ATX
INTEL® 440BX PCI/ISA MOTHERBOARD

FEATURE SUMMARY

- Intel® 440BX AGPset
- PGA370 Celeron™ Processors
- PGA370 Pentium® III Processors
- Up to 512MB SDRAM
- ECC Memory Support
- Asiliant 69030 VGA
- AGP 2X
- 3 ISA, 2 PCI, 1 PCI/ISA Slots
- 3 Slot ATX Riser Support

Endura motherboards are the world's first Intel® Architecture motherboards designed specifically to meet the demands of the OEM embedded marketplace. Based on chipsets supplied by the Embedded Intel Architecture Division, Endura motherboards have an extended lifetime unlike commercial motherboards, which have typical lifetimes of 6 to 12 months. Combined with high quality design and manufacture, engineering change control, engineering support and product life cycle management, Endura motherboards provide the ideal solution for an embedded system where long lifetime and low cost of ownership are paramount. Endura motherboards also offer continued support for legacy features such as ISA and standard serial interfaces, which remain important for embedded applications.

The EM440 provides the benefits of a cost effective full-size ATX motherboard along with the flexibility to support Celeron through Pentium® III processors. It also employs the Asiliant 69030 VGA controller with integrated 4MB video memory. The EM440 ATX form factor includes PCI and ISA slots and an AGP slot and is suited to a wide variety of applications with a need for expansion capability. The flexibility to utilize ECC memory and choose no video, standard on-board VGA or enhanced AGP graphics covers requirements ranging from high reliability telecom and data networking to industrial automation through medical and gaming applications which demand state-of-the-art graphics.

Intel®
Applied
Computing
Platform
Provider

SPECIFICATIONS

FEATURE	FUNCTION	DESCRIPTION
Processor	Socket	370-pin PGA ZIF for Intel Celeron™ and Pentium® III processors
	FSB	66MHz and 100MHz operation
Chipset		Intel 440BX AGP set
Cache		Provided by processors with integrated L2 cache
Memory	Type	Two 168-pin DIMM sockets for PC66 and PC100 SDRAM
	Capacity	Maximum of 512MB
	ECC	One bit ECC memory error correction
Video (Optional)	Controller	Asiliant 69030 VGA controller
	Video Memory	Integrated 4MB SDRAM
	Resolution	Up to 1600 x 1200 x 64k color @ 60Hz
IDE	Devices	Two independent channels (primary, secondary) for four IDE devices, PCI 2.1 compliant
	Types	IDE, EIDE, ATA and Ultra DMA ATA-33
Super I/O	Controller	National Semiconductor PC87309
	Parallel Port	Bi-directional IEEE-1284-1994 and Centronics compatible, ECP, EPP
	Serial Ports	Asynchronous RS-232C, 16C550 compatible with send/receive 16-byte FIFOs; meets electrical specification of EIA/TIA-232-E and EIA/TIA-574-E
	Keyboard Controller	8042 compatible
	Floppy Controller	765A compatible
Real Time Clock	Controller	Contained in 82371EB (PIIX4E)
	Battery	Field replaceable
Expansion	PCI	Two PCI bus master PCI 2.1 slots
	ISA	Three ISA slots
	Shared PCI/ISA	One shared PCI/ISA slot
	AGP	2X AGP slot
Connectors	Serial	One 9-pin D-type, one 10-pin header
	Parallel	One 25-pin female D-sub connector
	Keyboard & Mouse	Two PS/2 style mini DIN connectors
	USB	One dual USB rear connector
	SVGA	One 15-pin female D-sub connector (optional)
Mechanical	Dimensions	12 x 9.6 inches, ATX compliant
Power Supply	Connector Type	ATX
	Typical	40W - 366MHz Celeron, 69030 VGA, 64MB SDRAM
BIOS	Type	PhoenixBIOS 4.0 Release 6.1
	Special Features	PCI 2.1 compliant: Windows 95, Windows 98, Plug and Play ready; APM 2.1; IDE drive auto-configure
		Custom BIOS boot logo
Operating Systems		Windows 95, Windows 98, Windows 2000, Windows NT 4.0. Qualification of real time and other operating systems subject to demand.
Safety Compliance		Evaluated in accordance with UL1950, EN60950 and IEC60950
EMC Compliance		Evaluated in accordance with EN55022, EN55024 and FCC Part 15 Class B
Environment	Operating Temp.	5°C to 55°C
	Storage Temp.	-40 to 85 °C
	Relative Humidity	5% to 95% non-condensing