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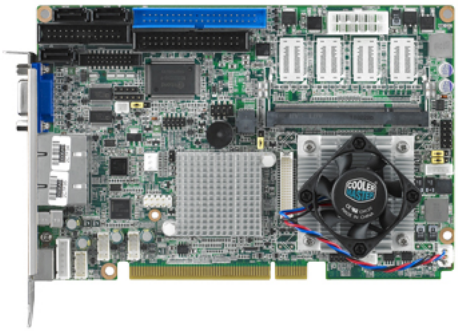
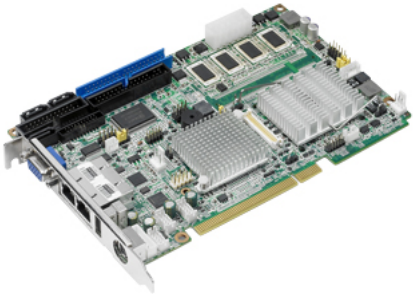
PCI-7031





Ultra low power, fanless Intel® Atom™ processor N450 CPU and 1 GB onboard DDR2 667 memory (Only for N SKU)

Dual core high performance D510 CPU and maximum 2 GB DDR2 667 memory socket (Only for D SKU)

Fanless, 0 ~ 60°C (32 ~ 140°F) operation (PCI-7031N)

VGA/LVDS dual video outputs

Optional module for 4 x RS-485 w/auto-flow control

PCI-7031 is an Atom dual-core D510 / fanless N450 CPU based PCI-interface halfsize PICMG single board computer. With high performance Atom D510 dual-core computing power, it is ideal for intense data or graphic processing applications; with fanless Atom N450

CPU and on-board memory feature, it has ultra high reliability to resist heat, dust, vibration and shock in any application environment. PCI-7031 is designed with an Intel© Atom™ D510/N450 CPU and ICH8M I/O control hub. The Atom D510 dual core CPU brings new generation computing capability into the half-size SBC application field. Compact size, low power consumption (Total power consumption = 17.796 W) and dual-core parallel computing power and maximum 2 GB of DDR2 667 MHz memory capacity makes the PCI-7031D a powerful small form-factor computer platform for modern industrial applications that require high computing power. The fanless Atom N450 CPU (Total power consumption = 15.264 W) and on-board memory design eliminate moving fan parts and memory socket connections; this makes PCI-7031N ultra reliable to conduct its mission under various kinds of high-temperature, vibrating, shocking and dusty harsh environments. PCI-7031 has an integrated graphic core of Intel Embedded Gen3.5+ graphic technology with 224 MB shared memory. This feature makes the PCI-7031 is capable of handling complex and intense 2D/3D graphic processing without an add-on graphic card; its VGA and LVDS dual video outputs also makes it suitable for applications requiring dual display or digital panel display capabilities. PCI-7031 is rich in I/O interfaces: it has three SATA ports (300 MB/sec) for mainstream SSD (solid state disk), HDD, and ODD connections, one legacy IDE port for the ODD connection. It also has a CF socket to support an economical, easy-to maintain SSD device. Additionally, the dual Gigabit Ethernet LANs with teaming functions offer strong networking capability; the two serial ports (COM ports) can be used as reliable legacy device control interfaces.

Specifications

SBC Type:

Single Board Computers > 1 GHz

Processor

Processor:

Intel Atom N450

Clock Speed:

1.66 GHz

Real Time Clock:

Processor Misc.:

Chipset: Intel® ICH8M

L2 Cache: 512KB

BIOS: AMI 16Mb SPI Flash

Memory

BIOS/ Bootloader:

AMI 16Mb SPI Flash

Memory Misc.:

Socket: No socket for N SKU (uses Onboard); 200-pin SODIMM Socket x 1 for D SKU / Max 2Gb

Primary I/O

Disk Interface:

1x EIDE supporting 2 IDE devices

Video Out:

Intel ICH8M CRT/LVDS

Audio:

Intel High Definition audio interface (requires a audio extension module P/N: PCA-AUDIO- HDA1E)

Ethernet:

2x RJ45 10/100/1000 Mbps

USB:

7x Ports on the SHB

Serial Ports:

Two RS-232 onboard pin-headers

plus four four RS-485 ports with auto-flow control by module (Optional P/N: PCA-COM485-00A1E)

Watchdog:

Primary I/O Misc.:

SATA interface: Supports three SATA disk drives

Secondary I/O

LPT Port:

Keypad:

PS/2:

Analog on

A/D:

D/A:

Dimensions

Dimensions:

7.3 × 4.8 in

Weight:

0.5 kg

Form Factor:

Half Size PCI Card

Power Requirements

Voltage:

12 V

Environmental

Low Operating Temperature:

0 C

High Operating Temperature:

60 C

Pricing

PCI-7031N

PCI-7031N, Atom N450 PCI Slot 1GB DDR2 Onboard/VGA/LVDS/ Dual GbE/SATA/COM

$349.00

PCI-7031D

PCI-7031D, ATOM D510 Pineview D slot SBC, SODIMM socket, w/ dual GbE, LVDS

$320.00

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