

# Data Sheet

## FUJITSU Server PRIMERGY SX960 S1 Blade Server

Simple and low-priced direct-attached and shared-storage solution for PRIMERGY BX Blade Servers

FUJITSU Server PRIMERGY will give you the servers you need to power any workload and changing business requirements. As business processes expand so does the need for applications. Each has its own resource footprint, so you need a way to optimize your computing to better serve your users. PRIMERGY systems will help you match your computing capabilities to your business priorities with our complete portfolio of expandable PRIMERGY tower servers for remote and branch offices, versatile rack-mount servers, compact and scalable blade systems, as well as hyper-converged scale-out servers. They convince by business proven quality with a wide range of innovations, highest efficiency cutting operational cost and complexity, provide more agility in daily operations, and integrate seamlessly to let help you concentrate on core business functions.

Fujitsu Server PRIMERGY BX blade systems are the perfect platform to build a converged infrastructure designed to reduce IT costs, time and efforts. PRIMERGY Blade Servers utilizes a modular architecture and contain in addition to the compute power, all required infrastructure and network components, storage capacity as well as management modules that helps companies to simplify their infrastructure, achieve significant cost reductions and increase flexibility.

### PRIMERGY SX960 S1

The Fujitsu PRIMERGY SX960 Storage Blade offers direct-attached storage for the PRIMERGY BX Blade Server with support of up to 10 hot-plug SAS or SATA hard disks. The storage blade can be inserted, like a server blade, in the front of the blade server housing. It can be hot-plugged and used with various types of server blades. The BX

Use Microsoft Windows Storage Server 2012 or other software products of your choice to turn the SX960 into an iSCSI SAN for all servers in the enclosure. As part of a network-attached storage appliance, Windows Storage Server 2012 enhances the traditional file serving capabilities and delivers excellent economics for a shared storage solution by leveraging industry standard hardware matched with robust storage capabilities. It delivers continuous availability that is designed to protect from a range of failures and prevent downtime in a scalable and reliable manner.



Blade Servers' midplanes offer PCI Express connections to the adjacent server blades, enabling top-quality memory access without using additional cables. The PRIMERGY SX960 Storage Blade has an onboard LSI MegaRAID controller with 512 MB Write Back Cache and optional Battery Backup Unit, for top performance and data security.

# Features & Benefits

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Main Features	Benefits
<b>Operational diversity</b> <ul style="list-style-type: none"><li>PRIMERGY SX960 S1 supports up to 10 hot-plug SAS or SATA hard disks with a half-height and double-wide form factor.</li></ul>	<ul style="list-style-type: none"><li>High capacity with up to 10 TB SATA HDDs, 9 TB with top-quality 2.5-inch SAS drives and up to 640 GB with power-saving 2.5-inch SATA SSDs.</li></ul>
<b>Shared storage</b> <ul style="list-style-type: none"><li>Use Microsoft Windows Storage Server 2012 or other software products of your choice to turn the SX960 into an iSCSI SAN for all servers in the enclosure.</li></ul>	<ul style="list-style-type: none"><li>The Virtual Storage Appliance (VSA) offers an optimal, easy-to-handle datacenter-in-the-box solution which is ideally suitable for medium-sized customers.</li></ul>
<b>Fast interconnect</b> <ul style="list-style-type: none"><li>Midplane connection via PCIe x4 interface</li></ul>	<ul style="list-style-type: none"><li>Avoidance of additional cabling due to the direct connection to Server Blade(s) via the high performance midplane, no need for additional disk controller slots in Server Blade(s).</li></ul>
<b>Enhanced speed plus secure data transmission</b> <ul style="list-style-type: none"><li>High-performance RAID controller within the storage blade, secured for RAID levels 0, 1, 5 and 6, with 512 MB cache module with ECC and with optional BBU.</li></ul>	<ul style="list-style-type: none"><li>The write-back cache comprehensively enhances the speed of write operations and in the event of power failures, the optional Battery Backup Unit guarantees highest data integrity.</li></ul>

# Technical details

## Enclosure

Housing types	Blade
Product Type	Storage Blade Disk
Max. number per BX400	2
Max. number per BX900	2
Type	Storage extension unit for BX92x and BX96x Server Blades
Number of hard disk drives	1 - 10
Storage architecture	Direct Attached Storage (DAS)
Status LEDs	Power (green) Identification (blue)

Hard disk drives	HDD SATA, 6 Gb/s, 2 TB, 7,200 rpm, 512n, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 2.5-inch, business critical

RAID Controller	RAID 5/6 Ctrl., SAS/SATA 6 Gbit/s, Fujitsu RAID Ctrl SAS 6G 5/6 512MB (D2616), 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache
	Fujitsu RAID Ctrl SAS 6G 1GB (D3116C), RAID 5/6 Ctrl., SAS/SATA 6 Gbit/s, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 1 GB, Optional FBU (based on LSI SAS2208)
	Fujitsu PRAID EP420i, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3108
	Fujitsu PRAID EP420i for SafeStore, RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3108
	Fujitsu PRAID EP400i, RAID 5/6 Ctrl., SAS/SATA/PCIe-NVMe 12 Gbit/s, 16 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 1 GB, Optional FBU based on LSI SAS3108

## Dimensions / Weight

Dimensions (W x D x H)	90 x 508 x 204 (chassis height 210,5) mm
Weight	max. 8 kg (fully equipped)
Weight notes	Actual weight may vary depending on configuration

## Environment

Temperature note	In accordance with the corresponding PRIMERGY BX400 and BX900 system unit
Operating environment	FTS 04230 – Guideline for Data Center (installation specification)
Operating environment link	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe">http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe</a>

## Power supply configuration

Active power (min. configuration)	70 W
Active power (max. configuration)	110 W
Heat emission (max. configuration)	396.0 kJ/h (375.3 BTU/h)

## Compliance

Germany	GS
Europe	CE Class A *
USA/Canada	CSA us CSA c
Global	CB RoHS (Substance limitations in accordance with global RoHS regulations) WEEE (Waste electrical and electronic equipment)
Japan	VCCI
Taiwan	BSMI

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**Compliance**

**Compliance notes**

In combination with corresponding PRIMERGY BX system unit  
There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.  
\* Warning:  
This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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**Compliance link**

<https://sp.ts.fujitsu.com/sites/certificates>

# More information

## Fujitsu products, solutions & services

In addition to FUJITSU Server PRIMERGY SX960 S1, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

### Fujitsu Portfolio

Built on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offerings. This allows customers to select from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

### Computing Products

[www.fujitsu.com/global/products/computing/](http://www.fujitsu.com/global/products/computing/)

### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

## More information

Learn more about FUJITSU Server PRIMERGY SX960 S1, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
<http://www.fujitsu.com/primergy>

## Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT. Please find further information at <http://www.fujitsu.com/global/about/environment>



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