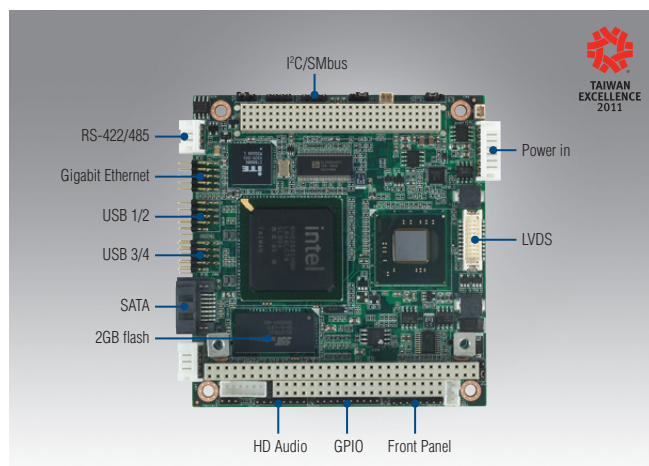


# PCM-3362

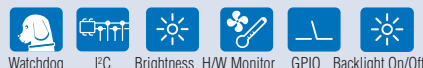
Intel® Atom™ N450 PC/104-Plus SBC, VGA, LVDS, Ethernet, USB, COM, SATA, Onboard Flash



## Features

- Intel® Atom™ N450 1.66 GHz Processor and DDR2 667 MHz SDRAM up to 2 GB
- Supports extended temperature -40 ~ 85° C
- Standard 96 x 90 mm dimensions and PC/104-Plus expansion connector
- Onboard 2 GB flash (4 GB optional)
- Supports SUSIAccess and Embedded Software APIs

### Software APIs:



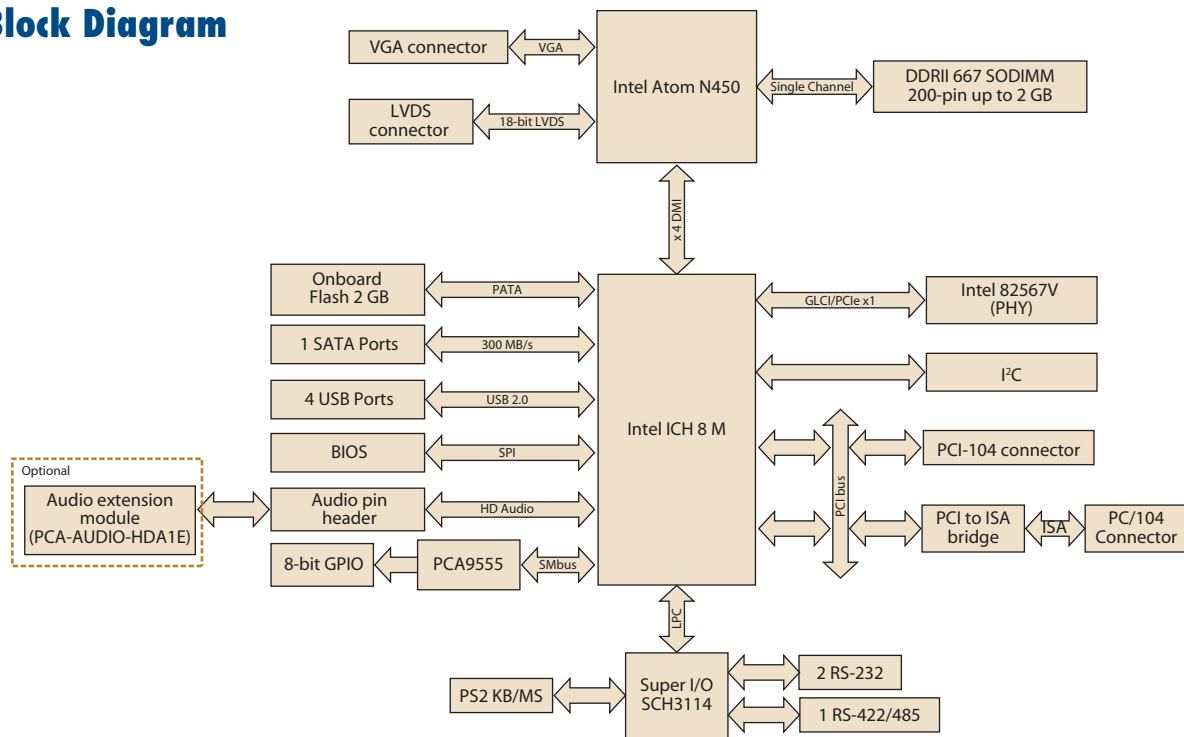
### Utilities:



## Specifications

|                          |                                      |                                                                                                         |
|--------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Processor System         | CPU                                  | Intel Atom N450 1.66 GHz                                                                                |
|                          | Frequency                            | 1.66 GHz                                                                                                |
|                          | L2 Cache                             | 512 KB                                                                                                  |
|                          | System Chipset                       | Intel Atom N450 + ICH8M                                                                                 |
|                          | BIOS                                 | AMI 16 Mbit                                                                                             |
| Memory                   | Technology                           | DDR2 667 MHz                                                                                            |
|                          | Max. Capacity                        | 2 GB                                                                                                    |
|                          | Socket                               | 1 x 200-pin SODIMM                                                                                      |
| Display                  | Chipset                              | Intel Atom N450 1.66 GHz                                                                                |
|                          | VRAM                                 | Shared system memory up to 224 MB                                                                       |
|                          | Graphics Engine                      | Intel Gen 3.5 graphic core, DX9 compliant, MPEG2 Hardware Acceleration                                  |
|                          | LVDS                                 | Single channel 18-bit LVDS up to WXGA 1366 x 768                                                        |
|                          | VGA                                  | Supports up to SXGA 1400 x 1060 at 60 Hz                                                                |
| Ethernet                 | Dual Display                         | VGA+LVDS                                                                                                |
|                          | Speed                                | 10/100/1000 Mbps                                                                                        |
|                          | Controller                           | ICH8M + Intel 82567V (PHY), supports Wake-on-LAN                                                        |
|                          | Connector                            | Pin Header                                                                                              |
| Watchdog Timer           |                                      | Output System Reset<br>Programmable counter from 1 ~ 255 minutes/ seconds                               |
| Storage                  | SATA                                 | 1 SATAII, up to 3.0 GB/s (300 MB/s)                                                                     |
|                          | Onboard Flash                        | 2 GB (Up to 4 GB)                                                                                       |
| Internal I/O             | USB                                  | 4 x USB 2.0                                                                                             |
|                          | Serial                               | 2 RS-232 from COM1/2, 1 RS-422/485 from COM3 (ESD protection for RS-232: Air gap ±15 kV, Contact ±8 kV) |
|                          | Keyboard/Mouse                       | 1                                                                                                       |
|                          | GPIO                                 | 8-bit general purpose input/output                                                                      |
|                          | I2C                                  | 1                                                                                                       |
|                          | Audio                                | Intel High Definition audio interface                                                                   |
| Expansion                | PC/104-Plus Slot                     | 1                                                                                                       |
| Power                    | Power Type                           | AT/ATX                                                                                                  |
|                          | Power Supply Voltage                 | 5 V ± 5% only to boot up (12 V is optional for LCD inverter and add-on card)                            |
|                          | Power Consumption (Typical)          | 2 A @ +5 V, 5 mA @ +12 V (10.06 Watts)                                                                  |
|                          | Power Consumption (Max, test in HCT) | 2.37 A @ +5 V, 7 mA @ +12 V (11.93 Watts)                                                               |
|                          | Battery                              | Lithium 3 V / 210 mAh                                                                                   |
| Environment              | Power Management                     | ACPI/ APM 1.2                                                                                           |
|                          | Operational                          | 0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 85% RH non-condensing)                           |
| Physical Characteristics | Non-Operational                      | -40° C ~ 85° C and 60° C @ 95% RH non-condensing                                                        |
|                          | Dimensions (L x W)                   | 96 x 90 mm (3.8" x 3.5")                                                                                |
|                          | Weight                               | 0.664 kg (1.46 lb) (with heat-sink)                                                                     |
|                          | Height                               | Top side: 14.4 mm, 19.4 mm (Z & Z2); Bottom side: 10.6 mm                                               |

## Block Diagram



## Ordering Information

| Part No.           | CPU       | Memory      | On board Flash | VGA | LVDS   | Gigabit Ethernet | USB 2.0 | RS-232 | RS-422/485 | Expansion | Thermal Solution | Operating Temp. |
|--------------------|-----------|-------------|----------------|-----|--------|------------------|---------|--------|------------|-----------|------------------|-----------------|
| PCM-3362N-S6A1E    | Atom N450 | SODIMM      | 2 GB           | Yes | 18-bit | 1                | 4       | 2      | 1          | PC/104+   | Passive          | 0 ~ 60° C       |
| PCM-3362N-S6F4A1E  | Atom N450 | SODIMM      | 4 GB           | Yes | 18-bit | 1                | 4       | 2      | 1          | PC/104+   | Passive          | 0 ~ 60° C       |
| PCM-3362Z-1GS6A1E  | Atom N450 | 1 GB bundle | 2 GB           | Yes | 18-bit | 1                | 4       | 2      | 1          | PC/104+   | Passive          | -20 ~ 80° C     |
| PCM-3362Z2-1GS6A1E | Atom N450 | 1 GB bundle | 2 GB           | Yes | 18-bit | 1                | 4       | 2      | 1          | PC/104+   | Passive          | -40 ~ 85° C     |

Note: Wide temperature version is bundled with extended temperature grade memory module

Note: Passive = fanless; Active = with fan

## Packing List

| Part No.       | Description                                                      | Quantity |
|----------------|------------------------------------------------------------------|----------|
|                | PCM-3362 SBC                                                     |          |
|                | Startup Manual                                                   |          |
|                | Utility CD                                                       |          |
| 1700000898     | VGA cable D-SUB 15P(F)/12P-1.25 mm15 cm                          | 1        |
| 1700003491     | AT power cable 1 x 8P-2.0/B4P-5.08 x 2 15 cm                     | 1        |
| 1700060202     | Cable 6P-6P-6P PS/2 KB & Mouse 20 cm                             | 1        |
| 1703040157     | RS-422/485 W/D-SUB COM 4P 15 cm                                  | 1        |
| 1703060053     | PS2 cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm                   | 1        |
| 1700002332     | ATX power cable 20P-13P/8P/3P/3P 13 cm                           | 1        |
| 1703100260     | USB cable 2 ports 2.0 mm pitch w/ bracket 26 cm                  | 1        |
| 1700071000     | SATA data cable 7p 100 cm                                        | 1        |
| 1703150102     | SATA power cable B4P-5.08/SATA 15P 10 cm                         | 1        |
| 1701200220     | RS-232 x 2 ports 2.0 mm 22 cm                                    | 1        |
| 1700017863     | LAN cable RJ-45/2 x 5P-2.0 15 cm                                 | 1        |
| 9660104000     | PC/104 screw and copper post package                             | 1        |
| 1960045487T001 | Heatsink for PCM-3362 (79.66 x 77.97 x 12.22 mm)                 | 1        |
| 1960046618T001 | Heatsink for PCM-3362Z&Z2 series only (79.66 x 77.97 x 17.22 mm) | 1        |

## Optional Accessories

| Part No.        | Description                                          |
|-----------------|------------------------------------------------------|
| 1960047106T001  | Heat spreader (79.66 x 77.98 x 10.32 mm) of PCM-3362 |
| 1653130421      | PCI-104 connector 120-pin (Long pin)                 |
| 165313222B      | PC/104 connector 64-pin (Long pin)                   |
| 165312022B      | PC/104 connector 40-pin (Long pin)                   |
| PCA-AUDIO-HDA1E | Audio extension module with bracket                  |
| 1700018427      | Audio cable connecting PCM-3362 and PCA-AUDIO-HDA1E  |

## Embedded OS/API

| Embedded OS/API | Part No.   | Description                                |
|-----------------|------------|--------------------------------------------|
| WinCE           | 2070009692 | CE 6.0 Pro PCM-3362 V1.3 ENG               |
| Win XPE         | 2070011081 | WinCE 7.0 Pro PCM-3362 V1.0 ENG            |
| QNX             | 2070010323 | XPE WES2009 MUI24 6.5                      |
| Linux           |            | Ubuntu 10.04.1                             |
| VxWorks         |            | 6.8                                        |
| Software API    | 205E362000 | SUSI 3.0 SW API for PCM-3362 B:20091015 XP |

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