Industrial Embedded PC104V2

General description:

The Industrial PC104 is very popular due to the ability to easily extend its functionality, and its compact size. The BAPis PC104V2 is an Intel x86-compatible, low-power, heavy-duty PC104 CPU board. The device is equipped with various interfaces for automation, process control, and other industrial requirements. The board supports the DiskOnChip standard and may be adjusted for customer-specific needs. The memory is added via 200-pin SO-DIMM socket and can accept up to 512 MB of 400 MHz DDR system RAM. It also has a programmable Xilinx Spartan 3 AN FPGA space for custom extensions.

The PC104V2 has ten RS-232 ports for serial communication, one LPT (parallel) port IEEE 1284 (EPP and ECP-compatible), two programmable TTL PWM outputs, and two clock generator outputs. It also has eight general purpose inputs and outputs. Optionally, the PC104V2 can also have two 10/100Base-T Ethernet and four USB 2.0 ports, an analog video output, a PATA/IDE storage connector, and a PS2 mouse and keyboard.

Features:

- AMD Geode LX800 low-power CPU
- AMD CS5536 chipset
- Single voltage 5V/2A power supply
- Passive cooling, no moving parts
- Quick-start custom CoreBOOT-based BIOS
- Support for DiskOnChip flash drive modules for operating system and applications.
- 512 MB of 400 MHz DDR system memory in a standard 200-pin SO-DIMM package
- Integrated programmable hardware timers and programmable PWM outputs in TTL logic.
- Programmable Xilinx Spartan 3AN FPGA in PC104 (ISA) space for custom extensions
- PC104, GPIOs, parallel and serial ports for industry, machine automation and process control

Cable Kit:

- DB9-M to IDC-10 F, Serial Port Cable
- Length: 12 Inches
- Quantity: 2 cables supplied with each PC104V2 board

Base Interfaces:

- PC104 and PC104+ dual-sided and stackable
- DiskOnChip 32-pin dual in-line package (DIP) socket
- DiskOnChip secondary PLCC-32 socket
- 10 x RS-232 ports for serial communication (including two with hardware flow control)
- 1 x LPT (parallel) port IEEE 1284, EPP and ECP-compatible
- 2 x programmable TTL PWM outputs
- 2 x programmable TTL clock generator outputs
- 8 x general purpose inputs (with transoptor galvanic insulation)
- 8 x general purpose outputs (with transoptor galvanic insulation)

Optional Interfaces:

- 2 x 10/100Base-T Ethernet
- 4 x USB 2.0 high speed
- D-SUB VGA analog video output
- PATA/IDE storage connector
- PS2 mouse + keyboard

Top side of PC104V2 board

Bottom side of PC104V2 board

BAP Image Systems (BAPis) is a dependable and reliable imaging products and solution provider with highly proven industry experience. BAPis develops and manufactures cameras based not only on high speed CCD and CMOS line sensors, but also on area CMOS/CCD sensors. BAPis cameras are used in the machine vision industry as well as in the film industry. Additionally, BAPis develops and produces image grabbers and processing boards based on DSP and FPGA technologies using its own algorithms. Image processing boards are matched with camera performance and, when combined, are able to reach the highest possible throughput.