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# MIO-2261 Intel<sup>®</sup> Atom<sup>™</sup> N2600/ N2800 Pico-ITX SBC, DDR3, 18/24-bit LVDS, VGA, 1 GbE, Half-size Mini PCIe, 4 USB, 2 COM, SMBus, I<sup>2</sup>C, mSATA & MIOe Startup Manual

### Packing List

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

- 1. 1 MIO-2261 SBC
- 2. 1 Startup Manual

screws for heatsink)

3. 1 Utility CD (including user manual and drivers)

4.	1 SATA cable	p/n: 1700006291	
5.	1 Audio cable	p/n: 1700019156	
6.	1 COM cable	p/n: 1701200220	
7.	1 SATA Power cable	p/n: 1700019656	
8.	1 USB cable	p/n: 1700002172	
9.	1 AT power cable	p/n: 1700019705	
10. 1 Heatsink		p/n: 1960055792T001	
11. Screw and stud pack (1 screw for Mini PCIe, 4 M3 studs and			

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

p/n: 9666226000E

- Note 1: For detailed contents of MIO-2261, please refer to information on the enclosed CD-ROM (in PDF format).
- 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 EMAC products, please visit our website at:

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

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This manual is for the MIO-2261 Series Rev. A1

Part No. 2006226100	1st Edition
Printed in China	June 2012

### Specifications

#### General

- CPU: Intel<sup>®</sup> Atom<sup>™</sup> Dual Core 1.6 GHz (N2600) / 1.86 GHz (N2800)
- System Chipset: Intel® Atom™ N2600/ N2800 + NM10
- System Memory: 1 x 204-pin SODIMM socket DDR3 800 MHz (N2600) /1066 MHz (N2800), up to 4 GB
- · L2 Catch: 1 MB on die
- BIOS: AMI EFI 16 Mbit Flash ROM
- · Watchdog Timer: 255 level interval timer
- Battery: Lithium 3 V/210 mAH
- Note: How to clear CMOS (Must follow steps below):
  - 1. Turn off system power.
  - 2. Unplug CR2032 battery cable on BH1.
  - 3. Waiting for 15sec 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
- USB: Four USB 2.0 compliant ports
- · Audio: High definition audio (HD), line-in, line-out
- · GPIO: 8-bit general purpose input/output
- Expansion Interface: Half size Mini PCIe, MIOe

#### MIOe Expansion Slot

- Interface: 2 x USB 2.0, 2 x PCIe x1, LPC, HD Audio line-out, SMBus, DP or HDMI supported by request, 5 Vsb/12 Vsb
- Total peripheral power supply output: 5 V @ 3 A for CPU board and MI/O Extension module totally, 12 V @ 2 A for MI/O Extension module

#### VGA/LVDS Interface

- Controller: Intel® N2600 / N2800, DirectX 9 and OpenGL3.0 support
- · Output Interfaces:
  - VGA: Up to 1920 x 1200 (WUXGA)
  - LVDS: Single channel 18/24-bit LVDS,
    - up to 1366 x 768 (WXGA)
  - Dual Display: CRT + LVDS

#### Ethernet Interface

- Support single 10/100/1000 Mbps Ethernet interface
- Controller: Intel® 82583V (GbE1)

# **Specifications Cont.**

#### **Mechanical and Environmental**

- Dimensions: 100 x 72 mm (3.9" x 2.8") Mechanical Drawings are on page 4 - 6.
- Power Requirement: Single 12 V DC power input
- Power Consumption (with 1 GB memory):

- Typical in XP mode: N2600: 0.35 A @ 12 V (4.2 W) N2800: 0.46 A@ 12 V (5.52 W) - Max in HCT: N2600: 0.76 A @ 12 V (9.12 W) N2800: 0.80 A @ 12 V (9.6 W)

- Operating Temperature: 0 ~ 60° C (32 ~ 140° F)
- · Weight: 0.42 kg (0.93 lb) (reference total weight)

### **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	

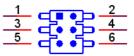
Connectors				
Label	Function			
CN1	12V Power Input			
CN2	DC JACK (support by request)			
CN3	DDR3 SO-DIMM			
CN4	GPIO			
CN5	VGA			
CN6	mSATA			
CN7	SATA			
CN8	Mini PCIe			
CN9	External USB			
CN10	Internal USB			
CN11	COM1/ COM2			
CN12	SMBus (or I <sup>2</sup> C, support by request)			
CN13	Front Panel			
CN14	Gigabit Ethernet			
CN15	HD Audio			
CN16	MIOe			
CN17	Inverter Power Output			
CN18	24 bits LVDS Panel			
BH1	Battery			

### **Jumpers and Connectors**

#### Jumper Settings

J1	LCD Power / Auto Power On
Part Number	1653003260
Footprint	HD_3x2P_79
Description	PIN HEADER 3*2P 180D(M) 2.0 mm SMD 21N22050
Setting	Function
(1-2)	+5 V
(3-4)*	+3.3 V
(5-6)*	Auto Power On

\* 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.

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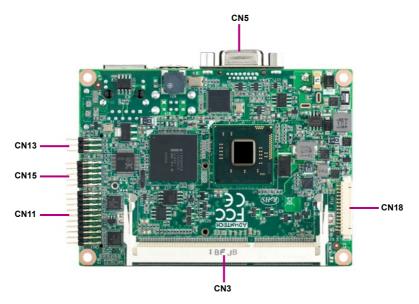


Figure 1: MIO-2261 Connect Location (Top Side)

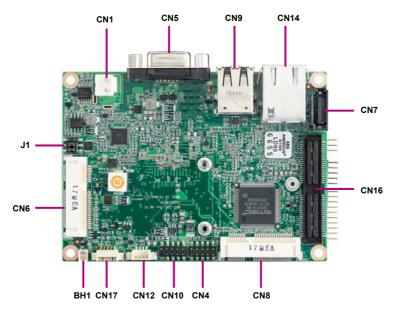


Figure 2: MIO-2261 Connect Location (Bottom Side)

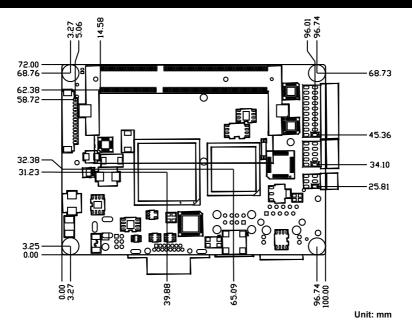
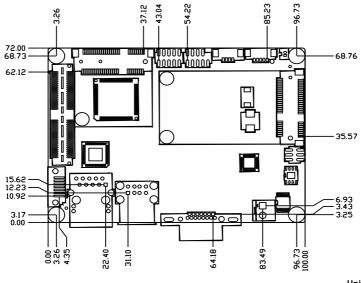


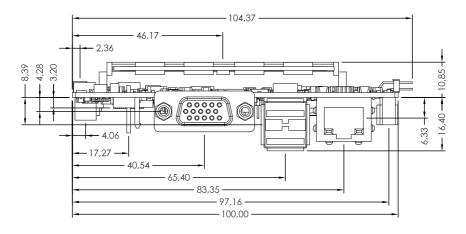
Figure 3: MIO-2261 Mechanical Drawing (Top Side)



Unit: mm

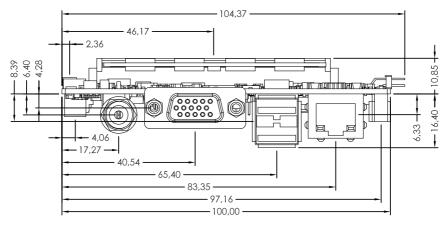
*Figure 4: MIO-2261 Mechanical Drawing (Bottom Side)* 4 MIO-2261 Startup Manual

# MIO-2261 Mechanical Drawing



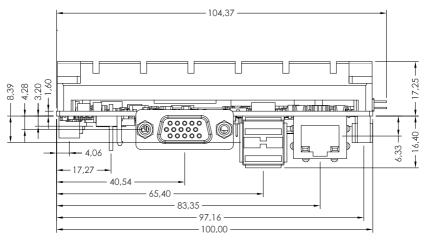
Unit: mm

Figure 5: MIO-2261 Mechanical Drawing (Side View)



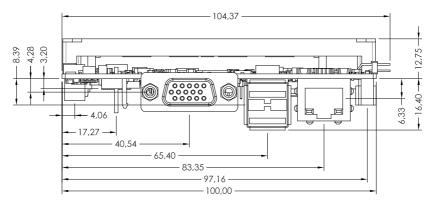
Unit: mm

# Figure 6: MIO-2261 Mechanical Drawing (Side View with Optional DC/Jack)



Unit: mm

Figure 7: MIO-2261 Mechanical Drawing (Side vew with Heatsink)



Unit: mm

Figure 8: MIO-2261 Mechanical Drawing (Side View wih Optional Heatspreader)