



• Intel® RAID
Controller
SRCS14L
Product Brief

Can I get RAID data protection at an affordable price?



Yes. The Intel® RAID Controller SRCS14L
provides full-featured RAID data protection
at a very low cost per megabyte.



Intel® RAID Controller SRCS14L

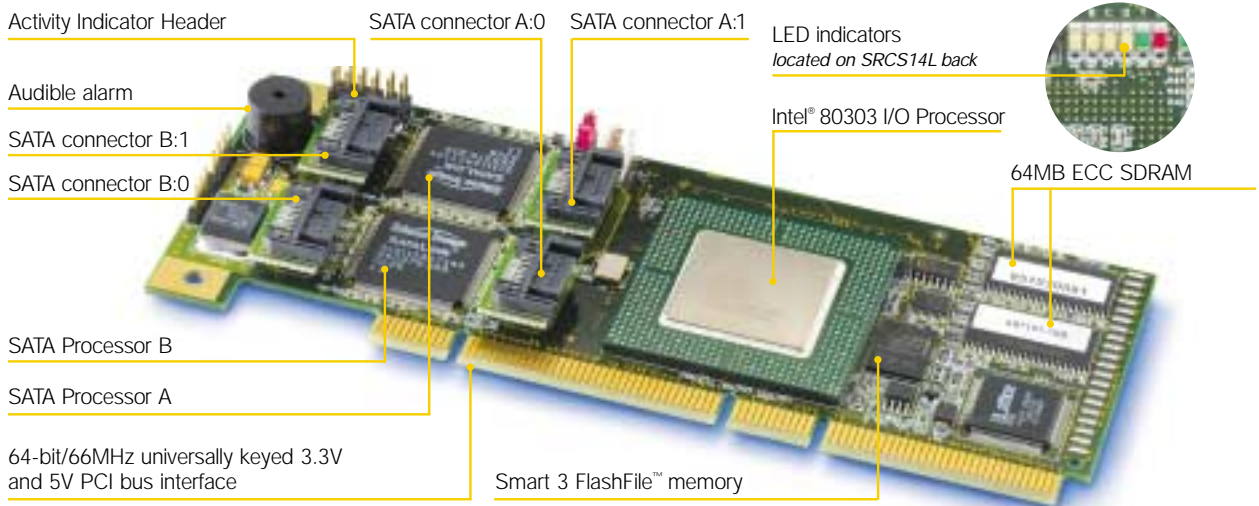
The Intel® RAID Controller SRCS14L provides full-featured RAID data protection for high-end desktops and entry-level servers. As one of the first hardware-based Serial ATA (SATA) RAID cards in the market, and the first four-port, low-profile adapter to use an I/O processor, the RAID controller SRCS14L enables system builders to implement robust SATA hardware RAID data protection in a rapid time-to-market and at a very low cost per megabyte.

The RAID Controller SRCS14L is equipped with the Intel® 80303 I/O processor, featuring a hardware XOR engine for enhanced RAID 4/5 operations and 64 MB of PC100 ECC SDRAM. In addition, the Intel® Integrated RAID software suite supports RAID levels 0, 1, 4, 5, and 10, enabling system integrators to offer a full set of RAID options at entry-level price points and to meet a variety of requirements for performance, redundancy, and system cost.



The Intel® RAID Controller SRCS14L ships with a full-height PCI bracket installed and an additional low-profile bracket included in the box.

Intel® RAID Controller SRCS14L



Features

Dedicated Intel® 80303 I/O 100MHz processor

Four independent Serial ATA ports

Designed for 64-bit/66MHz PCI 2.2 interface

Support for RAID levels 0, 1, 4, 5, and 10

64MB embedded, unbuffered PC100 ECC SDRAM

Intel® RAID Storage Console

RAID firmware compatibility across Intel® RAID product family

Remote event notification by e-mail for Microsoft® Windows® operating systems

Background initialization and instant availability

Three-year limited warranty

Benefits

RAID processing offloaded for optimum system performance

High-speed data access across all ports simultaneously

High data-transfer rate, increased availability and flexibility

Flexibility for optimizing performance and fault tolerance in a variety of solutions

Data integrity, performance

Full-featured management, monitoring, reporting, and diagnostics utility available pre-OS or post-OS

Easy controller upgrade path without requiring a rebuild of the RAID array

Manageability and availability

Immediate accessibility to the host operating system, shorter build time

Peace of mind

Complete Your Server Platform with the Following Intel® Server Building Blocks



Intel® Server Boards are designed, tested, and validated to meet the non-stop demands of business in the Internet economy. Built-in performance, scalability, and availability make the boards ideal for e-Business.



Intel® Server Chassis are specifically designed for Intel® server boards. Intel server chassis are easy to service, versatile, and expandable, and they feature built-in monitoring to simplify server management for you and your customers alike.



Intel® Xeon™ Processors, based on Intel® NetBurst™ microarchitecture and Hyper-Threading Technology, can slice through the toughest business problems facing dynamic start-ups, large enterprises, and everything in between.



Intel® Server Management monitors key server components and solves many problems automatically, keeping your customers up and running. Intel Server Management offers several key high-availability features including integrated remote management, event alerting and logging, and proactive fault management.



Intel® PRO Server Adapters, including Fast Ethernet and Gigabit Ethernet server adapters, help reduce bottlenecks and improve availability with industry-leading performance and advanced server features.

Intel server building blocks are validated to work together, saving you R&D, validation, and support expenses —reducing your time to market.

Deliver the most advanced server technology with world-class customer support? With Intel, you can.



Technology leadership. Take advantage of Intel's 20 years of experience designing and engineering industry-leading server building blocks such as the Intel® Xeon™ processor. Intel® Server Management and the Intel® SMaRT tool are Intel extras that contribute tremendously to server uptime, customer peace of mind, and lower ownership costs.

Unsurpassed quality. On average, Intel spends 10,000+ hours testing and validating every piece of an Intel server stack. Uncompromising quality standards translate into higher reliability, fewer repairs, and greater customer satisfaction.

World-class technical support. Intel offers 24x7 phone and Web-based technical support, Advanced Warranty Replacement, a three-year limited warranty, spares kits, and extensive technical training. System integrators also receive a wealth of sales and marketing support in the form of sales tools, videos, and high-quality images for advertising. For more information on Intel's added-value server offerings please visit: www.intel.com/go/serverbuilder.

With Intel, you can give your customers access to the latest server technologies, the highest quality, and the most responsive technical support.



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Intel® RAID Controller SRCS14L Specifications

Hardware	
Processor	Intel® 80303 I/O processor: 100MHz, with hardware XOR
Memory	64MB embedded 3.3V unbuffered PC100 ECC SDRAM
PCI	64-bit/66MHz PCI 2.2 interface, universally keyed for 3.3V and 5V signaling, backward compatible to 33MHz
Serial ATA	Two Silicon Image® SiI3112A* SATA controllers, for a total of four ports with speeds up to 1.5 Gbps
Form Factor	Low-profile PCI
Status Indicators	Audible alarm, LEDs
Software (RAID Storage Console and RAID Storage Console Plus)	
RAID Levels Supported	0, 1, 4, 5, and 10
Scalability	Online RAID-level migration and capacity expansion without reboot
Configuration Flexibility	Variable data stripe size—configurable per array and read/write controller caching
Availability	Instant availability and background initialization, automatic rebuild with private (dedicated) or pooled (global) hot-fix (spare) drives, hot-plug drive support, and RAID array roaming

Operating-System Support ^{1,2}	
Standard Validation	Microsoft® Windows® XP Professional, Microsoft Windows 2000 Advanced Server, Novell® NetWare® 6.0, SCO® OpenServer® 5.0.6a, Red Hat® Linux® 7.3 (2.4 kernel), SCO UnixWare® 8.0, SuSE® Linux 8.0 Professional
Limited Validation	Microsoft® Windows® 2000, Windows NT 4.0 Server and Enterprise Server, Novell® NetWare® 5.1, SCO UnixWare® 7.1.1, Red Hat® Linux® 7.2, Debian® Linux 3.0, Caldera® Linux 3.1, Mandrake® Linux 8.2, TurboLinux® 7.0 Server, FreeBSD® 4.5 and 4.6
Environmental / Electrical/System	
Size	56mm (2.20 inches) x 167mm (6.57 inches)
Voltage Requirements	+3.3V or +5V (all ±5% tolerance)
Ambient Temperature	Operating 0°C to 55°C, non-operating -40°C to 70°C
Relative Humidity	Non-operating 50% to 85%, non-condensing (at 25°C to 70°C)
System Requirements	Intel PC or equivalent with PCI 2.2-compliant 64-bit/66MHz or 33MHz slot
Power Consumption	+5V @ 0.25 A = 1.25W +3.3V @ 2.5 A = 8.25W

Safety-Compliance Regulations	
United States	UL 60950 3rd Edition
Canada	CAN/CSA C22.2, No. 60950
European Union	EN 60950, Low Voltage Directive (73/23/EEC)
International	IEC60950
EMI Verification (configured in a compatible ³ Intel host system)	
United States	FCC Part 15, Class A Emissions
Australia/New Zealand	AS/NZS 3548, Class A Emissions
Canada	ICES-003, Class A Emissions
European Union	EN 55022:1998 (Class A Emissions) and EN 55024:1998 (Immunity), EMC Directive 89/336/EEC
International	CISPR 22 3rd Edition, Class A Emissions
South Korea	RRL MIC Notices 1997-41 (EMC) & 1997-42 (EMI)
Taiwan	BSMI CNS 13438, Class A Emissions
Product Order Code	
Item	Code
Intel® RAID Controller SRCS14L	SRCS14L



More Intel® RAID Controller Products

Intel® RAID Controller	Intel® RAID Controller SRCU42L <i>Affordable high-performance Ultra320 RAID controller</i>	Intel® RAID Controller SRCU32 <i>Full-featured high-performance RAID controller with PCI hot-plug support</i>	Intel® RAID Controller SRCS14L <i>Full-featured four-port Serial ATA RAID controller</i>	Intel® RAID Controller SRCZCR <i>Economical Modular ROMB (RAID on mother board) controller for RADIOS-enabled motherboards</i>
Order Code	SRCU42L	SRCU32U	SRCS14L	SRCZCR
Processor	Intel® 80303 IOP 100MHz	Intel® 80303 IOP 100MHz	Intel® 80303 IOP 100MHz	Intel® 80303 IOP 100MHz
XOR	Hardware	Hardware	Hardware	Hardware
Memory	Embedded 64 MB of PC100 ECC SDRAM	Supports 64–256 MB of unbuffered PC133 ECC SDRAM (memory not included)	Embedded 64MB of unbuffered PC100 ECC SDRAM	Embedded 32MB of PC100 ECC SDRAM
PCI Bus	PCI 2.2 64-bit/66MHz	PCI 2.2 64-bit/66MHz	PCI 2.2 64-bit/66MHz	PCI 2.2 64-bit/66MHz
Channels	2 x Ultra320 SCSI (one internal, one external)	2 x Ultra160 SCSI	4 x Serial ATA	2 x Ultra320/160 or Serial ATA
Form Factor	Low-profile PCI	Standard PCI	Low-profile PCI	Low-profile PCI
RAID Levels	0, 1, 4, 5, 10, and JBOD	0, 1, 4, 5, 10, and JBOD	0, 1, 4, 5, and 10	0, 1, 4, 5, 10, and JBOD
PCI Hot-Plug	Yes	Yes	Yes	No
Compatibility ⁴	—	—	—	—
Availability	February 2003	Now	Now	Now

- For information on the latest operating-system support, please visit <http://support.intel.com>.
- Operating-system support is contingent on the operating-system support of the motherboard in which this controller is installed.
- Compatible host systems denote the systems in which Intel tested the board and found it compliant.
- For information on the latest server-board support, please visit <http://support.intel.com/support/motherboards/server>.

For the most current product information on Intel® server building blocks, visit:

www.intel.com/go/serverbuilder



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