



Sun Fire™ X4100 Server Family

Fast, Energy-Efficient, and Reliable
One- to Four-Way x64 Server



Highlights

- Rack-optimized server providing the highest performance levels in its class
 - Able to accept the fastest single-core and dual-core AMD Opteron™ processors
- Sun Fire™ X4000 family of servers raises the bar for industry-standard servers
 - Enterprise-class RAS features for maximum uptime
 - Four integrated Gigabit Ethernet ports for maximum network expandability
- More energy-efficient than Xeon servers
 - Significant power and cooling savings
- Runs virtually any operating system including the Solaris™ OS, Linux®, and Windows—all supported by Sun
- Simplified remote management with no hidden costs through Integrated Lights Out Manager (ILOM)
- Provision, monitor, and manage with the recommended N1™ System Manager software
- Try risk-free for 60 days. Sign up for a free trial at sun.com/tryandbuy



Sun is at the forefront of x64 (x86-64-bit) computing. The Sun Fire™ X4100 server family includes the fast, reliable Sun Fire X4100 and X4100 M2 servers—energy-efficient one- to four-way x64 servers that run the Solaris OS, Linux, and Windows operating systems.

The Sun Fire X4100 server is a key component in standardizing your infrastructure, helping to lower total cost of ownership (TCO), simplifying data center management, and achieving industry-leading performance. The Sun Fire X4100 server runs 32-bit and 64-bit applications and delivers 100 percent industry-standard x64 computing.

The Sun Fire X4100 server is the only one-U enterprise x64 server with hot-swappable, redundant fans. It also has hot-swappable, redundant power supplies and high-performance, hot-swappable disk drives with onboard RAID that help maximize system uptime. Powered by up to two single- or dual-core AMD Opteron™ processors, the Sun Fire X4100 server comes preinstalled with the Solaris Operating System and Sun Java™ Enterprise System software.

Designed from the ground up to facilitate system management, the Sun Fire X4100 server architecture provides Integrated Lights

Out Manager (ILOM) and state-of-the-art remote automation that integrates at the data center level. With zero-touch capabilities managed through a variety of interface options, the Sun Fire X4100 server's architecture simplifies installation, deployment, and maintenance. The only x64 server in its class with four Gigabit Ethernet ports, the Sun Fire X4100 server provides multiple connectivity for high-speed, high-bandwidth networking. It also comes with PCI-X and PCI-Express I/O connectivity options.

The Sun Fire X4100 server is qualified to work with Sun's comprehensive portfolio of software, storage, and network switches. A variety of service offerings are also available to help meet the needs of enterprise customers. The Sun™ Customer Ready Systems (CRS) program offers integration and testing services: Customers can order racks of preconfigured servers with storage, switches, and software. Sun's partners can also provide industry-specific expertise and deployment services.

Sun Fire X4100 Server

Architecture	
Processor	Up to two single-core/dual-core AMD Opteron 200 Series processors, one MB Level 2 cache per core
Main memory	Four DIMM slots per CPU socket, DDR1/400 ECC registered DIMMs (128-bit plus ECC databus), total eight DIMM slots, up to 16 GB per processor Three 8.0 GB/sec. HyperTransport link with 6.0 GB/sec. access between processor and memory
System architecture	
Standard/integrated interfaces	
Network	Four 10/100/1000Base-T Ethernet ports
Network management	One dedicated 10/100Base-T Ethernet port
Serial	One TIA/EIA-232-F asynchronous RJ45 Port
SAS	Four-channel SAS interface, internal access only
USB	One USB 1.1 port (front), two USB 1.1 ports (rear)
Expansion bus	Two internal MD2 low-profile 64-bit PCI-X slots (one at 100 MHz, one at 133 MHz)
Software	
Operating systems	<ul style="list-style-type: none"> Solaris™ 10 Operating System, 64-bit Red Hat Enterprise Linux 3.0, 32-bit/64-bit Red Hat Enterprise Linux 4.0, 64-bit SUSE LINUX Enterprise Server 9, 64-bit Windows Server 2003, Enterprise Edition, 32-bit/64-bit Windows Server 2003, Standard Edition, 32-bit/64-bit VMware ESX 2.5.x/3.0.x Java Enterprise Services 3 Solaris 10 Operating System Standard Linux distributions
Languages	<ul style="list-style-type: none"> C/C++, FORTRAN (Solaris OS on x64) Java™ programming language All other standard Sun-supported languages
Networking	ONC™, ONC+, NFS, WebNFS™, TCP/IP, SunLink™, OSI, MHS, IPX™/SPX, SMB technologies, and XML
Management	ILOM Service Processor providing: DMTF CLP-based CLI over SSH, Web-based GUI over HTTPS/HTTP, IPMI 2.0, SNMP V1, v2c and v3, remote graphical access over Ethernet and remote storage over Ethernet <ul style="list-style-type: none"> N1 System Manager—discovering, grouping, bare metal provisioning, hardware monitoring, OS monitoring
Mass storage and media	Hot-swappable, 2.5-inch SAS internal disks, RAID 0, 1 onboard, up to two HDDs with DVD-ROM/CD-RW, up to four HDDs without DVD-ROM/CD-RW
Environment	
AC power	90–264 V AC (47–63 Hz)
DC power	-48 V DC or -60 V DC (10.4 A at -48 V DC, 8.3 A at -60 V DC), -48 V DC or -60 V DC (10.4 A at -48 V DC, 8.3 A at -60 V DC)
Operating temperature (single, nonrack system)	<ul style="list-style-type: none"> 5° C to 35° C (41° F to 95° F) 10 to 90 percent relative humidity Noncondensing, 27° C max. wet bulb
Nonoperating temperature (single, nonrack system)	<ul style="list-style-type: none"> -40° C to 65° C (-40° F to 149° F) Up to 93 percent relative humidity Noncondensing, 38° C max. wet bulb
Operating altitude (single, nonrack system)	Up to 3,048m, maximum ambient temperature is derated by 1° C per 300m above 900m
Nonoperating altitude (single, nonrack system)	Up to 12,000m
Acoustic noise (single, nonrack system)	<ul style="list-style-type: none"> LwAd (1B = 10dB): 7.8 B at or below 25° C, 8.3 B at max. ambient LpAm bystander: 63 dB at or below 25° C, 67 dB at max. ambient Dual redundant, hot-swappable power supplies Maximum DC output: 550 W
Power	
Regulations	Meets or exceeds the following requirements
Safety	IEC60950, UL/CSA60950, EN60950, CB scheme with all country differences
RFI/EMI	FCC Class A, Part 15 47 CFR, EN55022, CISPR 22, EN300-386: v1.31, ICES-003
Immunity	EN55024, EN300-386:v1.3.2
Certifications	
Safety	cULus Mark, TUV GS Mark, CE Mark, CCC, GOST R, S-Mark
EMC	CE Mark (93/68/EEC), Emissions and Immunity Class A Emissions Levels: FCC, VCCI, C-Tick, MIC, CCC, GOST R, BSMI
Other	Labeled per WEEE (Waste Electrical and Electronic Equipment) directive
Dimensions and weight	
Height	43.8mm (1.72 in.)
Width	445mm (17.5 in.)
Depth	632mm (24.8 in.)
Weight (maximum w/rack kit)	18.6 kg (41.1 lbs.)
Mounting option	19-inch rackmount kit

Sun Fire X4100 M2 Server

	Up to two Next-Generation AMD Opteron 2000 Series processors, one MB Level 2 cache per core
	Four DIMM slots per CPU socket, DDR2/667 ECC registered DIMMs (128-bit plus ECC databus), total eight DIMM slots, up to 16 GB per CPU Three 8.0 GB/sec. Hypertransport links per processor and 10.7 GB/sec. access between each processor and memory
	Four 10/100/1000Base-T Ethernet ports
	One dedicated 10/100Base-T Ethernet port
	One TIA/EIA-232-F asynchronous RJ45 Port
	Four-channel SAS interface, internal access only
	One USB 2.0 port (front), two USB 2.0 ports (rear)
	Two internal low-profile eight-lane PCI-E slots
	<ul style="list-style-type: none"> Solaris™ 10 Operating System, 64-bit Red Hat Enterprise Linux 4.0, 64-bit Windows Server 2003, Enterprise Edition, 32-bit/64-bit Windows Server 2003, Standard Edition, 32-bit/64-bit Java Enterprise Services 4 Solaris 10 Operating System Standard Linux distributions C/C++, FORTRAN (Solaris OS on x64) Java™ programming language All other standard Sun-supported languages
	ONC™, ONC+, NFS, WebNFS™, TCP/IP, SunLink™, OSI, MHS, IPX™/SPX, SMB technologies, and XML
	ILOM Service Processor providing: DMTF CLP-based CLI over SSH, Web-based GUI over HTTPS/HTTP, IPMI 2.0, SNMP V1, v2c and v3, remote graphical access over Ethernet and remote storage over Ethernet <ul style="list-style-type: none"> N1 System Manager—discovering, grouping, bare metal provisioning, hardware monitoring, OS monitoring
	Hot-swappable, 2.5-inch SAS internal disks, RAID 0, 1 onboard, up to two HDDs with DVD-ROM/CD-RW, up to four HDDs without DVD-ROM/CD-RW
	90–264 V AC (47–63 Hz)
	-48 V DC or -60 V DC (10.4 A at -48 V DC, 8.3 A at -60 V DC), -48 V DC or -60 V DC (10.4 A at -48 V DC, 8.3 A at -60 V DC) ¹
	<ul style="list-style-type: none"> 5° C to 35° C (41° F to 95° F) 10 to 90 percent relative humidity Noncondensing, 27° C max. wet bulb
	<ul style="list-style-type: none"> -40° C to 65° C (-40° F to 149° F) Up to 93 percent relative humidity Noncondensing, 38° C max. wet bulb
	Up to 3,048m, maximum ambient temperature is derated by 1° C per 300m above 900m
	Up to 12,000m
	<ul style="list-style-type: none"> LwAd (1B = 10dB): 7.8 B at or below 25° C, 8.3 B at max. ambient LpAm bystander: 63 dB at or below 25° C, 67 dB at max. ambient Dual redundant, hot-swappable power supplies Maximum DC output: 550 W
	Meets or exceeds the following requirements
	IEC60950, UL/CSA60950, EN60950, CB scheme with all country differences
	FCC Class A, Part 15 47 CFR, EN55022, CISPR 22, EN300-386: v1.31, ICES-003
	EN55024, EN300-386:v1.3.2
	cULus Mark, TUV GS Mark, CE Mark, CCC, GOST R, S-Mark
	CE Mark (93/68/EEC), Emissions and Immunity Class A Emissions Levels: FCC, VCCI, C-Tick, MIC, CCC, GOST R, BSMI
	Labeled per WEEE (Waste Electrical and Electronic Equipment) directive
	43.8mm (1.72 in.)
	445mm (17.5 in.)
	632mm (24.8 in.)
	18.6 kg (41.1 lbs.)
	19-inch rackmount kit

¹ Coming soon.