

MIC-7300

Compact Fanless System with Intel® Celeron® N3350/ Atom® x7 E3950 Processor Startup Manual

Packing List

Before installation, please ensure that the following items have been included in your shipment:

- 1 x MIC-7300 barebone system
- 1 x MIC-7300 startup manual (EN+CN) PN: 2001730000
- 1 x MIC-7300 startup manual (TC) PN: 2001730010
- 1 x MIC-7300 driver CD PN: 2061730000
- 1 x 4-pin Phoenix connector PN: 1652003234
- 2 x Mounting bracket PN: 1960070543N001
- 1 x SATA cable PN: 1700013095
- 1 x SATA power cable PN: 1700024372-01
- 1 x 2-port DP9 cable PN: 1701200220

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

Note 1: For the detailed contents of MIC-7300, please refer to the information provided on the enclosed CD-ROM (in PDF format).

Note 2: Acrobat Reader is required to view PDF files. Acrobat Reader can be downloaded from <https://get.adobe.com/reader/> (Acrobat is a trademark of Adobe.)

Caution: Batteries that are incorrectly replaced are at risk of exploding. Replace only with the same or equivalent type, as recommended by the manufacturer. Discard used batteries according to the manufacturer's instruction.

Attention: Danger d'explosion si la batteries 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'.

For more information about this or other Advantech products, please visit our website at

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

http://www.advantech.com/products/1aa4d2cd-914a-4357-a3e5-219840c81420/mic-7300/mod_41803999-68ca-4eb9-8b06-74a72665806e

For technical support services, please visit our support website at

<http://support.advantech.com.tw/support/default.aspx>

This manual is for the MIC-7300 Series Rev. A1.

Part No. 2001730000
Printed in China

Edition 1
Oct. 2017

Specifications

Processor

- Intel® Celeron® N3350/Atom® x7-E3950

Memory

- 2 x SODIMM DDR3L (up to 4 GB per socket), without ECC. Maximum capacity is 8 GB.

Graphics

- Low-power Intel® Gen9 graphics chipset with up to 18 EUs supports 3 x independent displays

Serial Ports

- 2 x RS-232/422/485, can be configured in the BIOS

Ethernet

- Interface:** 10/100/1000 Mbps
- Controller:**
LAN1: Intel® i210AT, with Wake-on-LAN support
LAN2: Intel® i210AT, with Wake-on-LAN support

Storage

- 1 x Internal 2.5" HDD bay

Front I/O

- Display:** 1 x VGA and 1 x DVI, with a maximum resolution of 1920 x 1080
- USB:** 6 x USB 2.0 and 2 x USB 3.0
- Serial:** 2 x RS-232/422/485 and 2 x RS-232
- Audio:** 1 x Line-Out/Mic-In

Power Requirements

- Power Type:** ATX/AT
- Power Input Voltage:** 9 ~ 36 V_{DC}
- Minimum Power Input:** 9 V_{DC} (14A) ~ 36 V_{DC} (4A)

This product is designed to be powered by a UL-certified power supply or UL-certified DC source rated 9 ~ 36 V_{DC} with a minimum 14 ~ 4A and 40 °C TMA.

Miscellaneous

- 1 x Power LED** (Orange = system standby/Green = system booting)
- 3 x Function LEDs** (1 x COM1 TX/RX, 1 x COM2 TX/RX, and 1 x HDD status)

Environment

- Operating Temperature:** -10~ 60 °C for N3350 and -20 ~ 60 °C for E3950 with 0.7m/S airflow (with 1 x industrial SSD)
Note: Maximum safe temperature with SSD is 40 °C.
- Relative Humidity:** 95% @ 40 °C (non-condensing)
- Storage Temperature:** -40 ~ 60 °C@95% humidity (non-condensing with SSD)

Specifications (Cont.)

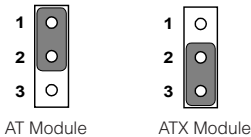
Physical Characteristics

- **Dimensions (W x H x D):**
73 x 192 x 230 mm (2.87 x 7.55 x 9.05 in)
- **Weight:** 2.9 kg (6.39 lb)

Jumpers and Connectors

The board comprises multiple jumpers that allow the system to be configured according to specific applications. The function of every jumper and connector is listed in the table below.

Connectors	
Label	Function
DVI1	DVI connector
VGA1	VGA connector
COM 12	RS-232/422/485
COM 34	RS-232
USB12	USB 3.0
USB345678	USB 2.0
LAN 1	Intel i210AT
LAN 2	Intel i210AT
Audio	Audio jack (Line-Out, Mic-In)
LED 1234	COM 1/2 TX/RX LED
LED 5	HDD status
DC 9-36V	Power connector
DIO	8-bit DI/O
ON/OFF	Power on/off control



PSON1: System AT/ATX Module Selection

Function	Jumper Setting
1-2	AT module
2-3	ATX module

Software Installation

Relevant drivers for MIC-7300 are provided on the software installation CD. Please locate the driver folder and follow the onscreen instructions for driver installation.

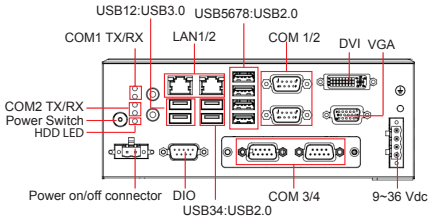
The computer is supplied with a battery-powered real-time clock circuit. Batteries that are incorrectly replaced or installed are at risk of exploding. Replace only with same or equivalent type as recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

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.

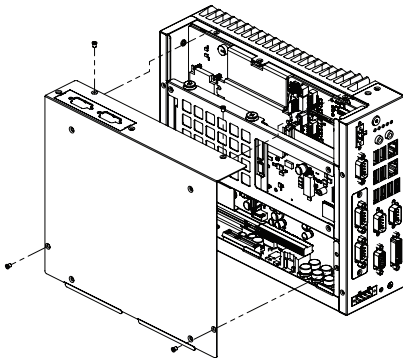
System I/O



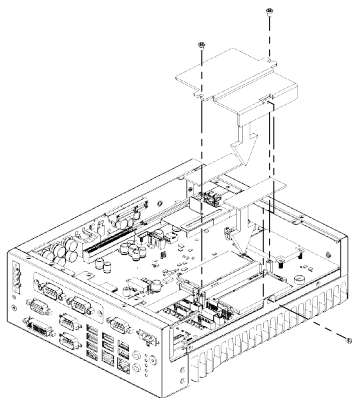
Initial Installation

Memory Installation

MIC-7300 supports DDR3L SODIMM (non-ECC) memory modules. Please contact your distributor or sales representative for a list of compatible memory modules.



Initial Installation (Cont.)

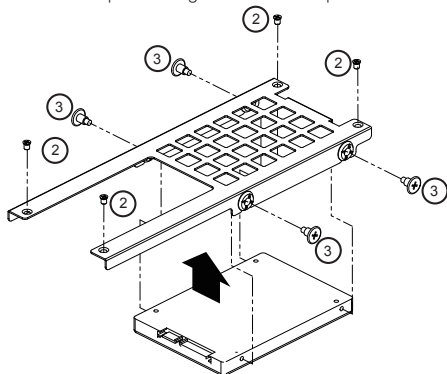


1. Undo the four affixing screws and remove the rear cover.
2. Undo the four affixing screws and remove the HDD tray.
3. Undo the three affixing screws and remove the memory cover.
4. Affix the thermal pad (P/N: 1990019498N000) to the memory module and reassemble the system.

Note: The thermal pad and memory cover must be in direct contact and securely fitted.

Storage Installation

1. Undo the four affixing screws and remove the rear cover.
2. Undo the four affixing screws and remove the HDD tray.
3. Insert the HDD into the HDD tray and secure in place using the four HDD screws (P/N: 1930002235).
4. Connect the SATA and power cables.
5. Replace the HDD tray and secure in place using the four screws provided. Then replace the rear cover and secure in place using the four screws provided.



Initial Installation (Cont.)

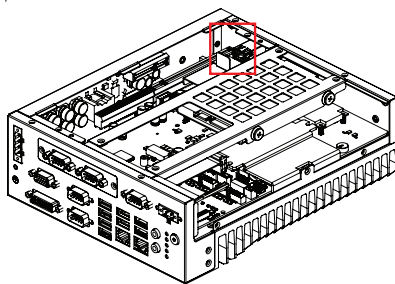
Mini PCIe Installation

MIC-7300 features one full-size mini PCIe slot. (This slot also supports mSATA.)

1. Undo the affixing screws and remove the rear cover.
2. Install a mini PCIe module in the mini PCIe slot and secure in place with screws.
3. Replace the rear cover.

Internal USB 2.0 Installation

1. Undo the affixing screws and remove the rear cover.
2. Loosen the bracket screws and adjust the size of the bracket in accordance with the size of the USB dongle.
3. Secure the bracket in place by tightening the bracket screws. Then replace the rear cover and secure in place with screws.

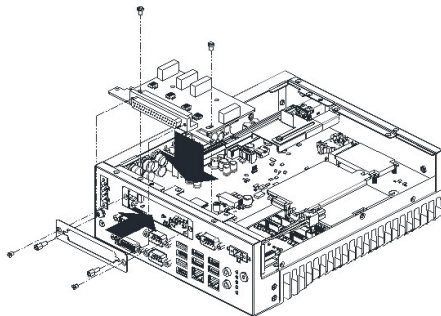


Expansion Module Installation (Optional)

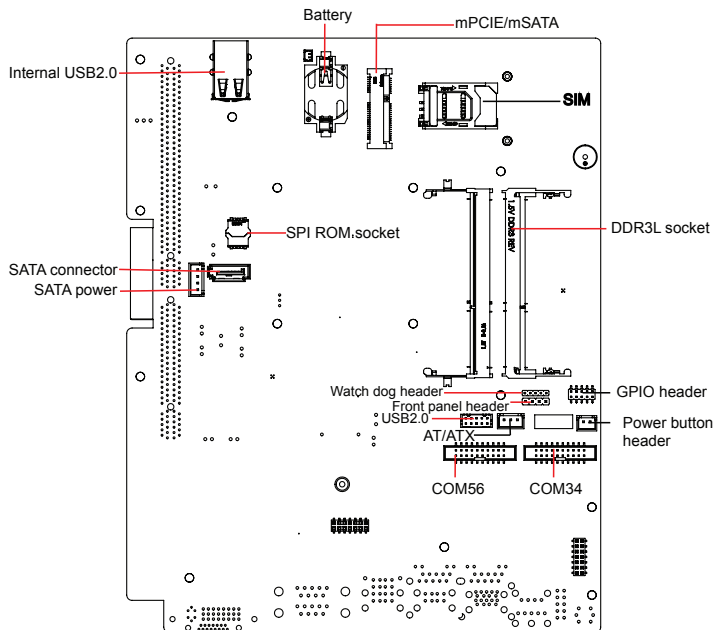
MIC-7300 can be equipped with the following optional expansion modules to fulfill specific usage requirements:

- 32-bit GPIO modules (P/N: AIIS-DIO32-00A1E)
- Isolated COM modules (P/N: 98R2C48510E)

1. Undo the four affixing screws and remove the rear cover.
2. Remove the HDD tray and expansion module cover. Then remove the COM cable.
3. Insert expansion modules into the slots on the motherboard. (Note: 32-bit GPIO modules must be connected by cable.)
4. Replace and secure the module cover. Replace and secure the rear cover.

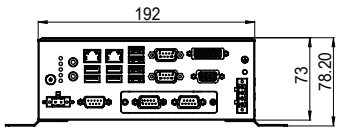
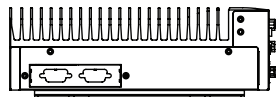
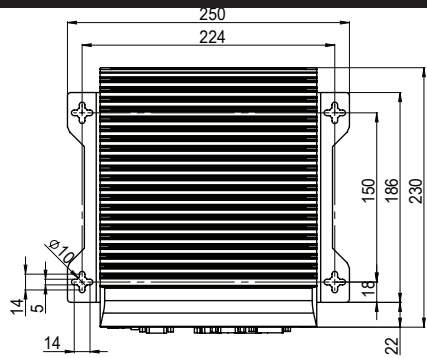
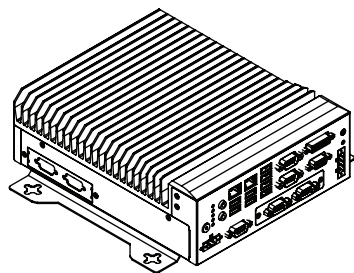


I/O Connectors



System Dimensions

UNIT : mm



MIC-7300

紧凑型无风扇系统搭载**Intel® Celeron® N3350/Atom® x7**

E3950处理器

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. 1 x MIC-7300准系统
2. 1 x MIC-7300快速入门手册(英/简中) P/N: 2001730000
3. 1 x MIC-7300快速入门手册(繁中) P/N: 2001730010
4. 1 x MIC-7300驱动CD光盘 P/N: 2061730000
5. 1 x 4针Phoenix接口 P/N: 1652003234
6. 2 x 安装支架 P/N: 1960070543T001
7. 1 x SATA电缆 P/N: 1700013095
8. 1 x SATA电源线 P/N: 1700024372-01
9. 1 x 2-端口 DP9 cable P/N: 1701200220

如果其中任何一项缺失或损坏，请立即与经销商或销售代表联系。

- 注1: 关于MIC-7300的详细信息，请参考附带的CD-ROM光盘（PDF格式）。
- 注2: 阅读PDF文件需要使用Acrobat Reader。用户可从以下路径下载Acrobat Reader: get.adobe.com/reader (Acrobat is a trademark of Adobe)

产品规格

处理器系统

- 支持Intel Celeron N3350/Intel Atom x7-E3950处理器

内存

- 支持DDR3Lx2，每个插槽可支持4 GB（不支持ECC功能），最大容量可达8 GB

如需了解有关产品及研华其它产品的详细信息，请访问研华网站：

<http://www.advantech.com>

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

如需技术支持与服务，请访问研华网站：

<http://support.advantech.com.cn/support/default.aspx>

本手册适用于MIC-7300系列Rev. A1。

料号: 2001730000
中国印刷

第一版
2017年10月

产品规格（续）

显示

- 低功耗 Gen9 graphics，支持三个独立显示，DVI+VGA+DVI or HDMI(optional by cable)

串行端口

- 2 x RS-232/422/485，可通过BIOS选择
- 2 x RS-232

以太网

- 接口: 10/100/1000 Mbps
- 控制器: LAN1: Intel® i210AT，支持网络唤醒
LAN2: Intel® i210AT，支持网络唤醒

存储

- 1 x 内置2.5" HDD托架
- 1 x mSATA

前部I/O

- 显示: 1 x VGA, 1 x DVI
- USB: 2 x USB3.0, 6x USB2.0
- 串行端口: 2 x RS-232/422/485, 2 x RS-232
- 音频: 线路输出/麦克输入

电源要求

- 电源类型: ATX/AT
- 输入电压: 9~36 VDC
- 最小电源输入: 9V@14A - 36V@4A

其它

- 电源开关（橙色：系统待机/绿色：系统电源启动）
- COM1 TX/RX LED, COM2 TX/RX LED, HDD状态LED

环境规格

- 工作温度: -10 ~ 60° C for N3350, -20 ~ 60° C for E3950, 0.7m/s气流: 带1 x 工业级SSD
0 ~ 40° C, 0.7m/s气流: 带1 x 2.5" HDD或m-SATA
- 储存温度: -40 ~ 60° C (-40 ~ 140° F)
- 相对湿度: 95% @ 40° C (非凝结)

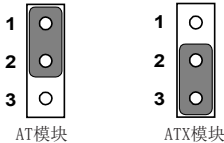
物理规格

- 尺寸 (W x H x D) : 74 x 192 x 230 mm (2.87 x 7.55 x 9.05 in)
- 重量: 2.9 kg (6.39 lb)

跳线和接口

主板上有很多跳线允许用户配置系统，满足各种不同应用需求。下表为每个跳线和接口的功能列表。

接口	
标签	功能
DVI1	DVI接口
VGA1	VGA接口
COM 12	RS-232/422/485
COM 34	RS-232
USB12	USB 3.0
USB345678	USB 2.0
LAN 1	Intel i210AT
LAN 2	Intel i210AT
Audio	音频插孔（线路输出、麦克输入）
LED 1234	COM 1/2 TX/RX LED
LED 5	HDD状态
DC 9-36V	电源接口
DIO	8-bit DI/O
ON/OFF	远端开关控制



PSO1：系统AT/ATX模块选择	
功能	跳线设置
1-2	AT模块
2-3	ATX模块

软件安装

MIC-7300的驱动保存在软件安装光盘中。请双击文件夹中的驱动程序并按照屏幕指示进行安装。

注意！ 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。

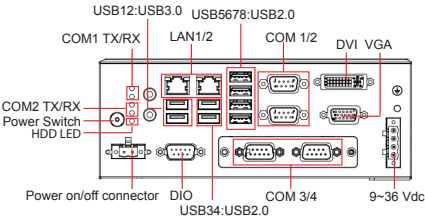


符合性声明

本品符合FCC规则第15款限制。操作符合下列两种情况：

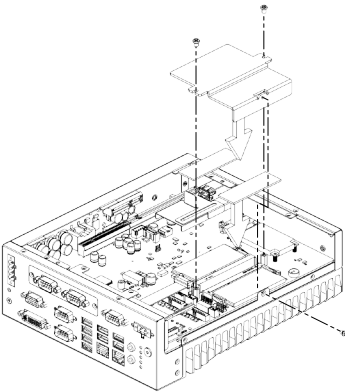
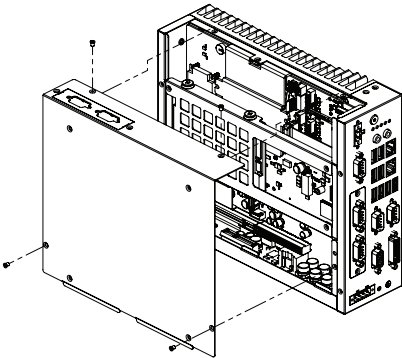
1. 此装置不可产生干扰，且
2. 此装置必须接受任何干扰，包括可能导致非预期造作的干扰。

系统I/O接口



简单安装步骤

MIC-7300支持DDR3L SODIMM内存。如需内存，请联系研华销售代表或销售代理订购适用的内存模块。



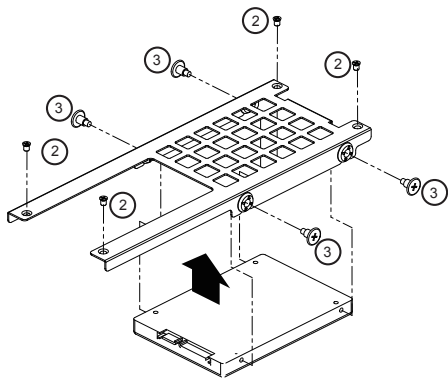
简单安装步骤（续）

1. 卸下4颗螺丝并移除底盖。
2. 卸下4颗螺丝并移除HDD托架。
3. 卸下3颗螺丝并移除内存散热盖。
4. 将导热垫片（P/N: 1990019498N000）在内存上，再安装内存模块。

注1: 导热垫片必须完全贴合并压实于内存散热盖上。

HDD安装

1. 卸下4颗螺丝并移除底盖。
2. 卸下4颗螺丝并移除HDD托架。
3. 拧紧4颗HDD螺丝（P/N: 1930002235）。
4. 连接SATA电缆/电源线，之后将HDD托架放回并用螺丝固定。
5. 放回底盖并用螺丝固定。



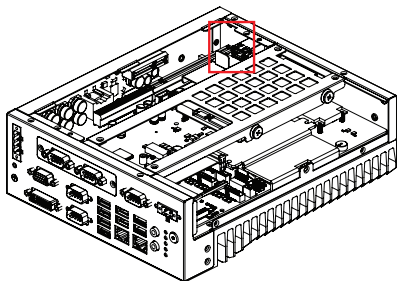
mSATA/Mini PCIe安装

- MIC-7300支持1个mini PCIe/mSATA。
1. 卸下4颗螺丝并移除底盖。
 2. 将模块安装在mini PCIe插槽，并用螺丝固定。
 3. 放回底盖并用螺丝固定。

简单安装步骤（续）

内置USB 2.0安装

1. 卸下4颗螺丝并移除底盖。
2. 拧松螺丝，并根据USB加密狗大小调整支架。
3. 放回底盖并用螺丝固定。

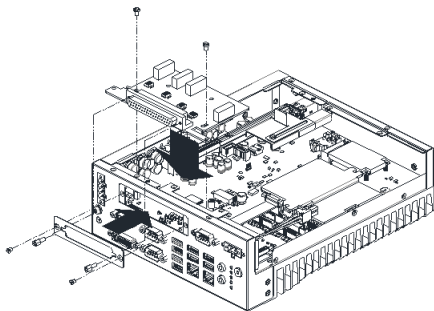


扩展模块安装（选配）

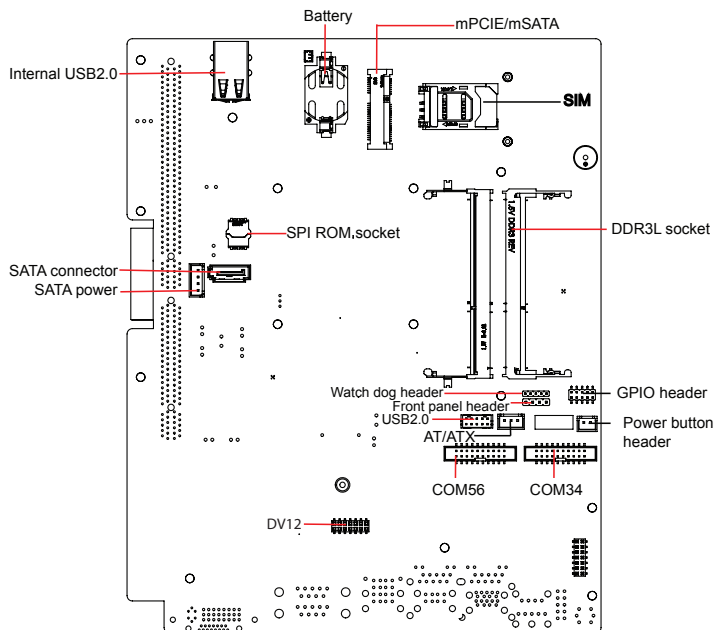
MIC-7300支持两种选配模块，可满足客户不同应用需求。

- 32-bit GPIO模块 P/N: AIIS-DI032-00A1E
- 隔离COM模块 P/N: 98R2C48510E

1. 卸下4颗螺丝并移除底盖。
2. 卸下HDD托架和扩展模块挡板。
3. 断开COM电缆并移除挡板盖。



4. 将扩展模块安装在母板上（注：32-bit GPIO模块需通过电缆连接。关于母板内置I/O接口规格信息，请参考下一页内容）。
5. 放回模块挡板并用螺丝固定。
6. 放回底盖并用螺丝固定。



产品尺寸

UNIT : mm

