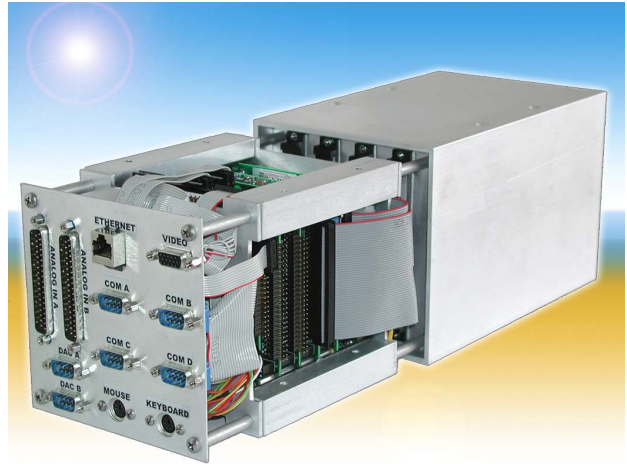


FEATURES

- ! Easy access and serviceability via a removable railed card cage subassembly
- ! Ethernet enabled data transfers for simplified cabling
- ! Embedded, high-performance fanless operation and conduction cooling
- ! Environmental enclosure ideal for use in rugged and harsh applications
- ! PC/104 and PC/104+ processors up to 1GHz can be integrated, even at extended temperatures
- ! Lightweight, attractive, Chem-Film finished aluminum enclosure
- ! Accepts from two to six PC/104 or PC/104+ boards
- ! Scalable and flexible I/O interfacing
- ! Compact size - 4 board system measures just 6.75 x 5 x 5"
- ! Optional mounting provisions available



FUNCTIONAL DESCRIPTION

Model E4-DAS, takes its name from being an Easy to utilize, Ethernet enabled, Embedded and Environmentally adaptable PC/104-based Data Acquisition System. The latest line of systems from ACCES, the E4-DAS is designed for rugged embedded applications requiring superior performance and a high degree of protection from damaging vibration and shock environments commonly encountered in military and defense, avionics, communications, process control, automation and other real-world applications. The completely integrated E4-DAS is packaged in a lightweight aluminum enclosure with a railed card-cage subassembly for easy serviceability. Internal elastomer inserts are also provided for vibration and shock mitigation. The system's fanless design is fully conduction cooled, enabling the box itself to dissipate the heat by heat-sinking the CPU and power supply on each end of the stack. The E4-DAS can accommodate stacks of two to six PC/104 boards (including the CPU and power supply), allowing the unit to incorporate a wide range of analog and digital I/O, serial communications, relay and TTL output, wireless, Ethernet and other functions. An internal single (+5 V), or optional triple (+5, ±12 V) output DC/DC power supply is used to accept system power sources of 12, 24, or 48 V. I/O is accessed via connector cutouts on the unit's end plates.

Standard Configuration

The standard system configuration utilizes a 133 MHz AMD ELAN520 processor and integrates all the standard functions of a PC. Memory of 16-128 MB SDRAM in SODIMM socket is offered and the system includes DiskOnChip and CompactFlash sockets facilitating easy upgrade of embedded programming. Optional on-board CRT/LVD interface allows connection to a CRT and/or 3V/5V flat panels via 24-bit TFT LCD interface.

Standard Configuration 1A

Built upon our standard configuration. This system adds up to 6 channels of 16-bit LVDT/RVDT signal conditioning, 16 analog inputs and 8 analog outputs with 12-bit, 100KHz conversions, 48 digital I/O lines, 8 opto-isolated digital inputs (AC or DC) with change-of-state interrupt generation and 8 electro-mechanical relays. Standard PC functions include 10/100BaseT Ethernet, keyboard and mouse, four RS-232 ports.

Existing Configuration 2

Configuration 2 utilizes a 133 MHz AMD 5x86 processor. The system includes 4 MB of surface mount DRAM that is field expandable to 64 MB via DIMM module. One SSD (Solid State Drive) socket supports M-Systems DiskOnChip 2000 compatible memory from 2-288 MB while retaining full hard disk read/write compatibility (better than flash). Includes standard peripheral interfaces.

Existing Configuration 3

Configuration 3 uses a jumper selectable 233 or 300 MHz AMD Geode GX1 CPU with CS5530A companion chip. Features include: 256 KB SMT flash contains BIOS, SO-DIMM socket for up to 256 MB SDRAM, CompactFlash drive accepts Type 1 or Type 2 devices, and the integration of video, RS-232/422/485 serial ports, parallel port, digital I/O, dual USB ports and more.

Existing Configuration 4

Configuration 4 features an Intel Celeron 300 MHz PC/104-Plus CPU and offers high reliability and low power consumption. Optional Intel Pentium III 500 MHz or 700 MHz are also available for this system. PC/104-Plus form factor allows for graphics and high-speed I/O devices. A SO-DIMM socket allows up to 512 MB SDRAM and integrated graphic controller supports LVDS and JILI and has up to 32 MB of graphics memory. Includes standard peripheral interfaces.

Existing Configuration 5

Our best value, economical workhorse. Featuring a tried and true 133 MHz 486 engine. Includes DiskOnChip (DOC) supporting up to 288 MB flash memory for local OS and application programming. Fully adequate for most Ethernet I/O applications without limiting throughput.

ADVANCED AND CUSTOM SYSTEMS

Every application is different, and ACCES can easily tailor a system to a users specific needs. After listening to our customers, ACCES has developed a system design and integration team focused on the development of powerful, yet simple to use, data acquisition systems. These include extensive CPU and peripheral capabilities and the integration of a generous selection of our (or customer-specified) data acquisition, I/O, or special-function PC/104 boards. Custom development can include minor variations of standard boards and systems to completely custom interfaces and configurations. ACCES has the in-house engineering resources to design, develop, supply and support custom embedded systems at the board, software and system level. For more information please visit our System Integration and Custom Hardware Design page.

APPLICATIONS

Military and Defense
Avionics
Communications/Networking
Automotive
Process Control
Industrial Control/Automation
Data Acquisition

SOFTWARE

The system ships with pre-loaded board software packages containing utility and tools software along with a variety of drivers. Source code and examples in "C" are provided for Linux and DOS, and in a variety of languages for use in Windows versions including XP and beyond. TCP/IP / Internet data acquisition is available via onboard web server software optionally integrated with the customer's application. Any operating system and customer's applications can be pre-loaded for any production volume.

Price: \$1,195.00—basic system; advanced / OEM / volume pricing available, consult factory

NOTE: This page showcases existing configurations designed by ACCES for specific systems integration projects. Contact ACCES at 800-326-1649 or via email at contactus@accessio.com for information and support for designing a system which meets your precise requirements.

