RadiSys®
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DATASHEET

ENDURA SC815E

MicroATX/FlexATX 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
- PanelLinkTM 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
- Phoenix BIOSTM
- Connectors for internal cabling
- 9" x 7.5"
- MicroATX and FlexATX compliant
- ROHS Compliant

Pb RoHS 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.

Endura SC815E Specifications

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
		Maximum of 512MB
	Capacity	Not supported
	ECC/Parity	
Video	Controller	3D graphics controller integrated in 815E chipset
	Display Cache	Optional display cache via GPA module in the AGP slot
		Stored in main memory (holds 2D and 3D data)
	Frame Buffer	Silicon Image SII164 PanelLink controller
	Flat Panel	Cabled DVI or DFP connector from header
	DFP/DVI	Optional DVI or DFP adapter for rear I/O mounting
Audio	Controller	AC97 v2.1 CODEC using Analog Devices AD1885 (with integrated headphone amplifier)
		ATAPI connector for CD-ROM (stereo)
	Connectors	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
		IEEE 802.3 10Base-T and 100Base-TX compatible
	Connector	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
		Supports ATAPI, LS120 and ZIP drives
	Types	
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
		COM1 on 9-pin D-type, COM2 via 10-way header
	Serial Ports	Supported in place of COM2 via front panel connector
	IrDA	Dual stacked USB 1.1 rear connector
		Motherboard header for single USB port
	USB	USB interface via AGP slot
		Swappable PS/2 connectors
		Phoenix keyboard code
	Keyboard & Mouse	Motherboard headers for keyboard and mouse ports
		Eight GPIO lines for control functions or front panel indicators
	GPIO	
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

Ordering Information

Toll-Free: 800-950-0044
Phone: 503-615-1100
Support: 866-385-6167
Call for pricing and availability.
Refer to the order codes below.

DESCRIPTION

SC815E uATX without integrated DVI, RoHS
PRODUCT CODE: SCL03-0-0

SC815E ATX with integrated DVI, RoHS
PRODUCT CODE: SCFPL03-0-0

I/O shield for SCL03-0-0, RoHS
PRODUCT CODE: ATX-L 81X IOSHLD

I/O shield for SCFPL03-0-0, RoHS
PRODUCT CODE: ATX-FPL 81XIOSHLD

DVI connector / bracket assembly, RoHS
PRODUCT CODE: DVI_CABLE-R

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