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## Endura SH845GV

### Endura 845GV ATX Pentium 4 Motherboard

#### Advanced Performance

The Endura SH845GV ATX is a long life embedded platform based on the Intel® 845GV chipset. This core technology, which is selected from the Intel® Embedded Division's long life roadmap, ensures that the SH845GV will be available for at least five years from Intel's launch of this chipset. Although market factors will determine the actual product lifetime, the expected production life for the SH845GV will be at least to the end of 2007.

The SH845GV is a scalable platform delivering both high performance with Intel® Pentium® 4 processors through to an entry-level, cost-effective solution based on the Intel® Celeron® processor. RadiSys has selected the 2GHz Celeron and the 2.4GHz Pentium 4 processors from Intel's embedded roadmap as pre-configured processors to be supplied with the SH845GV. This ensures continued availability of the processor even when it is long gone from commercial distribution channels.

#### RadiSys Value-Add

The SH845GV provides six PCI slots, typically required in applications such as video surveillance, medical imaging and gaming where a large number of peripheral cards are used. In addition, the on-board Compact Flash socket provides the option for on-board storage important for ruggedized applications that cannot use hard drives or where there is a need to load an embedded operating system from solid state memory.

The 845GV chipset provides integrated Intel Extreme Graphics, thus ensuring a long life video solution. The AGP Digital Display (ADD) slot provides a means to drive either DVI-I monitors, LVDS displays or TV-out via third party ADD cards. The integrated watchdog timer, system monitoring, automatic fanspeed control and 13-bit GPIO port are all value-add features provided by RadiSys specifically for use in advanced embedded applications.

#### Exceptional Support

RadiSys is able to provide exceptional support to customers through the concept of a "virtual division" relationship. In practice this means strong engineering backup with problem resolution, sustaining services, product life cycle management, change control and development of system level solutions.

#### FEATURE SUMMARY

Cost effective, Pentium 4 solution  
with six PCI slots

# Endura SH845GV Specifications

FEATURE	FUNCTION	DESCRIPTION
Processor	Socket	478-pin $\mu$ PGA ZIF socket for Pentium® 4 and Celeron® processors
	FSB	400MHz and 533MHz
Chipset	-	Intel 845GV with ICH4 (long life, embedded chipset)
Memory	Sockets	Two 184-pin DIMM sockets for DDR266 SDRAM (PC2100)
	Capacity	Maximum 2GB
	ECC / Parity	Not supported
Video	VGA	Integrated Intel® Extreme graphics
	Resolution	1600 x 1200 pixels with 32-bit color support
	ADD	AGP Digital Display card support with dual DVO channels for TMDS (PanelLink), LVDS and TV-out interfaces
	AGP	AGP cards not supported
Audio	AC97	Analog Devices AD1885 CODEC for AC97 v2.1 Digital audio integrated in chipset
	Rear Connectors	Mic, Line Out and Line In jacks on rear panel
	On-board Connectors	CD In, AUX In, Line Out ATAPI connectors on-board
Network	Controllers	Intel 82551ER controller for 10/100 Ethernet
		IEEE 802.3 10Base-T, 100Base-TX compatible
	Rear Connector	RJ45 rear panel connector with two LEDs to indicate line activity, link integrity and line speed
	On-board Connectors	On-board header to connect to external LEDs
	Remote / Wake-up	Not supported
IDE	Devices	Two Ultra ATA/100 interfaces via 40-way boxed header
	Drive Types	Supports ATAPI, LS120 and ZIP drives
	Compact Flash	Compact Flash socket on secondary IDE as Master or Slave (jumper selectable)

Floppy	Types	Supports standard 3.5" and 3-mode floppy drives
Mechanical	Dimensions	12" x 9.6", 4-layer PCB, ATX compliant
I/O	VGA	Via 15-way D-type
	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
	USB	4 rear panel USB 2.0 ports (also supports 1.1), 2 USB 2.0 ports on internal headers
	Keyboard & Mouse	Swappable PS/2 connectors, on-board header connectors
	Front Panel	Connectors for power control and status, Reset, LAN LEDs, IDE activity LED
	GPIO	13 GPIO lines via header (also supports an LCD character display)
Expansion Slots	PCI	6 dedicated bus master 32-bit / 33MHz PCI 2.2 slots
System Management	Monitoring	Voltage, temperature and fans Automatic CPU fan speed control (O/S independent) Anti-tamper security
	Watchdog	Watchdog timer
	-	SMBus connector
Power Management	-	PCI PME, ACPI 1.0b
Power Supply	Type	Support for hard- and soft- switched power supplies
	Power Consumption	91W with a 2.8GHz Pentium 4 with 1GB SDRAM, measured running Windows 2000 power stress software
Battery	-	Lithium coin cell (5 years operating life typical)
BIOS	Type	Based on Phoenix ServerBIOS™ 3.0
	Special Features	Customizable defaults, customer logo, silent boot, QuickBoot, automatic configuration, Universal Console Redirection
Drivers	Operating Systems	Windows 2000, NTe, XP, XPe, Linux, others by request
Safety Compliance	-	Evaluated in accordance with UL60950,

EMC Compliance	-	Evaluated in accordance 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

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

### Description:

The following base configurations are available:

SH845GV ATX, RoHS

**PRODUCT CODE: SHGV1L03-0-0**

I/O shield for SH845GV ATX, RoHS

**PRODUCT CODE: ATX-L BG IOSHLD**



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