

SPARC Enterprise T5140 and T5240 Servers

Site Planning Guide



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SPARC Enterprise™ T5140 and T5240 Servers Site Planning Guide

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Preface

This manual provides the specifications and site requirements you need when planning the installation of the SPARC Enterprise™ T5140 and T5240 servers.

For Safe Operation

This manual contains important information regarding the use and handling of this product. Read this manual thoroughly. Use the product according to the instructions and information available in this manual. Keep this manual handy for further reference.

Fujitsu makes every effort to prevent users and bystanders from being injured or from suffering damage to their property. Use the product according to this manual.

Related Documentation

The latest versions of all the SPARC Enterprise Series manuals are available at the following Web sites:

Global Site

(<http://www.fujitsu.com/sparcenterprise/manual/>)

Japanese Site

(<http://primeserver.fujitsu.com/sparcenterprise/manual/>)

Title	Description	Manual Code
<i>SPARC Enterprise T5140 Server Getting Started Guide</i>	Minimum steps to power on and boot the server for the first time	C120-E488
<i>SPARC Enterprise T5140 Server Getting Started Guide For Models That Run on DC Input Power</i>	Minimum steps to power on and boot the server that run on DC input power for the first time	C120-E554
<i>SPARC Enterprise T5240 Server Getting Started Guide</i>	Minimum steps to power on and boot the server for the first time	C120-E489
<i>SPARC Enterprise T5240 Server Getting Started Guide For Models That Run on DC Input Power</i>	Minimum steps to power on and boot the server that run on DC input power for the first time	C120-E555
<i>SPARC Enterprise T5140 and T5240 Servers Product Notes</i>	Information about the latest product updates and issues	C120-E493
<i>Important Safety Information for Hardware Systems</i>	Safety information that is common to all SPARC Enterprise series servers	C120-E391
<i>SPARC Enterprise T5140 and T5240 Servers Safety and Compliance Guide</i>	Safety and compliance information that is specific to the servers	C120-E495
<i>SPARC Enterprise/PRIMEQUEST Common Installation Planning Manual</i>	Requirements and concepts of installation and facility planning for the setup of SPARC Enterprise and PRIMEQUEST	C120-H007
<i>SPARC Enterprise T5140 and T5240 Servers Site Planning Guide</i>	Server specifications for site planning	C120-H028
<i>SPARC Enterprise T5140 and T5240 Servers Overview Guide</i>	Product features	C120-E494
<i>SPARC Enterprise T5140 and T5240 Servers Installation Guide</i>	Detailed rackmounting, cabling, power on, and configuring information	C120-E496

Title	Description	Manual Code
<i>SPARC Enterprise T5140 and T5240 Servers Service Manual</i>	How to run diagnostics to troubleshoot the server, and how to remove and replace parts in the server	C120-E497
<i>SPARC Enterprise T5140 and T5240 Servers Administration Guide</i>	How to perform administrative tasks that are specific to the servers	C120-E498
<i>Integrated Lights Out Manager 2.0 User's Guide</i>	Information that is common to all platforms managed by Integrated Lights Out Manager (ILOM) 2.0	C120-E474
<i>Integrated Lights Out Manager 2.0 Supplement for SPARC Enterprise T5140 and T5240 Servers</i>	How to use the ILOM 2.0 software on the servers	C120-E499
<i>Integrated Lights Out Manager (ILOM) 3.0 Concepts Guide</i>	Information that describes ILOM 3.0 features and functionality	C120-E573
<i>Integrated Lights Out Manager (ILOM) 3.0 Getting Started Guide</i>	Information and procedures for network connection, logging in to ILOM 3.0 for the first time, and configuring a user account or a directory service	C120-E576
<i>Integrated Lights Out Manager (ILOM) 3.0 Web Interface Procedures Guide</i>	Information and procedures for accessing ILOM 3.0 functions using the ILOM web interface	C120-E574
<i>Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide</i>	Information and procedures for accessing ILOM 3.0 functions using the ILOM CLI	C120-E575
<i>Integrated Lights Out Manager (ILOM) 3.0 SNMP and IPMI Procedures Guide</i>	Information and procedures for accessing ILOM 3.0 functions using SNMP or IPMI management hosts	C120-E579
<i>Integrated Lights Out Manager (ILOM) 3.x Feature Updates and Release Notes</i>	Enhancements that have been made to ILOM firmware since the ILOM 3.0 release	C120-E600
<i>Integrated Lights Out Manager (ILOM) 3.0 Supplement for SPARC Enterprise T5140 and T5240 Servers</i>	How to use the ILOM 3.0 software on the servers	C120-E578
<i>External I/O Expansion Unit Installation and Service Manual</i>	Procedures for installing the External I/O Expansion Unit on the SPARC Enterprise T5120/T5140/T5220/T5240/T5440 servers	C120-E543
<i>External I/O Expansion Unit Product Notes</i>	Important and late-breaking information about the External I/O Expansion Unit	C120-E544

Note – Product Notes are available on the website only. Please check for the recent update on your product.

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SPARC Enterprise T5140 and T5240 Servers Site Planning Guide

This guide contains the following sections:

- “Physical Specifications” on page 1
- “Minimum Clearance for Service Access” on page 2
- “Environmental Specifications” on page 3
- “Power Source Requirements” on page 4
- “Acoustic Noise Emissions” on page 10
- “Agency Compliance Specifications” on page 11
- “Operating Environment Requirements” on page 11

Physical Specifications

The table lists the physical specifications for the SPARC Enterprise T5140 server.

TABLE: T5140 Physical Specifications

Description	U.S.	Metric
Width	16.75 in.	425 mm
Depth	28.125 in.	714 mm
Height	1.746 in.	44 mm
Weight, approximate (without PCI cards and rackmounts)	42 lb	19 kg

The table lists the physical specifications for the SPARC Enterprise T5240 server.

TABLE: T5240 Physical Specifications

Measure	U.S.	Metric
Width	16.75 in.	425 mm
Depth	28.125 in.	714 mm
Height (2 rack units)	3.49 in.	88 mm
Weight, approximate (without PCI cards, rackmounts, and memory mezzanine assembly. The memory mezzanine assembly installed in the server increases the server weight by approximately 6.61 lb (3 kg).	57 lb	26 kg

Related Information

- [“Minimum Clearance for Service Access” on page 2](#)
- *SPARC Enterprise T5140 and T5240 Servers Getting Started Guide*
- *SPARC Enterprise T5140 and T5240 Servers Getting Started Guide (DC)*
- *SPARC Enterprise T5140 and T5240 Servers Overview Guide*
- *SPARC Enterprise T5140 and T5240 Servers Service Manual*

Minimum Clearance for Service Access

The table shows minimum clearances needed for service for both servers.

TABLE: Minimum Clearance for Service Access

Description	Specification
Clearance, front of system	36 in. (91 cm)
Clearance, rear of system	36 in. (91 cm)

Related Information

- [“Environmental Specifications” on page 3](#)

Environmental Specifications

The table lists the environmental specifications for both the SPARC Enterprise T5140 and T5240 servers.

TABLE: Environmental Specifications

Specification	Operating	Nonoperating
Temperature	<ul style="list-style-type: none"> Sea level to 2953 ft (900 m): 41°F to 95°F (5°C to 35°C) Above 2953 ft (900 m): Decrease the maximum allowable temperature by 1.6°F/1000 ft (1°C/300 m) 	-40°F to 149°F (-40°C to 65°C)
	IEC 60068-2-1 Test Ad, and 60068-2-2 Test Bd	IEC 60068-2-1 Test Ab and 60068-2-2 Test Bb
Relative Humidity	10 to 90% RH, 27°C maximum wet bulb (noncondensing)	93% RH, 35°C maximum wet bulb (noncondensing)
	IEC 60068-2-56 Test Cb	IEC 60068-2-56 Test Cb
Altitude	10,000 ft (3,000 m)	40,000 ft (12,000 m)
	IEC 60068-2-13 Test M and 60068-2-41 Test Z/BM	IEC 60068-2-13 Test M
Vibration	0.15 G (z-axis), 0.10 G (x-, y-axes), 5-500 Hz swept sine	0.5 G (z-axis), 0.25 G (x-, y-axes), 5-500 Hz swept sine
	IEC 60068-2-6 Test Fc	IEC 60068-2-6 Test Fc
Shock	3 G, 11 ms half-sine	<ul style="list-style-type: none"> Roll-off: 1-inch roll-off free fall, front to back rolling directions Threshold: 25 mm threshold height at 0.75 m/s impact velocity
	IEC 60068-2-27 Test Ea	ETE-1010-02 Rev A

Related Information

- [“Power Source Requirements” on page 4](#)

Power Source Requirements

Both the SPARC Enterprise T5140 and T5240 servers have two autoranging power supplies. To ensure redundant operation of the power supplies, connect the two power cords to separate circuits.

Server models that run on DC input power require that you build power cables and connect to DC input power as specified in the *SPARC Enterprise T5140 and T5240 Servers Installation Guide*.

Use the specifications in this guide only as a planning guide. For more precise power values, make power measurements on your specific server configuration using your planned workload. Refer to one of the following tables based on the model of your server.

TABLE: SPARC Enterprise T5140 Server (1.2 GHz Processor, 4-Disk Capable) Power Specifications

General Specifications	AC Input Models	DC Input Models
Operating input voltage range (input voltage tolerance +/- 10%)	100 to 240 VAC, 50-60 Hz	-40 to -75 VDC
Maximum operating input current	At 100 VAC: 6.9A	At -40 VDC: 15.2A
Maximum operating input current	At 200 VAC: 3.4A	
Maximum operating input power	At 100 VAC: 652.1 W	At -40 VDC: 609.1 W
Maximum heat dissipation	2224.9 BTU/hour (2347.4 KJ/hour)	2078.2 BTU/hour (2192.6 KJ/hour)
Maximum standby power	21.5 W	20.1 W
Maximum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.2 GHz processor, with sixteen 4GB FB-DIMM+, 4 HDDs, 3 PCIe I/O cards)		
Idle input power	369.4 W	345.1 W
Peak input power running SpecJBB	557.1 W	520.3 W
Minimum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (4-core, 1.2 GHz processor, with eight 1 GB FB-DIMM+, no HDDs, no PCIe I/O cards)		
Idle input power	287 W	268.1 W
Peak input power running SpecJBB	335 W	312.9 W

TABLE: SPARC Enterprise T5140 Server (1.2 GHz Processor, 8-Disk Capable) Power Specifications

General Specifications	AC Input Models	DC Input Models
Operating input voltage range (input voltage tolerance +/- 10%)	100 to 240 VAC, 50-60 Hz	Not available as a DC input model.
Maximum operating input current	At 100 VAC: 7.7A	
Maximum operating input current	At 200 VAC: 3.8A	
Maximum operating input power	At 100 VAC: 730.1 W	
Maximum heat dissipation	2491.3 BTU/hour (2628.4 KJ/hour)	
Maximum standby power	21.5 W	
Maximum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.2 GHz processor, with sixteen 8 GB FB-DIMM+, 8 HDDs, 3 PCIe I/O cards)		
Idle input power	428.2 W	
Peak input power running SpecJBB	627.1 W	
Minimum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (4-core, 1.2 GHz processor, with eight 1 GB FB-DIMM+, no HDDs, no PCIe I/O cards)		
Idle input power	287 W	
Peak input power running SpecJBB	335 W	

TABLE: SPARC Enterprise T5140 Server (1.4 GHz Processor, 4-Disk Capable Server) Power Specifications

General Specifications	AC Input Models	DC Input Models
Operating input voltage range (input voltage tolerance +/- 10%)	100 to 240 VAC, 50-60 Hz	Not available as a DC input model.
Maximum operating input current	At 100 VAC: 7.5A	
Maximum operating input current	At 200 VAC: 3.8A	
Maximum operating input power	At 100 VAC: 717.1 W	
Maximum heat dissipation	2446.7 BTU/hour (2581.4 KJ/hour)	
Maximum standby power	21.5 W	

TABLE: SPARC Enterprise T5140 Server (1.4 GHz Processor, 4-Disk Capable Server)
Power Specifications (*Continued*)

Maximum Server Configuration Specifications	
Under Nominal Temperature and Voltage Conditions (8-core, 1.4 GHz processor, with sixteen 8 GB FB-DIMM, 4 HDDs, 3 PCIe I/O cards)	
Idle input power	426.4 W
Peak input power running SpecJBB	656.1 W
Minimum Server Configuration Specifications	
Under Nominal Temperature and Voltage Conditions (4-core, 1.4 GHz processor, with four 1 GB FB-DIMMs, no HDDs, no PCIe I/O cards)	
Idle input power	329.0 W
Peak input power running SpecJBB	408.0 W

TABLE: SPARC Enterprise T5240 Server (1.2 GHz Processor, 8-Disk Capable) Power Specifications

General Specifications	AC Input Models	DC Input Models
Operating input voltage range (input voltage tolerance +/- 10%)	100 to 240 VAC, 50-60 Hz	-40 to -75 VDC
Maximum operating input current	At 100 VAC: 10.6A	At -40 VDC: 23.6A
Maximum operating input current	At 200 VAC: 5.3A	
Maximum operating input power	At 100 VAC: 1009.1 W	At -40 VDC: 942.6 W
Maximum heat dissipation	3443.3 BTU/hour 3632.8 KJ/hour)	3216.2 BTU/hour (3393.3 KJ/hour)
Maximum standby power	26.0 W	24.3 W
Maximum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.2 GHz processor, with thirty-two 8 GB FB-DIMM+, 8 HDDs, 6 PCIe I/O cards)		
Idle input power	582.5 W	544.1 W
Peak input power running SpecJBB	857.1 W	800.6 W

TABLE: SPARC Enterprise T5240 Server (1.2 GHz Processor, 8-Disk Capable) Power Specifications (Continued)

Minimum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.6 GHz processor, with eight 1 GB FB-DIMMs, no HDDs, no PCIe I/O cards)		
Idle input power	315.0 W	294.2 W
Peak input power running SpecJBB	361.0 W	337.2 W

TABLE: SPARC Enterprise T5240 Server (1.4 GHz Processor, 8-Disk Capable) Power Specifications

General Specifications	AC Input Models	DC Input Models
Operating input voltage range (input voltage tolerance +/- 10%)	200 to 240 VAC, 50-60 Hz	-40 to -75 VDC
Maximum operating input current	At 100 VAC: 11.7A	At -40 VDC: 26.1A
Maximum operating input current	At 200 VAC: 5.9A	
Maximum operating input power	At 200 VAC: 1116.1 W	At -40 VDC: 1042.5 W
Maximum heat dissipation	3808.4 BTU/hour 4018.0 KJ/hour)	3557.3 BTU/hour (3753.1 KJ/hour)
Maximum standby power	26.0 W	24.3 W
Maximum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.4 GHz processor, with thirty-two 8 GB FB-DIMM+, 8 HDDs, 6 PCIe I/O cards)		
Idle input power	641.5 W	599.2 W
Peak input power running SpecJBB	959.1 W	895.9 W
Minimum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.4 GHz processor, with eight 1 GB FB-DIMM+, no HDDs, no PCIe I/O cards)		
Idle input power	360.0 W	336.6 W
Peak input power running SpecJBB	440.0 W	411.0 W

TABLE: SPARC Enterprise T5240 Server (1.4 GHz Processor, 16-Disk Capable) Power Specifications

General Specifications	AC Input Models	DC Input Models
Operating input voltage range (input voltage tolerance +/- 10%)	200 to 240 VAC, 50-60 Hz	-40 to -75 VDC
Maximum operating input current	At 100 VAC: <n/a>	At -40 VDC: 28.3A
Maximum operating input current	At 200 VAC: 6.4A	
Maximum operating input power	At 200 VAC: 1210.2 W	At -40 VDC: 1030.4 W
Maximum heat dissipation	4129.5 BTU/hour 4356.8 KJ/hour)	3857.23 BTU/hour (3753.1 KJ/hour)
Maximum standby power	26.0 W	24.3 W
Maximum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.4 GHz processor, with thirty-two 8 GB FB-DIMM+, 16 HDDs, 6 PCIe I/O cards)		
Idle input power	716.8 W	669.5 W
Peak input power running SpecJBB	1053.2 W	983.8 W
Minimum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.4 GHz processor, with eight 1 GB FB-DIMM+, no HDDs, no PCIe I/O cards)		
Idle input power	360.0 W	336.6 W
Peak input power running SpecJBB	440.0 W	411.0 W

TABLE: SPARC Enterprise T5240 Server (1.6 GHz Processor, 8-Disk Capable) Power Specifications

General Specifications	AC Input Models	DC Input Models
Operating input voltage range (input voltage tolerance +/- 10%)	200 to 240 VAC, 50-60 Hz	-40 to -75 VDC
Maximum operating input current	At 100 VAC: <n/a>	At -40 VDC: 31.0 A
Maximum operating input current	At 200 VAC: 7.0 A	
Maximum operating input power	At 100 VAC: 1326.1 W	At -40 VDC: 1238.7 W
Maximum heat dissipation	4524.9 BTU/hour (4774.0 KJ/hour)	4226.6 BTU/hour (4459.3 KJ/hour)

TABLE: SPARC Enterprise T5240 Server (1.6 GHz Processor, 8-Disk Capable) Power Specifications (Continued)

Maximum standby power	26.0 W	24.3 W
Maximum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.6 GHz processor, with thirty-two 8 GB FB-DIMM, 8 HDDs, 6 PCIe I/O cards)		
Idle input power	711.5 W	664.6 W
Peak input power running SpecJBB	1141.1 W	1065.9 W
Minimum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.6 GHz processor, with eight 1 GB FB-DIMMs, no HDDs, no PCIe I/O cards)		
Idle input power	418.0 W	390.4 W
Peak input power running SpecJBB	524.0 W	489.5 W

TABLE: SPARC Enterprise T5240 Server (1.6 GHz Processor, 16-Disk Capable) Power Specifications

General Specifications	AC Input Models	DC Input Models
Operating input voltage range (input voltage tolerance +/- 10%)	200 to 240 VAC, 50-60 Hz	-40 to -75 VDC
Maximum operating input current	At 200 VAC: 7.5A	At -40 VDC: 33.2A
Maximum operating input power	At 200 VAC: 1420.2 W	At -40 VDC: 1326.6 W
Maximum heat dissipation	4846 BTU/hour (5112.8 KJ/hour)	4526.5 BTU/hour (4775.7 KJ/hour)
Maximum standby power	26.0 W	24.3 W
Maximum Server Configuration Specifications		
Under Nominal Temperature and Voltage Conditions (8-core, 1.6 GHz processor, with thirty-two 8 GB FB-DIMM, 16 HDDs, 6 PCIe I/O cards)		
Idle input power	786.8 W	734.9 W
Peak input power running SpecJBB	1235.2 W	1153.8 W

TABLE: SPARC Enterprise T5240 Server (1.6 GHz Processor, 16-Disk Capable) Power Specifications (*Continued*)

Minimum Server Configuration Specifications

Under Nominal Temperature and Voltage Conditions

(8-core, 1.6 GHz processor, with eight 1 GB FB-DIMMs, no HDDs, no I/O cards)

Idle input power	418.0 W	390.4 W
Peak input power running SpecJBB	524.0 W	489.5 W

Note – The maximum operating input current values are based on $P / (V * 0.95)$, where P=maximum operating input power, V=input voltage. Example: $1210 / (200 * 0.95) = 6.37$ A at 200 VAC. You can use this equation to calculate the maximum operating input current for your specific input voltage.

Related Information

- [“Acoustic Noise Emissions” on page 10](#)

Acoustic Noise Emissions

Declared noise emissions for both the SPARC Enterprise T5140 and T5240 servers are in accordance with ISO 9296 standards.

TABLE: T5140 Acoustic Noise Emissions

Description	Operating	Idling
Sound power level, LwAd (1 B = 10 dB)	8.1 B	7.6 B
Sound pressure level, LpAm (bystander positions)	70 dB	61 dB

TABLE: T5240 Acoustic Noise Emissions

Description	Operating	Idling
Sound power level, LwAd (1 B = 10 dB)	8.1 B	8.1 B
Sound pressure level, LpAm (bystander positions)	66 dB	66 dB

Related Information

- [“Agency Compliance Specifications” on page 11](#)

Agency Compliance Specifications

Refer to the *SPARC Enterprise T5140 and T5240 Servers Safety and Compliance Guide* for a full list of agency compliance specifications.

Related Information

- *SPARC Enterprise T5140 and T5240 Servers Safety and Compliance Guide*

Operating Environment Requirements

The operating environment requirements are the same for both the SPARC Enterprise *T5140 and T5240* servers. Your environmental control system must provide intake air for the servers that complies with the limits specified in [“Environmental Specifications” on page 3](#).

To avoid overheating, *do not* direct warmed air:

- Toward the front air intake of the server
- Toward the server access panels

Note – When you receive your server, place it in the environment where you will install it. Leave the server in its shipping crate at its final destination for 24 hours. This resting period prevents thermal shock and condensation.

The servers have been tested to meet all functional requirements when operating in the operating environmental limits presented in “[Environmental Specifications](#)” on [page 3](#). Operating computer equipment in extremes of temperature or humidity increases the failure rate of hardware components. To minimize the chance of component failure, use the server within the optimal temperature and humidity ranges.

Related Information

- [“Electrical Power” on page 12](#)

Electrical Power

Good practice is to connect each power supply to a separate circuit. This redundancy enables the system to remain operational if one of the circuits fails. Consult your local electrical codes for any additional requirements.

Related Information

- [“Ambient Temperature” on page 12](#)

Ambient Temperature

An ambient temperature range of 21°C (69.8°F) to 23°C (73.4°F) is optimal for server reliability. At 22°C (71.6°F) it is easy to maintain safe relative humidity levels. Operating in this temperature range provides a buffer if the environmental support systems fail.

Related Information

- [“Ambient Relative Humidity” on page 13](#)

Ambient Relative Humidity

Ambient relative humidity levels between 45% and 50% are the most suitable for data processing operations in order to:

- Prevent corrosion
- Provide an operating time buffer in the event of environmental control system failure
- Help avoid failures caused by the intermittent interference from static discharges that occur when relative humidity is too low

Electrostatic discharge (ESD) is easily generated and less easily dissipated in areas where the relative humidity is below 35%. ESD becomes critical when levels drop below 30%.

Related Information

- [“Airflow Considerations” on page 13](#)

Airflow Considerations

- Ensure unobstructed airflow through the chassis.
- Ensure that inlet air enters at the front of the server and exits from the back.

- Ensure that the server ventilation openings used for intake and outflow of air provide an open area that is at least 60% of the open area perforations across the front and rear of the server. This 60% minimum open area equates to the following dimensions, depending on the server model:

Minimum Open Area	Metric Units	US Units
SPARC Enterprise T5140 Server	112.2 cm ² (425 mm x 44 mm)	17.4 in ² (16.7 in x 1.7 in)
SPARC Enterprise T5240 Server	224.4 cm ² (425 mm x 88 mm)	34.8 in ² (16.7 in x 3.5 in)

- Allow a minimum of 5 mm (0.2 in.) clearance at the front of the system and 80 mm (3.1 in.) at the rear of the server when mounted. These clearance values are based on the inlet and exhaust impedance (available open area). These values also assume a uniform distribution of the open area across the inlet and exhaust areas. Use greater clearance values to improve cooling performance.

Note – The combination of inlet and exhaust restrictions such as cabinet doors, and the spacing of the server from the doors can affect the cooling performance of the server. You must evaluate the effect of these criteria.

- Take care to prevent recirculation of exhaust air within a rack or cabinet.
- Manage cables to minimize interfering with the server exhaust vent.

Related Information

- *SPARC Enterprise T5140 and T5240 Servers Getting Started Guide*
- *SPARC Enterprise T5140 and T5240 Servers Overview Guide*
- *SPARC Enterprise T5140 and T5240 Servers Getting Started Guide (DC)*
- *SPARC Enterprise T5140 and T5240 Servers Service Manual*

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