

Sun Entry Level Systems Line Card

Updated May 2004

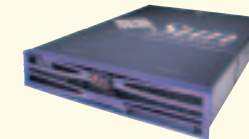
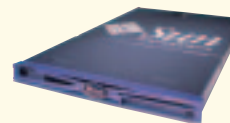


SunWIN Token #346370

Sun Fire™ Entry SPARC®/Solaris™ Servers

For more information on Sun Fire™ Entry SPARC®/Solaris™ servers, please visit: sun.com/servers/entry

SPECIFICATIONS	SUN FIRE V100	SUN FIRE V120	SUN FIRE V210	SUN FIRE V240	SUN FIRE V250
PROCESSORS					
Number and Type	1 x UltraSPARC® Ili	1 x UltraSPARC Ili	Up to 2 x UltraSPARC Ilii	Up to 2 x UltraSPARC Ilii	Up to 2 x UltraSPARC Ilii
Clock Speed	550/650 MHz	650 MHz	1.0 GHz	1.0/1.28 GHz	1.06/1.28 GHz
Cache	16-KB I-cache, 16-KB D-cache, 512-KB L2	16-KB I-cache, 16-KB D-cache, 512-KB L2	32-KB I-cache, 64-KB D-cache, 1-MB L2	32-KB I-cache, 64-KB D-cache, 1-MB L2	32-KB I-cache, 64-KB D-cache, 1-MB L2
MEMORY	Up to 2 GB	Up to 4 GB	Up to 8 GB	Up to 8 GB	Up to 8 GB
MASS STORAGE AND MEDIA					
Internal Disk Storage	Up to 2 x 80-GB IDE disks (7200 RPM)	Up to 2 x 73-GB, 10K-RPM disks, front-accessible, support for hot swap	Up to 2 x 35/73/146-GB, Ultra160 SCSI, hot-swap disks	Up to 4 x 35/73/146-GB, Ultra160 SCSI, hot-swap disks	Up to 8 x 36/73-GB, Ultra160 SCSI, hot-swap disks
Removable Media Devices	CD-ROM	CD-ROM/DVD-ROM (optional)	DVD-ROM (optional)	DVD-ROM (optional)	DVD-ROM/tape (optional)
STANDARD INTERFACES					
I/O Slots	N/A	1 x 32-bit, 33-MHz PCI slot	1 x 64-bit, 66/33-MHz PCI slot	3 x 64-bit PCI slots (1 x 66/33 MHz, 2 x 33 MHz)	6 x 64-bit PCI slots (3 x 66/33 MHz, 3 x 33 MHz)
Ethernet	2 x 10/100Base-T	2 x 10/100Base-T	4 x 10/100/1000Base-T, 1 x 10Base-T	4 x 10/100/1000Base-T, 1 x 10Base-T	1 x 10/100/1000Base-T, 1 x 10Base-T
Serial	2 x RS-232C/RS-423 ports (RJ-45)	2 x RS-232C/RS-423 ports (RJ-45)	1 x TIA/EIA-232-F (RJ-45) port, 1 x TIA/EIA-232-F asynchronous (DB-9) port	1 x TIA/EIA-232-F (RJ-45) port, 1 x TIA/EIA-232-F asynchronous (DB-9) port	1 x TIA/EIA-232-F (RJ-45) port, 1 x TIA/EIA-232-F asynchronous (DB-9) port
Parallel	N/A	N/A	N/A	N/A	1 x DB-25 port
USB	2 x OHCI-compliant ports	2 x OHCI-compliant ports	2 x OHCI 1.0-compliant ports	2 x OHCI 1.0-compliant ports	4 x OHCI 1.0-compliant ports
SCSI	N/A	1 x 80-MB/sec. UltraSCSI-2 SE/LVD port	1 x Ultra160 SCSI multimode (SE/LVD)	1 x Ultra160 SCSI multimode (SE/LVD)	1 x Ultra160 SCSI multimode (SE/LVD)
OPERATING SYSTEM	Solaris™ 8 and Solaris 9	Solaris 8 and Solaris 9	Solaris 8 (12/02) and Solaris 9 (04/03 or later)	Solaris 8 (12/02) and Solaris 9 (04/03 or later)	Solaris 8 and Solaris 9
ENVIRONMENTAL					
Form Factor	1RU (1.7"H x 19.0"D x 17.2"W)	1RU (1.7"H x 19.0"D x 17.2"W)	1RU (1.7"H x 25.0"D x 16.73"W)	2RU (3.4"H x 25.0"D x 16.73"W)	Tower (19.0"H x 9.88"D x 24.15"W)
Rackmount Kits	19" front/center mounts	19" front/center mounts	Standard telescopic rails and cable management arm for 19" racks (check non-Sun racks for compatability)	Standard telescopic rails and cable management arm for 19" racks (check non-Sun racks for compatability)	N/A
Power	90-264V AC (47-63 Hz)	90-264V AC (47-63 Hz)	90-264V AC (47-63 Hz)	90-264V AC (47-63 Hz)	100-240V AC (47-63 Hz)
MANAGEMENT					
Status LEDs	Power, Fault, Network Links	Power, Fault, Network Links	Power, Fault, Network Links, Locator	Power, Fault, Network Links, Locator	System (activity, service required), HDD (activity, ready to remove), Ethernet Connectivity, PSU (power, service required, ready to remove)
Remote Management	Advanced Lights Out Manager	Advanced Lights Out Manager	Advanced Lights Out Manager	Advanced Lights Out Manager	Advanced Lights Out Manager
BASIC WARRANTY	1 year, return to Sun	1 year, return to Sun	1 year, next business day on-site	1 year, next business day on-site	1 year, next business day on-site



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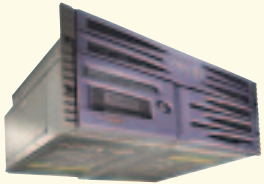
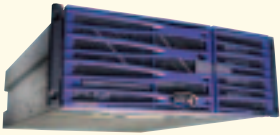
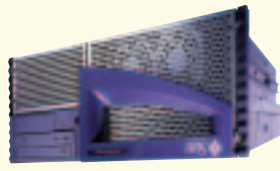
Updated May 2004



Sun Fire Entry SPARC/Solaris Servers

For more information on Sun Fire Entry SPARC/Solaris servers, please visit: sun.com/servers/entry

SPECIFICATIONS	SUN FIRE 280R	SUN FIRE V440	SUN FIRE V480	SUN FIRE V880
PROCESSORS	Up to 2 x UltraSPARC III Cu	Up to 4 x UltraSPARC IIII	Up to 4 x UltraSPARC III Cu	Up to 8 x UltraSPARC III Cu
Number and Type	1.2 GHz	1.06/1.28 GHz	1.05/1.2 GHz	1.2 GHz
Clock Speed	32-KB l-cache, 64-KB D-cache, 8-MB L2	32-KB l-cache, 64-KB D-cache, 1-MB L2	32-KB l-cache, 64-KB D-cache, 8-MB L2	Up to 64 GB
MEMORY	Up to 2 x 73-GB, 10K-RPM, Fibre Channel disks	Up to 4 x 36/73-GB, 10K-RPM, Ultra320 SCSI disks, HW RAID	Up to 2 x 73-GB, 10K-RPM, FC-AL disks	6 x 73-GB plus 6 x 146-GB (optional expansion backplane), 10K-RPM, FC-AL disks. Maximum total disk storage is 1.3 TB
MASS STORAGE AND MEDIA	DVD-ROM standard/tape (optional)	DVD-ROM standard	DVD-ROM standard	DVD-ROM standard/tape (optional)
Removable Media Devices	4 x 64-bit PCI slots (3 x 66/33 MHz, 1 x 33 MHz)	6 x 64-bit PCI slots (3 x 66/33 MHz, 3 x 33 MHz)	6 x 64-bit PCI slots (2 x 66/33 MHz, 4 x 33 MHz)	9 x 64-bit PCI slots (2 x 66/33 MHz, 7 x 33 MHz)
I/O Slots	1 x 10/100Base-T	2 x 10/100/100Base-T, 1 x 10Base-T	2 x 10/100/100Base-T	1 x 10/100/100Base-T, 1 x 10/100Base-T
Ethernet	2 x RS-232C/RS-423 (DB-25) ports	1 x T1A/E1A-32F (RJ-45) port, 1 x T1A/E1A-32F asynchronous (DB-9) port	1 x RJ-45 port	2 x RS-232C/RS-423 ports (DB-25) via splitter cable
Serial	1 x DB-25 port	N/A	N/A	N/A
Parallel	4 x OHCI 1.0-compliant ports	4 x OHCI 1.0-compliant ports	2 x OHCI 1.0-compliant ports	2 x OHCI 1.0-compliant ports
USB	1 x 40-MB/sec, UltraSCSI (SCSI-2) (synchronous), 1 x 100-MB/sec, FC-AL	1 x Ultra320 SCSI (LVD) port	FC-AL disk controller	Up to 9 x PCH-to-dual FC-AL adapters or PCH-to-Ultra SCSI adapters
SCSI	Solaris 8 (02/02 or later)	Solaris 8 (HW 07/03), Solaris 9 (12/03 or later)	Solaris 8 and Solaris 9	Solaris 8 (02/02), Solaris 9 (12/03 or later)
OPERATING SYSTEM	4RU (6.95" H x 27.25" D x 17.25" W)	4RU (6.85" H x 25.0" D x 17.3" W)	5RU (8.75" H x 24.0" D x 17.5" W)	Tower, 17RU (28.1" H x 32.9" D x 18.9" W)
ENVIRONMENTAL	Form Factor	19" front/back mounts	19" front/back mounts	Optional
ENVIRONMENTAL	Form Factor	19" front/back mounts	19" front/back mounts	100-240V AC (47-63 Hz)
Power	MANAGEMENT	System (power and fault), PSU (in, out, fault)	System (power, fault, locator), HDD (activity, ready to remove), Ethernet connectivity, PSU (power, service required, ready to remove)	System (power, fault, locator), PSU (AC, DC, fault, replace), Disk, Fans, Ethernet Connectivity
Status LEDs	Remote Management	Remote System Control	Remote System Control	Remote System Control
BASIC WARRANTY	3 years, next business day on-site	3 years, next business day on-site	3 years, next business day on-site	3 years, next business day on-site



- Up to 6 x UltraSPARC III Cu processors at 1.2 GHz, memory expandable to 48 GB
- 144 MB of frame buffer memory, 1 GB (4 x 256 MB) of texture memory. Full-screen anti-aliasing, from 5 x 5 programmable radial filter chips. Maximum 3-D resolution of 1920 x 1200 @ 75 Hz with 4 samples/pixel. Multidisplay capability at dual 1280 x 1024 @ 75 Hz with 4 samples/pixel.
- Dynamic video resizing for guaranteed frame rates. 5-video output for recording entire display in NTSC/PAL format. Stereo, frame lock, and genlock support
- Gigabit Ethernet, Fast Ethernet, Serial, USB, and SCSI
- Solaris 9 and Sun Solstice™ management tools; 3-year, 2nd business day on-site warranty

SUN FIRE V880z VISUALIZATION PLATFORM



Visualization Platform



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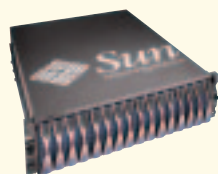
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Sun Fire B1600 Blade Platform

For more information on the Sun Fire B1600 Blade Platform, please visit: sun.com/servers/entry/blade

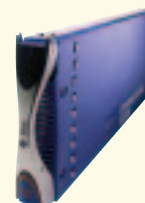
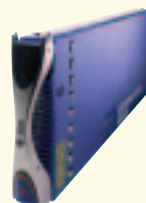
BLADE CHASSIS

SPECIFICATIONS	SUN FIRE B1600 BLADE CHASSIS
DESCRIPTION	
Capacity	16 blades
Standard Interfaces Ethernet	24 x 10/100/1000Base-T ports (16 x internal, 8 x copper external. Supports up to 2 x optionally-redundant, hot-pluggable, customer-replaceable units)
Management Ethernet	10/100Base-T RJ-45
Serial	RJ-45
MANAGEMENT	
Status LEDs	Power, Fault, Ready to Remove, AC in OK, DC out OK, Chassis ID, Link
Chassis	Up to 2 x optionally-redundant System Controllers
Customer-Replaceable Units	Blades, GbE switches, System Controllers, and PSUs
ENVIRONMENTAL	
Form Factor	3RU
Power	2 x hot-pluggable, auto-sensing 110-240V, 1040W max.
Cooling	Front-to-back cooling, PSU-independent fans
Rackmount Kits	19" and 23" 2-post and 4-post
BASIC WARRANTY	1 year, next business day on-site



BLADE SERVERS

SPECIFICATIONS	SUN FIRE B100s BLADE SERVER	SUN FIRE B100x BLADE SERVER	SUN FIRE B200x BLADE SERVER
PROCESSORS			
Number and Type	1 x UltraSPARC Ili	1 x AMD Mobile Athlon XP 1800+	2 x Low-Voltage Intel Xeon
Clock Speed	650 MHz	1.53 GHz	2.0 GHz
Cache	16-KB I-cache, 16-KB D-cache, 512-KB L2	128-KB L1, 256-KB L2	512-KB L2
MEMORY	Up to 2 GB	Up to 2 GB	Up to 4 GB
MASS STORAGE AND MEDIA			
Internal Disk Storage	1 x 30-GB (24/7) IDE	1 x 30-GB (24/7) IDE	1 x 30-GB (24/7) IDE
STANDARD INTERFACES			
Ethernet	2 x 10/100/1000Base-T redundant	2 x 10/100/1000Base-T redundant	4 x 10/100/1000Base-T redundant
Serial	2 x RS-232	2 x RS-232	4 x RS-232
Operating System	Solaris 8 and Solaris 9	Solaris x86 Platform Edition and standard Linux distributions from Sun	Solaris x86 Platform Edition and standard Linux distributions from Sun
ENVIRONMENTAL			
Form Factor	Single slot, 3RU self-enclosed	Single slot, 3RU self-enclosed	Dual slot, 3RU self-enclosed
Power	18W (avg.)	40W (avg.)	90W (avg.)
MANAGEMENT			
Status LEDs	Power, Fault, Ready to Remove	Power, Fault, Ready to Remove	Power, Fault, Ready to Remove
Remote Management	Advanced Lights Out Manager	Advanced Lights Out Manager	Advanced Lights Out Manager
BASIC WARRANTY	1 year, return to Sun	1 year, return to Sun	1 year, return to Sun



Specialty Blades



SUN FIRE B10n CONTENT LOAD BALANCING BLADE

- Content load balancing based on URLs, CGI scripts, and cookies
- Direct server-to-client response, path, blade, server failover capabilities, 2 x 10/100/1000 Base-T Ethernet
- Up to 40,000 transactions/sec., and up to 2-GB/sec. throughput
- 1-year warranty



SUN FIRE B10p SSL PROXY BLADE

- Custom hardware-based SSL processing and proxy blade, key and certificate protection/administration
- Up to 4000 SSL transactions/sec., direct proxy-to-client response, 2 x 10/100/1000 Base-T Ethernet
- 1-year warranty

Netra™ Systems

For more information on Netra™ Systems, please visit: sun.com/servers/nebs

NETRA RACK SERVERS

SPECIFICATIONS		NETRA 120	NETRA 240	NETRA 440	NETRA 1280
PROCESSORS	Number and Type	1 x UltraSPARC III	1 or 2 x UltraSPARC III	2 or 4 x UltraSPARC III	4, 8, or 12 x UltraSPARC III Cu
	Clock Speed	650 MHz	1.28 GHz	1.28 GHz	1.2 GHz
	Cache	512-KB L2, 16-KB l-cache, 16-KB D-cache	1-MB L2, 32-KB l-cache, 64-KB D-cache	1-MB L2, 32-KB l-cache, 64-KB D-cache	8-MB L2, 32-KB l-cache, 64-KB D-cache
MEMORY	Up to 4 GB	Up to 8 GB	Up to 8 GB	Up to 16 GB	Up to 96 GB
MASS STORAGE AND MEDIA	Internal Disk Storage	Up to 2 x 36-GB or 73-GB, 10K-RPM, hot-swap disks	Up to 2 x 73-GB, 15K-RPM, FC-AL, hot-swap disks	Up to 4 x 73-GB, 15K-RPM, Ultra320 SCSI, hot-swap disks	Up to 2 x 73-GB, 10K-RPM, Ultra160 SCSI, hot-swap disks
	Removable Media Devices	CD-ROM (optional)/DVD-ROM (optional)	DVD-ROM (optional)/DVD-RW (optional)	DVD-ROM (optional)/DVD-RW (optional)	DVD-ROM (standard)/DPS-4 DAT (optional)
I/O Slots	1 x 32-bit PCI slot (33 MHz)	3 x 64-bit PCI slots (1 x 66/33 MHz, 2 x 33 MHz)	4 x 64-bit PCI slots (1 x 66/33 MHz, 3 x 33 MHz)	6 x 64-bit PCI slots (3 x 33/66 MHz, 3 x 33 MHz)	6 x 64-bit PCI slots (1 x 66/33 MHz, 5 x 33 MHz)
	Ethernet	2 x 10/100base-T ports	4 x 10/100/1000base-T ports, 1 x 10base-T ports (ALOM)	2 x 10/100/1000base-T ports, 1 x 10base-T port (ALOM)	2 x 10/100/1000base-T ports, 1 x 10/100base-T port
	Serial	2 x RS-232C/RS-423 ports (RJ-45)	1 x T1A/EIA-232-F port (RJ-45), 1 x T1A/EIA-232-F asynchronous port (DB9)	2 x RS-232C/RS-423 ports (RJ-45), 1 x T1A/EIA-232-F (RJ-45) port, 1 x T1A/EIA-232-F asynchronous port (DB9)	2 x RS-232C/RS-423C ports (RJ-45)
	Parallel	N/A	1 x DB-25 port	N/A	N/A
	USB	2 x OHCI 1.0-compliant ports	2 x OHCI 1.0-compliant ports	4 x OHCI 1.0-compliant ports	4 x OHCI 1.0-compliant ports
	SCSI/FC-AL	1 x Ultra SCSI port	1 x Ultra160 SCSI SE/LVD port	1 x Ultra320 SCSI SE/LVD port	1 x Ultra160 SCSI port
OPERATING SYSTEM	Solaris 8 (10/01 or later), Solaris 9 (12/02 or later)	Solaris 8 (07/03), Solaris 9 (04/04)	Solaris 8 (02/02 or later), Solaris 9 (12/02 or later)	Solaris 8 (07/03), Solaris 9 (12/03)	Solaris 8 (02/02 or later), Solaris 9 (12/02 or later)
ENVIRONMENTAL	Form Factor	1RU (1.7"H x 18.8"D x 17.2"W)	2RU (3.4"H x 20"D x 17.4"W)	4RU (6.9"H x 19.5"D x 17.13"W)	5RU (8.77"H x 19.5"D x 17.32"W)
	Ruggedization	NEBS Level 3 certified	NEBS Level 3 certified	NEBS Level 3 certified	NEBS Level 3 certified
	Rackmount Kits	19" front/center mounts	19" 4-post kit included; optional 19" slider kit	600-mm 2-post kits; optional 19" slider kit	600-mm 2-post kits; optional 19" slider kit
	Power	1 x -48V/-60V DC PSU (AC available in Sun Fire V120)	2 x -48V/-60V or 110V/220V AC PSUs, 1+1, hot-swap, separate power cords	1 x -48V/-60V DC or 110V/220V AC PSU	4 x -48V/-60V DC PSUs, 2+2, hot-swap, separate power cords
MANAGEMENT	Status LEDs	PSU, Fault, Network	PSU, Fault, Network, Alarms	PSU, Fault, Network, Alarms	PSU, Fault, Network, Alarms
	Remote Management	Lights Out Management	Advanced Lights Out Manager, Dry Contact Alarms	Lights Out Management, Dry Contact Alarms	Advanced Lights Out Manager, Dry Contact Alarms
BASIC WARRANTY		1 year, return to Sun	1 year, return to Sun	1 year, return to Sun	1 year, return to Sun

Sun Entry Level Systems Line Card

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Netra™ Systems

For more information on Netra™ Systems,
please visit: sun.com/servers/nebs

NETRA BLADE SERVERS

SPECIFICATIONS	NETRA CT 410	NETRA CT 810	NETRA CT 820
DESCRIPTION			
Type	4-node slot cPCI Blade Server	7-node slot cPCI Blade Server	18-node slot CPSB Blade Server
Standards—PICMG	2.0, 2.1, 2.14, 2.5, 2.9	2.0, 2.1, 2.14, 2.5, 2.9	2.0, 2.1, 2.16, 2.9
PROCESSORS			
Number and Type	Up to 4 x UltraSPARC Ili	Up to 7 x UltraSPARC Ili	Up to 18 x UltraSPARC Ili
Clock Speed	650 MHz	650 MHz	650 MHz
Cache	512-KB L2, 16-KB I-cache, 16-KB D-cache	512-KB L2, 16-KB I-cache, 16-KB D-cache	512-KB L2, 16-KB I-cache, 16-KB D-cache
MEMORY	Up to 4 GB/host, 3 GB/satellite	Up to 4 GB/host, 3 GB/satellite	Up to 2.5 GB/blade
MASS STORAGE AND MEDIA			
Internal Disk Storage	Up to 1 x 73-GB, 10K-RPM, Ultra2 SCSI disk	Up to 2 x 73-GB, 10K-RPM, Ultra2 SCSI disk	N/A
Removable Media Devices	N/A	DVD-ROM (optional)/DDS-4 DAT (optional)	N/A
STANDARD INTERFACES			
I/O Slots	Up to 1 PMC/host, 2 PMC/satellite	Up to 1 PMC/host, 2 PMC/satellite	Up to 2 PMCs/blade, 2 PIMs/blade
Ethernet	2 x 10/100Base-T ports/blade	2 x 10/100Base-T ports/blade	2 x 10/100Base-T ports/blade
Serial	2 x RS-232C ports/blade	2 x RS-232C ports/blade	2 x RS-232C ports/blade
USB	2 x OHCI 1.0-compliant ports/blade	2 x OHCI 1.0-compliant ports/blade	1 x OHCI 1.1-compliant ports/blade
SCSI	2 x Ultra2 SCSI ports/host	2 x Ultra2 SCSI ports/host	N/A
OPERATING SYSTEM	Solaris 8 (02/02), Solaris 9	Solaris 8 (02/02), Solaris 9	Solaris 8 (02/02), Solaris 9
ENVIRONMENTAL			
Form Factor	12RU Chassis (21.0"H x 15.0"DC/18.4"AC D x 17.5"W), Drawer (20.1"H x 14.9"D x 4.25"W)	12RU Chassis (21.0"H x 15.0"DC/18.4"AC D x 17.5"W), Drawer (20.1"H x 14.9"D x 8.5"W)	12RU Chassis (21.0"H x 17.0"D x 17.3"W)
Ruggedization	NEBS Level 3 certified	NEBS Level 3 certified	NEBS Level 3 certified
Rackmount Kits	19", 23", 24", and 600-mm rack kits	19", 23", 24", and 600-mm rack kits	19", 23", 24", and 600-mm racks
Power	1 x -48V/-60V DC or 110V/220V AC PSU	2 x -48V/-60V DC or 110V/220V AC PSUs, 1+1, hot-swap, separate power cords	8 x -48V/-60V DC or 110V/220V AC PSUs, 4+4, hot-swap, separate power cords
MANAGEMENT			
Status LEDs	I/O, Alarms, PSU, CPUs, Fans, HDD, RMM	I/O, Alarms, PSUs, CPUs, Fans, HDDs, RMM	I/O, Alarms, PSUs, CPUs, Fans, DMC
Remote Management	Alarms Card, Element Management, Processor Management Services, Light Out Management, IPMI System Management	Alarms Card, Element Management, Processor Management Services, Light Out Management, IPMI System Management	Alarms Card, Element Management, Processor Management Services, Light Out Management, IPMI System Management
BASIC WARRANTY	1 year, return to Sun	1 year, return to Sun	1 year, return to Sun
			

NETRA BLADES

NETRA CP2140	NETRA CP2160	NETRA CP2300
Single slot cPCI Host Blade	Single slot cPCI Satellite Blade	Single slot CPSB Blade
2.1, 2.15, 2.9	2.1, 2.15, 2.9	2.1, 2.16, 2.9
1 x UltraSPARC Ili	1 x UltraSPARC Ili	1 x UltraSPARC Ili
650 MHz	650 MHz	650 MHz
512-KB L2, 16-KB I, 16-KB D	512-KB L2, 16-KB I, 16-KB D	512-KB L2, 16-KB I, 16-KB D
Up to 4 GB	Up to 3 GB	Up to 2.5 GB
N/A (optional via PMC slot)	N/A (optional via PMC slot)	N/A (optional via PMC slot)
N/A	N/A	N/A
Up to 1 PMC	Up to 2 PMCs	Up to 2 PMCs & 2 PIMs
2 x 10/100Base-T ports	2 x 10/100Base-T ports	2 x 10/100Base-T ports
2 x RS-232C ports	2 x RS-232C ports	2 x RS-232C ports
2 x OHCI 1.0-compliant ports	2 x OHCI 1.0-compliant ports	1 x OHCI 1.1-compliant ports
2 x Ultra2 SCSI ports	N/A	N/A
Solaris 8 (02/02), Solaris 9	Solaris 8 (02/02), Solaris 9	Solaris 8 (02/02), Solaris 9
6RU (9.2"H x 6.2"D x 0.8"W)	6RU (9.2"H x 6.2"D x 0.8"W)	6RU (9.2"H x 6.2"D x 0.8"W)
NEBS Level 3 certified	NEBS Level 3 certified	NEBS Level 3 certified
N/A	N/A	N/A
20W (typical)	25W (typical)	25W (typical)
Power, Hot-swap, User	Power, Hot-swap, User	Power, Hot-swap, User
Processor Management Services, IPMI System Management	Processor Management Services, IPMI System Management	Processor Management Services, IPMI System Management
1 year, return to Sun	1 year, return to Sun	1 year, return to Sun
		

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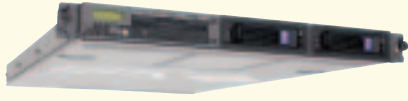
Updated May 2004



Sun Fire Entry x86 Servers

For more information on Sun Fire Entry x86 servers, please visit: sun.com/servers/entry

SPECIFICATIONS	SUN FIRE V60x	SUN FIRE V65x	SUN FIRE V20z
PROCESSORS Number and Type	Up to 2 x Intel Xeon	Up to 2 x Intel Xeon	Up to 2 x AMD Opteron
Clock Speed	2.8/3.06/3.2 GHz	2.8/3.06/3.2 GHz	Models 242/244/248/250
Cache	1-MB L3 (3.2 GHz), 512-KB L2 (2.8/3.06 GHz)	1-MB L3 (3.2 GHz), 512-KB L2 (2.8/3.06 GHz)	1-MB L2
MEMORY	Up to 6 GB	Up to 12 GB	Up to 16 GB
MASS STORAGE AND MEDIA	Up to 3 x 36/73-GB, Ultra320 SCSI disks	Up to 6 x 36/73-GB, Ultra320 SCSI disks	Up to 2 x 36/73/146-GB, Ultra320 SCSI disks
Removable Media Devices	CD-ROM/floppy or DVD-ROM/floppy (optional)	CD-ROM/floppy or DVD-ROM/floppy (optional)	CD/floppy standard (DVD/floppy optional)
STANDARD INTERFACES I/O Slots	2 x 64-bit, 100-MHz PCI-X slots	6 x 64-bit, 100-MHz PCI-X slots	2 x 64-bit PCI-X slots (1 x 133 MHz, 1 x 66 MHz)
Ethernet	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T
Serial	1 x RS-232 RJ-45	1 x RS-232 RJ-45	1 x RS-232 RJ-45
USB	3 x USB ports (1 x front, 2 x back)	3 x USB ports (1 x front, 2 x back)	1 x USB back port
SCSI	Adaptec 7902 dual-channel Ultra320 SCSI controller and rear dual-channel Ultra320 SCSI VHDCI connector	Adaptec 7902 dual-channel Ultra320 SCSI controller and rear dual-channel Ultra320 SCSI VHDCI connector	LSI 53C1020 Ultra320 SCSI controller
Video	Integrated ATI Rage XL controller	Integrated ATI Rage XL controller (front & back ports)	XGI (Trident) Blade 3D
OPERATING SYSTEM	Standard Linux distributions, Solaris 9 x86 Platform Edition, Windows 2000, Windows Server 2003	Standard Linux distributions, Solaris 9 x86 Platform Edition, Windows 2000, Windows Server 2003	Red Hat Enterprise Linux 3.0 (32-bit/64-bit), SuSE Linux Enterprise Server 8 (64-bit), Solaris 9 x86 Platform Edition (64-bit), SuSE Linux 9 Professional (64-bit), Windows 2000/2003 WHQL certification (end of Q3, CY04)
ENVIRONMENTAL Form Factor	1RU (1.69"H x 23.89"D x 16.93"W)	2RU (3.5"H x 25.51"D x 16.93"W)	1RU (1.69"H x 28.5"D x 16.94"W)
Rackmount Kits	Mid, 4-point, and front mount	Mid, 4-point, and front mount	4-point mount
Power	100 to 240V, 50/60 Hz, 350W PFC supply, dual-redundant fans	100 to 240V, 50/60 Hz, 500W PFC supply, two redundant fans, dual-redundant power supplies (optional)	90-264V AC, 47-63 Hz, 465W PSU
MANAGEMENT Status LEDs	Front Panel: Network, Network2, Network3, System Status/Fault, HDD Activity, System ID, Rear Panel: Network Connection/Activity, Network Speed, System ID, Selftest, Power Supply	Front Panel: Network, Network2, Network3, System Status/Fault, HDD Activity, System ID, Rear Panel: Network Connection/Activity, Network Speed, System ID, Selftest, Power Supply	Power, Disk Activity, Fault, Location ID, Network Activity, Front Panel LCD with Operational Status
Remote Management	Sahalee Baseboard Management Controller, Sun™ Control Station (sold separately)	Sahalee Baseboard Management Controller, Sun Control Station (sold separately)	IPMI v1.5, Lights Out Management, dedicated 2 x 10/100Base-T ports for systems management
BASIC WARRANTY	3 years, next business day on-site	3 years, next business day on-site	3 years, next business day on-site



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 complete operating system independence, agreement software provide greater control, separate Ethernet interface, and server-managed Service Processor, flash memory, RAM, a Superior Server Management: An embedded Service Processor, flash memory, RAM, a High Density, Small Footprint: The Sun Fire V20z Compute Grid rack system is delivered in a Sun™ Rack 1000-38 to ease the demand of the covered floor space in your data center.
 low-cost, scalable solution.
 agreement and compute nodes, Sun's entry-level servers populate the rack system for a Price and Performance: Serving as the main-
 agement and compute nodes, Sun's entry-level servers populate the rack system for a



Compute Grid Rack Systems

Key Highlights

Sun's Compute Grid Rack Solution: Sun offers a number of Compute Grid rack systems utilizing the Sun Fire x86 servers. These systems feature integrated, preconfig-ured hardware and management software used hardware and management software for fast and easy deployment.

Sun Entry Level Systems Line Card

SunWIN Token #346370

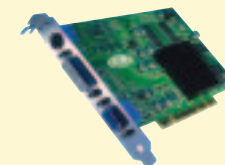
Updated May 2004

Sun™ Workstations

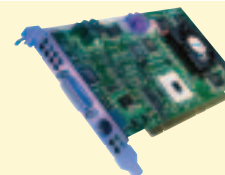
For more information on Sun Blade™ Workstations, please visit: sun.com/desktop

SPECIFICATIONS	SUN BLADE 150	SUN BLADE 1500	SUN BLADE 2500
PROCESSORS			
Number and Type	1 x UltraSPARC Ili	1 x UltraSPARC Ili	Up to 2 x UltraSPARC Ili
Clock Speed	550/650 MHz	1.0 GHz	1.28 GHz
Cache	16-KB I-cache, 16-KB D-cache, 512-KB L2	32-KB I-cache, 64-KB D-cache, 1-MB L2	32-KB I-cache, 64-KB D-cache, 1-MB L2
MEMORY	Up to 2 GB	Up to 4 GB	Up to 8 GB
MASS STORAGE AND MEDIA			
Internal Disk Storage	Up to 2 x 80-GB EIDE drives	Up to 2 x 80-GB ATA100 drives	Up to 2 x 73-GB, 10K-RPM, Ultra320 SCSI disks
Removable Media Devices	48x CD-RW or 16x DVD-ROM, 1.44-MB floppy, smart card reader	48x CD-RW or 16x DVD-ROM, smart card reader	48x CD-RW or 16x DVD-ROM, smart card reader
STANDARD INTERFACES			
I/O Slots	3 x 32-bit PCI slots, 33 MHz	5 x PCI slots (1 x 64-bit, 66/33 MHz; 2 x 64-bit, 33 MHz; 2 x 32-bit, 33 MHz)	6 x 64-bit PCI slots (3 x 66 MHz, 3 x 33 MHz)
Ethernet	1 x 10/100Base-T	1 x 10/100/1000Base-T	1 x 10/100/1000Base-T
Serial	1 x D-Sub 9-pin connector, asynchronous, 2 x 1394a (FireWire) ports	2 x RS-232C/RS-423 (DB-9-M), 2 x 1394a (FireWire) ports	2 x RS-232C/RS-423 (DB-9-M), 3 x 1394a (FireWire) ports
Parallel	1 x D-Sub 25-pin connector (IEEE 1284)	1 x D-Sub 25-pin connector (IEEE 1284)	1 x D-Sub 25-pin connector (IEEE 1284)
USB	4 x USB 1.1/1.0 ports	3 x USB 2.0, 4 x USB 1.1/1.0 ports	3 x USB 2.0, 4 x USB 1.1/1.0 ports
Video	Sun Blade 150 has on-board, 24-bit, Sun™ PGX64 2-D graphics, Sun™ XVR-100 and Sun™ XVR-600 graphics boards	Supports up to 3 x Sun XVR-100 and up to 2 x Sun XVR-600 graphics boards	2 x Sun™ XVR-1200, 3 x Sun XVR-600, and 3 x Sun XVR-100 graphics supported
Audio	4 x audio ports: Line-in/line-out/microphone-in/speaker-out	4 x audio ports: Line-in/line-out/microphone-in/speaker-out	4 x audio ports: Line-in/line-out/microphone-in/speaker-out
OPERATING SYSTEM	Solaris 8 (05/03) and 9 (04/03) preinstalled	Solaris 8 (05/03) and Solaris 9 (04/04) preinstalled	Solaris 8 (05/03) and Solaris 9 (04/04) preinstalled
ENVIRONMENTAL			
Form Factor	Pizza box (4.6"H x 17.6"D x 18.0"W)	Tower (18.1"H x 18.3"D x 6.9"W)	Tower (19.0"H x 19.3"D x 8.3"W)
Power	100-240V AC, 47-63 Hz	100-240V AC, 47-63 Hz	100-240V AC, 47-63 Hz
BASIC WARRANTY	1 year, next business day on-site	1 year, next business day on-site	1 year, next business day on-site

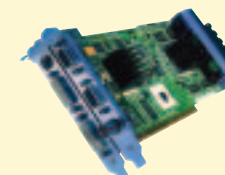
Graphics Accelerators

**SUN™ XVR-100**

- 32-MB DDR SDRAM, 24-bit support
- Dual display, HD15 and DVI connectors

**SUN™ XVR-600**

- 64-MB frame buffer, 32-MB texture memory
- 32-bit Z-buffer, 32-MB display list memory

**SUN™ XVR-1200**

- 128-MB frame buffer, 256-MB texture memory
- 32-bit RGBA color, dual DVI output

