Intel® Server Platform SRMK2

A New Level of Performance and Availability in a 1U Server Platform

Product Brief

- Dual Intel® Pentium® III Processors for Outstanding Performance
- Supports Two Ultra160 SCSI Hard Drives for High Availability
- Exceptional Flexibility

A New Concentration of Power

Outstanding Performance, Density, Availability, and Flexibility in a 1U Server Platform

Whether your customer is a fast-growing service provider, a ".com" startup, or an established business with a growing Web presence, you must provide the headroom, scalability, and reliability for the level of future growth the Internet requires.

The Intel® Server Platform SRMK2 delivers high-density performance, availability, and flexibility using dependable Intel® building blocks. The SRMK2 supports two Intel® Pentium® III processors, and 4 GB of PC133 SDRAM memory in a high-density 1U package. Voltage, temperature, fan sensors on the server board, and hot-swap SCSI drives enhance reliability. With multiple drive, memory, storage, operating system, and connectivity options, you get the flexibility you need to customize to each customer's environment.

Maximum Performance, Minimum Size

In addition to room for two Intel® Pentium® III processors and 4 GB of PC133 SDRAM memory, the SRMK2 comes with a 133 MHz system bus, a high-quality ATI Rage* XL graphics controller with 4 MB of memory, integrated dual channel Ultra160 SCSI, and two on-board Intel® Pro100+ Server Adapters. These features combine to provide the highest performance 1U platform available from Intel.

Highly Available

Your customers expect maximum uptime, so you will appreciate the reliability features of SRMK2. From the overall design to the individual components, the platform was designed with availability in mind. Dual integrated Intel® Pro100+ Server Adapters, nine system fans, and support for hot-swap SCSI drives are just a few of the features that help ensure system availability around the clock. You can further enhance availability by adding optional Intel® Server RAID Controllers.

Scalable and Flexible

The SRMK2 is highly flexible. You can easily scale and configure the SRMK2 for your customers with two platform options. The SRMK2s utilizes an AC power supply, and the SRMK2d uses a dual source -48V DC power supply. To meet the needs of your customers, you can customize each of these platforms by tailoring the speed and number of processors, the amount of memory, storage capacity, and the operating system. There are also two 64-bit/66 MHz PCI slots (one full-size and one low-profile) that allow users to add additional capabilities on a high-bandwidth PCI bus. The SRMK2 server platform's open, flexible architecture guarantees a wide array of choices at every level of the solution stack, including hardware components, peripherals, popular operating systems, software applications, and development tools.

Service, Support, and Three-Year Limited Warranty

Intel provides a range of service options for all Intel server building blocks[1], including a three-year limited warranty and next-business-day replacement of warrantied products. Optional server spares kits enable same-day service. In addition, Intel provides access to support personnel for assistance with technical questions and dedicated Web sites such as support.intel.com and www.intel.com/go/serverbuilder.

Features	Benefits
Support for two Intel® Pentium® III processors	High-performance processing power in minimum space
Compact 1U rack-optimized server design (1.70" H x 24" L x 16.75" W)	High-density design for easy deployment and solid performance per inch
Support for up to 4 GB of PC133 ECC SDRAM memory; four DIMM sites	Memory capacity for the most demanding server applications; multiple DIMM sites for configuration flexibility
Two integrated Intel® Pro/100+ Server Adapters	Excellent network capabilities without filling any PCI slots, leaving all PCI slots open for future expansion
Integrated video controller and dual channel Ultra160 SCSI controller	High-performance components integrated on-board leaves all PCI slots open for future expansion
Two PCI slots (64-bit/66 MHz, one full-height, one low-profile)	Flexibility and scalability
Two models available: • **SRMK2s: support for dual hot-swap SCSI hard drives** • **SRMK2d: -48V DC, support for dual SCSI hot-swap hard drives**	Multiple platforms make it easy to customize
Three-year limited warranty	Peace of mind
Designed by Intel	Performance, value, and choice that you expect from Intel

[1] Some restrictions apply. Not available in all countries.

Complete Your Intel® Server Platform SRMK2 with Intel Server Building Blocks

Intel® Pentium® III Processors

The Pentium® III processor provides high performance for your e-Business server applications and gives your customers the reliability, flexibility, and scalability necessary to support their growing businesses.

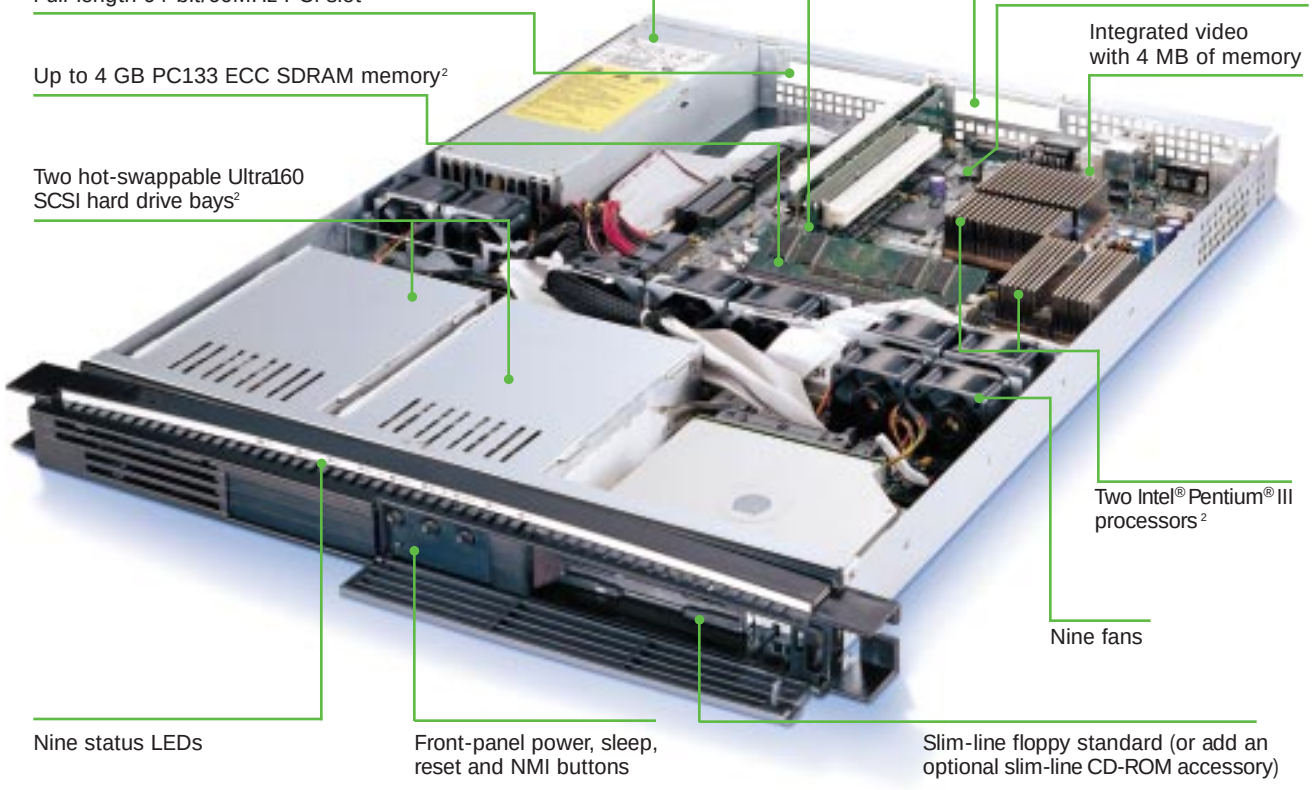
Intel® Server RAID Controllers

Protect data, applications, and the server operating system from disk failures. Equipped with RAID Levels 0, 1, 5, and 10, Intel Server RAID Controllers are well suited for applications that require high availability.

Intel® Server Adapters

Maximize server availability, increase serviceability, and reduce bottlenecks with Intel® Server Adapters.

Intel® Server Platform SRMK2



1. Two PS/2 ports
2. Video port
3. Two Ethernet ports
4. Two USB ports
5. Back serial port
6. 68-pin SCSI port
7. Power receptacle

[2] Memory, hard drives, and processors not included.

Intel® Server Platform SRMK2 Specifications

Processor/Cache

Processors Supported	Support for up to two Intel® Pentium® III processors. See http://support.intel.com/support/motherboards/server for full details.
Chipset	ServerWorks ServerSet* IIILE chipset consists of the ServerWorks* CNB30LE North Bridge and the ServerWorks* OSB4 South Bridge

System Memory

Memory Capacity	Four 25°-angle DIMM sockets for 64 MB to 4 GB SDRAM
Memory Type	PC/133 133 MHz or PC/100 100 MHz registered SDRAM, 72-bit ECC, 168-pin gold-plated DIMMs
DIMM Sizes	64 MB, 128 MB, 256 MB, 512 MB and 1 GB
Memory Voltage	3.3V only
Error Detection	Corrects single-bit errors, detects double-bit errors

Expansion Slots

Description	One full-length slot and one low-profile slot (64-bit/66 MHz) on passive riser card

Integrated Intel® Server Adapter

Controller	Two stacked Intel® Pro/100+ Server Adapters (Intel® 82559) Supports 10BASE-T and 100BASE-T, RJ45 output

Integrated SCSI Controller

Adaptec* AIC-7899 PCI Bus Master Dual-channel Ultra160/m SCSI Host Adapter Chip with both internal and external U160 ports

Integrated Video Controller

Description	On-board ATI Rage* XL video controller with 4MB video memory with support for DDC1 and DDC2B plug and play monitors

Integrated PCI/ISA IDE Xcelerator (OSB4)

IDE	One channel for CD-ROM support
PIO Modes	0 to 4, ATA-33 and CD-ROM support
USB	Two stacked USB connectors

Integrated Super I/O

Controller	SMSC* FDC37B782
Serial Port	One asynch, RS-232C, 9-pin (rear-facing)
Slimline Floppy Controller	1.44 MB, 2.88 MB, 3-mode support
Keyboard/Mouse	Two interchangeable PS/2 connectors

Front Panel

LED Indicators	Power, Status, IDE Activity, two LAN Link/Activity, two LAN 100Mbps and two SCSI activity/fault
Switches	Power, Sleep, Reset and NMI (Non-maskable Interrupt)

Jumpers and Connectors

Description	CMOS clear, BIOS recovery, password clear, Wake on LAN (WOL), Wake on Ring (WOR), SCSI LED

System BIOS

BIOS Type	8-Mb Flash EEPROM with AMIBIOS* BIOS 7.0, Multi-boot BIOS Boot Specification 1.01 (BBS)-compliant
Special Features	Plug and Play-compliant, IDE drive auto-configure, SMBios 2.3, ECC/Parity, multilingual, LAN/serial console redirection and network boot using Preboot Execution Environment 2.0 (PXE)

Server Management Instrumentation

Failure Detection	Voltage variation, thermal, operating system watchdog timer, fan failure, processor status, and ECC memory
Remote Power Control	Power-up using WOR and WOL
Remote Power Off	Through GUI management console and Reboot-on-Break
Event Logging	Non-volatile storage to prevent loss of logs in event of system or power failure
Security	Security video blanking and password protection

Intel® Web-based Server Management

Managed Server	Operating systems supported: Microsoft Windows* NT 4.0 Server, Microsoft Windows* 2000 Advanced Server, and Red Hat* Linux 6.2 SBE2
Management Console	Web-based management console (Microsoft Internet Explorer* 5.5 and Netscape* 4.7) Integrates into HP OpenView*
System Health Monitor	Temperature, voltage, system fans, ECC memory, hard drives, and OS hang monitoring via watchdog timer
Alert Notifications	Pager alert, LAN alert, SNMP traps, system event log, and continuous speaker beep alert
Critical Event Actions	Gracefully shutdown operating system with reboot or power off at administrator's discretion; immediate power-off, reset

Environment

Ambient Temperature	
Operating	+10°C to +35°C to 5,000 ft., de-rated 1°C/1000 to 10,000 ft., maximum rate of change of 10°C per hour
Non-operating	-40°C to +70°C ambient temperature
Relative Humidity	
Non-operating	95%, non-condensing @ +30°C
Acoustic Noise	<45 dBA @ +23°C±2°C

Safety Regulations

USA/Canada	UL1950, 3rd Edition/CSA 22.2, No. 950M93, 3rd Edition
Europe	CE Mark Low-Voltage Directive, 73/23/EEC TUV/GS to EN60950 2nd Edition with Amendments, A1 = A2 + A3 + A4
International	CB Certificate and Report to IEC 60950, 3rd Edition including EMKO-TSE (74-SEC) 207/94 and other national deviations

EMI/RFI (SRMK2s)

USA	FCC 47 CFR Parts 2 and 15, Verified Class A Limit
Canada	IC ICES-003 Class A Limit
Europe	EMC Directive, 89/336/EEC EN55022, Class A Limit, Radiated and Conducted Emissions EN55024, Immunity Standard for Information Technology Equipment EN61000-3-2 Harmonic Currents EN61000-3-3 Voltage Flicker
Australia/New Zealand	AS/NZS 3548, Class A Limit
Japan	VCCI Class A ITE (CISPR 22, Class A Limit) IEC 1000-3-2; Harmonic Currents
Taiwan	BSMI, Class A (CISPR 22)
Korea	RRL, Class A (CISPR 22)
Russia	Gost Approval
International	CISPR 22, Class A Limit

EMI/RFI (SRMK2d)

USA	FCC 47 CFR Parts 2 and 15, Verified Class B Limit
Canada	IC ICES-003 Class B Limit
Europe	EMC Directive, 89/336/EEC EN55022, Class B Limit, Radiated and Conducted Emissions EN55024, Immunity Standard for Information Technology Equipment
Australia/New Zealand	AS/NZS 3548, Class B Limit
Japan	VCCI Class B ITE (CISPR 22, Class A Limit)
Taiwan	BSMI, Class B (CISPR 22)
Korea	RRL, Class B (CISPR 22)
Russia	Gost Approval
International	CISPR 22, Class B Limit

System

Form Factor	1U, rack-mountable
Rack-mount	Front and mid-mount brackets or sliding rails (optional)
Height	1.70" (43.18mm)
Width	16.75" (425.45mm)
Depth	24.00" (558.80mm) (22.50" without bezel)
Weight	23 lbs. (maximum configuration)
Fans	Nine 40mm variable-speed fans, all with tachometer output
Drives	One standard 3.5" slim-line diskette drive; optional slim-line CD-ROM drive
Hard Drive Bay	Two front removable, hot-swappable LVD/SE SCA 68-pin SCSI hard drives

PFC AC Power Supply (SRMK2s)

AC Voltage & Frequency	90-135, 180-265 VAC (47/63 Hz)
DC Power Supply	200W
+5VDC	22A maximum
+5VDC Standby	1.0A maximum
+12VDC	3.5A maximum
+3.3VDC	13.0A maximum
-12VDC	0.25A maximum

PFC -48V DC Power Supply (SRMK2d)

DC Voltage	-36.0Vmin to -72.0Vmax input parameters
DC Power Supply	200W
+5VDC	22A maximum
+5VDC Standby	1.0A maximum
+12VDC	3.5A maximum
+3.3VDC	13.0A maximum
-12VDC	0.25A maximum

Intel Product Ordering Codes:

Server Platforms		Accessories and Spares	
SRMK2 with support for SCSI drives	SRMK2s	**(2) 40mm x 27mm fans**	FXXFAN002
SRMK2 with support for SCSI drives and -48VDC	SRMK2d	**(1) 40mm x 15mm fan**	FXXFAN003
		(5) Hudson drive carrier	AHDDCARR5BLK
		200W power supply	FXXPWRSPLY002
		200W -48VDC power supply	FXXPWRSPLY003
Accessories and Spares		**64/66 PCI riser card**	FXXRISER002
Front/Mid-mount kit	ACCMNTKIT001	**Front-panel assembly**	FXXCONTR003
Rail kit	ACCRAILKIT001	**SCSI HS backplane**	FXXBCKPLNHS001
CD-ROM w/ cable	ACCCDROM001	**Heat sink CPU 1**	FXXHEATSNK001
Server board	FXXSYSBDSCSI	**Heat sink CPU 2**	FXXHEATSNK002
Bezel	FXXBEZEL003	**Processor Terminator**	FXXCPUTERM001
Cable kit (SCSI, IDE, fan, floppy)	FXXCBLKIT002		

For the most current product information on all of Intel's server building blocks, visit Intel's Web site at: **www.intel.com/go/serverbuilder**

Intel Literature Center: 1-800-548-4725
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