



[\[Print This Datasheet\]](#)

Endura JD35Q

Long Life Intel® Q35 Core 2 Duo ATX Embedded Motherboard

NEXTGEN PERFORMANCE

The Endura JD35Q ATX is based on the latest Intel Q35 Express chipset which delivers support for Intel Core™ 2 Duo processors and the upcoming Intel Core™ 2 Quad processors bringing higher performance in combination with greater energy efficiency. The Front Side Bus support is extended up to 1333MHz for use with nextgen 45nm processors. The JD35Q also supports faster DDR2-800 dual channel memory.

LEGACY I/O

The Endura JD35Q comes with additional USB 2.0 ports with 6 on the rear I/O panel, 2 on-board connectors and 4 via on-board headers. Six SATA 3 Gbps ports are available, one of which also supports eSATA for use with external drives at a distance of up to 2m. It has a Super I/O controller providing 2 serial ports and a parallel port. With 4 PCI slots, the JD35Q is well suited for use in embedded applications with a need for legacy PCI and serial interfaces.

A range of long life embedded processors is available for use with the Endura JD35Q. These include the Core™ 2 Duo E6400, E4300 and Celeron processors for a choice of scalable options to suit the price / performance needs of the application.

IMAGING SOLUTIONS

The Endura JD35Q has an integrated Intel GMA 3100 graphics controller for exceptional 3D graphics performance. It has a conventional x16 PCI Express graphics slot for use with graphics acceleration cards and a x16 slot (4 PCI Express lanes) for use with a second graphics card or other high bandwidth data capture device for use in advanced imaging applications.

LONG LIFE

With a projected life time of up to 7 years, the Endura JD35Q is designed to meet the needs of embedded system designers. This is backed up by full revision control, change management and strong engineering support from RadiSys.

FEATURE SUMMARY

- 12" x 9.6" ATX
- Intel Core™ 2 Duo, Core™ 2 Quad and Celeron processors
- Intel Q35 Express chipset
- 667/800/1333MHz Front-Side Bus
- 4 DIMM sockets
- Up to 8GB DDR2-667/800 memory

Endura JD35Q Specifications

FEATURE	FUNCTION	SPECIFICATION
FORM FACTOR	Size	ATX motherboard, 12" x 9.6", 305mm x 244mm, 6-layer PCB
PROCESSOR	Type	Intel® Core™ 2 Duo, Core™ 2 Quad and Celeron® processors
	Socket	LGA775 socket
	FSB	800MHz, 1066MHz and 1333MHz system bus
CHIPSET	Type	Intel® Q35 Express chipset with Intel® ICH9DO – supports RAID levels 0, 1, 5 and 10
MEMORY	Type	Four sockets for DDR2-667 and DDR2-800 DIMM modules
	Capacity	Up to 8GB of system memory
	Performance	Dual-Channel memory
VIDEO	Type	Intel® Graphics Media Accelerator 3100 integrated video Dual independent video
	Resolution	2048 x 1536 (QXGA) at 75Hz and 32-bit color
	Graphics Acceleration	x16 PCI Express graphics slot with support for Media Expansion Cards
	Video Output	VGA
AUDIO	Type	Intel® High Definition Audio using Realtek ALC883 eight channel CODEC
	Connectors	3 audio jacks for Line In, Line Out, Microphone On-board CD-ROM audio input header
ETHERNET	Controller	Gigabit Ethernet using the integrated MAC and Intel 82566DM PHY Option for second Gigabit Ethernet using an Intel 82573L MAC/PHY (selectable via a MUX with the x1 PCI Express slot)
EXPANSION	PCI Express	x16 PCI Express graphics slot x16 PCI Express (4 lanes) slot x1 PCI Express slot
	PCI	Four PCI 2.3 compliant slots
POWER MANAGEMENT	ACPI	ACPI 3.0
SYSTEM MANAGEMENT	System Monitoring	Voltage, temperature and fan monitoring with three 4-pin fans
		Lithium cell voltage monitoring
	Fans	Automatic fanspeed control based on thermal monitoring
	SMbus	SMbus header
	Watchdog	Watchdog timer available with the dual LAN SKU
POWER SUPPLY	Connector	13-bit GPIO port available with the dual LAN SKU
		Standard 24-pin ATX power supply connector with 4-pin ATX 12V connector
BATTERY	Type	Lithium coin cell (5 years operating life typical)
BIOS	Type	Phoenix BIOS TrustedCore™ with customizable logo and BIOS settings
I/O	USB	12 USB 2.0 ports – 6 on rear I/O, 2 on-board and four on headers
	Serial Ports	Two RS232 serial ports on headers
	Parallel Port	One parallel port via on-board header
DISKS	SATA	Six SATA 3Gb/s ports, one is eSATA ready
	IDE	One Ultra ATA100 interface

OPERATING SYSTEMS	Windows XP
	Windows XPe
	Windows Vista
	Linux
	Solaris
SAFETY COMPLIANCE	Evaluated in accordance with UL60950, EN60950 and IEC60950
EMC COMPLIANCE	Evaluated in accordance with EN55022, EN55024 and FCC Part 15 Class B

PHYSICAL SPECIFICATIONS

ENVIRONMENT	Temperature	Operating	0°C to 55°C
		Storage	-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:

JD35Q with single Gigabit Ethernet

Order Code: JD1G03-0-0

JD35Q with dual Gigabit Ethernet, watchdog timer and GPIO port

Order Code: JD2G03-0-0

I/O Shield for either product

Order Code: IOSHLD-JQ

Embedded Processor Support

Intel Core™ 2 Duo E6400

Intel Core™ 2 Duo E4300

Intel Pentium Dual-Core E2160

Intel Celeron 440



*2009 RadiSys Corporation. RadiSys is a registered trademark of RadiSys Corporation. Conveda, Microware and OS-9 are registered trademarks of RadiSys Corporation. Promentum, and Procelerant are trademarks of RadiSys Corporation. *All other trademarks are the properties of their respective owners. All specifications within this document are subject to change without notice.*