

# PCM-9362 Intel® Atom™ N450/D510 3.5" SBC with VGA, LVDS, 2 LAN, SATA, Mini PCIe and SSD

## Startup Manual

### Packing List

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

1. 1 PCM-9362 SBC
2. 1 Startup Manual
3. 1 Utility CD
4. 1 Mini jumper pack p/n: 9689000002
5. 1 SATA cable p/n: 1700006291
6. 1 Keyboard/Mouse cable p/n: 1703060191
7. 1 ATX Power cable p/n: 1700000265
8. 1 Audio cable p/n: 1703100152
9. 1 COM2 cable p/n: 1701140201
10. 2 USB 2 port cables p/n: 1703100121
11. 1 SATA power cable p/n: 1703150102
12. 1 LPT cable p/n: 1700260250

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

**Note 1:** For detailed contents of PCM-9362, 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: [www.adobe.com/Products/acrobat/readstep2.html](http://www.adobe.com/Products/acrobat/readstep2.html) (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 PCM-9362 Series Rev. A1

Part No. 2006936200  
Print in China

1st Edition,  
November 2009

### Specifications

#### General

- **CPU:** Intel® Atom™ Processor N450/D510 1.67 GHz
- **System Chipset:** Intel® Atom™ N450/D510+ICH8M
- **System Memory:** DDR2 667 MHz up to 2 GB
- **BIOS:** AMI 16 Mbit Flash BIOS
- **Watchdog Timer:** 255 level timer interval
- **Expansion Interface:** Mini-PCIe
- **Battery:** Lithium 3 V/210 mAH
- **SATA interface:** Two SATA ports support 300 MB/s
- **Keyboard/mouse connector:** Support internal pin-header connector for KB/mouse using
- **USB:** Six USB 2.0 compliant universal serial bus ports
- **Audio:** High Definition Audio(HD), Line-in, Line-out, Mic-in
- **GPIO:** 8-bit general purpose Input/Output

#### Solid State Disk

- Supports one 50-pin socket for CFC type I/II

#### VGA/LVDS Interface

- **Chipset:** Embedded Gen3.5+ GFX Core
- **Memory Size:** Up to 224 MB of dynamic video memory allocation
- **Resolution:**
  - CRT: Intel Atom N450 up to 1400 x 1050 (SXGA)  
Intel Atom D510 up to 2048 x 1536
  - LVDS: Single channel 18-bit LVDS up to WXGA  
1366 x 768
- **LVDS LCD:**
  - Support 18-bit LVDS LCD
- **Dual Display:**
  - CRT+LVDS (18-bit)

#### Ethernet Interface

- **Chipset supports:** 10/100/1000 Mbps - LAN1 Intel 82567, LAN2 Intel 82583V
- **Ethernet interface:** IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 8023y, IEEE802.ab (100 BASE-T) protocol compatible

#### Mechanical and Environmental

- **Dimensions:** 146 x 102 mm (5.7" x 4")  
Mechanical Drawing is available.
- **Power Supply Type:** AT/ATX
- **Power Requirement:**
  - AT: 5 V or 12 V, ATX: 5 V, 5 V sb (12 V is optional for LCD inverter and add on card)
  - AT: 12 V, ATX: 12 V, 5 V sb

## Specifications

- **Power Consumption:**

- Typical in XP mode:

PCM-9362NC-S6A1E: 5 V : 2.31 A

PCM-9362N-S6A1E: 12 V : 0.87 A

PCM-9362D-S6A1E: 12 V : 0.91 A

- Max in HCT:

PCM-9362NC-S6A1E: 5 V : 2.36 A

PCM-9362N-S6A1E: 12 V : 1.01 A

PCM-9362D-S6A1E: 12 V : 1.17 A

- **Operating Temperature:** 0 ~ 60° C (32 ~ 140° F)

- **Weight:** 0.85 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
J2	COM2 Setting
J3	AT / ATX Power SEL
J4	Clear CMOS
J5	Panel Voltage SEL

## Jumpers and Connectors

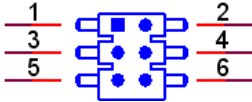
### Connectors

Label	Function
CN1	Audio
CN2	SATA
CN3	SATA
CN4	GPIO
CN5	HDD & PWR LED
CN6	12V AT Power Input
CN7	COM3/COM4
CN8	AT/ATX Power Input
CN9	MIO 2.0
CN10	PS2
CN11	SMBus
CN12	COM2
CN13	Inverter Power Output
CN14	Internal USB
CN15	Internal USB
CN16	18 bits LVDS Panel
CN17	LAN (Optional)
CN18	LAN1
CN19	LAN2
CN20	Power Switch (Low Active )
CN21	LPT
CN22	Standby Power Input
CN23	Reset
CN24	External USB
CN25	External USB
CN26	COM1
CN27	VGA
CN28	Mini PCIE lock
CN29	Mini PCIE slot
CN30	DDR2 SODIMM
CN31	BIOS Socket
CN32	CF

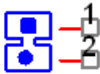
# Jumpers and Connectors

## Jumpers Setting

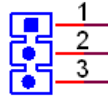
J2	COM2 Setting
Part Number	1653003260
Footprint	HD_3x2P_79
Description	PIN HEADER 3*2P 180D(M) 2.0 mm SMD SQUARE PIN
Setting	Function
(1-2)	RS232
(3-4)	RS485
(5-6)	RS422



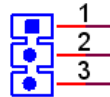
J3	AT / ATX Power SEL
Part Number	1653002101
Footprint	HD_2x1P_79_D
Description	PIN HEADER 2*1P 180D(M)SQUARE 2.0 mm DIP W/O Pb
Setting	Function
(1-2)	AT Power SEL
EMPTY	ATX Power



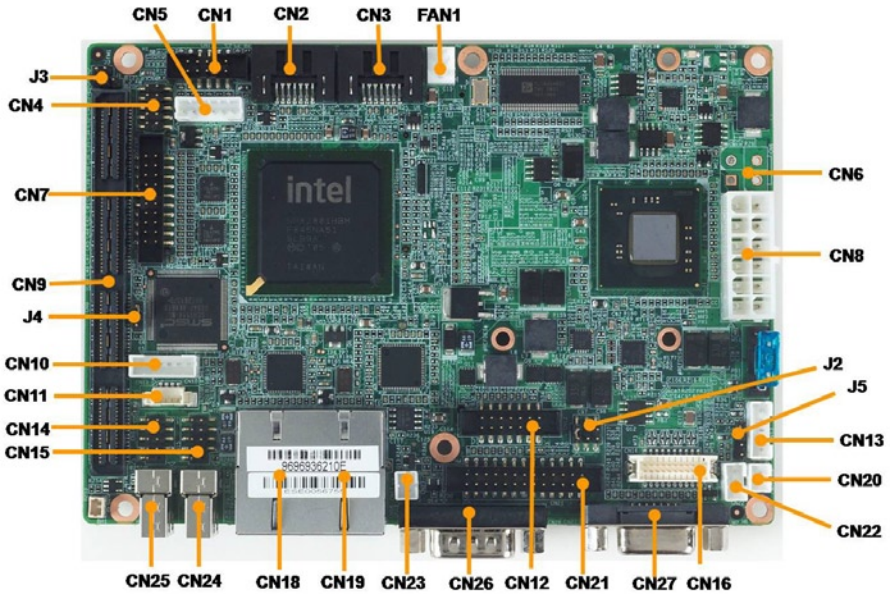
J4	Clear COMS
Part Number	1653003101
Footprint	HD_3x1P_79_D
Description	PIN HEADER 3*1P 180D(M) 2.0 mm DIP SQUARE W/O Pb
Setting	Function
(1-2)	Normal
(2-3)	Clear CMOS



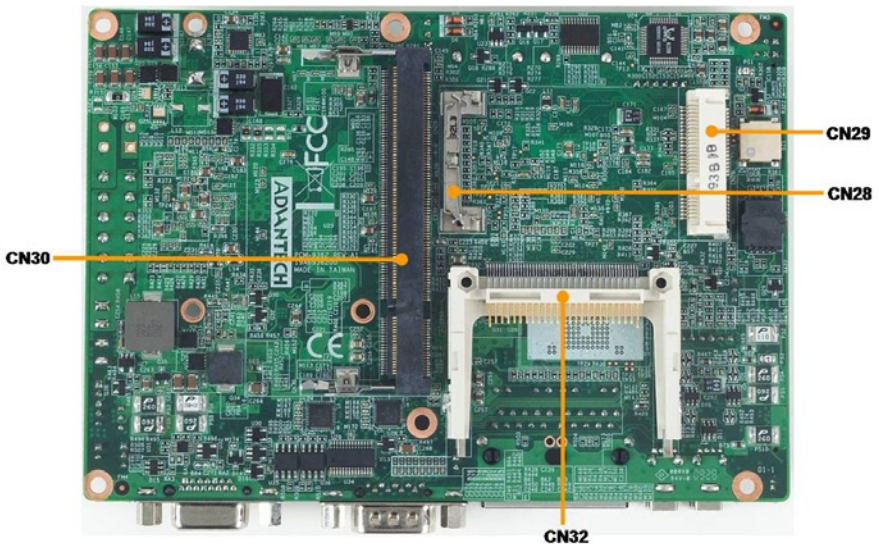
J5	PAN VOL SEL
Part Number	1653003101
Footprint	HD_3x1P_79_D
Description	PIN HEADER 3*1P 180D(M) 2.0 mm DIP SQUARE W/O Pb
Setting	Function
(1-2)	+5V
(2-3)	+3V



## PCM-9362 Jumpers and Connectors

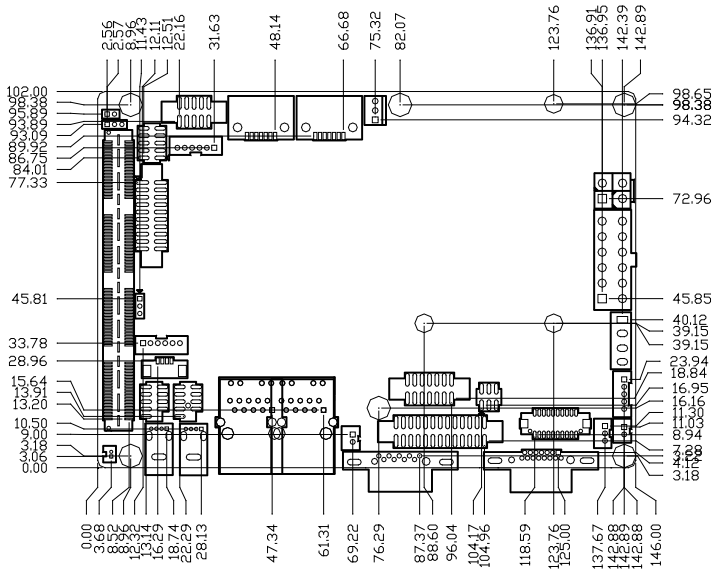


*PCM-9362 Jumpers and Connectors (Component Side)*

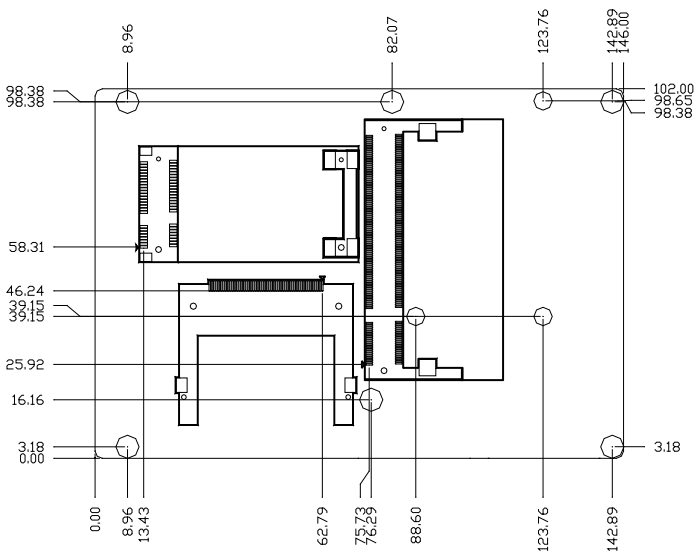


*PCM-9362 Jumpers and Connectors (Solder Side)*

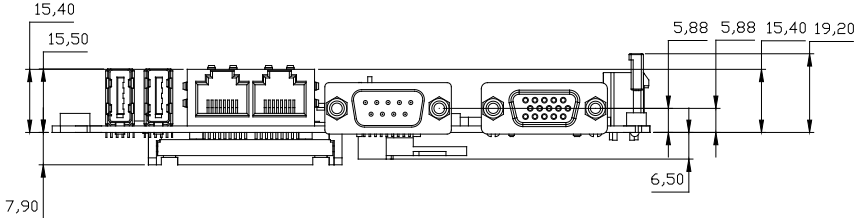
# PCM-9362 Mechanical Drawing



**PCM-9362 Mechanical Drawing (Component Side)**



**PCM-9362 Mechanical Drawing**



*PCM-9362 Mechanical Drawing (Side View)*