DATASHEET - PC/104-PLUS CPU MODULES





CPU-1421

ELAN 133MHz FANLESS SBC WITH 2 FAST ETHERNET AND 4 SERIAL (ROHS)

Features

Architecture: PC PCI-Archirecture with ISA-bus

Dimensions: Compliant with the PC/104-Plus standard

Processor: AMD™ Élan™ SC520 133MHz

Memory: 64-128 MB Onboard soldered SDRAM

Solid State Disk: Disk On Module, Compact Flash or ATA Flash

Operating System: WinCE® and Linux®

BIOS Flash:

1Mbyte 8bit +5V Flash EPROM

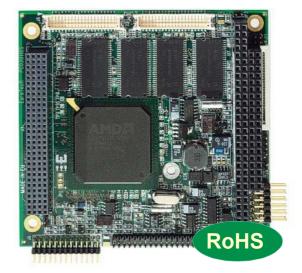
Interfaces:

- IDE controller
- Floppy controller
- 2 10/100Mbit Ethernet controllers
- 4 16C550 compatible serial ports:
 - 2 software configurable RS-232/485/4222 RS-232 only
- Parallel port (bi-directional EPP-ECP)
- 2 16-bit user Counter/Timers
- AT keyboard
- PS/2 mouse

Bus:

PCI/ISA PC/104-Plus compliant (ISA-bus with limitations)

Power Supply: +5V only



General Description

The CPU-1421 is ideally suited for applications requiring high reliability and low power consumption such as mobile systems in transportation, industrial, medical and military environments. This module is compliant with the 2002/95/CE (RoHS) directives.

This integrated PCI-architecture 5x86 class PC/104-*Plus* computer is based on the AMD[™] Élan[™] SC520 133MHz processor with 64MB of onboard soldered SDRAM for high reliability. Peripheral interfaces include, four serial ports (2 RS-232, 2 software configurable as RS-232/422/485), two independent 10/100Mbps fast Ethernet controllers, a bi-directional EPP/ECP parallel port, high speed EIDE hard drive interface, speaker port, AT keyboard and PS/2 mouse, real-time clock, watchdog timer, and two additional 16-bit counter/timers free for the user.

This very low power consumption module is ideal for systems that require passive or structural heat dissipation. The module and the Eurotech embedded BIOS ensures compatibility with popular commercial operating systems such as Windows CE and Linux.

The Embedded BIOS is located in a 1MB Flash EPROM and is re-programmable on-board. Set-up parameters are stored in non-volatile Flash memory to enable the module to operate without a battery and avoids corruption of set up data in the field.

The CPU-1421 has been designed for harsh environments, resisting vibration, humidity and temperature extremes. The standard operating temperature is 0° C to $+60^{\circ}$ C, qualification for -55° C to $+85^{\circ}$ C operating temperature range is possible.

A complete ready-to-use hardware development system is available to reduce development times. Accessories include Ethernet adaptors, interface cable kits, power supplies etc.

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Embedded Enhanced Bios Features

- The onboard Flash-memory has a capacity of 1 MB. It is used for the BIOS and its extensions. A part of it can be also used as a Read-Only Disk, to store the OS as well as user Programs/Data.
- SSD support as Read or R/W disk
- Watch Dog management
- Non-volatile set-up configuration data storage in Flash.
- Virtual Peripheral (VP) support: this mode allows the user to redirect peripheral devices used by the CPU module such as keyboard, display and boot device to a remote host computer.

Options

- Custom BIOS
- Fast BIOS BOOT
- Custom Connectors
- Conformal coating

Accessories

- TP RJ45 Ethernet adapter
- 2mm to 2.54mm IDE cable
- Parallel-FDD adapter cable
- · IDE to ATA adapter kit
- Standard interface cable kit
- · Flat panel adapter kit

Physical Characteristics

90 x 96 mm (3.6" X 3.8")

Dimensions:Thickness:

• Power supply:

- 15 mm (0.6")
- +5V only
- Power consumption: 4.6W (0.920A @ +5V)
- Operating temperature:
- 0 ~ 60 °C (Extended Temperature range versions available)



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