

## Endura SC815E

MICRO ATX/FLEX ATX  
INTEL® 815E PCI MOTHERBOARD

## FEATURE SUMMARY

- Intel 815E chipset
- Integrated VGA
- FC-PGA Celeron processor in flip-chip pin grid array (FC-PGA) package
- FC-PGA Pentium III processor in FC-PGA package
- Up to 512MB SDRAM
- System management
- Intel 10/100 Ethernet
- PanelLink™ flat panel interface
- DFP and DVI monitor support
- AC97 audio
- Fan control
- Eight GPIO lines
- Three PCI slots
- 4X AGP slot
- One parallel port
- Two serial ports
- Four USB ports
- PhoenixBIOS™
- Connectors for internal cabling
- 9" x 7.5"
- MicroATX and FlexATX compliant

Endura motherboards are 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 six to twelve 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 standard serial interfaces and hard-switched power supplies, which remain important for embedded applications.

The SC815E is a small form factor, MicroATX motherboard that is well suited to embedded applications. The dimensions of the board are small enough such that the SC815E can also be used in a FlexATX chassis. It is therefore a very versatile motherboard suitable for a wide variety of applications. It is available with either Celeron™ or Pentium® III processors in FC-PGA package providing scalable performance and the option to choose the appropriate price/performance point to suit the application. The high degree of integration and rich feature set provides a platform that is ideal for low cost system design. The SC815E is designed for use in applications with a need for high performance graphics, which can be supported either with the integrated 815E video or by upgrading to a high performance AGP graphics card in the 4X AGP slot. Available in different build configurations, the SC815E is used in telecom, datacom, medical, transaction terminals (such as coin-op gaming) and industrial automation applications.

## SPECIFICATIONS

### ORDERING INFORMATION

Call for pricing and availability.  
Refer to the order codes below.

### DESCRIPTION

566MHz Celeron, 815E video, no LAN,  
no flat panel

**MODEL** • SC815E-V-C566

866MHz Pentium III, 815E video,  
no LAN, no flat panel

**MODEL** • SC815E-V-P866

566MHz Celeron, 815E video, LAN,  
flat panel

**MODEL** • SC815E-FPL-C566

866MHz Pentium III, 815E video, LAN,  
flat panel

**MODEL** • SC815E-FPL-P866

### I/O Shields

ATX I/O shield for SC815E-V

**MODEL** • ATX-81x-IOSHLD

ATX I/O shield for SC815E-FPL

(with no DVI/DFP connector)

**MODEL** • ATX-L-81x-IOSHLD

ATX I/O shield for SC815E-FPL

(with DVI/DFP connector)

**MODEL** • ATX-FPL-81x-IOSHLD

DVI connector assembly

**MODEL** • DVI CONN ASSY

DFP connector assembly

**MODEL** • DFP CONN ASSY

FEATURE	FUNCTION	DESCRIPTION
Processor	Socket	370-pin PGA ZIF for Intel Celeron and Pentium III processors in FC-PGA package
	FSB	66MHz, 100MHz, 133MHz operation
Chipset		Intel 815E chipset with ICH2
Memory	Type	Two 168-pin DIMM sockets for PC100 and PC133 SDRAM
	Capacity	Maximum of 512MB
	ECC/Parity	Not supported
Video	Controller	3D graphics controller integrated in 815E chipset
	Display Cache	Optional display cache via GPA module in the AGP slot
	Frame Buffer	Stored in main memory (holds 2D and 3D data)
	Flat Panel	Silicon Image SII164 PanelLink controller
	DFP/DVI	Cabled DVI or DFP connector from header Optional DVI or DFP adapter for rear I/O mounting
Audio	Controller	AC97 v2.1 CODEC using Analog Devices AD1885 (with integrated headphone amplifier)
	Connectors	ATAPI connector for CD-ROM (stereo)
		ATAPI connector for telephony (mono)
		7-pin connector for external AC97 CODEC Stereo line out 3.5mm jack socket (can be used with headphones) Stereo line in 3.5mm jack socket Mono microphone 3.5mm jack socket with phantom power, suitable for electret microphones
Network	Controller	Intel ICH2 integrated MAC with Intel 82562 PHY
	Connector	IEEE 802.3 10Base-T and 100Base-TX compatible RJ45 with LEDs for line activity, link integrity and line speed
IDE	Devices	Two Ultra ATA/100 or ATA/66 interfaces via 40-way boxed header
	Types	Supports ATAPI, LS120 and ZIP drives
Floppy	Types	Supports standard 2- and 3-mode 3.5" floppy drive
Mechanical	Dimensions	9" x 7.5"
	Compliance	MicroATX and FlexATX compliant
	PCB	Four layers
	I/O shield	Standard ATX available options for RJ45 Ethernet and DVI/DFP connectors
I/O	Parallel Port	25-pin D-type supporting bi-directional, EPP and ECP modes
	Serial Ports	COM1 on 9-pin D-type, COM2 via 10-way header
	IrDA	Supported in place of COM2 via front panel connector
	USB	Dual stacked USB 1.1 rear connector Motherboard header for single USB port USB interface via AGP slot
	Keyboard & Mouse	Swappable PS/2 connectors Phoenix keyboard code Motherboard headers for keyboard and mouse ports
	GPIO	Eight GPIO lines for control functions or front panel indicators
Expansion Slots	PCI	Three dedicated bus master PCI 2.2 slots
	ISA	Connector for PCI/ISA bridge support via PCI slot
	AGP	4X AGP slot
System Management		Monitoring of voltage, temperature and fans Anti-tamper security CPU fansink and system fan speed control
Power Management		PCI PME, ACPI 1.0, APM 1.2
Power Supply	Type	Support for hard- and soft- switched PSU
	Typical	35W
Battery		Lithium coin cell (5 years operating life typical) Optional super-cap for 1 hour backup
BIOS	Type	PhoenixBIOS 4.0 Release 6.0
	Special Features	Customizable defaults, customer logo, silent boot, automatic configuration
Operating Systems		Windows® 95, Windows 98, Windows 2000, Windows NT® Qualification of real time and other operating systems subject to demand
Safety Compliance		Designed for compliance with UL1950, EN60950 and IEC60950
EMC Compliance		Designed for compliance with EN55022, EN55024 and FCC Part 15 Class B
Environment	Operating Temp	0°C to 55°C
	Storage Temp	-40°C to 85°C
	Relative Humidity	5% to 95% non-condensing

