

ORACLE'S FULL LINE OF INTEGRATED SERVER SYSTEMS

See Beyond the Limits

Companies today worry about the security of their transaction and data, and invest heavily in protection strategies. In addition, many enterprises are managing demanding applications and accessing increasing amounts of data. They need computing power that matches their needs and budget, where and when it matters most. Oracle's products and solutions can support business needs from end to end, throughout the lifecycle of the data center, including the path to the cloud.

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

The Right Solutions for Enterprise Needs

The deployment of IT resources is vital to enterprises. They want to plan IT projects carefully so they can select the right

servers, storage products, and infrastructure to make the network as efficient as possible. An open and scalable design approach lets enterprises mix and match Oracle compute, storage, and network components so that all resources in the data center work as a powerful and integrated system, driving better efficiency across the IT infrastructure.

Optimized Solutions

Oracle's Optimized Solutions are applications-to-disk solutions comprising Oracle's servers, storage, and networking components; Oracle Solaris; Oracle 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. More information about Oracle Optimized Solutions is available [here](#).



Warranty Programs




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




How to Use This Guide




This guide features all of Oracle's servers, with each section listing a full line of products and their specifications. Read [Oracle's Full Line of Integrated Storage Systems](#) to see all of Oracle's storage products

Oracle's Server Product Guide


SPARC SERVERS: POWERED BY SOFTWARE IN SILICON TECHNOLOGY		
		
Name	SPARC S7-2	SPARC S7-2L
Processor/CPU	<ul style="list-style-type: none"> Eight-core, 4.27 GHz SPARC S7 processor SPARC S7-2 servers are configured with one or two SPARC S7 processors, not expandable. Up to 64 threads per processor (up to 8 threads per core) 	<ul style="list-style-type: none"> Eight-core, 4.27 GHz SPARC S7 processor SPARC S7-2 servers are configured with two SPARC S7 processors. Up to 64 threads per processor (up to 8 threads per core)
Memory	1 TB maximum memory configuration with 64 GB DIMMs and two processors	1 TB maximum memory configuration with 64 GB DIMMs and two processors
Mass storage		
Internal disk	<p>One disk chassis option:</p> <ul style="list-style-type: none"> Eight-disk chassis: Eight 2.5-inch drive bays, four drive bays support NVMe drives <p>Choice of three 2.5-inch drives:</p> <ul style="list-style-type: none"> 600 GB or 1,200 GB SAS-3 hard disk drives 400 GB SAS-3 solid-state drives 3.2 TB NVMe solid-state drives 	<p>Four disk chassis options:</p> <ul style="list-style-type: none"> Eight-disk chassis: Eight 2.5-inch SAS-3 drive bays, four drive bays support NVMe drives Twenty-six-disk chassis: Twenty-four front plus two rear 2.5-inch SAS-3 drive bays, four drive bays support NVMe drives Twelve-disk chassis: Twelve 2.5-inch NVMe drive bays Fourteen-disk chassis: Twelve front 3.5-inch SAS-3 drive bays and two rear 2.5-inch SAS-3 drive bays <p>Choice of three 2.5-inch drives:</p> <ul style="list-style-type: none"> 600 GB or 1,200 GB SAS-3 hard disk drives 400 GB SAS-3 solid-state drives 3.2 TB NVMe solid-state drives <p>Choice of 3.5-inch drives:</p> <ul style="list-style-type: none"> 8 TB SAS-3 hard disk drives
External disk and tape	oracle.com/storage	oracle.com/storage
Network		
Expansion bus and ports	<p>Expansion bus:</p> <ul style="list-style-type: none"> Three low-profile PCIe 3.0 x8 slots <p>Network Ports:</p> <ul style="list-style-type: none"> Four 10GBase-T Ethernet ports (100 Mb/sec, 1 Gb/sec or 10 Gb/sec), full duplex only, auto-negotiating <p>Management ports:</p> <ul style="list-style-type: none"> One RJ45 serial port One 1000Base-T port (10 Mb/sec, 100 Mb/sec or 1 Gb/sec) <p>Other Ports:</p> <ul style="list-style-type: none"> Two front USB 2.0 ports 	<p>Expansion bus:</p> <ul style="list-style-type: none"> Six low-profile PCIe 3.0 x8 slots <p>Network Ports:</p> <ul style="list-style-type: none"> Four 10GBase-T Ethernet ports (100 Mb/sec, 1 Gb/sec or 10 Gb/sec), full duplex only, auto-negotiating <p>Management ports:</p> <ul style="list-style-type: none"> One RJ45 serial port One 1000Base-T port (10 Mb/sec, 100 Mb/sec or 1 Gb/sec) <p>Other Ports:</p> <ul style="list-style-type: none"> Two front USB 2.0 ports
Power	Two hot-swappable AC 800 or 1,200 W redundant (N+1) power supplies	Two hot-swappable AC 1,200 W redundant (N+1) power supplies
Operating temperature	5° C to 35° C (41° F to 95° F)	
Nonoperating temperature	-40° C to 65° C (-40° F to 149° F)	
Rack units	1U	2U
Height	43 mm (1.7 in.)	88 mm (3.5 in.);
Width	437 mm (17.2 in.)	445 mm (17.5 in.)
Depth	737 mm (29 in.)	737 mm (29 in.)
Weight	19.5 kg (43 lb.)	<ul style="list-style-type: none"> Weight: approx. Fully populated without rackmount kit Eight-disk configuration: 24.5 kg (54 lb.) Twenty-four plus two configuration: 29 kg (64 lb.) Twelve NVMe-disk configuration: 26 kg (57 lb.) Twelve 3.5-inch disk + two 2.5-inch disk configuration: 30 kg (66 lb.)
Operating system	<ul style="list-style-type: none"> Oracle Solaris 11.3 or later Oracle Solaris 10 1/13* *Plus required patches 	<ul style="list-style-type: none"> Oracle Solaris 11.3 or later Oracle Solaris 10 1/13* *Plus required patches



SPARC SERVERS: POWERED BY 2 ND GENERATION SOFTWARE IN SILICON TECHNOLOGY			
			
Name	SPARC T8-1	SPARC T8-2	SPARC T8-4
Processor/CPUs	<ul style="list-style-type: none"> Thirty-two core, 5.0 GHz SPARC M8 processor SPARC T8-1 servers are always configured with a single SPARC M8 processor Up to 256 threads per processor (up to 8 threads per core) 	<ul style="list-style-type: none"> Thirty-two core, 5.0 GHz SPARC M8 processor SPARC T8-2 servers are always configured with two SPARC M8 processors Up to 256 threads per processor (up to 8 threads per core) 	<ul style="list-style-type: none"> Thirty-two core, 5.0 GHz SPARC M8 processor SPARC T8-4 servers may be configured with either two or four SPARC M8 processors, upgradeable from two to four processors Up to 256 threads per processor (up to 8 threads per core)
Memory	1 TB maximum memory configuration with 64 GB DIMMs	2 TB maximum memory configuration with 64 GB DIMMs	<ul style="list-style-type: none"> 4 TB maximum memory configuration with a four processor system and 64 GB DIMMs 2 TB maximum memory configuration with a two processor system and 64 GB DIMMs
Mass storage			
Internal disk	<ul style="list-style-type: none"> Up to eight 600 GB or 1,200 GB 2.5 in SAS-3 HDDs, or 800 GB 2.5 in SAS-3 SSDs Up to four 6.4 TB 2.5 in NVMe SSDs Optional external DVD unit available Additional internal storage is available with the Oracle Flash Accelerator F640 PCIe Card 	<ul style="list-style-type: none"> Up to six 600 GB or 1,200 GB 2.5 in SAS-3 HDDs, or 800 GB 2.5 in SAS-3 SSDs Up to four 6.4 TB 2.5 in NVMe SSDs Optional external DVD unit available Additional internal storage is available with the Oracle Flash Accelerator F640 PCIe Card 	<ul style="list-style-type: none"> Up to eight 600 GB or 1,200 GB 2.5 in SAS-3 HDDs, or 800 GB 2.5 in SAS-3 SSDs Up to eight 6.4 TB 2.5 in NVMe SSDs Optional external DVD unit available Additional internal storage is available with the Oracle Flash Accelerator F640 PCIe Card
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage
Network			
Expansion bus and ports	<ul style="list-style-type: none"> Network: Four 10 GbE (100 Mb/sec, 1 Gb/sec, 10 Gb/sec) ports, full duplex only, auto-negotiating Expansion bus: six low-profile PCIe 3.0 (four x8 and two x16 or x8 wired) slots Ports: four external USB (two front USB 2.0 and two rear USB 3.0), one RJ45 serial management port, console 100 Mb/1 Gb network port, VGA port 	<ul style="list-style-type: none"> Network: Four 10 GbE (100 Mb/sec, 1 Gb/sec, 10 Gb/sec) ports, full duplex only, auto-negotiating Expansion bus: eight low-profile PCIe 3.0 (four x8 and four x16) slots Ports: four external USB (two front USB 2.0 and two rear USB 3.0), one RJ45 serial management port, console 100 Mb/1 Gb network port, two VGA ports (one front, one rear) 	<ul style="list-style-type: none"> Network: Four 10 GbE (100 Mb/sec, 1 Gb/sec, 10 Gb/sec) ports, full duplex only, auto-negotiating Expansion bus: sixteen low-profile PCIe 3.0 slots, each accessed via a hot-plug carrier (eight x8 and eight x16) slots Ports: four external USB 3.0 (two front, two rear), one RJ45 serial management port, console 10/100 network port, two VGA ports (one front, one rear)
Power/cooling			
Power	Two hot-swappable AC 1,200 W redundant (1 + 1) power supplies	Two hot-swappable AC 2,000 W redundant (1 + 1) power supplies	Four hot-swappable AC 3,000 W redundant (2 + 2) power supplies
Operating temperature	5° C to 35° C at 900 m (41° F to 95° F at 0 to 3,000 ft.)	5° C to 35° C at 900 m (41° F to 95° F at 0 to 3,000 ft.)	5° C to 35° C at 900 m (41° F to 95° F at 0 to 3,000 ft.)
Nonoperating temperature	-40° C to 65° C at 900 m (-40° F to 149° F at 0 to 3,000 ft.)	-40° C to 65° C at 900 m (-40° F to 149° F at 0 to 3,000 ft.)	-40° C to 65° C at 900 m (-40° F to 149° F at 0 to 3,000 ft.)
Rack units	• 2 RU	• 3 RU	• 6 RU
Physical specifications			
Height	87.6 mm (3.45 in.)	129.8 mm (5.11 in.)	266.7 mm (10.5 in.)
Width	445.0 mm (17.5 in.)	436.5 mm (17.185 in.)	445 mm (17.5 in.)
Depth	737 mm (29 in.)	752.5 mm (29.63 in.)	835 mm (32.9 in.)
Weight	approx. 26.08 kg (57.5 lb.) without rackmount kit	approx. 37.2 kg (82 lb.) without rackmount kit	approx. 98.66 kg (217.5 lb.) without rackmount kit for the four-processor system
Operating system	<ul style="list-style-type: none"> Oracle Solaris 11.3 SRU 24 or later Oracle Solaris 10 1/13* *Plus required patches 	<ul style="list-style-type: none"> Oracle Solaris 11.3 SRU 24 or later Oracle Solaris 10 1/13* *Plus required patches 	<ul style="list-style-type: none"> Oracle Solaris 11.3 SRU 24 or later Oracle Solaris 10 1/13* *Plus required patches



SPARC SERVERS: POWERED BY SOFTWARE IN SILICON TECHNOLOGY			
			
Name	SPARC T7-1 Server	SPARC T7-2 Server	SPARC T7-4 Server
Processor/CPUs	<ul style="list-style-type: none"> Thirty-two core, 4.13 GHz SPARC M7 processor SPARC T7-1 servers are always configured with a single SPARC M7 processor Up to 256 threads per processor (up to 8 threads per core) 	<ul style="list-style-type: none"> Thirty-two core, 4.13 GHz SPARC M7 processor SPARC T7-2 servers are always configured with two SPARC M7 processors Up to 256 threads per processor (up to 8 threads per core) 	<ul style="list-style-type: none"> Thirty-two core, 4.13 GHz SPARC M7 processor SPARC T7-4 servers may be configured with either two or four SPARC M7 processors, upgradeable from two to four processors Up to 256 threads per processor (up to 8 threads per core)
Memory	1 TB maximum memory configuration with 64 GB DIMMs	2 TB maximum memory configuration with 64 GB DIMMs	<ul style="list-style-type: none"> 4 TB maximum memory configuration with a four processor system and 64 GB DIMMs 2 TB maximum memory configuration with a two processor system and 64 GB DIMMs
Mass storage			
Internal disk	<ul style="list-style-type: none"> Up to eight 600 GB or 1,200 GB 2.5 in SAS-3 HDDs, or 400 GB 2.5 in SAS-3 SSDs Up to four 3.2 TB 2.5 in NVMe SSDs Integrated DVD drive Additional internal storage is available with the Oracle Flash Accelerator F320 PCIe Card 	<ul style="list-style-type: none"> Up to six 600 GB or 1,200 GB 2.5 in SAS-3 HDDs, or 400 GB 2.5 in SAS-3 SSDs Up to four 3.2 TB 2.5 in NVMe SSDs Integrated DVD drive Additional internal storage is available with the Oracle Flash Accelerator F320 PCIe Card 	<ul style="list-style-type: none"> Up to eight 600 GB or 1,200 GB 2.5 in SAS-3 HDDs, or 400 GB 2.5 in SAS-3 SSDs Up to eight 3.2 TB 2.5 in NVMe SSDs Additional internal storage is available with the Oracle Flash Accelerator F320 PCIe Card
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage
Network			
Expansion bus and ports	<ul style="list-style-type: none"> Expansion bus: six low-profile PCIe 3.0 (four x8 and two x16 or x8 wired) slots Ports: four external USB (two front USB 2.0 and two rear USB 3.0), one RJ45 serial management port, console 10/100 network port, VGA port 	<ul style="list-style-type: none"> Expansion bus: eight low-profile PCIe 3.0 (four x8 and four x16) slots Ports: four external USB (two front USB 2.0 and two rear USB 3.0), one RJ45 serial management port, console 10/100 network port, two VGA ports (one front, one rear) 	<ul style="list-style-type: none"> Expansion bus: sixteen low-profile PCIe 3.0 slots, each accessed via a hot-plug carrier (eight x8 and eight x16) slots Ports: four external USB 3.0 (two front, two rear), one RJ45 serial management port, console 10/100 network port, two VGA ports (one front, one rear)
Power/cooling			
Power	Two hot-swappable AC 1,000 W redundant (1 + 1) power supplies	Two hot-swappable AC 2,000 W redundant (1 + 1) power supplies	Four hot-swappable AC 3,000 W redundant (2 + 2) power supplies
Operating temperature	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)
Nonoperating temperature	-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 (-40° F to 149° F)
Rack units	• 2 RU	• 3 RU	• 5 RU
Physical specifications			
Height	87.6 mm (3.5 in.); 2U	129.8 mm (5.11 in.); 3U	215 mm (8.5 in.); 5U
Width	445.0 mm (17.5 in.)	436.5 mm (17.185 in.)	445 mm (17.5 in.)
Depth	737 mm (29 in.)	752.5 mm (29.63 in.)	835 mm (32.9 in.)
Weight	Approx. 25.6 kg (56.4 lb.),	Approx. 37.2 kg (82 lb.)	Approx. 84.8 kg (186.55 lb.),
Operating system	<ul style="list-style-type: none"> Oracle Solaris 11.3 or later Oracle Solaris 10 1/13* Oracle Solaris 10 8/11* Oracle Solaris 10 9/10* *Plus required patches 	<ul style="list-style-type: none"> Oracle Solaris 11.3 or later Oracle Solaris 10 1/13* Oracle Solaris 10 8/11* Oracle Solaris 10 9/10* *Plus required patches 	<ul style="list-style-type: none"> Oracle Solaris 11.3 or later Oracle Solaris 10 1/13* Oracle Solaris 10 8/11* Oracle Solaris 10 9/10* *Plus required patches



SPARC SERVERS: POWERED BY SOFTWARE IN SILICON TECHNOLOGY			
			
Name		SPARC M7-8 Server	SPARC M7-16 Server
Processor/CPUs	<ul style="list-style-type: none"> Thirty-two core, 5.0 GHz SPARC M8 processor Two hundred fifty-six threads per processor (eight threads per core) Two to eight processors per system 	<ul style="list-style-type: none"> Thirty-two core, 4.13 GHz SPARC M7 processor Two hundred fifty-six threads per processor (eight threads per core) Two to eight processors per system 	<ul style="list-style-type: none"> Thirty-two core, 4.13 GHz SPARC M7 processor Two hundred fifty-six threads per processor (eight per core) Four to sixteen processors per system
Memory	Up to 8 TB memory per system using 64 GB DIMMs	Up to 8 TB memory per system using 64 GB DIMMs	Up to 16 TB memory per system using 64 GB DIMMs
Internal disk	Up to twelve 6.4 TB Oracle Flash Accelerator F640 PCIe Cards	Up to sixteen 3.2 TB Oracle Flash Accelerator F320 PCIe Cards	Up to thirty-two 3.2 TB Oracle Flash Accelerator F320 PCIe Cards
External disk and tape	oracle.com/storage	oracle.com/storage	oracle.com/storage
Expansion bus and ports	Up to 24 low-profile PCIe 3.0 (x16) slots, each accessed via a hot-plug carrier	Up to 24 low-profile PCIe 3.0 (x16) slots, each accessed via a hot-plug carrier	Up to 48 low-profile PCIe 3.0 (x16) slots, each accessed via a hot-plug carrier
Power	6x 3,000 W hot-swappable AC power supplies with N+N redundancy	6x 3,000 W hot-swappable AC 3,000 W power supplies with N+N redundancy	16x 3,000 W hot-swappable AC 3,000 W power supplies with N+N redundancy
Operating temperature	5° to 35° C (41° to 95° F) at 0 to 500 m (0 to 1,640 ft.)	5° C to 35° C (41° F to 95° F)	5° C to 35° C (41° F to 95° F)
Nonoperating temperature	0° C to 50° C (32° F to 122° F), maximum altitude 12,000 m (40,000 ft.)	-40° C to 65° C (-40° F to 149° F)	-40° C to 65° C (-40° F to 149° F)
Rack units	10 RU	10	42
Height	78.74 in. (2,000 mm); without rack: 17.2 in. (438 mm)	78.66 in. (1,998 mm); without rack: 17.2 in. (438 mm)	78.66 in. (1,998 mm)
Width	23.62 in. (600 mm); without rack: 19.0 in. (483 mm)	23.62 in. (600 mm); without rack: 19.0 in. (483 mm)	23.62 in. (600 mm)
Depth	47.24 in. (1,200 mm); without rack: 32.0 in. (813 mm)	47.24 in. (1,200 mm); without rack: 32.0 in. (813 mm)	47.24 in. (1,200 mm)
Weight	approx. 917 lb. (416 kg); without rack: 425 lb. (193 kg)	824 lb. (374 kg); without rack: 405 lb. (184 kg)	1,650 lb. (749 kg)
Operating system	<ul style="list-style-type: none"> Oracle Solaris 11.3 SRU 24 or later Oracle Solaris 10 1/13* *Plus required patches 	<ul style="list-style-type: none"> Oracle Solaris 11.3 or later Oracle Solaris 10 1/13* Oracle Solaris 10 8/11* Oracle Solaris 10 9/10* *Plus required patches 	<ul style="list-style-type: none"> Oracle Solaris 11.3 or later Oracle Solaris 10 1/13* Oracle Solaris 10 8/11* Oracle Solaris 10 9/10* *Plus required patches



Name	Fujitsu M10-1 Server	Fujitsu M12-1 Server
Processor/ CPUs	<ul style="list-style-type: none"> Up to sixteen-core SPARC64 X+ processor Fujitsu M10-1 servers are configured with one processor Up to 32 threads per processor (up to 2 threads per core) 	<ul style="list-style-type: none"> Up to six-core SPARC64 XII processor Fujitsu M12-1 servers are configured with one processor Up to 48 threads per processor (up to 8 threads per core)
Memory	Up to 1 TB with 64 GB DIMMs	Up to 1 TB per unit, with 64 GB DIMMs
Internal disk	As many as eight 600 GB or 900 GB internal 2.5-in. SAS HDDs or 400 GB SAS SSDs	As many as eight 600 GB or 900 GB internal 2.5-in. SAS HDDs or 400 GB SAS SSDs
External disk and tape	oracle.com/storage	oracle.com/storage
Expansion bus and ports	<ul style="list-style-type: none"> Three PCI Express 3.0 short, low-profile slots (eight lanes) As many as 23 PCI Express slots with optional PCI expansion unit 4-port 1000Base-T, 1-port SAS, 2-port USB 	<ul style="list-style-type: none"> Three PCI Express 3.0 short, low-profile slots (eight lanes) As many as 33 PCI Express slots with optional PCI expansion unit 4-port 1000Base-T, 1-port SAS, 2-port USB
Power	<ul style="list-style-type: none"> Two hot-swappable redundant (1 + 1) power supplies 100 V to 120 V (50/60 Hz), or 200 V to 240 V (50/60 Hz) 	<ul style="list-style-type: none"> Two hot-swappable redundant (1 + 1) power supplies 100 V to 120 V (50/60 Hz), or 200 V to 240 V (50/60 Hz)
Operating temperature	5°C to 35°C (41°F to 95°F) at an altitude of 0 m to 500 m	5°C to 35°C (41°F to 95°F) at an altitude of 0 m to 500 m
Nonoperating temperature	<ul style="list-style-type: none"> -20°C to 60°C (packed) 0°C to 50°C (non-packed) 	<ul style="list-style-type: none"> -20°C to 60°C (packed) 0°C to 50°C (non-packed)
Rack units	1RU	1RU
Height	43 mm (1.67 in.) 1U	43 mm (1.67 in.) 1U
Width	431 mm (17.0 in.)	431 mm (17.0 in.)
Depth	721 mm (28.4 in.)	721 mm (28.4 in.)
Weight	18 kg (40 lb.)	18 kg (40 lb.)
Operating system	<ul style="list-style-type: none"> Oracle Solaris 11 Oracle Solaris 10 	<ul style="list-style-type: none"> Oracle Solaris 11 Oracle Solaris 10



	
Name	Fujitsu SPARC M12-2 Server
Processor/ CPUs	<ul style="list-style-type: none"> • Twelve-core, 3.9 GHz SPARC64 XII processor • Fujitsu SPARC M12-2 servers are configured with one or two processors • Up to 96 threads per processor (up to 8 threads per core)
Memory	Up to 2 TB per unit, with 64 GB DIMMs
Internal disk	As many as eight 600 GB or 900 GB internal 2.5-in. SAS HDDs or 400 GB SAS SSDs
External disk and tape	oracle.com/storage
Expansion bus and ports	<ul style="list-style-type: none"> • 11 PCI Express 3.0 short, low-profile slots (eight lanes) • As many as 71 PCI Express slots with optional PCI expansion unit • 4-port 1-GBase-T, 1-port SAS, 2-port USB
Power	<ul style="list-style-type: none"> • Four hot-swappable AC 1,800 W redundant (2 + 2) power supplies • Voltage 200 to 240 VAC, frequency 50/60 Hz
Operating temperature	5°C to 35°C (41°F to 95°F) at an altitude of 0 m to 500 m
Nonoperating temperature	<ul style="list-style-type: none"> • -25° C to 60° C (-13° F to 140° F) (packed) • 0 to 50° C (32° F to 122° F) (nonpacked)
Rack units	4RU
Height	175 mm (6.9 in.); 4U
Width	440 mm (17.3 in.)
Depth	800 mm (31.5 in.)
Weight	60 kg (132 lb.)
Operating system	<ul style="list-style-type: none"> • Oracle Solaris 11 • Oracle Solaris 10



SPARC SERVERS		
		
Name	Fujitsu M10-4S Server	Fujitsu SPARC M12-2S Server
Processor/ CPUs	<ul style="list-style-type: none"> • Sixteen-core 3.7 GHz SPARC64 X+ processor • Thirty-two threads per processor (two per core) • Two or four processor in a 1-unit configuration • Up to sixteen processors in a 4-unit configuration • Up to sixty-four processor in a 16-unit configuration 	<ul style="list-style-type: none"> • Twelve-core 4.25 GHz SPARC64 XII processor • Thirty-two threads per processor (two per core) • Two or four processor in a 1-unit configuration • Up to sixteen processors in a 4-unit configuration • Up to sixty-four processor in a 16-unit configuration
Memory	<ul style="list-style-type: none"> • Up to 4 TB per unit, with 64 GB DIMMs: 1-unit configuration • Up to 16 TB per unit, with 64 GB DIMMs: 4-unit configuration • Up to 64 TB per unit, with 64 GB DIMMs: 16-unit configuration 	<ul style="list-style-type: none"> • Up to 2 TB per unit, with 64 GB DIMMs: 1-unit configuration • Up to 8 TB per unit, with 64 GB DIMMs: 4-unit configuration • Up to 32 TB per unit, with 64 GB DIMMs: 16-unit configuration
Mass storage		
Internal disk	<ul style="list-style-type: none"> • Up to eight 600 GB or 900 GB internal 2.5 in. SAS HDDs or 400 GB SAS SSDs per unit 	<ul style="list-style-type: none"> • Up to eight 600 GB or 900 GB internal 2.5 in. SAS HDDs or 400 GB SAS SSDs per unit
External disk and tape	oracle.com/storage	oracle.com/storage
Network		
Expansion bus and ports	<ul style="list-style-type: none"> • 8 PCI Express 3.0 short, low-profile slots (eight lanes): 1-unit configuration • 32 PCI Express 3.0 short, low-profile slots (eight lanes): 4-unit configuration • 128 PCI Express 3.0 short, low-profile slots (eight lanes): 16-unit configuration • Up to 928 PCI Express slots with optional PCI expansion unit • 4-port 1000Base-T, 1-port SAS, 2-port USB per unit 	<ul style="list-style-type: none"> • 8 PCI Express 3.0 short, low-profile slots (eight lanes): 1-unit configuration • 32 PCI Express 3.0 short, low-profile slots (eight lanes): 4-unit configuration • 128 PCI Express 3.0 short, low-profile slots (eight lanes): 16-unit configuration • Up to 928 PCI Express slots with optional PCI expansion unit • 4-port 10GBase-T, 1-port SAS, 2-port USB per unit
Power/cooling		
Power	<ul style="list-style-type: none"> • Two hot-swappable redundant (1 + 1) power supplies per unit • Power option 1: AC power: 200 V to 240 V, one-phase (50/60 Hz) • Power option 2: AC power: 200 V to 240 V, 3-phase delta (50/60 Hz) • Power option 3: AC power: 380 V to 415 V, 3-phase star (50/60 Hz) 	<ul style="list-style-type: none"> • Four hot-swappable redundant (2 + 2) power supplies per unit • Power option 1: AC power: 200 V to 240 V, one-phase (50/60 Hz) • Power option 2: AC power: 200 V to 240 V, 3-phase delta (50/60 Hz) • Power option 3: AC power: 380 V to 415 V, 3-phase star (50/60 Hz)
Operating temperature	5°C to 35°C (41°F to 95°F) at an altitude of 0 m to 500 m	5°C to 35°C (41°F to 95°F) at an altitude of 0 m to 500 m
Nonoperating temperature	<ul style="list-style-type: none"> • -20°C to 60°C (packed) • 0°C to 50°C (non-packed) 	<ul style="list-style-type: none"> • -25°C to 60°C (packed) • 0°C to 50°C (non-packed)
Rack units	4RU per unit, 16 units are mounted in two racks	4RU per unit, 16 units are mounted in two racks
Physical specifications		
Height	175 mm (6.9 in.) 4U, per unit	175 mm (6.9 in.); 4U, per unit
Width	440 mm (17.3 in.), per unit	440 mm (17.3 in.), per unit
Depth	810 mm (31.9 in.), per unit	800 mm (31.5 in.), per unit
Weight (max.)	60 kg (132 lb.), per unit	60 kg (132 lb.), per unit
Operating system	<ul style="list-style-type: none"> • Oracle Solaris 11 • Oracle Solaris 10 	<ul style="list-style-type: none"> • Oracle Solaris 11 • Oracle Solaris 10

x86 ENTERPRISE CLASS SERVERS		
		
Name	Oracle Server X6-2 System	Oracle Server X6-2L System
Processor/ CPUs	One or two processors from the Intel® Xeon® processor E5-2600 v4 product family	One or two processors from the Intel® Xeon® processor E5-2600 v4 product family
Memory	<ul style="list-style-type: none"> Twenty-four DIMM slots provide up to 768 GB of DDR4 ECC DIMM memory RDIMM options: 16 GB at DDR4-2400 and 32 GB at DDR4-2400 	<ul style="list-style-type: none"> Twenty-four DIMM slots provide up to 768 GB of DDR4 DIMM memory RDIMM options: 16 GB at DDR4-2400 and 32 GB at DDR4-2400
Mass storage		
Internal disk	<ul style="list-style-type: none"> Eight 2.5-inch front hot-swappable disk bays and optional DVD-RW drive All 2.5-inch disk bays can be populated with either HDDs or conventional SSDs 12 Gb/sec RAID HBA supporting levels: 0, 1, 5, 6, 10, 50, 60 with 1 GB of DDR3 onboard memory with flash memory backup via embedded internal SAS-3 HBA PCIe card 	Three disk chassis options: <ul style="list-style-type: none"> Eight-disk chassis: eight 2.5-inch front hot-swappable disk bays and optional DVD-RW drive slot Twelve-disk chassis: twelve 3.5-inch front hot-swappable disk bays and an additional two 2.5-inch rear hot-swappable disk bays Twenty-four-disk chassis: twenty-four 2.5-inch front hot-swappable disk bays and an additional two 2.5-inch rear hot-swappable disk bays
External disk and tape	oracle.com/storage	oracle.com/storage
Graphics	VGA 2D graphics controller embedded: 8MB Resolution: 1,600 x 1,200 x 16 bits @ 60 Hz via the rear HD15 VGA port (1,024 x 768 when viewed remotely via the Oracle ILOM)	VGA 2D graphics controller embedded: 8MB Resolution: 1,600 x 1,200 x 16 bits @ 60 Hz via the rear HD15 VGA port (1,024 x 768 when viewed remotely via the Oracle ILOM)
Network		
Expansion bus and ports	<ul style="list-style-type: none"> Four onboard auto-sensing 100/1000/10000 M Base-T Ethernet ports USB: six 2.0 USB ports (two front, two rear, and two internal) Expansion bus: four PCIe 3.0 slots: two x16 and two x8 (one internal) slots Supports LP-PCIe cards including Ethernet, InfiniBand, FC, FCoE, and SAS HBAs 	<ul style="list-style-type: none"> Four onboard auto-sensing 100/1000/10000 M Base-T Ethernet ports USB: six 2.0 USB ports (two front, two rear, and two internal) Expansion bus: four PCIe 3.0 slots: two x16 and two x8 (one internal) slots Supports LP-PCIe cards including Ethernet, InfiniBand, FC, FCoE, and SAS HBAs
Power/cooling		
Power	<ul style="list-style-type: none"> Two hot-swappable and redundant power supplies, rated 91% efficiency Rated line voltage: 100 to 240 VAC Rated input current 100 to 127 VAC 7.2 A and 200 to 240 VAC 3.4 A 	<ul style="list-style-type: none"> Two hot-swappable and redundant power supplies, rated 91% efficiency Rated line voltage: 100 to 240 VAC Rated input current 100 to 127 VAC 12 – 8.5 A and 200 to 240 VAC 5.7 A
Operating temperature	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 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Rack units	1U	2U
Physical specifications		
Height	42.6 mm (1.7 in.)	87.6 mm (3.5 in.)
Width	436.5 mm (17.2 in.)	445.0 mm (17.5 in.)
Depth	737.0 mm (29.0 in.)	737.0 mm (29.0 in.)
Weight (max.)	40 lb. (18.1 kg)	<ul style="list-style-type: none"> 8-disk configuration – 24.5 kg (54 lb.) 12-disk configuration – 29.9 kg (66 lb.) 24-disk configuration – 29.0 kg (64 lb.)
Operating system	<ul style="list-style-type: none"> Oracle Solaris Oracle Linux Red Hat Enterprise Linux Microsoft Windows Server 	<ul style="list-style-type: none"> Oracle Solaris Oracle Linux Red Hat Enterprise Linux Microsoft Windows Server

x86 ENTERPRISE CLASS SERVERS		
		
Name	Oracle Server X7-2 System	Oracle Server X7-2L System
Processor/ CPUs	One or two processors from the Intel® Xeon® Processor Scalable Family of processors	One or two processors from the Intel® Xeon® Processor Scalable Family of processors
Memory	<ul style="list-style-type: none"> Twenty-four DIMM slots provide up to 1.5 TB of DDR4 ECC DIMM memory RDIMM options: 16 GB at DDR4-2666 and 32 GB at DDR4-2666 LRDIMM options: 64 GB at DDR4-2666 	<ul style="list-style-type: none"> Twenty-four DIMM slots provide up to 1.5 TB of DDR4 DIMM memory RDIMM options: 16 GB at DDR4-2666 and 32 GB at DDR4-2666 LRDIMM options: 64 GB at DDR4-2666
Mass storage		
Internal disk	<ul style="list-style-type: none"> Eight 2.5-inch front hot-swappable disk bays All 2.5-inch disk bays can be populated with either HDDs or conventional SSDs, or NVMe SSDs Optional: 12 Gb/sec SAS-3 RAID HBA supporting levels: 0, 1, 5, 6, 10, 50, 60 with 2 GB of flash-backed write-back cache Uses NVM Express (NVMe) design allowing flash to be front accessible and hot swappable Up to eight small form factor NVMe drives (6.4 TB per drive) 	<ul style="list-style-type: none"> Twelve 3.5-inch front hot-swappable disk bays plus two internal M.2 boot drives Disk bays can be populated with 3.5-inch HDDs or 2.5-inch NVMe solid-state drives (SSDs) PCIe flash Sixteen-port 12 Gb/sec RAID HBA supporting levels: 0, 1, 5, 6, 10, 50, and 60 with 2 GB of DDR3 onboard memory with flash memory backup via embedded internal SAS-3 HBA PCIe card Eight-port 12 Gb/sec SAS HBA with direct access to up to eight internal SAS-3 HDDs (two per system required) All flash configuration—up to 102.4 TB in the all-flash configuration (maximum of 12 hot-swappable 6.4 TB NVMe SSDs and four 6.4 TB NVMe PCIe cards) NVMe functionality in 3.5-inch disk bays requires an Oracle NVMe enabling kit that will consume 4 PCIe slots to fully enable 12 NVMe SSDs Standard configuration: up to 51.2 TB (maximum of eight 6.4 TB NVMe PCIe cards)
External disk and tape	oracle.com/storage	oracle.com/storage
Network		
Expansion bus and ports	<ul style="list-style-type: none"> Dedicated 10/100/1000 M Base-T network management port In-band, out-of-band, and side-band network management access RJ45 serial management port 	<ul style="list-style-type: none"> Dedicated 10/100/1000 (M)Base-T network management port In-band, out-of-band, and side-band network management access RJ45 serial management port
Power/cooling		
Power	<ul style="list-style-type: none"> Two 1200 watt hot-swappable and redundant power supplies, rated 91% efficiency Rated line voltage: 100 to 240 VAC Rated input current 100 to 127 VAC 7.2 A and 200 to 240 VAC 3.4 A 	<ul style="list-style-type: none"> Two 1200 watt hot-swappable and redundant power supplies, rated 91% efficiency Rated line voltage: 100 to 240 VAC Rated input current 100 to 127 VAC 12 – 8.5 A and 200 to 240 VAC 5.7 A
Operating temperature	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 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Rack units	1U	2U
Physical specifications		
Height	42.6 mm (1.7 in.)	86.9 mm (3.4 in.)
Width	436.5 mm (17.2 in.)	445.0 mm (17.5 in.)
Depth	737.0 mm (29.0 in.)	759.4 mm (29.9 in.)
Weight (max.)	40 lb. (18.1 kg)	28.6 kg (63 lb.) fully populated
Operating system	<ul style="list-style-type: none"> Oracle Solaris Oracle Linux Oracle VM 	<ul style="list-style-type: none"> Oracle Solaris Oracle Linux Oracle VM

x86 ENTERPRISE CLASS SERVERS		
		
Name	Oracle Server X5-4	Oracle Server X5-8
Processor/ CPUs	<ul style="list-style-type: none"> Two or four Intel® Xeon® processor E7-8895 v3 processors Up to 18 cores per processor 	<ul style="list-style-type: none"> 4 or 8 CPU modules, each with one Intel® Xeon® processor E7-8895 v3 product family CPU 18 cores per processor
Memory	<ul style="list-style-type: none"> Up to 96 DIMMs (24 DIMMs per processor) 16 GB DDR3 ECC registered low-voltage DIMMs or 32 GB DDR3 ECC registered low-voltage LRDIMMs Two memory riser cards required per processor Maximum memory capacity of 3 TB 	<ul style="list-style-type: none"> Up to 192 DIMMs (24 per CPU module) 16 GB DDR3-1.600 GHz ECC registered DIMMs or 32 GB DDR3-1.600 GHz load-reduced ECC DIMMs (LRDIMM) 6 TB maximum memory capacity
Mass storage		
Internal disk	<ul style="list-style-type: none"> Six 2.5" SAS-3 front-accessible, hot-swappable drive bays and optional DVD+/-RW All bays can be populated with SAS-3 HDDs or SSDs 12 Gbps RAID HBA supporting levels: 0, 1, 5, 6, 10, 50, 60 with 1 GB of DDR3 onboard memory with flash memory backup via embedded internal SAS3 HBA PCIe Card Up to four NVMe SSDs 	<ul style="list-style-type: none"> Eight 2.5" SAS-3 front-accessible, hot-swappable drive bays All bays can be populated with SAS-3 HDDs or SSDs for up to 9.6 TB of internal storage 12 Gb/sec RAID HBA supporting levels: 0, 1, 5, 6, 10, 50, 60 with 1 GB of DDR3 onboard memory with flash memory backup via embedded internal SAS-3 HBA PCIe card
External disk and tape	oracle.com/storage	oracle.com/storage
Graphics	<ul style="list-style-type: none"> VGA 2D graphics controller embedded: 8MB Resolution: 1,600 x 1,200 x 16 bits @ 60 Hz via the rear HD15 VGA port (1,024 x 768 when viewed remotely via Oracle ILOM) 	<ul style="list-style-type: none"> VGA 2D graphics controller embedded: 8 MB Resolution: up to 1,600 x 1,200 x 16 bits @ 60 Hz (1,024 x 768 when viewed remotely via Oracle ILOM)
Network		
Expansion bus and ports	<ul style="list-style-type: none"> Eleven PCIe Gen 3 slots Dedicated 10/100/1000BaseT Ethernet network management port In-band, out-of-band, and sideband network management access via any one of the four main ports on the server or the dedicated port RJ-45 serial management port 	<ul style="list-style-type: none"> Sixteen PCIe Gen 3 slots Dedicated 10/100/1 GbE network management port via RJ-45 connector In-band, out-of-band, and sideband network management access RJ-45 serial management port
Power/cooling		
Power	<ul style="list-style-type: none"> Rated line voltage: 100–127 VAC (two-processor configuration); 200–240 VAC Rated input current: 100–127 VAC 12A (two-processor configuration); 200–240 VAC 10A Two hot-swappable rear accessible power supplies with N+N redundancy Power Calculator 	<ul style="list-style-type: none"> Rated line voltage: 200–240 VAC (50/60 Hz) Rated input current: 23 A (12 A max per cord) Four hot-swappable front accessible power supplies with N+N redundancy Power Calculator
Operating temperature	5° C to 35° C (41° F to 95° F)	5° C to 35° C (41° F to 95° F)
Nonoperating temperature	-40° C to 68° C (-40° F to 154° F)	-40° C to 68° C (-40° F to 154° F)
Rack units	3U	5U
Physical specifications		
Height	Height: 129.9 mm (5.1 in.)	Height: 219.25 mm (8.63 in.)
Width	Width: 436.5 mm (17.2 in.)	Width: 445 mm (17.5 in.)
Depth	Depth: 732.0 mm (28.8 in.)	Depth: 834 mm (32.8 in.)
Weight (Max)	Weight: 40 kg (88 lb.) max.	Weight: 99.79 kg (220 lb.) maximum
Operating system	<ul style="list-style-type: none"> Oracle Solaris (preinstall option) Oracle Linux (preinstall option) Oracle VM (preinstall option) Red Hat Enterprise Linux VMware Microsoft Windows Server For more information on software, go to: Oracle Server X5-4 Options & Downloads 	<ul style="list-style-type: none"> Oracle Solaris (preinstall option) Oracle Linux (preinstall option) Oracle VM (preinstall option) Red Hat Enterprise Linux VMware Microsoft Windows Server For more information on software, go to: Oracle Server X5-8 Options & Downloads

x86 ENTERPRISE CLASS SERVERS		
		
Name	Oracle Server X7-8 System dual four-socket configuration	Oracle Server X7-8 System single eight-socket configuration
Processor/ CPUs	Four CPU modules, each with one Intel Xeon Platinum 8100 or Gold 6100 series processor Up to 24 cores per processor	Eight CPU modules, each with one Intel Xeon Platinum 8168 or Gold 8160 processor Up to 24 cores per processor
Memory	<ul style="list-style-type: none"> Forty-eight DIMM slots provide up to 3.0 TB of DDR4 ECC DIMM memory RDIMM options: 16 GB at DDR4-2666 and 32 GB at DDR4-2666 LRDIMM options: 64 GB at DDR4-2666 	<ul style="list-style-type: none"> Ninety-six DIMM slots provide up to 6.0 TB of DDR4 ECC DIMM memory RDIMM options: 16 GB at DDR4-2666 and 32 GB at DDR4-2666 LRDIMM options: 64 GB at DDR4-2666
Internal disk	<ul style="list-style-type: none"> Four 2.5-inch SAS-3 rear-accessible, hot-swappable disk bays All bays can be populated with SAS-3 HDDs or SSDs One embedded 12 GBPS SAS-3 RAID HBA support levels: 0, 1, 5, 6, 10, 50, 60 with 2 GB of flash-backed write-back cache 	<ul style="list-style-type: none"> Eight 2.5-inch SAS-3 rear-accessible, hot-swappable drive bays All bays can be populated with SAS-3 HDDs or SSDs One embedded 12 Gbps SAS-3 RAID HBA supporting levels: 0, 1, 5, 6, 10, 50, 60 with 2 GB of flash-backed write-back cache
External disk and tape	oracle.com/storage	oracle.com/storage
Expansion bus and ports	<ul style="list-style-type: none"> Dedicated 10/100/1000 Base-T network management port In-band, out-of-band, and side-band network management access via any one of the four main ports on the server or the dedicated port RJ-45 serial management port 	<ul style="list-style-type: none"> Dedicated 10/100/1000 Base-T network management port In-band, out-of-band, and side-band network management access via any one of the four main ports on the server or the dedicated port RJ-45 serial management port
Power	<ul style="list-style-type: none"> Two hot-swappable power supplies, with N+N redundancy Rated line voltage: 100 to 127 VAC (two-processor configuration: 200-240 VAC) Rated input current 100 to 127 VAC 7.2 A and 200 to 240 VAC 10A 	<ul style="list-style-type: none"> Two hot-swappable power supplies, with N+N redundancy Rated line voltage: 100 to 127 VAC (two-processor configuration: 200-240 VAC) Rated input current 100 to 127 VAC 7.2 A and 200 to 240 VAC 10A
Operating temperature	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 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Rack units	5U	5U
Physical specifications		
Height	219.25 mm (8.63 in.)	219.25 mm (8.63 in.)
Width	455 mm (17.5 in.)	455 mm (17.5 in.)
Depth	833.0 mm (32.8 in.)	833.0 mm (32.8 in.)
Weight (max.)	250 lb. (114 kg) maximum	250 lb. (114 kg) maximum
Operating system	<ul style="list-style-type: none"> Oracle Solaris Oracle Linux 	<ul style="list-style-type: none"> Oracle Solaris Oracle Linux

NETRA SYSTEMS		
		
Name	Netra SPARC S7-2	Netra Server X5-2
Processor/CPU	One or two SPARC S7 processors	One or Two Intel Xeon Processor E5-2600 v3 product family (8 core and 18 core CPU option available)
Memory	<ul style="list-style-type: none"> Eight dual inline memory module (DIMM) slots per processor supporting half and fully populated memory configurations using 16, 32, or 64 GB DDR4 DIMMs 1,024 GB maximum memory configuration with 64 GB DIMMs and two processors 	<ul style="list-style-type: none"> 8 GB and 16 GB registered or 32 GB load-reduced DDR4 DIMMs 24 DDR4 DIMM slots (12 DIMM slots per CPU socket) Supports up to 768 GB of memory capacity
Internal disk	<ul style="list-style-type: none"> Controllers: one 12 Gbps SAS-3 controller Eight 2.5-inch SAS-3 drives; four drive bays support NVMe All 2.5-inch disk bays can be populated with either SAS-3 HDDs and SSDs or four NVMe SSDs 	<ul style="list-style-type: none"> Eight-disk chassis, eight 2.5-inch SAS-3 front-accessible, hot-swappable disk bays with no DVD-RW Six-disk chassis, six 2.5-inch SAS-3 front-accessible, hot-swappable disk bays and DVD-RW All 2.5-inch disk bays can be populated with either SAS-3 HDDs and SSDs or four NVMe SSDs
External disk and tape	oracle.com/storage	oracle.com/storage
Expansion bus and ports	Four 10GBase-T ports (100 Mbps/1 Gbps/10 Gbps), full duplex only, auto-negotiating	Four on-board auto-sensing 100/1000/10000 Mb Base-T Ethernet ports
PCI slots	Six low-profile PCIe 3.0 x8 slots	Six PCIe 3.0 slots: two x16 and four x8 slots
Power	DC: -48 V DC or -60 V AC: 100 to 240 V AC, 50 to 60 Hz	DC: -48 V DC or -60 V AC: 100 to 240 V AC, 50 to 60 Hz
Operating temperature	5°C to 45°C (41°F to 113°F), short term -5°C to 55°C (23°F to 131°F)	5°C to 45°C (41°F to 113°F), short term -5°C to 55°C (23°F to 131°F)
Nonoperating temperature	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
Rack units	2U	2U
Height	88 mm (3.48 in.)	87 mm (3.43 in.)
Width	445 mm (17.52 in.)	445 mm (17.52 in.)
Depth	640 mm (25.2 in.)	640.0 mm (25.2 in.)
Weight	21.5 Kg (47.3 lb.), fully populated	17.5 kg (38.5 lb.)
Operating system	<ul style="list-style-type: none"> Oracle Solaris 11.3 or later 	<ul style="list-style-type: none"> Oracle Solaris Oracle Linux Red Hat Enterprise Linux SUSE Linux Enterprise Server Microsoft Windows Server Oracle VM VMware
Warranty/service	oracle.com/sun/warranty	oracle.com/sun/warranty

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