MIO-3260 Intel® Atom™ E3825 & Celeron® N2930 Pico-ITX SBC, with DDR3L, 18/24-bit LVDS, VGA, DP/HDMI, GbE, Full-size Mini PCIe, 4 USB, 2 COM, SMBus, I2C, mSATA & MIOe Startup Manual

Packing List

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

1.	1 x MIO-3260 SBC	
2.	1 x Startup Manual	
3.	1 x SATA cable	P/N: 1700006291
4.	1 x Power cable*	P/N: 1700023340-01
5.	1 x Inverter and SATA power cable*	P/N: 1700023339-01
6.	1 x VGA cable*	P/N: 1700023341-01
7.	2 x USB cables*	P/N: 1700019000/ 1700002172
8.	1 x LAN cable*	P/N: 1700019001
9.	1 x Audio cable*	P/N: 1700019584
10.	1 x COM cable*	P/N: 1701200220
11.	1 x Heatsink	P/N: 1960063455T001
12.	Screw & stud pack (2 x screws for Mini PCIe, 4 x M3 studs and screws for heatsink	P/N: 9666226200E/ 9666226300E*

* Only for MIO-3260C-S8A1E

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

Note 1: For detailed contents of MIO-3260, please refer to information on the support web site: http://support.advantech.com.tw/.

Note 2: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: 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

http://www.advantech.com/eplatform

For technical support and service, please visit our support website at:

http://service.advantech.com.tw/support/

This manual is for the MIO-3260 Series.

Part No. 2006326000 1st Edition
Printed in China April 2015

Optional Accessories

- Heat spreader (99.5 x 70.5 x 15.7 mm)
  P/N: 1960065074N001
- MIO-3260 Evaluation Board
  P/N: MIOE-DB2100-00A1E
- LAN w/LED cable for MIO-3260C
  P/N: 1700024079-01

Specifications

General

- **CPU:** Intel® Atom™ E3825/ Celeron® N2930
- **System Memory:** 1 x 204-pin SODIMM socket DDR3L 1333 MHz (N2930) / 1066 MHz (E3825), up to 8 GB
- **L2 Catch:** 2 MB (N2930) / 1 MB (E3825)
- **BIOS:** AMI EFI 16 Mbit Flash ROM
- **Watchdog Timer:** 255 level interval timer

Battery: Lithium 3 V/210 mAH

Note: How to clear CMOS (follow steps below):
1. Turn off system power.
2. Unplug CR2032 battery cable on BH1.
3. Wait for 15 sec or short BH1 pin1-2.
4. Connect battery cable on BH1.
5. Turn on system power.

- **Serial ATA:** One SATA II interface, up to 300 MB/s
- **Expansion Interface:**
  - 1 x Full-size Mini PCIe (Supports mSATA or USB interface module)
  - 1 x MIOe
  - 2 x 64pin connectors

MIOe Expansion Slot

- **Interface:** USB3.0, SMBus, LPC, 2 x PCIe x1, HD Audio Line-out, DisplayPort or HDMI supported by request, +5 Vsb/+12 Vsb power, Power On, Reset
- **Total peripheral power supply output:** 5 V @ 3 A for CPU board and MI/O Extension module in total, 12 V @ 2 A for MI/O Extension module

64-pin Expansion Connectors

- 64-pin connecter A: 12V DC input, Inverter, VGA, 2 x USB2.0, 1GbE w/ LED
- 64-pin connecter B: SMBus, I2C, Power button, Reset button, HDD/Power LED, 2 x USB2.0, 8-bit GPIO, HD Audio Line in, Line out, Mic in, 2 x RS-232/422/485

Specifications (Cont.)

Display

- **Controller:** Intel® SoC N2930 / E3825, DirectX 11 and OpenGL3.0 support for VGA, DP or HDMI display output Chrontel CH7511 for 18/24 bit LVDS display output
- **Output Interfaces:**
  - VGA: 2560 x 1600 at 60 Hz
  - LVDS: Single channel 18/24-bit LVDS, up to 1400 x 900 at 60 MHz
  - DP/HDMI: 2560 x 1600 at 60 Hz
  - Dual Independent Display: LVDS+VGA or LVDS+DP/ DMI or VGA+DP/HDMI*

* DP/HDMI is from MIOe and HDMI supported by request

Ethernet Interface

- **Speed:** 10/100/1000 Mbps
- **Controller:** Intel® I210

Mechanical and Environmental

- **Dimensions (L x W):** 100 x 72 mm (3.9 x 2.8 inches) Mechanical Drawings are on page 4 - 6.
- **Power Requirement:** Single +12 V ± 10% DC power input
- **Power Consumption (with 8 GB memory):**
  - Idle mode:
    MIO-3260L-S3A1E(E3825): 4.47 W
    MIO-3260L-S8A1E(N2930): 5.08 W
    MIO-3260C-S8A1E(N2930): 4.22 W
  - Max. load:
    MIO-3260L-S3A1E(E3825): 7.13 W
    MIO-3260L-S8A1E(N2930): 9.73 W
    MIO-3260C-S8A1E(N2930): 8.71 W
- **Operating Temperature:** 0 ~ 60 °C (32 ~ 140 °F)
- **Weight:** 0.37 kg, reference weight of total package

Jumpers and Connectors

The board has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

Jumpers	
Label	**Function**
J1	LCD Power / Auto Power on
J2	Mini PCIE / mSATA Select

Connectors	
Label	**Function**
CN4	64Pin Connector A
CN5	64Pin Connector B
CN6	DDR3L SO-DIMM
CN7	12V Power Input*
CN8	Inverter Power Output/Internal SATA Power*

Jumpers and Connectors (Cont.)

CN9	VGA*
CN10	2 x USB 2.0*
CN11	Gigabit Ethernet*
CN11_1	Gigabit Ethernet with LED**
CN14	SATA
CN16	Mini PCIE/mSATA
CN29	MIOe
CN31	18/24-bit LVDS panel

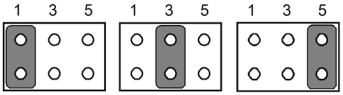
*Only for MIO-3260C-S8A1E

**Supported by request

Jumper Settings

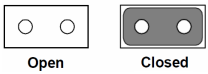
J1: LCD Power / Auto Power On	
Setting	Function
(1-2)	+5 V
(3-4)*	+3.3 V
(5-6)*	Auto Power On

* Default



J2: Mini PCIE/ mSATA Select	
Setting	Function
(Close)*	Mini PCIE
(Open)	mSATA

* Default



Caution! The computer is provided with a battery-powered real-time 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.

MIO-3260 Connector Locations

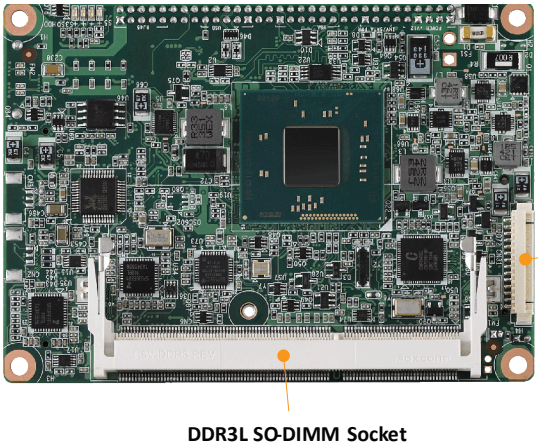


Figure 1: MIO-3260 Connecter Location (Top Side)

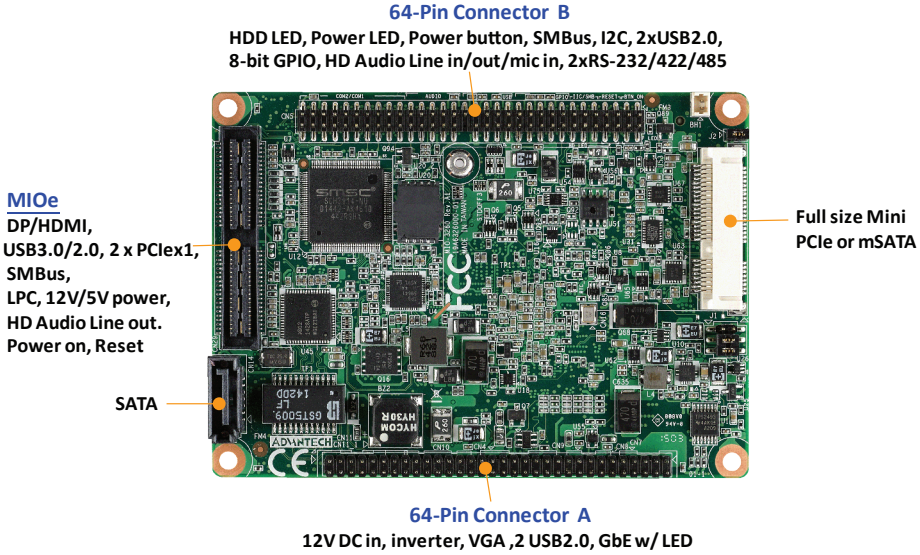


Figure 2: MIO-3260L Connecter Location (Bottom Side)

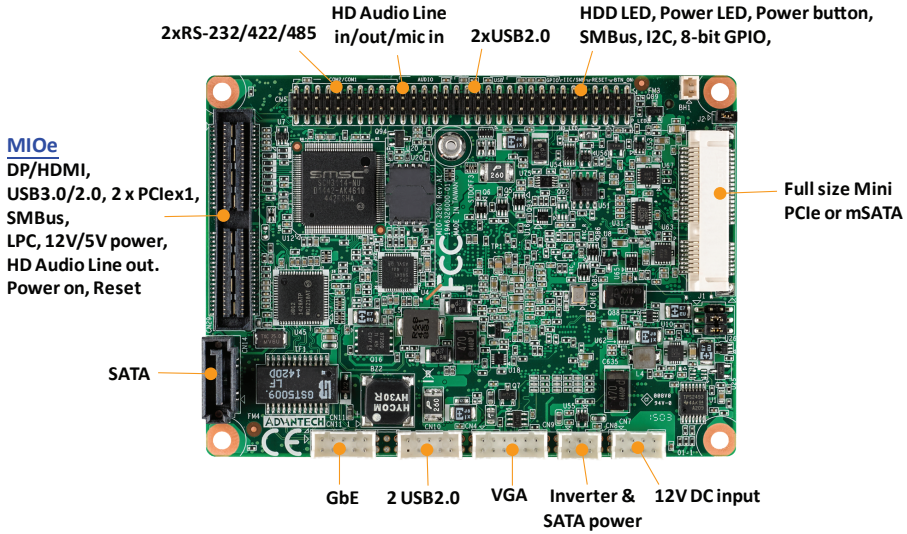


Figure 3: MIO-3260C Connecter Location (Bottom Side)

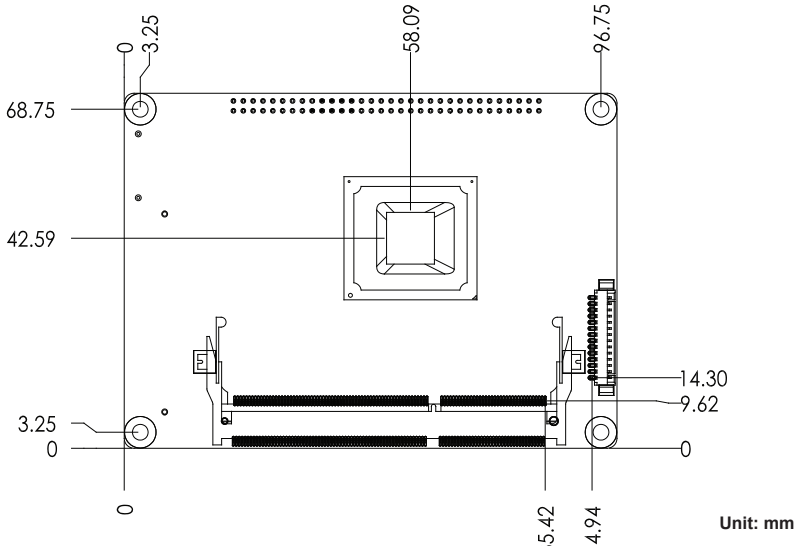


Figure 4: MIO-3260 Mechanical Drawing (Top View)

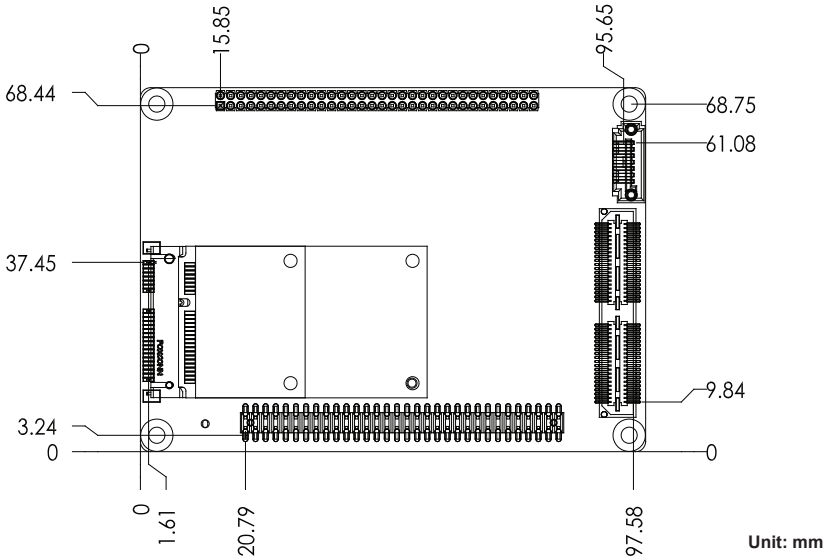


Figure 5: MIO-3260L Mechanical Drawing (Bottom View)

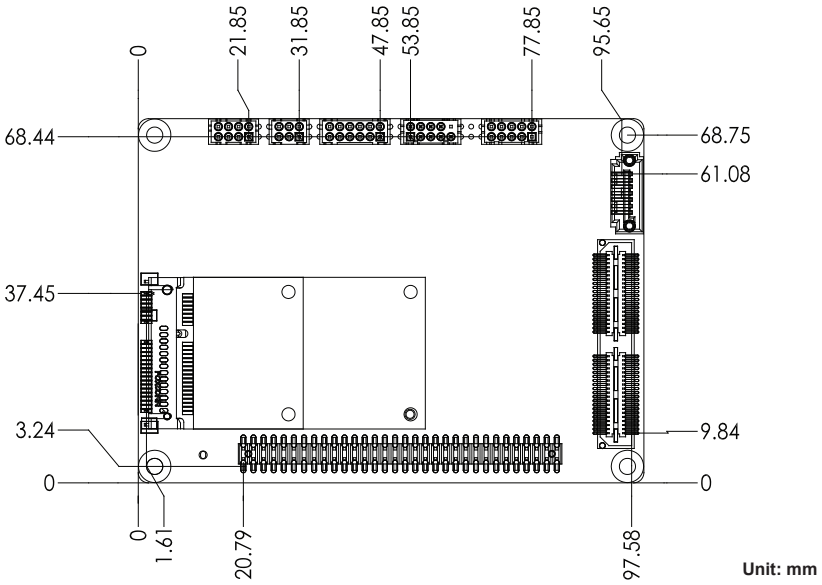


Figure 6: MIO-3260C Mechanical Drawing (Bottom View)

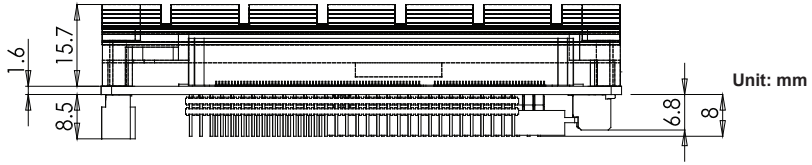


Figure 7: MIO-3260 Mechanical Drawing (Side View with Heatsink)

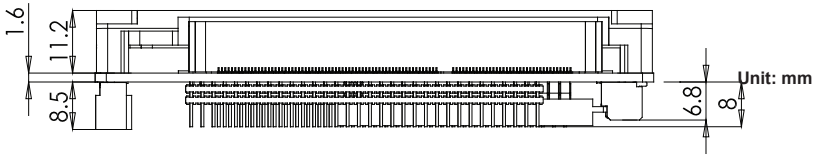
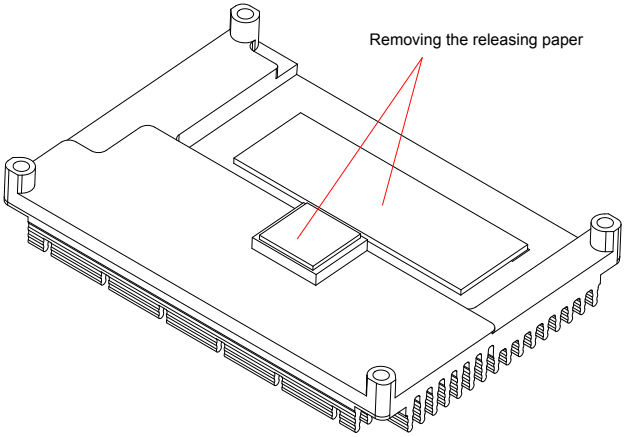


Figure 8: MIO-3260 Mechanical Drawing (Side View with Heatspreader)

Quick Installation Guide

1. A heatsink is in the white box, please take it out and remove the releasing paper from the thermal pads.



2. There are also four screws inside the white box, please install the DRAM in the SO-DIMM socket first, then screw the heatsink into place as per illustration below: