

**Hardware and Software
Engineered to Work Together**

ORACLE'S FULL LINE OF INTEGRATED SERVER SYSTEMS

See Beyond the Limits

Many enterprises are managing demanding applications and accessing increasing amounts of data. You need computing power that matches your needs and budget, where and when it matters most. Oracle's Sun products and solutions can support your business needs from end to end, throughout the lifecycle of your datacenter.

More than 30 years of systems expertise and innovative thinking have gone into creating Sun servers. These systems are some of the most reliable, scalable, and energy-efficient systems in the industry. They are core building blocks for mission-critical enterprise computing, enterprise application environments, virtualization and cloud deployments. Oracle's complete portfolio of Sun servers, storage, systems software, and networking products are engineered to work together to deliver [record-breaking performance](#), simplified management, and cost-saving efficiencies.

The Right Solutions for Your Needs

The deployment of IT resources is vital to enterprises. You want to plan your IT projects carefully so that you can select the right servers, storage products, and infrastructure to make your network as efficient as possible. An open and scalable design approach lets you mix and match Sun compute,

storage, and network components so that all resources in the datacenter work as a powerful and integrated system, driving better efficiency across the IT infrastructure and supporting your business needs from end to end.

Optimized Solutions

Oracle's optimized solutions are applications-to-disk solutions comprised of Oracle's Sun servers, storage, and networking components, Oracle Solaris, Oracle Enterprise Linux, Oracle Database, Oracle Fusion Middleware and Oracle Applications. Oracle is the only company to provide the complete technology stack—engineering, tuning, and collaboration is done at every level.

Warranty Programs


Visit oracle.com/sun/warranty for information on Oracle's global warranty support for Sun products.



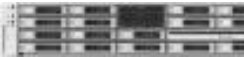
How to Use This Guide





This guide features all Oracle's servers, with each section listing the full line of products and their specifications.




Read the **Oracle's Full Line of Integrated Sun and StorageTek Storage Systems** to see all of Oracle's Sun storage products.

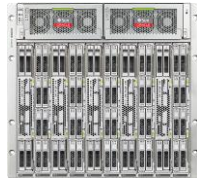

Sun Servers Product Guide

SPARC ENTERPRISE ENTRY-LEVEL				
				
Name	SPARC T3-1 Server	SPARC T3-2 Server	Sun SPARC Enterprise T5120 Server	Sun SPARC Enterprise T5220 Server
Processor/CPU s	16-core 1.65 SPARC T3 processors; one processor per system, max. 128 threads	16-core 1.65 SPARC T3 processors; two processors per system, max. 256 threads	4-core 1.2 GHz, 8-core 1.2 GHz, 8-core 1.4 GHz, or 8-core 1.6 GHz UltraSPARC T2 processors; one processor per system, max. 64 threads	4-core 1.2 GHz, 8-core 1.2 GHz, 8-core 1.4 GHz, or 8-core 1.6 GHz UltraSPARC T2 processors; one processor per system, max. 64 threads
Memory	Up to 128 GB	Up to 256 GB	Up to 128 GB	Up to 128 GB
Mass storage				
Internal disk	Up to eight or sixteen 300 GB 2.5 in. SAS drives, depending on selected backplane	Up to six 300 GB 2.5 in. SAS drives. Internal DVD: one slim SATA DVD+/-RW.	Up to eight 146 GB or 300 GB 2.5 in. SAS drives, depending on selected backplane or up to four 32 GB 2.5 in. SATA SSDs	Up to sixteen 146 GB or 300 GB 2.5 in. SAS drives, depending on selected backplane or up to eight 32 GB 2.5 in. SATA SSDs
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage	oracle.com/storage
Network	Four 10/100/1,000 Mb/sec Ethernet ports; up to 2x optional 10 GbE XAUI connections and six PCIe module slots	Four 10/100/1,000 Mb/sec Ethernet ports; up to 4x optional 10 GbE XAUI connections and 10 PCIe module slots	Four 10/100/1,000 Mb/sec Ethernet ports; up to 2x optional 10 GbE XAUI connections	Four 10/100/1,000 Mb/sec Ethernet ports; up to 2x optional 10 GbE XAUI connections
Power/cooling				
Power	Two hot-swappable AC 1200 W redundant (N+1) power supplies	Two hot-swappable AC 2000 W redundant (N+1) power supplies	Two hot-swappable AC 720 W "Climate Saver" power supply units, providing N+1 redundancy, come standard. Also available is a DC 660 W power supply unit.	Two hot-swappable AC 750 W or 1,100 W power supply units, providing N+1 redundancy. DC 1,200 W power supply units are also available.
Operating temperature	Sea level to 3,000 ft. (900 m): 41°F to 95°F (5°C to 35°C)	Sea level to 3,000 ft. (900 m): 41°F to 95°F (5°C to 35°C)	Sea level to 2,953 ft. (900 m): 41°F to 95°F (5°C to 35°C)	Sea level to 2,953 ft. (900 m): 41°F to 95°F (5°C to 35°C)
Nonoperating temperature	-40°F to 149°F (-40°C to 65°C); IEC 60068-2-1 Test Ab and 60068-2-2 Test Bb	-40°F to 149°F (-40°C to 65°C); IEC 60068-2-1 Test Ab and 60068-2-2 Test Bb	-40°F to 149°F (-40°C to 65°C); IEC 60068-2-1 Test Ab and 60068-2-2 Test Bb	-40°F to 149°F (-40°C to 65°C); IEC 60068-2-1 Test Ab and 60068-2-2 Test Bb
Rack units	2U	3U	1U	2U
Physical specifications				
Height	3.49 in. (88.65 mm)	5.11 in. (129.85 mm)	1.746 in. (44 mm)	3.49 in. (88 mm)
Width	17.6 in. (447 mm)	17.185 in. (436.5 mm)	16.75 in. (425 mm)	16.75 in. (425 mm)
Depth	26.5 in. (673.1 mm)	28.81 in. (732 mm)	28.125 in. (714 mm)	28.125 in. (714 mm)
Weight	Approximately 60 lb. (27.2 kg)	Approximately 80 lb. (36.28 kg)	Approximately 40 lb. (18 kg)	Approximately 55 lb. (25 kg)
Operating system	Oracle Solaris 10 9/10 Support for Solaris 10 10/09 (U8) + MU9 (Maintenance Update 9)	Oracle Solaris 10 9/10 Support for Solaris 10 10/09 (U8) + MU9 (Maintenance Update 9)	Oracle Solaris 10 8/07, Oracle Solaris 10 5/08, Oracle Solaris 10 10/08, Oracle Solaris 10 5/09, Oracle Solaris 10 10/09	Oracle Solaris 10 8/07, Oracle Solaris 10 5/08, Oracle Solaris 10 10/08, Oracle Solaris 10 5/09, Oracle Solaris 10 10/09
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty




SPARC ENTERPRISE ENTRY-LEVEL			
			
Name	Sun SPARC Enterprise M3000 Server	Sun SPARC Enterprise T5140 Server	Sun SPARC Enterprise T5240 Server
Processor/CPU s	Quad-core or dual-core 2.75 GHz SPARC64 VII processor; one processor per system; two simultaneous threads per core	4-, 6-, and 8-core 1.2-GHz or 8-core 1.4-GHz UltraSPARC T2 Plus processors; two processors per system, max. 128 threads	4-, 6-, and 8-core 1.2 GHz, 8-core 1.4 GHz, 8-core 1.6 GHz UltraSPARC T2 Plus processors; two processors per system, max. 128 threads
Memory	Up to 64 GB	Up to 128 GB	Up to 256 GB
Mass storage			
Internal disk	Up to four 300 GB SAS disks	Up to eight 146 GB or 300 GB 2.5 in. SAS drives, depending on selected backplane or up to four 32 GB 2.5 in. SATA SSDs	Up to sixteen 146 GB or 300 GB 2.5 in. SAS drives, depending on selected backplane or up to eight 32 GB 2.5 in. SATA SSDs
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage
Network	Four GbE ports	Four 10/100/1,000 Mb/sec Ethernet ports; up to 2x optional 10 GbE XAUI connections	Four 10/100/1,000 Mb/sec Ethernet ports; up to 2x optional 10 GbE XAUI connections
Power/cooling			
Power	Up to two hot-swappable power supply units	Two hot-swappable AC 760 W or DC 660 W power supply units, providing N+1 redundancy	Two hot-swappable AC 1,100 W power supply units, providing N+1 redundancy. Also available are DC 1,200 W power supply units.
Operating temperature	At sea level: 41°F to 95°F (5°C to 35°C)	Sea level to 3,000 ft. (900 m): 41°F to 95°F (5°C to 35°C)	Sea level to 3,000 ft. (900 m): 41°F to 95°F (5°C to 35°C)
Nonoperating temperature	-4°F to 140°F (-20°C to 60°C), 93% relative humidity, noncondensing	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)
Rack units	2U	1U	2U
Physical specifications			
Height	3.43 in. (87 mm)	1.746 in. (44 mm)	3.49 in. (88 mm)
Width	16.77 in. (426 mm)	16.75 in. (425 mm)	16.75 in. (425 mm)
Depth	25.91 in. (658 mm)	28.125 in. (714 mm)	28.125 in. (714 mm)
Weight	Max. 55.12 lb. (25 kg)	37 lb. (16.78 kg)	52.5 lb. (23.81 kg)
Operating system	Minimum OS support: Solaris 10 10/08 (Update 6 or higher) Note: Solaris 10 10/08 (Updates 6, 7, 8) requires no patches for 2.75GHz support	Oracle Solaris 10 8/07, Oracle Solaris 10 5/08, Oracle Solaris 10 10/08, Oracle Solaris 10 5/09, Oracle Solaris 10 10/09	Oracle Solaris 10 8/07, Oracle Solaris 10 5/08, Oracle Solaris 10 10/08, Oracle Solaris 10 5/09, Oracle Solaris 10 10/09
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty



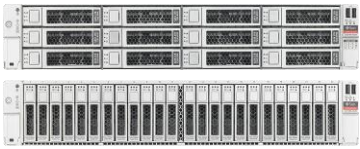
SPARC ENTERPRISE MID-RANGE				
				
Name	SPARC T3-4 Server	Sun SPARC Enterprise T5440 Server	Sun SPARC Enterprise M4000 Server	Sun SPARC Enterprise M5000 Server
Processor/CPUs	Two or four SPARC T3 processors at 1.65 GHz, 16 cores per processor.	One to four UltraSPARC T2 Plus processors per system. Max. 256 threads; 8-core 1.2 GHz, 1.4 GHz, or 1.6 GHz	Mix and match up to four SPARC64 VI dual-core or SPARC64 VII/VII+ quad-core processors; SPARC64 VI: 2.15 GHz with 5MB of L2\$; SPARC64 VII: 2.53 GHz with 5.5MB of L2\$; SPARC64 VII+: 2.66 GHz with 11MB of L2\$	Mix and match up to eight SPARC64 VI dual-core or SPARC64 VII/VII+ quad-core processors; SPARC64 VI: 2.15 GHz; SPARC64 VII: 2.53 GHz; SPARC64 VII+: 2.66 GHz
Memory	Up to 512 GB	Up to 512 GB	Up to 256 GB	Up to 512 GB
Mass storage				
Internal disk	Up to eight 300 GB 2.5 in. SAS drives	Up to four 146 GB or 300 GB 2.5 in. SAS drives or up to four 32 GB 2.5 in. SATA SSDs	Up to two 2.5 in. SAS boot disks	Up to four internal 2.5 in. SAS boot disks
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage	oracle.com/storage
Network	Two optional QSFP ports (10G XAUI network), four 1G network ports (two Kawela NICs) and 16 PCIe module slots	Four 10/100/1,000 Mb/sec Ethernet ports; up to 2x optional 10 GbE XAUI connections, four 8-lane PCIe, two 8-lane PCIe slots with 16-lane connectors and two additional 8-lane PCIe or 10 Gb/sec Ethernet expansion slots	Two GbE; up to four PCIe slots, one PCI-X slot; up to 25 PCIe or PCI-X slots with external I/O expansion unit	Two GbE; up to eight PCIe slots, two PCI-X slots; up to 50 PCIe or PCI-X slots with external I/O expansion unit
Power/cooling				
Power	Four hot-swappable AC 2,060 W redundant (2 + 2) power supplies	Four hot-swappable AC 1,120 W redundant (2 + 2) power supply units	100–240 V AC; two power cords	100–240 V AC; four power cords
Operating temperature	Sea level to 3,000 ft. (900 m): 41°F to 95°F (5°C to 35°C)	41°F to 95°F (5°C to 35°C)	41°F to 95°F (5°C to 35°C)	41°F to 95°F (5°C to 35°C)
Nonoperating temperature	-40°F to 149°F (-40°C to 65°C), maximum altitude 40,000 ft.	-40°F to 149°F (-40°C to 65°C)	-4°F to 140°F (-20°C to 60°C)	-4°F to 140°F (-20°C to 60°C)
Rack units	5U	4U	6U	10U
Physical specifications				
Height	8.62 in. (219 mm)	6.92 in. (176 mm)	10.34 in. (26.3 cm)	17.33 in. (44.02 cm)
Width	17.5 in. (445 mm)	17.5 in. (445 mm)	17.48 in. (44.4 cm)	17.33 in. (44 cm)
Depth	27.6 in. (700 mm)	24.9 in. (633 mm)	31.9 in. (81 cm)	31.9 in. (81 cm)
Weight	Max. 175 lb. (79 kg)	Approximately 88 lb. (40 kg)	185 lb. (84 kg)	275 lb. (125 kg)
Operating system	Oracle Solaris 10 9/10 Support for Solaris 10 10/09 (U8) + MU9 (Maintenance Update 9)	Oracle Solaris 10 OS 8/07 plus patches or later	SPARC64 VII+ (2.66GHz): Solaris 10 (8/07) or later; SPARC64 VII (2.53GHz): Solaris 10 8/07) or later; SPARC64 VI (2.15GHz): Solaris 10 (11/06) or later	SPARC64 VII+ (2.66GHz): Solaris 10 (8/07) or later; SPARC64 VII (2.53GHz): Solaris 10 (8/07) or later; SPARC64 VI (2.15GHz): Solaris 10 (11/06) or later
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty


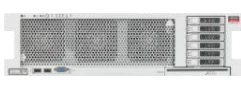

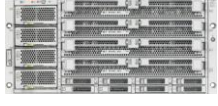
SPARC ENTERPRISE HIGH-END			
			
Name	Sun SPARC Enterprise M8000 Server	Sun SPARC Enterprise M9000 Server—32 CPU	Sun SPARC Enterprise M9000 Server—64 CPU
Processor/CPUs	Mix and match up to 16 SPARC64 VI dual-core or SPARC64 VII/VII+ quad-core processors; SPARC64 VI: 2.28 GHz to 2.4 GHz with 5MB or 6MB of L2\$; SPARC64 VII: 2.88 GHz with 6MB of L2\$; SPARC64 VII+: 3.0 GHz with 12MB of L2\$	Mix and match up to 32 SPARC64 VI dual-core or SPARC64 VII/VII+ quad-core processors; SPARC64 VI: 2.28 GHz to 2.4 GHz with 5MB or 6MB of L2\$; SPARC64 VII: 2.88 GHz with 6MB of L2\$; SPARC64 VII+: 3.0 GHz with 12MB of L2\$	Mix and match up to 64 SPARC64 VI dual-core or SPARC64 VII/VII+ quad-core processors; SPARC64 VI: 2.28 GHz to 2.4 GHz with 5MB or 6MB of L2\$; SPARC64 VII: 2.88 GHz with 6MB of L2\$; SPARC64 VII+: 3.0 GHz with 12MB of L2\$
Memory	Up to 1 TB	Up to 2 TB	Up to 4 TB
Mass storage			
Internal disk	Up to 16 internal 2.5 in. SAS boot disks, four per IOU	Up to 32 internal 2.5 in. SAS boot disks, four per IOU	Up to 64 internal 2.5 in. SAS boot disks, four per IOU
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage
Optical drive	N/A	N/A	N/A
Network	Up to 32 PCIe slots per system; up to 112 PCIe or PCI-X slots with the optional external I/O expansion unit	Up to 64 PCIe slots per system; up to 224 PCIe or PCI-X slots with the optional external I/O expansion unit	Up to 128 PCIe slots per system; up to 288 PCIe or PCI-X slots with the optional external I/O expansion unit
Power/cooling			
Power	200–240 V AC single-phase, three 30 A power cords; 208 V AC 3-phase DELTA, two 50 A direct-wired power connections; 415 V AC 3-phase, two 30 A direct-wired power connections, double power cords for dual power grid support	200–240 V AC single-phase, five 30 A power cords; 208 V AC 3-phase DELTA, two 50 A direct-wired power connections; 415 V AC 3-phase, two 30 A direct-wired power connections, double power cords for dual power grid support	200–240 V AC single-phase, five 30 A power cords; 208 V AC 3-phase DELTA, two 50 A direct-wired power connections; 415 V AC 3-phase, two 30 A direct-wired power connections, double power cords for dual power grid support
Operating temperature	41°F to 89.6°F (5°C to 32°C)	41°F to 89.6°F (5°C to 32°C)	41°F to 89.6°F (5°C to 32°C)
Nonoperating temperature	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)
Rack units	N/A	N/A	N/A
Physical specifications			
Height	70.9 in. (180 cm)	70.9 in. (180 cm)	70.9 in. (180 cm)
Width	29.5 in. (75 cm)	33.5 in. (85 cm)	65.9 in. (167.4 cm)
Depth	49.6 in. (126 cm)	49.6 in. (126 cm)	49.6 in. (126 cm)
Weight	1,543 lb. (700 kg)	2,072 lb. (940 kg)	4,145 lb. (1,880 kg)
Operating system	SPARC64 VI (2.28 GHz, 2.4 GHz): Oracle Solaris 10 11/06 or later; SPARC64 VII (2.88 GHz) and SPARC64 VII+ (3.0 GHz): Oracle Solaris 10 10/08 or Oracle Solaris 10 8/07 with the Oracle Solaris 10 10/09 Patch Bundle and the Sun Alert Patch Cluster	SPARC64 VI (2.28 GHz, 2.4 GHz): Oracle Solaris 10 11/06 or later; SPARC64 VII (2.88 GHz) and SPARC64 VII+ (3.0 GHz): Oracle Solaris 10 10/08 or Oracle Solaris 10 8/07 with the Oracle Solaris 10 10/09 Patch Bundle and the Sun Alert Patch Cluster	SPARC64 VI (2.28 GHz, 2.4 GHz): Oracle Solaris 10 11/06 or later; SPARC64 VII (2.88 GHz) and SPARC64 VII+ (3.0 GHz): Oracle Solaris 10 10/08 or Oracle Solaris 10 8/07 with the Oracle Solaris 10 10/09 Patch Bundle and the Sun Alert Patch Cluster
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty




BLADE MODULAR SYSTEMS*		
		
Name	Sun Blade 6000 Chassis	Sun Blade Storage Module M2
Processor/CPUs	UltraSPARC, Intel Xeon	N/A Each module provides up to 2.4 TB of storage, up to 21.6 TB of storage per Sun Blade 6000 chassis
Memory	Up to 256 GB on a single blade/up to 2.56 TB per chassis	N/A
Mass storage		
Internal disk	Sun Blade Storage Module M2	<ul style="list-style-type: none"> Up to eight small form factor 2.5" hard disk drives per storage module with SAS-2 interface
External disk and tape	oracle.com/storage	oracle.com/storage
Network	Each server module has a direct connection to two PCIe Express Modules for discrete I/O connectivity and two Network Express Modules for aggregate I/O connectivity	N/A
Power/cooling		
Power	Power (n+n) high-efficiency, hot-swappable, load-sharing, load-balancing power supplies	N/A; function of chassis
Operating temperature	41° F to 90° F (5° C to 32° C)	5° to 45° C
Nonoperating temperature	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)
Rack units	10U	N/A
Physical specifications		
Height	17.25 in. (438.15 mm)	1.7 in. (44 mm)
Width	17.50 in. (444.50 mm)	12.87 in. (327 mm)
Depth	27.25 in. (692.15 mm)	20.16 in. (512 mm)
Weight	350 lb. (159 kg) fully configured	Empty: 14.5 lb. (6.59 kg) Loaded: 16.3 lb. (7.41 kg)
Operating system	Function of the Server Modules	Oracle Solaris, Oracle Linux, Red Hat Enterprise Linux, SUSE Enterprise Linux, VMware, Microsoft Windows Server
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty



*Sun's Blade Modular Systems are offered with a range of high performance, low latency networking products including switched and pass-thru Network Express Modules and PCIe ExpressModules. For additional blades networking information please see <http://www.oracle.com/goto/networking>.




BLADE SERVER MODULES			
			
Name	SPARC T3-1B Server	Sun Blade X6270 M2 Server Module	Sun Blade X6275 M2 Server Module
Processor/ CPUs	One eight-core 64 thread, or one sixteen-core 128 thread 1.6GHz SPARC T3 processor	Intel Xeon (up to 3.33 GHz)/up to two CPUs, up to 12 cores	Intel Xeon (2.93 GHz)/up to 4 CPUs per blade with 2 per node, up to 16 cores per blade with 8 per node. . Each blade holds two physically-separate servers (compute nodes) with 2 CPUs per server
Memory	Up to 128 GB	Up to 144 GB	Up to 192 GB
Mass storage			
Internal disk	Eight SAS2.0 interfaces using LSI SAS2008 Controller	<ul style="list-style-type: none"> Four SAS interfaces to the midplane, two to each NEM Four hot-swappable SFF 2.5" drive bays One USB 2.0 Media Port Flash Solid State Disks 	One 3 Gb/sec SATA interface to a Sun Flash Module (per compute node)
External disk and tape	<ul style="list-style-type: none"> Sun Blade Storage Module M2 oracle.com/storage 	oracle.com/storage	oracle.com/storage
Network	Two 10/100/1000 Base-T Ethernet ports using the Intel 82571ED GbE transceiver	<ul style="list-style-type: none"> Two 10/100/1,000Base-T Ethernet ports One dedicated 10/100Base-T Ethernet port for the management network 	<ul style="list-style-type: none"> One 4x QDR IB port to the NEM slot (per compute node) — Sun Blade X6275 IB Model One 10/100/1,000Base-T Ethernet port (per compute node) using the Intel 82567 GbE Controller One (shared) 10/100Base-T Ethernet port for the management network One (x8) PCIe 2.0 link (per compute node) to a PCIe Express Module slot
Power/cooling			
Power	N/A; function of chassis	N/A; function of chassis	N/A; function of chassis
Operating temperature	Sea level to 3,000 ft. (900 m): 41°F to 95°F (5°C to 35°C)	41°F to 90°F (5°C to 32°C)	41°F to 90°F (5°C to 32°C)
Non-operating temperature	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)
Rack units	N/A	N/A	N/A
Physical specifications			
Height	1.75 in. (44.45 mm)	12.87 in. (327 mm)	12.87 in. (327 mm)
Width	12.88 in. (327.15 mm)	1.7 in. (44 mm)	1.7 in. (44 mm)
Depth	19.56 in. (496.82 mm)	20.16 in. (512 mm)	20.16 in. (512 mm)
Weight	Max 18 lb. (8.3 kg)	17.4 lb. (7.9 kg)	20.61 lb. (9.4 kg) max.
Operating system	Oracle Solaris 10 9/10 Support for Solaris 10 10/09 (U8) + MU9 (Maintenance Update 9)	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Microsoft Windows Server	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Enterprise Linux, VMware, Microsoft Windows Server
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty




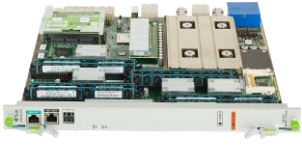
	X86 ENTRY LEVEL	X86 ENTERPRISE LEVEL	
			
Name	Sun Fire X2270 M2 Server	Sun Fire X4170 M2 Server	Sun Fire X4270 M2 Server
Processor/CPU s	One or two Intel Xeon Processors 5600 Series	One or two Intel Xeon Processors 5600 Series	One or two Intel Xeon Processors 5600 Series
Memory	12 DDR3 DIMM slots (6 DIMM slots per CPU socket); supports from 4 GB (1 x 4 GB) to 96 GB (12 x 8 GB) of memory	18 DDR3 DIMM slots (9 DIMM slots per CPU socket); supports from 4 GB (1 x 4 GB) to 144 GB (18 x 8 GB) of memory	18 DDR3 DIMM slots (9 DIMM slots per CPU socket); supports from 4 GB (1 x 4 GB) to 144 GB (18 x 8 GB) of memory
Mass storage			
Internal disk	<ul style="list-style-type: none"> Up to four hot-swappable 3.5 in. SATA disk drives Up to four hot-swappable 3.5 in. SSDs, 	<ul style="list-style-type: none"> Up to eight hot-swappable 2.5 in. SAS - 2/SATA-2 HDDs Up to eight hot-swappable 2.5 in. SATA-2 SSDs, 	<ul style="list-style-type: none"> Up to twelve hot-swappable 3.5 in. SAS-2 HDDs Up to twelve hot-swappable 3.5 in. SATA-2 SSDs Up to twenty-four hot-swappable 2.5 in. SAS-2/SATA-2 HDDs Up to twenty-four hot-swappable 2.5 in. SATA-2 SSDs
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage
Graphics	VGA 8MB – 1600x1200 @ 60Hz	VGA 2D graphics controller embedded	VGA 2D graphics controller embedded
Network	One 10/100/1,000Base-T Ethernet ports, one serial RJ-45 port, one PCIe 2.0 slot	Four 10/100/1,000Base-T Ethernet ports, one serial RJ-45 port, three PCIe 2.0 slot	Four 10/100/1,000Base-T Ethernet ports, one serial RJ-45 port, six PCIe 2.0 slot
Power/cooling			
Power	Single nonredundant power supply: 100–240 V AC	Dual redundant, hot-swappable power supply: 100 V AC	Dual redundant, hot-swappable power supply: 100 V AC
Operating temperature	41°F to 95°F (5°C to 35°C)	41°F to 95°F (5°C to 35°C), 10% to 90% relative humidity, noncondensing	41°F to 95°F (5°C to 35°C), 10% to 90% relative humidity, noncondensing
Nonoperating temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C), up to 93% relative humidity, noncondensing	-40°F to 158°F (-40°C to 70°C), up to 93% relative humidity, noncondensing
Rack units	1U	1U	2U
Physical specifications			
Height	1.71 in. (43.43 mm)	1.71 in. (43.43 mm)	3.43 in. (87.12 mm)
Width	17.2 in. (436 mm)	16.75 in. (425.45 mm)	16.75 in. (425.45 mm)
Depth	25.6 in. (650 mm)	30.0 in. (685.8 mm)	30.0 in. (762 mm)
Weight	Max Weight: 30.61 lb. (13.9 kg)	Max Weight: 36 lb. (16.36 kg)	Max Weight: 65 lb. (29.54 kg)
Operating system	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Enterprise Linux, VMware, Microsoft Windows Operating System	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Enterprise Linux, VMware, Microsoft Windows Operating System	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Enterprise Linux, VMware, Microsoft Windows Operating System
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty





X86 ENTERPRISE LEVEL				
				
Name	Sun Fire X4470 M2 Server	Sun Fire X4470 Server	Sun Fire X4800 M2 Server	Sun Fire X4800 Server
Processor/CPU	Two or four Intel Xeon processor E7-4800 product family	Two or four Intel Xeon Processors 7500 Series	Two or four CPU Modules, each with two Intel® Xeon® processors E7-8800 product family	Two or four CPU Modules, each with two Intel® Xeon® processors 7500 Series
Memory	<ul style="list-style-type: none"> Up to 64 DIMMs (16 DIMMs per processor) 4GB, 8GB and 16GB DDR3 ECC Registered DIMMs 2 memory riser cards required per processor Maximum memory capacity of 1 TB 	64 DDR3 DIMM slots (16 DIMM slots per CPU socket); supports from 16 GB (8 x 2 GB) to 512 GB (64 x 8 GB) of memory	<ul style="list-style-type: none"> 128 DDR3 DIMM slots for 4 GB, 8 GB and 16 GB DDR3-1066 MHz low voltage DIMMs Maximum Memory capacity of 2 TB 	<ul style="list-style-type: none"> 128 DDR3 DIMM slots Maximum Memory capacity of 1 TB
Internal disk	Six 2.5" SATA-2 front accessible hot swappable disk bays	<ul style="list-style-type: none"> Six hot-swappable 2.5 in. SAS-2 HDDs Six hot-swappable 2.5 in. SATA-2 SSDs 	Eight hot-swappable 2.5-inch SAS-2 HDDs or eight 2.5-inch SSDs for up to 4.8 TB of internal storage	Eight hot-swappable 2.5-inch. SAS-2 HDDs for up to 2.4 TB of internal storage
External disk and tape	Oracle.com/storage	Oracle.com/storage	oracle.com/storage	oracle.com/storage
Graphics	VGA 2D graphics controller embedded	VGA 2D graphics controller embedded	VGA 2D graphics controller embedded	VGA 2D graphics controller embedded
Network	<ul style="list-style-type: none"> Four 10/100/1000Base-T on board Ethernet ports One dedicated 10/100Base-T Ethernet management port One asynchronous RJ45 serial port Ten PCI Express slots 	Four integrated 10/100/1,000Base-T Ethernet ports, one serial RJ-45 port, ten PCIe 2.0 slot	Two hot-swappable Network Express Modules; each provides: <ul style="list-style-type: none"> Four 10GbE network ports via SFP+ connectors Four 1GbE network ports via RJ-45 connectors Two x4 mini SAS-2 ports 	Two hot-swappable Network Express Modules; each provides: <ul style="list-style-type: none"> Four 10GbE network ports via SFP+ connectors Four 1GbE network ports via RJ-45 connectors Two x4 mini SAS-2 ports
Power	Dual-redundant, hot-swappable power supplies; 100-240 V AC	Dual-redundant, hot-swappable power supplies; 100-240 V AC	Four redundant, hot-swappable, front accessible power supplies: 200–240 V AC	Four redundant, hot-swappable, front accessible power supplies: 200–240 V AC
Operating temperature	41°F to 95°F (5°C to 35°C)	41°F to 95°F (5°C to 35°C)	4°F to 95°F (5°C to 35°C)	4°F to 95°F (5°C to 35°C)
Nonoperating temperature	-40°F to 154°F (-40°C to 68°C)	-40°F to 154°F (-40°C to 68°C)	40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Rack units	3U	3U	5U	5U
Height	5.1 in (129.85 mm)	5.1 in (129.85 mm)	8.61 in. (218.75 mm)	8.61 in. (218.75 mm)
Width	17.2 in. (436.5 mm)	17.2 in. (436.5 mm)	17.5 in. (445 mm)	17.5 in. (445 mm)
Depth	28.8 in. (732 mm)	28.8 in. (732 mm)	27.56 in. (700 mm)	27.56 in. (700 mm)
Weight	Max Weight: 85 lb. (38.5 kg)	Max Weight: 85 lb. (38.5 kg)	Max Weight: 180 lb. (81.65 kg)	Max Weight: 180 lb. (81.65 kg)
Operating system	Oracle Solaris, Oracle Linux, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, Microsoft Windows Server; Virtualization: Oracle VM, VMware	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Microsoft Windows Operating System	Oracle Solaris, Oracle Linux, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, Microsoft Windows Server; Virtualization: Oracle VM, VMware	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Microsoft Windows Operating System
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty

NETRA CARRIER-GRADE ULTRASPARC RACKMOUNT			
			
Name	Sun Netra T5220 Server	Sun Netra T5440 Server	Netra SPARC T3-1 Server
Processor/CPUs	UltraSPARC T2 (1.2 GHz)/1 CPU, up to 8 cores	UltraSPARC T2 Plus (1.2 and 1.4 GHz)/2 CPUs, up to 16 cores	SPARC T3 (1.65 GHz)/ 1 CPU, 16 cores
Memory	Up to 64 GB	Up to 256 GB	Up to 128 GB
Mass storage			
Internal disk	Up to four SAS disks with no DVD-RW, or up to two SAS disks with DVD-RW	Up to twelve 2.5 in. SAS HDDs	Up to four 2.5 in. SAS-2 disks
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage
Optical drive	One DVD+/-RW drive	One DVD+/-RW drive	One DVD+/-RW drive
Network	Four 10/100/1,000 Mb/sec Ethernet ports, up to 2x optional 10 GbE XAUI connections	Four 10/100/1,000 Mb/sec Ethernet ports, up to 2x optional 10 GbE XAUI connections	Four 10/100/1,000 Mb/sec Ethernet ports, up to 2x optional 10 GbE XAUI connections
PCI slots	3 PCIe (1x FH/FL) and 2 PCI-X (FH, 1x FL, 1x HL)	2 PCI-X (FH/FL) and 8 PCIe (2x FH/FL) slots	5 PCIe support both G1 or G2 low profile PCIe cards (x8 electrical, x8 mechanical)
Power/cooling			
Power	DC: -48 V DC or -60 V AC: 100–240 V AC, 50–60 Hz	DC: -48 V DC or -60 V AC: 100–240 V AC, 50–60 Hz	DC: -48 V DC or -60 V AC: 100–240 V AC, 50–60 Hz
Operating temperature	41°F to 104°F (5°C to 40°C)	41°F to 104°F (5°C to 40°C)	41°F to 104°F (5°C to 40°C)
Nonoperating temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Rack units	2U	4U	2U
Physical specifications			
Height	3.43 in. (87.1 mm)	6.86 in. (174.2 mm)	3.43 in. (87.1 mm)
Width	17.52 in. (445 mm)	17.52 in. (445 mm)	17.52 in. (445 mm)
Depth	20.71 in. (526 mm)	20.87 in. (530 mm)	20.71 in. (526 mm)
Weight	38.5 lb. (17.5 kg)	72.6 lb. (33 kg)	41 lb. (18.6 kg)
Operating system	Oracle Solaris	Oracle Solaris	Oracle Solaris
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty

NETRA CARRIER-GRADE X86 RACKMOUNT		
		
Name	Sun Netra X4250 Server	Sun Netra X4270 Server
Processor/CPUs	Intel Xeon (2.3 GHz)/up to 2 CPUs, up to 8 cores	Intel Xeon (2.13 GHz)/up to 2 CPUs, up to 8 cores
Memory	Up to 64 GB	Up to 144 GB
Mass storage		
Internal disk	Up to four SAS disks with no DVD-R/W, or up to two SAS disks with DVD-R/W	Up to four SAS disks with no DVD-R/W, or up to two SAS disks with DVD-R/W
External disk and tape	oracle.com/storage	oracle.com/storage
Optical drive	One DVD+/-RW drive	One DVD+/-RW drive
Network	Four 10/100/1,000 Mb/sec Ethernet ports	Four 10/100/1000 Mbps Ethernet
PCI slots	3 PCIe (1x FH/FL) and 2 PCI-X (FH, 1x FL, 1x HL)	<ul style="list-style-type: none"> • Two PCIe slots for full-height, full-length cards • Four PCIe slots for MD2 low-profile cards
Power/cooling		
Power	DC: -48 V DC or -60 V AC: 100–240 V AC, 50–60 Hz	DC: -48 V DC or -60 V AC: 100–240 V AC, 50–60 Hz
Operating temperature	41°F to 104°F (5°C to 40°C), short term 23°F to 131°F (-5°C to 55°C)	41°F to 104°F (5°C to 40°C), short term 23°F to 131°F (-5°C to 55°C)
Nonoperating temperature	40°F to 158°F (-40°C to 70°C)	40°F to 158°F (-40°C to 70°C)
Rack units	2U	2U
Physical specifications		
Height	3.43 in. (87.1 mm)	3.43 in. (87.1 mm)
Width	17.52 in. (445 mm)	17.52 in. (445 mm)
Depth	20.71 in. (526 mm)	20.71 in. (526 mm)
Weight	38.5 lb. (17.5 kg)	38.5 lb. (17.5 kg)
Operating system	Oracle Solaris, Red Hat Enterprise Linux, SUSE Enterprise Linux, VMware, Microsoft Windows Server	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Enterprise Linux, VMware, Microsoft Windows
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty

NETRA CARRIER-GRADE ENTERPRISE BLADE SERVERS			
			
Name	Sun Netra 6000 Chassis	Netra SPARC T3-1B Server Module	Sun Netra X6270 M2 Server Module
Processor/CPUs	UltraSPARC, Intel Xeon	One eight-core or 16-core SPARC T3 processor (1.6GHz)	Two Intel Xeon 5600 series Processors (L5638 6-core 60 watt, 2.0 GHz)
Memory	Up to 256 GB on a single blade/up to 2.56 TB per chassis	Up to 256 GB	Up to 144 GB
Mass storage			
Internal disk	N/A	<ul style="list-style-type: none"> Four SAS interfaces to the midplane Support drive with 300 GB 10,000 rpm SAS 	<ul style="list-style-type: none"> Four SAS-2 interfaces to the midplane, two to each Network Express Module slot Four hot swappable Small Form Factor (SFF) 2.5" drive bays
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage
Network	Each server module has a direct connection to two PCIe Express Modules for discrete I/O connectivity and two Network Express Modules for aggregate I/O connectivity	<ul style="list-style-type: none"> Two 10/100/1,000Base-T Ethernet ports using the Intel 82571EB GbE transceiver One dedicated 10/100Base-T Ethernet port for the management network 	<ul style="list-style-type: none"> Two 10/100/1,000Base-T Ethernet ports One dedicated 10/100Base-T Ethernet port for the management network
PCI slots		Up to 20 ExpressModules per chassis	Up to 20 ExpressModules per chassis
Power/cooling			
Power	Power (n+n) high-efficiency, hot-swappable, load-sharing, load-balancing power supplies	N/A; function of chassis	N/A; function of chassis
Operating temperature	41°F to 113°F (5°C to 45°C)	41°F to 90°F (5°C to 32°C)	41°F to 90°F (5°C to 32°C)
Nonoperating temperature	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)
Rack units	10U (AC) or 11RU (DC)	N/A	N/A
Physical specifications			
Height	AC: 17.25 in. (43.8 cm) / DC: 19 in. (48.2 cm)	1.75 in. (44.45 mm)	12.87 in. (327 mm)
Width	AC/DC : 17.50 in. (444.50 mm)	12.88 in. (327.15 mm)	1.7 in. (44 mm)
Depth	AC/DC: 27.25 in. (692.15 mm)	19.56 in. (496.82 mm)	20.16 in. (512 mm)
Weight	AC: 360 lb (163 kg) / DC: 368 lb (167 kg)	20 lb. (9.1 kg)	17.4 lb. (7.9 kg)
Operating system	Function of the Server Modules	Oracle Solaris	Oracle Solaris, Oracle Linux, Oracle VM, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Microsoft Windows Server
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty

NETRA CARRIER-GRADE ATCA BLADES				
				
Name	Sun Netra CT900 ATCA Blade Server	Sun Netra CP3060 ATCA Blade Server	Sun Netra CP3260 ATCA Blade Server	Netra SPARC T3-1BA ATCA Blade Server
Processor/CPUs	UltraSPARC, AMD Opteron, Intel Xeon	UltraSPARC T1 (1.0 GHz)/up to 1 CPU, up to 8 cores	UltraSPARC T2 Plus (1.2 GHz)/up to 1 CPU, up to 8 cores	SPARC T3 (1.4 GHz) one CPU, up to 12 cores
Memory	N/A; memory resides on blades	Up to 16 GB	Up to 32 GB	Up to 32 GB
Mass storage				
Internal disk	HDD resides on the blades	AMC.3 80 GB HDD	Dual SAS on rear RTM with support for two hot-swappable 300 GB HDDs	1x AdvanceRTM
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage	oracle.com/storage
Network	<ul style="list-style-type: none"> Dual 10/100+ 1,000Base-T Ethernet ports; support for 16 G or 10 G switch fabric Support for 1 G or 10 G switch fabric 	<ul style="list-style-type: none"> Dual 10/100/1,000Base-T Ethernet base fabric interfaces Dual 1,000Base-T Ethernet extended fabric interfaces 	Eight Ethernet channels: two 1 G channels for base fabric, two 1 G or 10 G for extended fabric, three 1 G for Zone 3 (ARTM implementation-specific), one for front panel (1 G)	Two GbE channels for base fabric, two 10 GbE channels for extended fabric, two RS-232 serial ports routed to the front and rear, two USB ports
Power/cooling				
Power	DC: -48 V DC or -60 V	Power is a function of the Netra CT900	Power is a function of the Netra CT900	Power is a function of the Netra CT900
Operating temperature	41°F to 104°F (5°C to 40°C); short term 23°F to 131°F (-5°C to 55°C)	41°F to 104°F (5°C to 40°C); short term 23°F to 131°F (-5°C to 55°C)	41°F to 104°F (5°C to 40°C); short term 23°F to 131°F (-5°C to 55°C)	41°F to 104°F (5°C to 40°C); short term 23°F to 131°F (-5°C to 55°C)
Nonoperating temperature	40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Rack units	12U (14-slot)	N/A (ATCA Blade)	N/A (ATCA Blade)	N/A (ATCA Blade)
Physical specifications				
Height	21 in. (533 mm)	12.7 in. (322.25 mm)	12.7 in. (322.25 mm)	12.7 in. (322.25 mm)
Width	17.7 in. (444 mm)	11 in. (280 mm)	11 in. (280 mm)	11 in. (280 mm)
Depth	19 in. (482 mm)	1.18 in. (30 mm)	1.18 in. (30 mm)	1.18 in. (30 mm)
Weight	150 lb. (69 kg)	15 lb. (7 kg)	15 lb. (7 kg)	15 lb. (7 kg)
Operating system	Function of the Blades	Oracle Solaris	Oracle Solaris	Oracle Solaris
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty

NETRA CARRIER-GRADE ATCA BLADES				
				
Name	Sun Netra CP3020 ATCA Blade Server	Sun Netra CP3220 ATCA Blade Server	Sun Netra CP3250 ATCA Blade Server	Sun Netra CP3270 ATCA Blade Server
Processor/CPU s	AMD Opteron (1.8 GHz)/up to 1 CPU, up to 2 cores	AMD Opteron (1.8 GHz)/up to 1 CPU, up to 4 cores	Intel Xeon (2.13 GHz)/up to 2 CPU, up to 8 cores	Intel Xeon (1.73GHz)/2 CPUs, four cores, 16 threads
Memory	Up to 8 GB	Up to 32 GB	Up to 24 GB	Up to 32 GB
Mass storage				
Internal disk	Two 2.5 in. SAS drives	Dual SAS on rear RTM with support for two hot-swappable 300 GB HDDs as well as SAS HDD support through dual AMC sites	Dual SAS on rear RTM with support for two hot-swappable 300-GB HDDs as well as SAS HDD support through AMC site	Dual SAS on rear RTM with support for two hot-swappable 300-GB HDDs as well as SAS HDD support through AMC site
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage	oracle.com/storage
Network	Two 10/100/1,000Base-T management ports, two 1,000Base-T base fabric, two 1000-series extended fabric; one RS-232C serial port, parallel N/A	Two GbE channels: two channels for base fabric, two 10 GbE channels for extended fabric, two RS-232 serial ports routed to the front and rear, 10 Gb/sec XAUI Ethernet (eight-lane PCIe)	Two GbE channels for base fabric, two 1 GbE and 10 GbE channels for extended fabric, two RS-232 serial ports routed to the front and rear	Two GbE channels for base fabric; two 10 GbE channels for extended fabric; two RS-232 serial ports routed to the front and rear; two USB ports
Power/cooling				
Power	Function of Netra CT900	Function of Netra CT900	Function of Netra CT900	Function of Netra CT900
Operating temperature	41°F to 104°F (5°C to 40°C)	41°F to 104°F (5°C to 40°C)	41°F to 104°F (5°C to 40°C)	41°F to 104°F (5°C to 40°C)
Nonoperating temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Rack units	N/A (ATCA Blade)	N/A (ATCA Blade)	N/A (ATCA Blade)	N/A (ATCA Blade)
Physical specifications				
Height	12.7 in. (322.25 mm)	12.7 in. (322.25 mm)	12.7 in. (322.25 mm)	12.7 in. (322.25 mm)
Width	11 in. (280 mm)	11 in. (280 mm)	11 in. (280 mm)	11 in. (280 mm)
Depth	1.18 in. (30 mm)	1.18 in. (30 mm)	1.18 in. (30 mm)	1.18 in. (30 mm)
Weight	15 lb. (7 kg)	15 lb. (7 kg)	15 lb. (7 kg)	15 lb. (7 kg)
Operating system	Oracle Solaris, Enterprise Linux	Oracle Solaris, Microsoft Windows Server, Enterprise Linux	Oracle Solaris, Microsoft Windows Server, Enterprise Linux	Oracle Solaris, Oracle Linux, Oracle VM, SUSE Enterprise Linux, VMware, Microsoft Windows Server
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty	oracle.com/sun/warranty

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Hardware and Software, Engineered to Work Together