# **Endeavor**<sup>™</sup>

Applied Computing single board computer

## Improved price/performance

industry applications: telecom infrastructures industrial automation enhanced services machine control broadcasting convergence IP telephony call centers medical

A D V E N T.

The Endeavor Family of single board computers extends the ICS Advent applied computing architecture to new levels of enterprise and technical computing. The Endeavor provides an excellent way to introduce Intel's® Celeron™ technology and processing power to the latest ISA/PCI (PICMG) systems. The Endeavor also provides greater flexibility than other single board computers by supporting older technology backplanes. This allows you to take advantage of higher processing power while maintaining applications and older ISA systems.

The Endeavor Family offers two fullfeatured models with processing speeds up to 500MHz. The boards have identical features, with the exception of an optional Ultra SCSI-3 controller. The Endeavor is a Y2K ready, highly reliable and affordable solution.

formerly **f** <u>INDUSTRIAL COMPUTER SOURCE</u>•

## features

Intel<sup>®</sup> Celeron<sup>™</sup> processors PPGA type with 128 KB L2 cache

Intel 440 BX AGP chipset
Supports ISA and ISA/PCI backplanes
Intel740 AGP Graphics Controller with 8MB SDRAM (not upgradeable) onboard
Windows®95, 98, NT, Solaris, SCO, Linux, and QNX
ECP parallel, 2 serial, 2 USB ports
10/100 Ethernet onboard
Ultra SCSI-3 controller

All ICS Advent products are covered by a 2-year warranty

### specifications

#### **Processor Support**

Intel Celeron, 400MHz to 500MHz internal frequency, 66MHz front side bus

CPU Socket: PPGA 370A socket

Chipset: Intel 440BX AGP chipset

Cache: 128K cache onboard

#### Memory

- Capacity: 16MB minimum to 256MB (non-ECC) or 512MB (ECC) Form factor: 168-pin DIMM
- DIMM modules: two maximum
- DIMM socket: gold contacts
- DRAM types: 64/72-bit EDO
- DRAM, 64/72-bit SDRAM (PC100, 100MHz)
- DRAM data integrity types: configurable EC, ECC, and non-ECC
- DRAM type detection: Autodetection algorithm, serial presence detect mechanism

#### **Bus Support**

- ISA-AT Bus: 8.33 MHz with 64mA IOL with 32mA IOH drive strength
- PCI: 33MHz PCI 2.1 compliant
- GTL+: 66MHz AGP: Accelerated Graphics Port with 100MHz local
- memory interface

#### Graphics Controller

- Intel740 AGP SVGA 3D Accelerated Graphics controller 8MB high-speed, 64bit SDRAM with 100MHz interface DB15 connector at rear panel Peak data transfers up to 533MB/s
- Integrated 24-bit 220MHz RAMDAC
- Display resolutions up to 1600x1200 Graphic functionality disabled and all resources
- free if option not installed

#### Ethernet 10/100 Controller

DEC21143 PCI Fast Ethernet Controller RJ-45 connector at rear panel On-chip PCS and scrambler for 100BASE-TX Internal 4kbyte transmit and 4kbyte receive FIFOs Supports advanced PCI read multiple, read line, and write and invalidate commands

#### **On-Board Mouse Port**

Available at rear panel

#### **Dual Serial Ports**

16C550 compatible dual serial port controller 16 byte receive and transmit FIFO buffers Com ports 1 and 2 are RS-232 compatible A 10-pin shrouded header onboard for each port connection ESD protected to ±15kV

#### **Enhanced Parallel Port**

Single parallel port controller with bidirectional capability Enhanced EPP and ECP modes Connected to 26-pin shrouded header

#### **Keyboard Connector**

Keyboard connections to the SBC are made via the onboard keyboard 8-pin header interface connector Power supplied through +5V self-healing fuse plus a single-row

CE

friction lock connector provided onboard



## benefits

	Next-generation processors provide superior PC performance for advanced media and communications applications
	Proven compatibility and performance
	Industry-leading expandability and reliability
AM	Industry-leading 2D and 3D graphics performance
٧X	Supports prevalent operating system
	Support for emerging technologies
	No expansion slot required
	Optional high performance throughput for high capacity disk drives and other SCSI devices
	Comprehensive service and support for top

quality products

#### Dual EIDE Controller

Integrated enhanced IDE fixed disk controller on PCI local bus Supports up to four drives: primary master and slave, secondary master and slave

Supports LBA, PIO Mode 4, and Ultra DMA/33

## Supports LS-120 HD floppy drives

**Dual Floppy Drive Controller** Supports 1.44MB, 1.2MB, 720K, and 360K floppy drives Universal Serial Bus

Universal Host Controller Interface (UHCI) configuration Dual USB connectors at the chassis rear panel via separate optional cable and bracket assembly

#### SCSI-3 Controller (optional)

Adaptec AIC-7890A PCI ultra/ultra-wide, single ended/low voltage differential controller

- 68-pin high-density vertical D-shell
- Up to 80MB/s transfer rate in 16-bit (wide) mode
- 512-byte data FIFO buffer
- Backward hardware compatibility with an advanced multimode I/O cell that supports both single-ended and Ultra2 devices LVD (Low Voltage Differential) allows SCSI cable length
- increases to 12 meters

#### Watchdog Timer

- Forces reset if decoded I/O space is not written to within specified timeout period
- +5V monitor: If VCC falls below 4.5V, a reset occurs Programmable via software to 100ms, 250ms, or 500ms

Enable and disable by jumper or software

Note: Prefail detect IRQ signal output can be routed to IRQ10 or IRQ11 via jumper. This option triggers ISA bus IRQ if decoded I/O space is not written to within half of specified timeout period.

#### Real-Time Clock

- Motorola MC146818A compatible
- 256 bytes of battery-backed RAM
- Up to seven years of battery-backup protection

Clock source at 14.318MHz accurate to ±1720Hz **CMOS Battery** 

Onboard lithium 3.0V battery with diode protection circuitry. AMI Hi Flex BIOS

#### Plug-n-Play compatible

- 2MB flash upgradeable with support for BIOS upgrade
- via software

#### Y2K readv

The following can be disabled by the BIOS: Graphics, Ethernet, dual serial ports, parallel port, dual EIDE controller, dual floppy drives, SCSI, power management and dual USB

#### **Operating Systems, 32 Bit**

Windows 95, Windows 98 Second Edition - full support Windows NT V4.0 and later, server or workstation - full support Solaris 2.6 and 7.0

- QNX V4.24-video support limited to a maximum of 800 x 600 by operating system
- Red Hat Linux V6.0 video support limited to 80 x 25 text mode by operating system



6260 Sequence Drive San Diego, CA 92121 800 523-2320 fax 858 677-0895 www.icsadvent.com w.icsadven