Embedded Single Board Computers

Features

- Embedded Intel® Atom™ processor N450 Single Core/D510 Dual Core 1.66 GHz + ICH8M
- Supports up to 3 Intel GbE, 6 COM, and 2 Watchdog timer
- Design complies with UL60601 on GbE3 and COM6 port isolation (PCM-9562F full version series only)
- Power off protection and Software FC API support
- Supports SUSIAccess and Embedded Software APIs

Specifications

Processor System

- CPU: Intel Atom N450/D510 1.66 GHz
- Frequency: 1.66 GHz
- L2 Cache: 512 KB/1 MB
- System Chipset: N450/D510 + ICH8M
- BIOS: AMI 16 Mbit

Memory

- Technology: DDR2 667 MHz
- Max. Capacity: 2 GB
- Socket: 1 x 200-pin SODIMM

Display

- Chipset: N450/D510
- VRAM: Optimized Shared Memory Architecture up to 224 MB
- Graphics Engine: Embedded Gen3.5+ GFX Core, HW MPEG2 decoder
- VGA: N450: Up to SXGA 1400 x 1050 @ 60 Hz (SXGA)
  D510: up to 2048 x 1536 (QXGA)
- Dual Display: VGA + LVDS

Ethernet

- Interface: 3 (RJ-45 connector through the cable and Ethernet3 is Full version only)
- Controller: GbE1 Intel 82567, GbE2 Intel 82583V, GbE3 Intel 82583V (UL60601 Compliant)

Audio

- Chipset: ALC888 HD Codec, Speaker out, CD-input, Line-in, Line-out, Mic-in
- Amplifier: Max 2.2W/ch Stereo into a 3Ω Load

WatchDog Timer

- Output: System reset
- Internal: Watchdog timer1 (IWT): monitor the system status before OS is ready (programmable 10ms, disable, 1s, 60s)
- Watchdog timer2 (PWT): monitor the application status after OS is ready (programmable 1 - 255 sec/min) (Full version only)

Storage

- CompactFlash: CompactFlash type I/II
- SATA: 3 SATA II (Max. Data Transfer Rate 300 MB/s)
- Floppy: Share with LPT (Optional)
- SPI Flash: 16 Mbit

Internal I/O

- Serial: 4 x RS-232 (COM1/2/3/4, isolation design in COM4 is Full version only)
- PS/2 KB/Mouse: 1
- VGA: 1
- Reset Button: 1
- USB: 8 x USB 2.0
- Parallel (LPT): 1
- IDE: Share with LPT (Optional)
- GPIO: 16-bit GPIO
- SMBUS: 1
- I2C: 1

Expansion

- PC/104-Plus slot: 1
- Full-size Mini PCIe: 1
- PCI (Slot): 1

Power

- Power type: AT / ATx 8-8pin AT (ATx can support ALPS)
- Power Supply Voltage: ATx: 12V ±10%, 5VSB ±5% (5V stand-by power is only for auto power off function)
- Power Consumption (Typical): PCM-9562N-S6A1E: 893 mA @ 12 V, 8 mA @ 5 VSB (10.8 W)
- Power Consumption (Max.): PCM-9562N-S6A1E: 1130 mA @ 12 V, 10 mA @ 5 VSB (13.6 W)

Environment

- Operating: 0 ~ 60° C (32 ~ 140° F) (Operating humidity: 40% C @ 95% RH non-condensing)
- Non-Operating: -40~ C ~ 85° C and 60% C @ 95% RH non-condensing

Physical Characteristics

- Dimensions (L x W x H): 253 x 165 mm x 5.75 mm
- Weight: 0.7 kg (1.54 lb) (with heatsink)
- Total Height (with cooler + PCB + Bottom): 29.6mm (PCM-9562N/S), 38.6mm (PCM-9562D/S), 44.6mm (PCM-9562Z/Z2)

All product specifications are subject to change without notice.

Last updated: 15-Jan-2014
## Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>CPU</th>
<th>Memory</th>
<th>VGA</th>
<th>LVDS</th>
<th>GbE1</th>
<th>GbE2</th>
<th>GbE3</th>
<th>HD Audio</th>
<th>USB 2.0</th>
<th>Watchdog</th>
<th>Operating Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCM-9562NF-S6A1E</td>
<td>Atom N450</td>
<td>SODIMM</td>
<td>1</td>
<td>18-bit</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>Yes</td>
<td>8</td>
<td>1</td>
<td>Passive: 0 - 60° C</td>
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<tr>
<td>PCM-9562DF-S6A1E</td>
<td>Atom D510</td>
<td>SODIMM</td>
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<td>Active: 0 - 60° C</td>
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<td>PCM-9562NF-Z1G6A1E</td>
<td>Atom N450</td>
<td>Bundle 1GB</td>
<td>1</td>
<td>18-bit</td>
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<td>Optional</td>
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<td>3</td>
<td>Passive: -20 - 60° C</td>
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<td>Atom D510</td>
<td>Bundle 1GB</td>
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<td>Optional</td>
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<td>3</td>
<td>Passive: -40 - 60° C</td>
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</table>

* Passive = fansless; Active = with fan
* PCM-9562NF-S6A1E and PCM-9562DF-S6A1E are designed with UL60601 isolation GbE3, COM6, and Watchdog Timer2
* Both COM6 and GbE3 are optional by request for extended temperature products

## Optional Accessories

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Quantity</th>
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<tr>
<td>96980000002</td>
<td>PCM-9562 SBC</td>
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<tr>
<td>2009956200</td>
<td>Mini Jumper Pack</td>
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<td>2069056200</td>
<td>Startup Manual</td>
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<td>1700015741</td>
<td>Utility CD</td>
<td>1</td>
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<td>1960020695000</td>
<td>ATX 5VSB cable</td>
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<tr>
<td>1960045326N001</td>
<td>Heatsink for PCM-9562/NF (50 x 50 mm)</td>
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<tr>
<td>1960045625N001</td>
<td>Cooler for PCM-9562/DF (50 x 50 x 24 mm)</td>
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<tr>
<td>1960022379</td>
<td>Heatsink for PCM-9562/NZ/22 (50 x 50 mm)</td>
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## Embedded OS/API

<table>
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<tr>
<th>Embedded OS/API</th>
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<th>Description</th>
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<tr>
<td>Win XPE</td>
<td>2070001001</td>
<td>XPE 2009 V4.0 MUI24</td>
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<td>WinCE 7</td>
<td>2070001083</td>
<td>Image: WES7/V5.0 ENG</td>
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<td>WinCE 7.0</td>
<td>2070001082</td>
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<td>QNX</td>
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<td>VxWorks</td>
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<td>Software API</td>
<td>205E956600</td>
<td>B-20091009 XP</td>
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</tbody>
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