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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, $0 \sim 60^{\circ}$ 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 protections has used as reliable legacy device control interfaces. Specifications

Single Board Computers > 1 GHz 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

BIOS/ Booloader: 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 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

Ll Secondary I/O Keypad: PS/2: Analog on A_{μ} . D/A: Dimensions Dimensions. 7.3×4.8 in Weight: 0.5 kg Form Factor: Half Size PCI Card Power Requirements 12 V Environmental Low Operating Temperature: 0 C High Operating Temperature: 60 C Pricing 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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