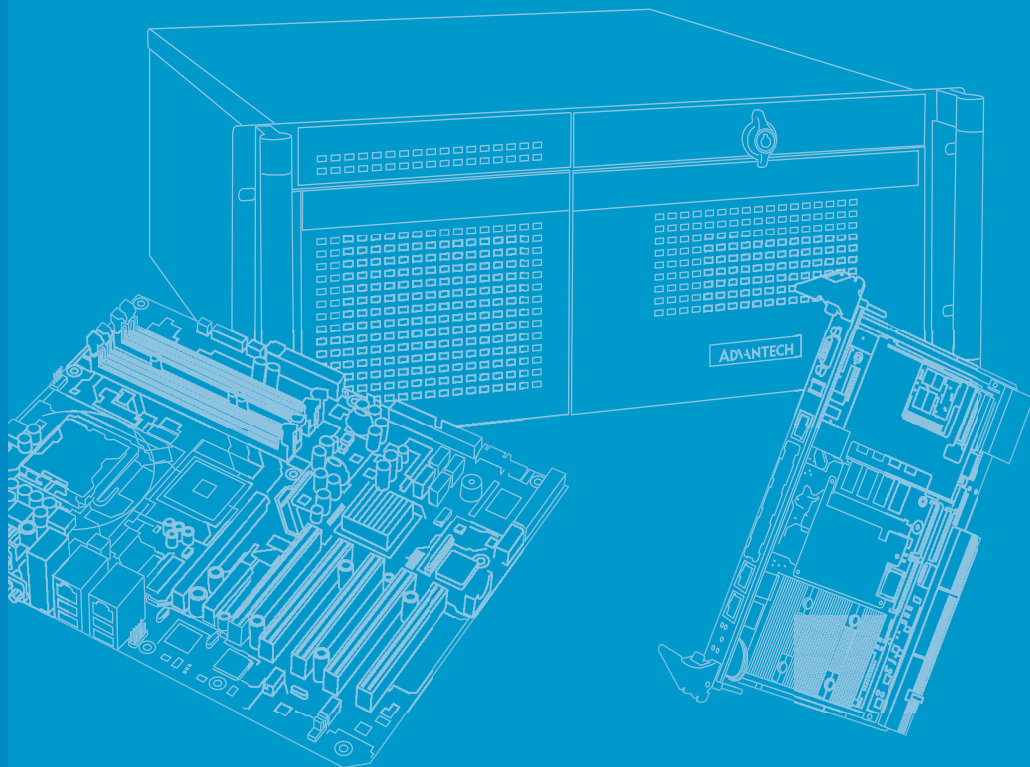




EPC-M5377R

Thin Embedded Slim Computer

微型计算机（薄型嵌入式微型计算机）

微型電腦（薄型嵌入式微型電腦）

ADVANTECH

Enabling an Intelligent Planet

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Product Warranty (2 years)/ 产品质量保证（两年）/ 產品品質保證（兩年）

Advantech warrants the original purchaser that each of its products will be free from defects in materials and workmanship for two years from the date of purchase.

This warranty does not apply to any products that have been repaired or altered by persons other than repair personnel authorized by Advantech, or products that have been subject to misuse, abuse, accident, or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced free of charge during the warranty period. For out-of-warranty repairs, customers will be billed according to the cost of replacement materials, service time, and freight. Please consult your dealer for more details.

If you believe your product to be defective, follow the steps outlined below.

1. Collect all the information about the problem encountered. (For example, CPU speed, Advantech products used, other hardware and software used, etc.) Note anything abnormal and list any onscreen messages displayed when the problem occurs.
2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
3. If your product is diagnosed as defective, obtain a return merchandise authorization (RMA) number from your dealer. This allows us to process your return more quickly.
4. Carefully pack the defective product, a completed Repair and Replacement Order Card, and a proof of purchase date (such as a photocopy of your sales receipt) into a shippable container. Products returned without a proof of purchase date are not eligible for warranty service.
5. Write the RMA number clearly on the outside of the package and ship the package prepaid to your dealer.

从购买之日起，研华为原购买商提供两年的产品质量保证。但对那些未经授权的维修人员维修过的产品并不进行质量保证。研华对于不正确的使用、灾难、错误安装产生的问题有免责权利。

如果研华产品出现故障，在质保期内我们提供免费维修或更换服务。对于出保产品，我们将会酌情收取材料费、人工服务费用。请联系您的销售人员了解详细情况。

如果您认为您购买的产品出现了故障，请遵循以下步骤：

1. 收集您所遇到的问题的信息（例如，CPU 主频、使用的研华产品及其它软件、硬件等）。请注意屏幕上出现的任何不正常信息显示。
2. 打电话给您的供货商，描述故障问题。请借助手册，产品和任何有帮助的信息。
3. 如果您的产品被诊断发生故障，请从您的供货商那里获得 RMA (Return Material Authorization) 序列号。这可以让我们尽快的进行故障产品的回收。
4. 请仔细的包装故障产品，并在包装中附上完整的售后服务卡片和购买日期证明（如销售发票）。我们对无法提供购买日期证明的产品不提供质量保证服务。
5. 把相关的 RMA 序列号写在外包装上，并将其运送给销售人员。

從購買之日起，研華為原購買商提供兩年的產品品質保證。但對那些未經授權的維修人員維修過的產品並不進行品質保證。研華對於不正確的使用、災難、錯誤安裝產生的問題有免責權利。

如果研華產品出現故障，在保固期內我們提供免費維修或更換服務。對於保固外產品，我們將會酌收材料費、人工服務費用。請聯繫您的銷售人員瞭解詳細情況。

如果您認為您購買的產品出現了故障，請遵循以下步驟：

1. 收集您所遇到的問題的資訊（例如，CPU 頻率、使用的研華產品及其它軟體、硬體等）。請注意螢幕上出現的任何不正常資訊顯示。
2. 打電話給您的供應商，描述故障問題。請參考手冊，產品和任何有幫助的資訊。
3. 如果您的產品被診斷發生故障，請從您的供應商那裏獲得 RMA（Return Material Authorization）序號。這可以讓我們儘快的進行故障產品的回收。
4. 請仔細的包裝故障產品，並在包裝中附上完整的售後服務卡片和購買日期證明（如銷售發票）。我們對無法提供購買日期證明的產品不提供保固服務。
5. 把相關的 RMA 序號寫在外包裝上，並將其運送給銷售人員。

Packing List/ 包裝清單 / 包裝清單

Before system installation, check that the items listed below are included and in good condition. If any item does not accord with the list, contact your dealer immediately.

- | | |
|-------------------------------------|---------------------|
| ■ 1 x EPC-M5377R | |
| ■ 4 x Bottom rubber foot | P/N: 1990039997S000 |
| ■ 4 x Screws for bottom rubber foot | P/N: 1930002141 |
| ■ 1 x Warranty card | P/N: 2190000902 |
| ■ 1 x User Manual | P/N 2006377R00 |

* In case of any changes, the actual packaging shall prevail.

安裝系統之前，用戶需確認包裝中含有本設備以及下面所列各項，並確認設備完好。若有任何不符，請立即與經銷商聯繫。

- | | |
|--------------------|---------------------|
| ■ 1 x EPC-M5377R | |
| ■ 4 x 底座橡膠墊 | P/N: 1990039997S000 |
| ■ 4 x 螺絲，用於安裝底座橡膠墊 | P/N: 1930002141 |
| ■ 1 x 質保卡 | P/N: 2190000902 |
| ■ 1 x 用戶手冊 | P/N: 2006377R00 |

* 若有變更，以實際包裝為主。

安裝系統之前，用戶需確認包裝中含有以下所列各項，並確認設備完好。若有任何不符，請立即與經銷商聯繫。

- | | |
|--------------------|---------------------|
| ■ 1 x EPC-M5377R | |
| ■ 4 x 底座橡膠墊 | P/N: 1990039997S000 |
| ■ 4 x 螺絲，用於安裝底座橡膠墊 | P/N: 1930002141 |
| ■ 1 x 保固卡 | P/N: 2190000902 |
| ■ 1 x 用戶手冊 | P/N: 2006377R00 |

* 若有變更，以實際包裝為主。

Declaration of Conformity/ 符合性声明 / 符合性聲明

CE

This product has passed the CE test for environmental specifications. Test conditions for passing include the equipment being operated within an industrial enclosure. In order to protect the product from damage caused by electrostatic discharge (ESD) or EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

本产品已经通过 CE 环境规格检测。测试条件之一是在工业环境中进行产品操作。为了使产品免受 ESD（静电放电）和 EMI 泄露造成的损害，强烈建议用户使用符合 CE 标准的工业产品。

本產品已經通過 CE 環境規格檢測。測試條件之一是在工業環境中進行產品操作。為了使產品免受 ESD（靜電放電）和 EMI 洩露造成的損害，強烈建議用戶使用符合 CE 標準的工業產品。

FCC Class B/FCC B 级 /FCC B 級

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

根据 FCC 规则第 15 款，本设备已经过检测并被判定符合B级数字设备标准。这些限制旨在为居住环境下的系统操作提供合理保护，使其免受有害干扰。本设备会产生、使用和发射无线电频率能量。如果没有按照手册说明正确安装和使用，可能对无线电通讯造成有害干扰。但即使按照手册说明进行安装和使用，也并不能保证不会产生干扰。若本设备会对无线电或电视信号接收产生有害干扰，用户可通过开、关设备进行确认。当本设备产生有害干扰时，用户可采取下面的措施来解决干扰问题：

- 调整接收天线的方向或位置
- 增大本设备与接收器之间的距离
- 将本设备的电源接头插在与接收器使用不同电路的电源插座
- 若需技术支持，请咨询经销商或经验丰富的无线电 / 电视技术人员

根據 FCC 規則第 15 款，本設備已經過檢測並被判定符合 B 級數位設備標準。這些限制旨在為居住環境下的系統操作提供合理保護，使其免受有害干擾。本設備會產生、使用和發射無線電頻率能量。如果沒有按照手冊說明正確安裝和使用，可能對無線電通訊造成有害干擾。但即使按照手冊說明進行安裝和使用，也並不能保證不會產生干擾。若本設備會對無線電或電視信號接收產生有害干擾，用戶可通過開、關設備進行確認。當本設備產生有害干擾時，用戶可採取下面的措施來解決干擾問題：

- 調整接收天線的方向或位置
- 增大本設備與接收器之間的距離
- 將本設備的電源接頭插在與接收器使用不同電路的電源插座
- 若需技術支援，請諮詢經銷商或經驗豐富的無線電 / 電視技術人員

Technical Support and Assistance/技术支持与服务/技術支援與服務

1. Visit the Advantech website at www.advantech.com/support to obtain the latest product information.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before calling:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

1. 有关该产品的最新信息，请访问研华公司的网站：www.advantech.com/support
2. 用户若需技术支持，请与当地分销商、销售代表或研华客服中心联系。进行技术咨询前，用户须将下面各项产品信息收集完整：
 - 产品名称及序列号
 - 外围附加设备的描述
 - 用户软件的描述（操作系统、版本、应用软件等）
 - 产品所出现问题的完整描述
 - 每条错误信息的完整内容

1. 有關該產品的最新資訊，請訪問研華公司的網站：www.advantech.com/support
2. 用戶若需技術支援，請與當地分銷商、銷售代表或研華客服中心聯繫。進行技術諮詢前，用戶須將下面各項產品資訊收集完整：
 - 產品名稱及序列號
 - 週邊附加設備的描述
 - 用戶軟體的描述（作業系統、版本、應用軟體等）
 - 產品所出現問題的完整描述
 - 每條錯誤資訊的完整內容

Warnings and Cautions/ 警告与注意 / 警告與注意

Warning! Warnings indicate conditions that if not observed can cause personal injury!



在操作过程中，用户须特别注意该手册中的警告信息，以免造成人身伤害。

在操作過程中，用戶須特別注意該手冊中的警告資訊，以免造成人身傷害。

Caution! Cautions are included to help prevent hardware damage and data losses. For example,



"Batteries are at risk of exploding if incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type as recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions."

该手册中的注意信息可帮助用户避免损坏硬件或丢失数据，例如：

如果电池放置不正确，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。

該手冊中的注意資訊可幫助用戶避免損壞硬體或丟失資料，例如：

如果電池放置不正確，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。

Document Feedback/ 意见反馈 / 意見回饋

To assist us with improving this manual, we welcome all comments and constructive criticism. Please send all feedback in writing to support@advantech.com.

为了使手册更加完善，欢迎您对我们的手册进行评价并提出宝贵意见。请将您的意见发送至：support@advantech.com

為了使手冊更加完善，歡迎您對我們的手冊進行評價並提出寶貴意見。請將您的意見發送至：support@advantech.com

Safety Instructions/ 安全指示

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 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.
 - 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°C (-40°F) or above 85°C (185°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. This product is intended to be supplied by an UL certified power supply, Tma= 50 degrees Centigrade or equivalent statement provided in operating manual, if power unit is not provided.
18. In accordance with IEC 704-1:1982 specifications, the sound pressure level at the operator's position does not exceed 70 dB (A).

DISCLAIMER: These instructions are provided according to IEC 704-1 standards. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

1. 请仔细阅读此安全操作说明。
2. 请妥善保存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上前，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，并不要在电源线覆盖任何杂物。
10. 请注意设备上的所有警告和注意标语。
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. 请不要把设备保存在超出我们建议的温度范围的环境，即不要低于 -40°C (-40°F) 或高于 85°C (185°F)，否则可能会损坏设备。
16. **注意：**计算机配置了由电池供电的实时时钟电路，如果电池放置不正确，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. 若产品出货未配电源装置，请参考操作手册中的相关说明，需要选用经过 UL 认证的电源供应器供电，并且可在 50°C 环境温度下操作的电源。
18. 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)。
19. 消费者若使用电源适配器供电，则应购买配套使用获得 CCC 认证并满足标准要求的电源适配器。
20. 消费者使用电源线供电，则应购买配套使用，获得 CCC 认证并满足标准要求的电源线。
21. 非个人使用计算机。

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。

1. 請仔細閱讀此安全操作說明。
2. 請妥善保存此用戶手冊供日後參考。
3. 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。
4. 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。
5. 請不要在潮濕環境中使用設備。
6. 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。
7. 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。**
8. 當您連接設備到電源插座上前，請確認電源插座的電壓是否符合要求。
9. 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。
10. 請注意設備上的所有警告和注意標語。

11. 如果長時間不使用設備，請將其同電源插座斷開，避免設備被超標的電壓波動損壞。
 12. 請不要讓任何液體流入通風口，以免引起火災或者短路。
 13. 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。
 14. 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。
 15. 請不要把設備保存在超出我們建議的溫度範圍的環境，即不要低於 -40°C (-40°F) 或高於 85°C (185°F)，否則可能會損壞設備。
 16. **注意：**電腦配置了由電池供電的即時時鐘電路，如果電池放置不正確，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。
 17. 若產品出貨未附帶電源裝置，請參考操作手冊中的相關說明，需要選用由 UL 認證的電源供應器供電，並且可在 50°C 環境溫度下操作之電源。
 18. 根據 IEC 704-1:1982 的規定，操作員所在位置的聲壓級不可高於 70dB(A)。
- 免責聲明：**該安全指示符合 IEC 704-1 的要求。研華公司對其內容的準確性不承擔任何法律責任。

Safety Precaution - Electricity / 安全措施 – 静电防护 / 安全措施 – 靜電防護

Follow these simple precautions to protect yourself from harm and the products from damage.

- To avoid electrical shock, always disconnect the power from the PC chassis before manual handling. Do not touch any components on the CPU card or other cards while the PC is powered on.
- Disconnect the power before making any configuration changes. A sudden rush of power after connecting a jumper or installing a card may damage sensitive electronic components.
- Electronic components are also vulnerable to damage by electrostatic discharge. An electrostatic charge can build up on the human body, especially where the air is dry. At minimum, dissipate potential body charge before handling any electronic board by touching a conductive surface on the chassis. Only then remove circuit boards from their antistatic bags. Handle boards by the edges or mounting brackets only; do not touch components or connecting pins.

为了保护您和您的设备免受伤害或损坏，请遵照以下安全措施：

- 操作设备之前，请务必断开机箱电源，以防触电。不可在电源接通时接触 CPU 卡或其他卡上的任何元件。
- 在更改任何配置之前请断开电源，以免在您连接跳线或安装卡时，瞬间电涌损坏敏感电子元件。

為了保護您和您的設備免受傷害或損壞，請遵照以下安全措施：

- 操作設備之前，請務必斷開機箱電源，以防觸電。不可在電源接通時接觸 CPU 卡或其他卡上的任何元件。
- 在更改任何配置之前請關閉電源，以免在您連接跳線或安裝卡時，瞬間電湧損壞敏感電子元件。

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Chapter 1

General Information

概述

產品資訊

1.1 Specifications/ 产品规格 / 產品規格

Table 1.1: General Features / 一般特性

Chassis Construction 机箱结构 機箱結構	Light-duty steel 轻型钢 輕型鋼	
Cooling System 冷却系统 冷卻系統	Fan-based 有风扇系统 有風扇系統	Air flow: Smart Fan 气流: 智能风扇 氣流: 智能風扇
Storage Device 存储设备 儲存裝置	Internal M.2 SSD 内部 M.2 固态硬盘 内部 M.2 固態硬碟	Based on sku, please refer to datasheet 根据 SKU, 请参考型录 根據 SKU, 請參考型錄
Miscellaneous 其它	LED Indicators LED 指示灯 LED 指示燈	2 (Power LED, HDD LED)
	Control switch 控制开关 控制開關	1 (Power switch)
Physical Characteristics 物理特性	Dimensions (W x H x D) 尺寸 (W x H x D)	188 x 125 x 44.4 mm (7.4" x 1.74" x 7.4")
	Weight 重量	1.1 kg

1.2 Environmental Specifications/环境规格 / 環境規格

Table 1.2: Environmental Specification/ 环境规格 / 環境規格

Environment 环境 環境	Operating Temperature (0.7m/s air flow) 工作温度 (0.7m/s air flow) 工作温度 (0.7m/s air flow)	Fan-based sku: 0 ~ 45°C (32 ~ 113°F) *the SSD temperature specification: 85°C
	Non-operating Temperature 储存温度 儲存溫度	-40 ~ 85°C (-40 ~ 185°F)
	Humidity 湿度 濕度	85% @ 40°C, non-condensing
	Vibration (5 ~ 5 00Hz) 振动 振動	Solid State Drive

1.3 Function Specifications/功能规格/功能規格

Table 1.3: Function Specification/ 功能规格 / 功能規格

Front I/O Opening 前部 I/O 开口 前方 I/O 開口	I/O cutouts I/O 接口 I/O 接口	1 x HDMI, 1 x DP, 1 x USB-C, 4 x USB-A, 2 x Lan, 1 x COM
Rear I/O Opening 后部 I/O 开口 後方 I/O 開口	Reserved I/O cutouts 预留 I/O 接口 預留 I/O 接口	3 x COM, 2 x USB-A, 4 x Antenna (optional)
Side I/O Opening 側边 I/O 开口 側邊 I/O 開口	Antenna I/O 天线 I/O 天線 I/O	4 x Antenna (optional)

1.4 Power Supply Options/电源选项/電源選項

Table 1.4: Power Supply Options/ 电源选项 / 電源選項

Part No.	Watts	Input / Output 输入/输出 輸入/輸出
96PSA-A120W24T2-4	120W	AC 100 ~ 240V / DC 12V~24V

Consider the total power consumption of the PC to discover the correct power adapter.

请考虑整机的总功耗来选择电源适配器。

請考慮整機的總功耗來選擇電源適配器。

**For detailed specifications refer to EPC-M5377R datasheet.

** 详细规范，请参阅 EPC-M5377R 型录。

** 詳細規範，請參閱 EPC-M5377R 資料表。

1.5 Dimensions/ 产品尺寸 / 產品尺寸

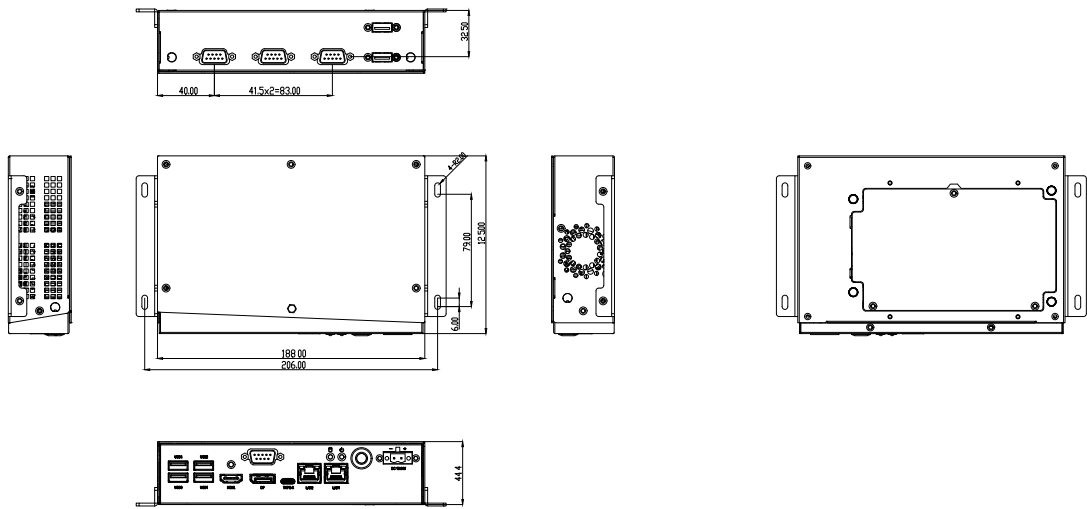


Figure 1.1 Dimensions/ 产品尺寸 / 產品尺寸

Chapter 2

System Setup and Maintenance

系統安裝和維護
系統安裝和維護

2.1 Open the Chassis Cover / 打开机箱顶盖 / 打開機箱上蓋

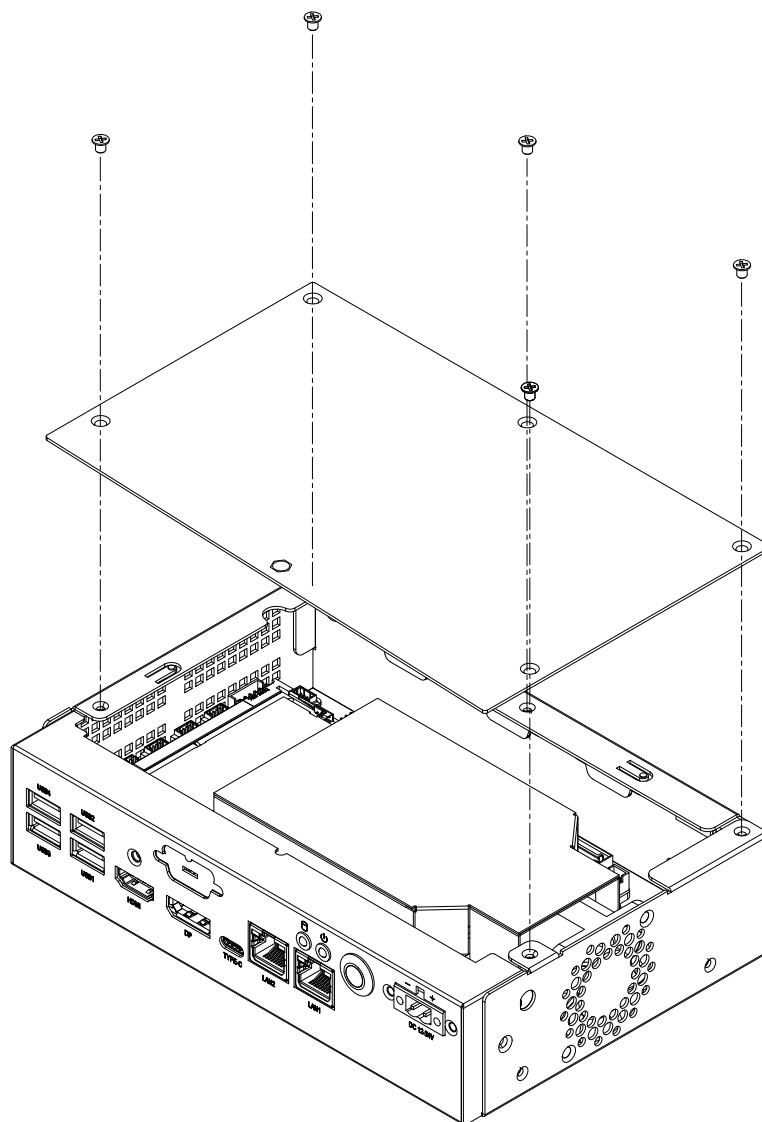


Figure 2.1 Open the Chassis Cover / 打开机箱顶盖 / 打開機箱上蓋

2.2 Installing & Changing the Memory and M.2 Storage/ 安裝和更換內存和 M.2 存儲設備 / 安裝和更換記憶體和 M.2 儲存裝置

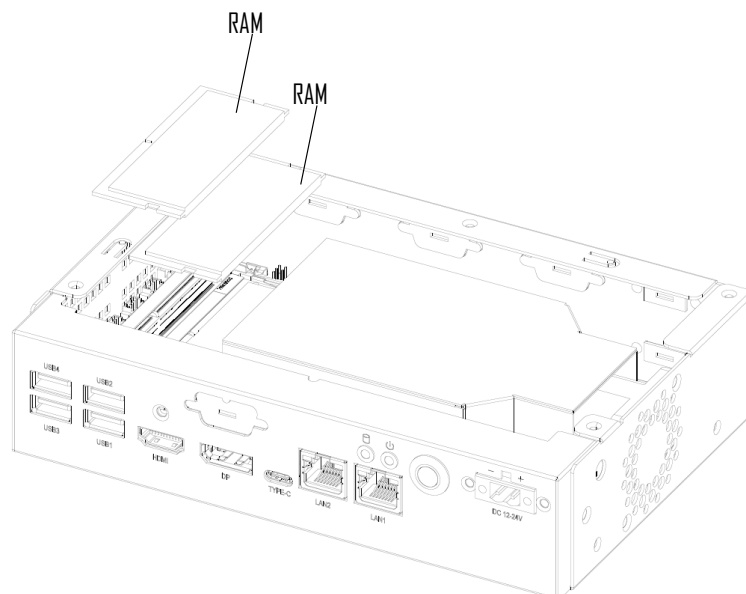


Figure 2.2 Installing & Changing the Memory/ 安裝和更換內存 / 安裝和更換記憶體

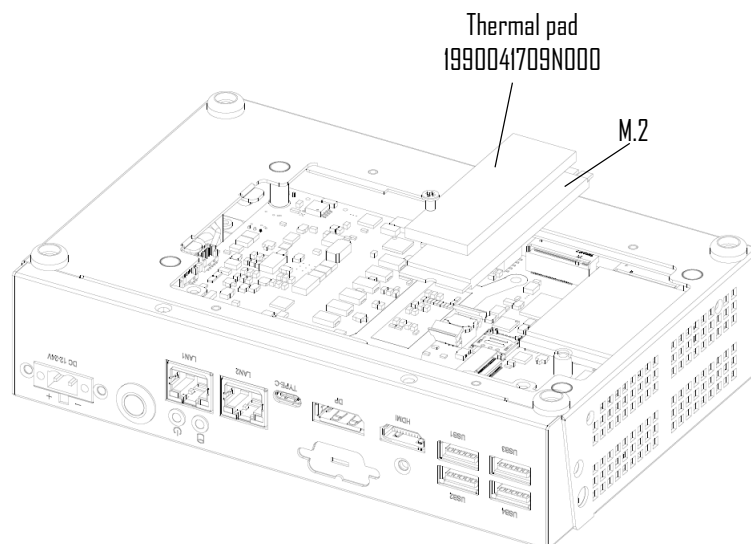


Figure 2.3 Installing & Changing the M.2 storage/ 安裝和更換 M.2 存儲設備 / 安裝和更換 M.2 儲存裝置

2.3 Installing Antenna/ 安装天线/ 安裝天線

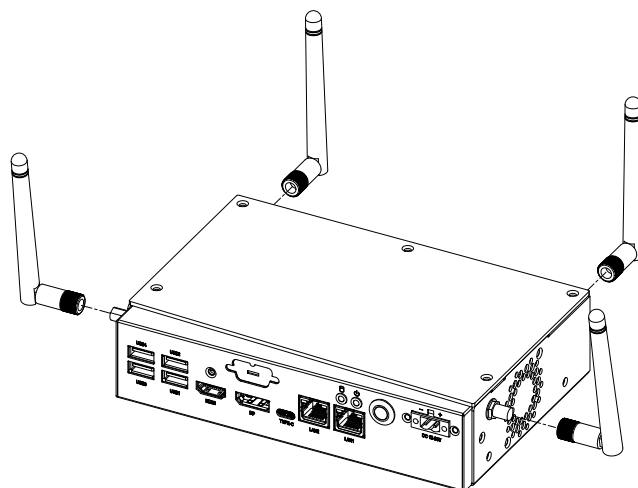


Figure 2.4 Installing Antenna/ 安装天线 / 安裝天線

2.4 Close the Chassis Cover/ 盖上机箱顶盖 / 蓋上機箱上蓋

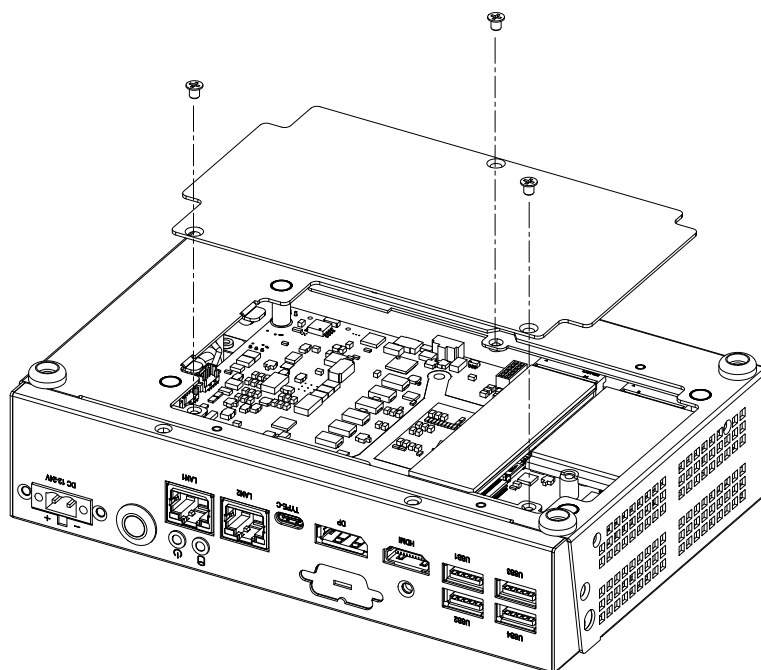


Figure 2.5 Close the Chassis Cover/ 盖上机箱顶盖 / 蓋上機箱上蓋

2.5 Installing Rubber Feet on the Bottom Side/ 安装机箱底部橡胶脚垫 / 安裝機箱底部橡膠腳墊

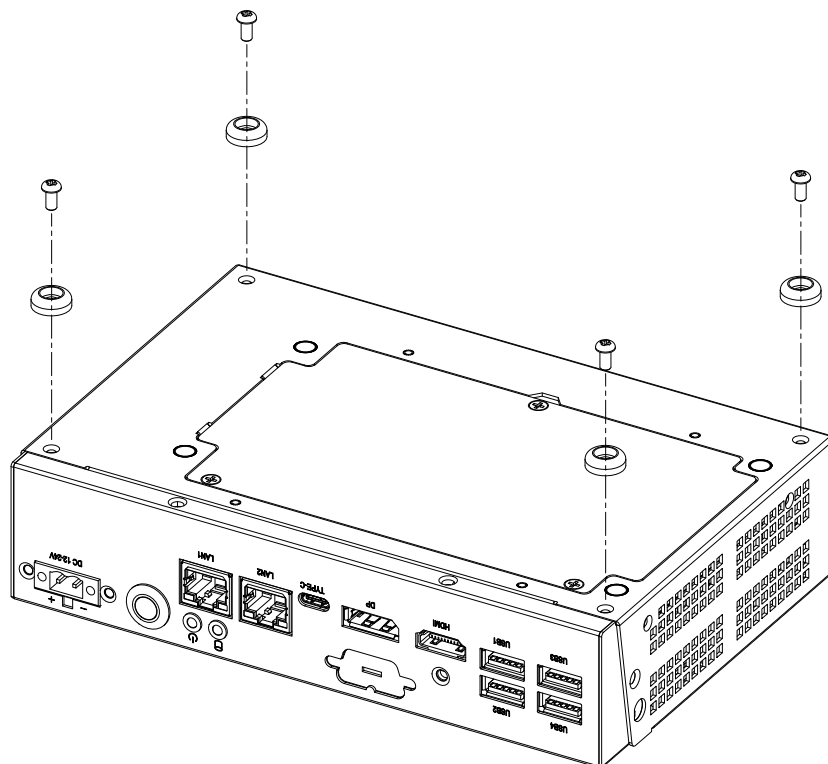


Figure 2.6 Installing Rubber Foot on Bottom Side/ 安装机箱底部橡胶脚垫 / 安裝機箱底部橡膠腳墊

2.6 Installing the Mounting Bracket (Optional)/ 安装安装支架（选配）/ 安裝安裝支架（選配）

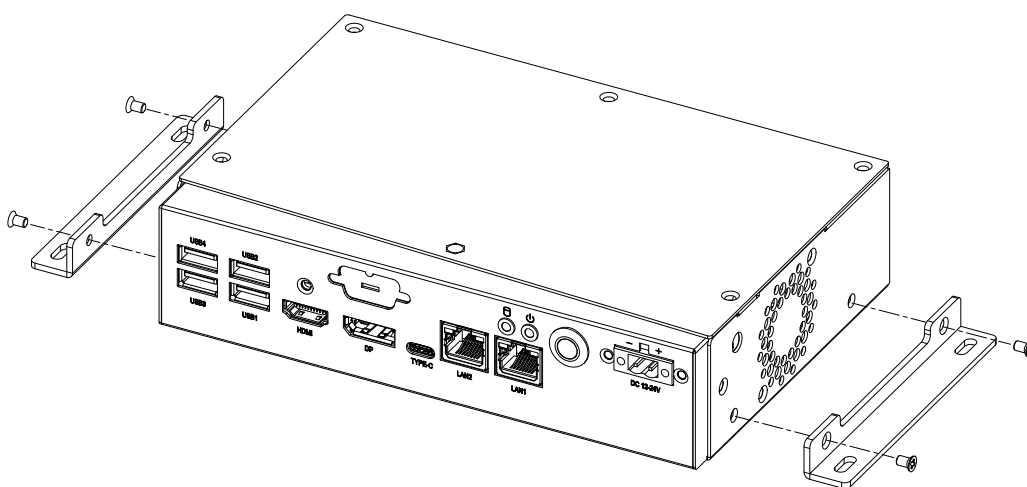


Figure 2.7 Installing the wall Mounting Bracket/ 安装壁挂支架 / 安裝壁掛支架

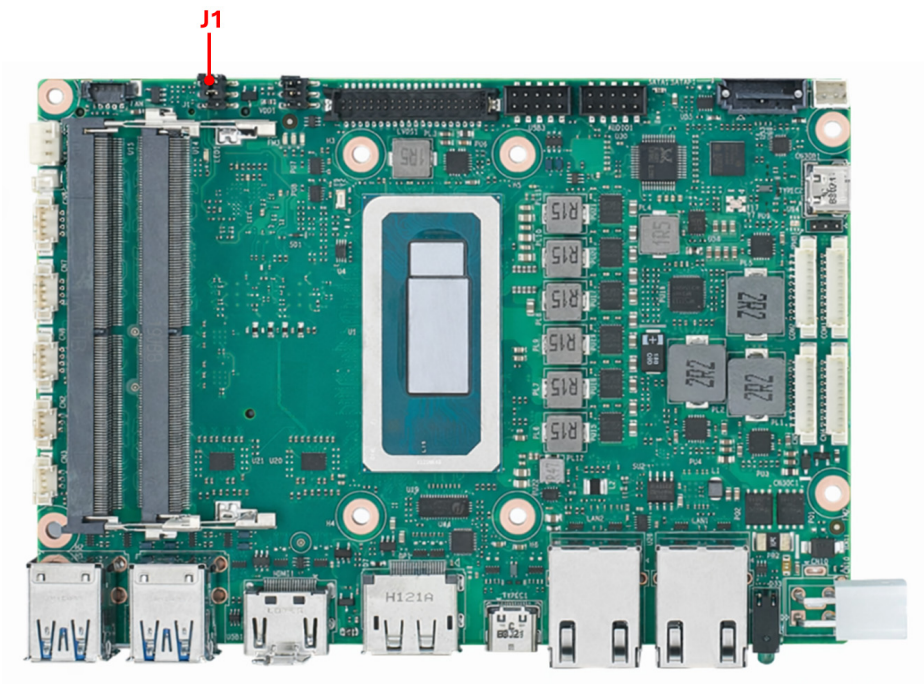
Chapter 3

Jumper Locations and Setting

跳线位置和设置

跳線位置和設置

3.1 Locating Jumpers/跳线位置/跳線位置



3.2 Jumpers/跳线/跳線

Table 3.1: Panel Voltage Selection Jumper: VDD1

Jumper Short	Panel Voltage
1-3	+3.3V (Default)
3-5	+5V
3-4	+12V

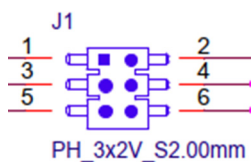
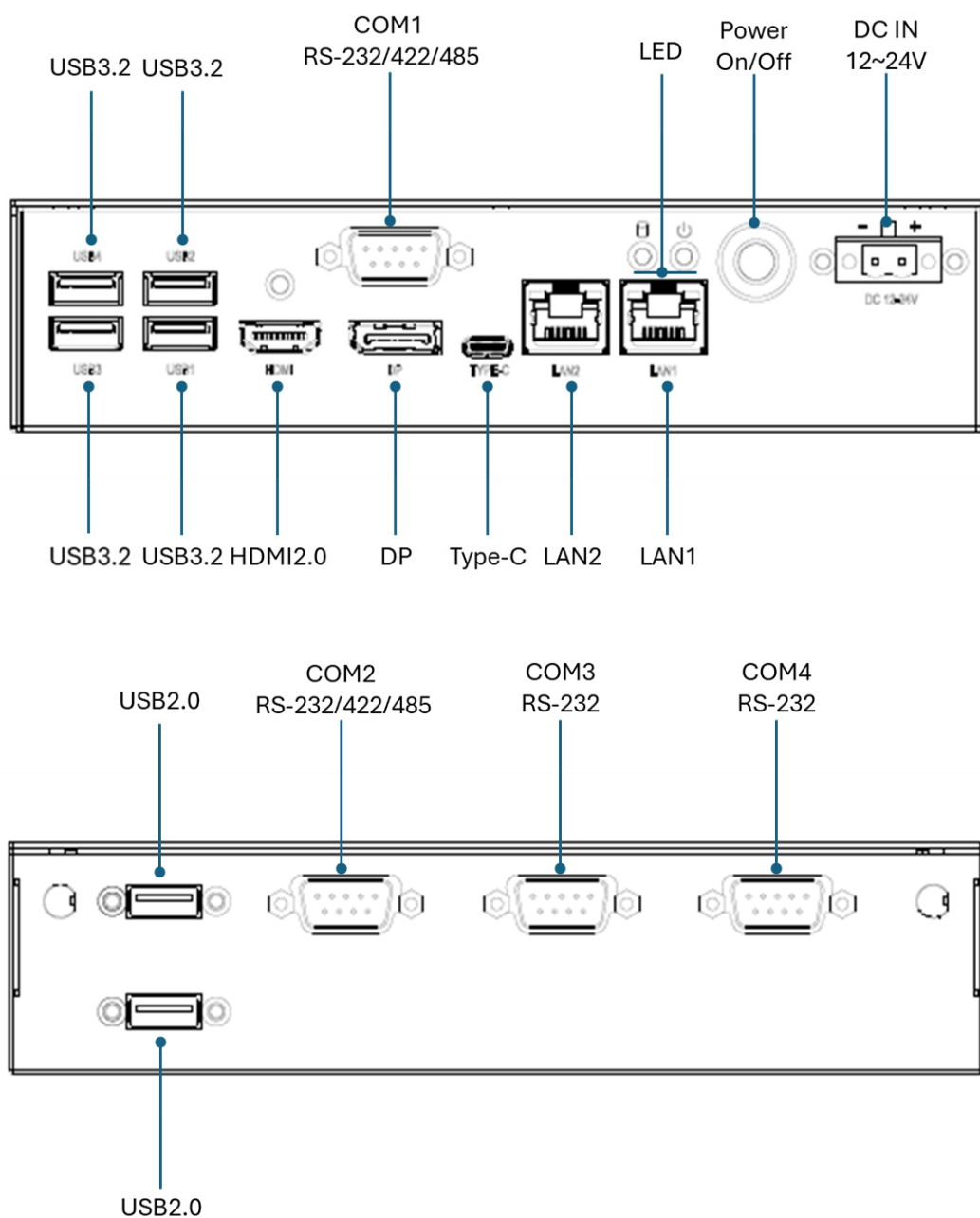


Table 3.2: AT Mode /Load BIOS Default: J1

Jumper Short	Panel Function
1-2	AT/ ATX MODE Selection 1-2 open: ATX mode (Default) 1-2 short: AT mode
3-4	NORMAL_BIOS (Default) 3-4 open: Reserve 3-4 short: Reserve (Default)
5-6	LOAD_BIOS_Default: 5-6 open: Normal (Default) 5-6 short: Load BIOS Default

3.3 Locating Connectors/接口位置



3.4 Connectors/接口

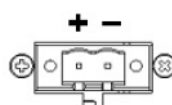
3.4.1 Power On/Off Button

EPC-M5377R features a Power On/Off button with an LED indicator on the top side that show On status (Green LED).



3.4.2 Power Input Connector

EPC-M5377R supports one 2-pin Phoenix terminal power input connector. Connect the positive and negative power cables to the terminals in the power distribution connector correctly at the same time.



Note!



1. For supply connections use wires suitable for at least 75 °C.
2. The terminal block is suitable for 14 AWG. Torque value 7lb-in User copper conductors only. Must be installed by skilled person.
3. The terminal block uses two sets of interfaces to make it split to meet the maximum current limit, and a single pin will be limited below 16A.

3.4.3 Ethernet Connector (LAN1/LAN2)

EPC-M5377R is equipped with up to 1 x Ethernet controller supports 10/100/1000/2500 Mbps with Intel i226 and 1x Ethernet controller supports 10/100/1000 Mbps with Intel i210.

These Ethernet ports provide a standard RJ-45 jack connector with LED indicators on the front side to show Active/Link status (Green) and Speed status (10Mbps:Dark/100Mbps:Green 1G/2.5G:Orange).

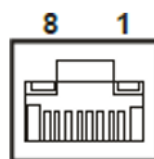


Table 3.3: Ethernet Connector Pin Assignments

Pin	Signal Name
1	TX+
2	TX-
3	RX+
4	MDI2+
5	MDI2-
6	RX-
7	MDI3+
8	MDI3-

3.4.4 USB 3.2 Gen 2x1 Connector

EPC-M5377R supports 4 x USB 3.2 ports. compliant with the USB XHCI, Rev. 3.2 revision standard. The USB 3.2 Gen2 connectors include both legacy pins for compatibility with USB 2.0 devices and additional pins to support full USB 3.2 functionality

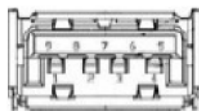


Table 3.4: USB 3.2 Gen2 Connector Pin Assignments

Pin	Signal Name	Pin	Signal Name
1	+5V	2	USB_data-
3	USB_data+	4	GND
5	SSRX-	6	SSRX+
7	GND	8	SSTX-
9	SSTX+		

3.4.5 USB 2.0 Connector

ARK-3535 provides 2 x USB 2.0 interface connectors. The USB interface supports plug-and-play functionality

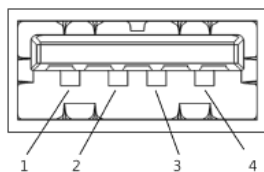


Table 3.5: USB 2.0 Connector Pin Assignments

Pin	Signal Name
1	VCC
2	USB_data+
3	USB_data-
4	GND

3.4.6 COM

EPC-M5377R provides up to eight D-sub 9-pin connectors, COM1/2 offer RS -232/422/485 communication and COM3/4 offer RS-232.

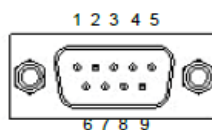


Table 3.6: COM Port Pin Assignments

	RS-232	RS-422	RS-485
Pin	Signal Definition	Signal Definition	Signal Definition
1	DCD	Tx-	DATA-
2	RxD	Tx+	DATA+
3	TxD	Rx+	NC
4	DTR	Rx-	NC
5	GND	GND	GND
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC

3.4.7 HDMI

EPC-M5377R offers one integrated 19-pin receptacle connector HDMI 2.0b interfaces. The HDMI link supports resolutions up to 4096 x 2160 @ 60 Hz.

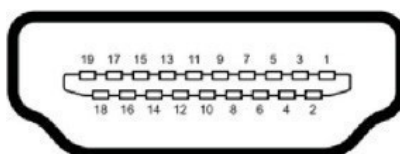


Table 3.7: HDMI Pin Definition

Pin	Signal Name
1	HDMI_TX2+
2	GND
3	HDMI_TX2-
4	HDMI_TX1+
5	GND
6	HDMI_TX1-
7	HDMI_TX0+
8	GND
9	HDMI_TX0-
10	HDMI_CLK+
11	GND
12	HDMI_CLK-
13	NC
14	NC

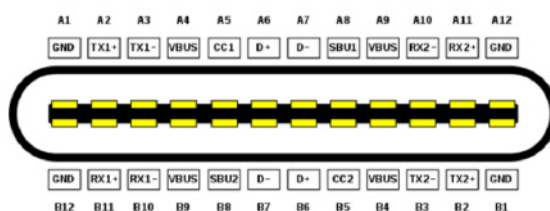
Table 3.7: HDMI Pin Definition

15	HDMI_DCLK
16	HDMI_DDAT
17	GND
18	+V5_HDMI-HPD
19	DDP0_HPDP

NC represents “No Connection”.

3.4.8 USB Type-C

EPC-M5377R features a 24-pin USB Type-C connector with a rotationally symmetrical design.

**Table 3.8: USB Type C Pin Definition**

Type-C receptacle A pin layout

Pin	Signal Name	Description
A1	GND	Ground return
A2	SSTXp1	SuperSpeed differential pair #1, TX, positive
A3	SSTXn1	SuperSpeed differential pair #1, TX, negative
A4	VBUS	Bus power
A5	CC1	Configuration channel
A6	Dp1	USB 2.0 differential pair, position 1, positive
A7	Dn1	USB 2.0 differential pair, position 1, negative
A8	SBU1	Sideband use (SBU)
A9	VBUS	Bus power
A10	SSRXn2	SuperSpeed differential pair #4, RX, negative
A11	SSRXp2	SuperSpeed differential pair #4, RX, positive
A12	GND	Ground return

Type-C receptacle B pin layout

Pin	Name	Description
B12	GND	Ground return
B11	SSTXp1	SuperSpeed differential pair #2, RX, positive
B10	SSTXn1	SuperSpeed differential pair #2, RX, negative
B9	VBUS	Bus power
B8	SBU2	Sideband use (SBU)
B7	Dn2	USB 2.0 differential pair, position 2, negative[a]
B6	Dp2	USB 2.0 differential pair, position 2, positive[a]
B5	CC2	Configuration channel
B4	VBUS	Bus power
B3	SSRXn2	SuperSpeed differential pair #3, TX, negative
B2	SSRXp2	SuperSpeed differential pair #3, TX, positive
B1	GND	Ground return

3.4.9 DP Connector

EPC-M5377R offers one DP interfaces. The DP link supports resolutions up to 4096 x 2304 @ 60 Hz.

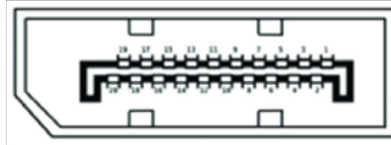


Table 3.9: DP Pin Definition

Pin	Signal Name
1	D0+
2	GND
3	D0-
4	D1+
5	GND
6	D1-
7	D2+
8	GND
9	D2-
10	D3+
11	GND
12	D3-
13	DP_AUX_E#
14	GND
15	AUX+
16	GND
17	AUX-
18	HPD
19	GND
20	+3.3V

3.4.10 CANBUS Port and Pin Definition (Optional)

EPC-M5377R offers 2 x CANBUS port and pin definition as below.

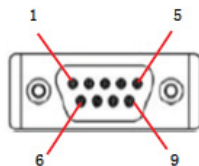


Table 3.10: CANBUS Port Pin Definition

Pin	Signal Name
1	NC
2	CAN_D-
3	GND
4	NC
5	NC
6	NC
7	CAN_D+
8	NC
9	NC

3.4.11 DIO Connector (Optional)

EPC-M5377R offers 8-bit DI/O and pin definition as below

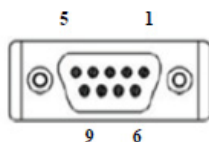


Table 3.11: DIO Connector Pin Definition

Pin	Signal Name
1	DIO bit 0
2	DIO bit 1
3	DIO bit 2
4	DIO bit 3
5	DIO bit 4
6	DIO bit 5
7	DIO bit 6
8	DIO bit 7
9	GND

Chapter 4

EPC-M5377R BIOS Operation

EPC-M5377R BIOS 操作

4.1 EPC-M5377R BIOS Operation/EPC-M5377R BIOS操作

Note! *About BIOS setting, please refer to MIO-5377's user manual.*



关于 BIOS 设置，请参考 MIO-5377 用户手册。

關於 BIOS 設置，請參考 MIO-5377 用戶手冊。

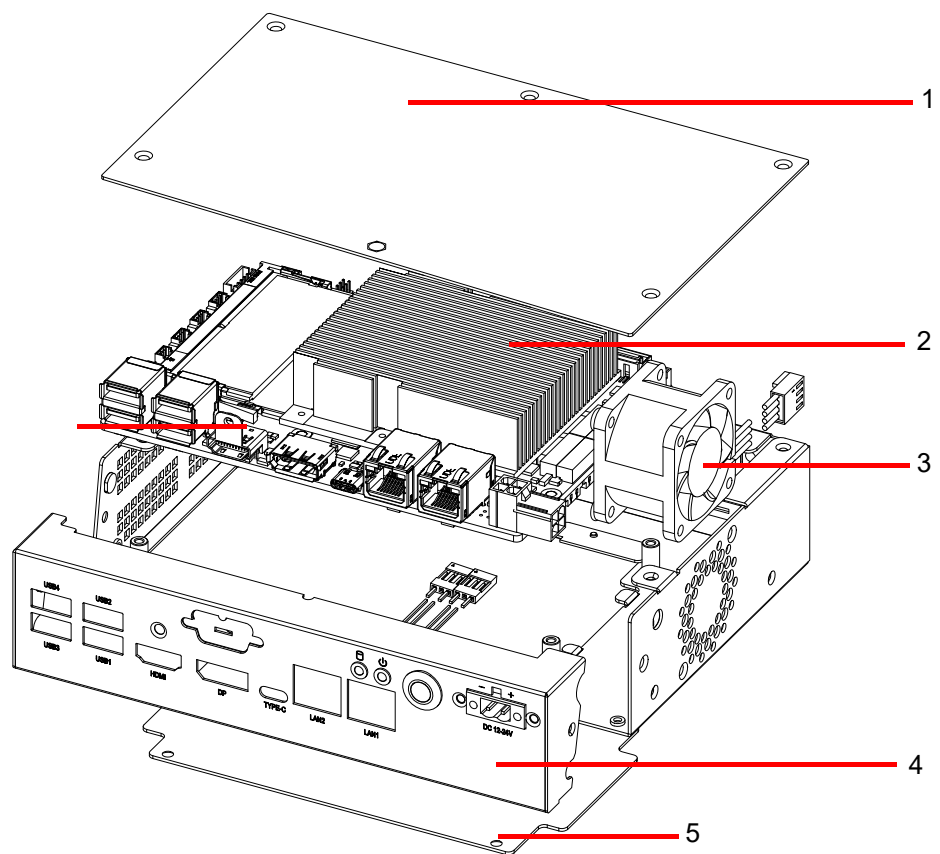
Appendix A

Exploded Diagram

分解图

分解圖

A.1 Exploded Diagram / 分解图 / 分解圖



1	Top Cover/ 上盖 / 上蓋
2	CPU Heat Spreader/ CPU 散热模组 / CPU 散熱模組
3	System Fan/ 系统风扇 / 系統風扇
4	Front Panel/ 前面板 / 前面板
5	Bottom Chassis/ 底部机箱 / 底部機箱

Figure A.1 Exploded Diagram & Parts List/
分解图 & 部件列表 / 分解圖 & 部件列表



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