

# Data Sheet

## FUJITSU Server PRIMERGY BX924 S3 Dual Socket Server Blade

Datasheet for Red Hat certification

High-end server blade with maximum scalability for demanding applications

FUJITSU Server PRIMERGY systems provide the most powerful and flexible data center solutions for companies of all sizes, across all industries and for any type of workload. This includes expandable PRIMERGY tower servers for remote and branch offices, versatile rack-mount servers, compact and scalable blade systems, as well as density-optimized scale-out servers. They convince by business proven quality with a wide range of innovations, highest efficiency cutting operational cost and complexity, and provide more agility in daily operations in order to turn IT faster into a business advantage.

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 BX924 S3

The Fujitsu PRIMERGY BX924 S3 is designed from the ground up to set a new standard for versatility and scalability in a dual-socket server blade. It offers scalable performance to meet highest requirements of extensive virtualization/consolidation scenarios on the one hand, and demanding high performance computing applications on the other hand. Packed with advanced features, the PRIMERGY BX924 S3 allows doing more with a two-processor server than ever before. Two Intel® Xeon® E5-2600 processors, 24 high-speed memory modules for

up to 768 GB capacity, flexible 10 Gbit/s Emulex® CNA components as well as additional slots for mezzanine cards clearly emphasizing the approach as the perfect high-end server blade. Although servers are being booted more and more via network, this system is enabled for local boot, too. This may optionally be realized with the use of solid state drives. While virtualization allows consolidating your IT resources, it often leads to increased expenses of the server administration. Thus the PRIMERGY BX924 S3 delivers state-of-the-art management capabilities with the integrated Remote Management Controller (iRMC S3) which offers the next generation of remote management functionality. The result is the ability to make your work faster, no matter whether your server is located in the server-room next door or in another part of the world.



# Features & Benefits

Main Features	Benefits
<p><b>Excellent Blade Density</b></p> <ul style="list-style-type: none"> <li>■ Two CPUs with up to 8 cores and 20 MB smart cache, each out of the next generation Intel® Xeon® processor E5-2600 product family with advanced Turbo Boost 2.0 technology, Hyper Threading, two accelerated QPI links and internal Memory Management Unit.</li> <li>■ Each Intel® QPI link provides the BX924 S3 with a high-speed bandwidth of up to 8 GigaTransfers/second (GT/s) between the individual processors as well as the processors and the up to 24 slots for high-speed (up to 1,600 MHz) memory, which are accessed via 4 channels per CPU.</li> </ul> <p><b>Industry-leading management</b></p> <ul style="list-style-type: none"> <li>■ Save time and conserve valuable IT resources by simplifying remote management with the integrated Remote Management Controller (iRMC S3).</li> <li>■ Deploy servers quickly, manage virtual or physical server health, and optimize power consumption with Fujitsu's ServerView Suite.</li> </ul> <p><b>Peak performance levels on the data highway</b></p> <ul style="list-style-type: none"> <li>■ The integrated dual-channel 10 Gbit/s Converged Network Adapter delivers high bandwidth for network intensive applications.</li> <li>■ Two PCI Express 3.0 mezzanine slots for a combination of quad channel 1 Gb or dual channel 10 Gb Ethernet, dual channel 8 Gb Fibre Channel, dual channel 10 Gb CNA (FCoE), and dual channel 40 or 56 Gb Infiniband offer excellent I/O connection options.</li> </ul>	<ul style="list-style-type: none"> <li>■ Scalable performance meets the highest requirements for consolidation scenarios with many applications as well as single instance applications, such as database management. Mainly extensive virtualization scenarios on the one hand and demanding high performance computing applications on the other hand are a main domain for this dual socket server blade.</li> <li>■ Management via the integrated Remote Management Controller (iRMC S3) enables access to each server and extensive control, even at remote locations.</li> <li>■ Simplified and comprehensive power management with different selectable power modes results in significant cost savings.</li> <li>■ The high I/O capacity of the server blade allows optimal use of multiple I/O protocols, ensuring smooth operations for demanding applications as well as a balanced operation of virtualized and physical servers in business-critical environments.</li> </ul>

# Technical details

## PRIMERGY BX924 S3

### Mainboard

Chipset	Intel® C600
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2600 product family

### Processor

Intel® Xeon® processor E5-2603 (4C/4T, 1.80 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,066 MHz, 80 W)
Intel® Xeon® processor E5-2609 (4C/4T, 2.40 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,066 MHz, 80 W)
Intel® Xeon® processor E5-2620 (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,333 MHz, 95 W)
Intel® Xeon® processor E5-2630 (6C/12T, 2.30 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,333 MHz, 95 W)
Intel® Xeon® processor E5-2630L (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,333 MHz, 60 W)
Intel® Xeon® processor E5-2637 (2C/4T, 3.00 GHz, TLC: 5 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 80 W)
Intel® Xeon® processor E5-2640 (6C/12T, 2.50 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,333 MHz, 95 W)
Intel® Xeon® processor E5-2643 (4C/8T, 3.30 GHz, TLC: 10 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 130 W)
Intel® Xeon® processor E5-2650 (8C/16T, 2.00 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 95 W)
Intel® Xeon® processor E5-2650L (8C/16T, 1.80 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 70 W)
Intel® Xeon® processor E5-2660 (8C/16T, 2.20 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 95 W)
Intel® Xeon® processor E5-2665 (8C/16T, 2.40 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 115 W)
Intel® Xeon® processor E5-2667 (6C/12T, 2.90 GHz, TLC: 15 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 130 W)
Intel® Xeon® processor E5-2670 (8C/16T, 2.60 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 115 W)
Intel® Xeon® processor E5-2680 (8C/16T, 2.70 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 130 W)
Intel® Xeon® processor E5-2690 (8C/16T, 2.90 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 135 W)

Memory slots 24 (4 channels per CPU with 3 slots each)

Memory slot type DIMM (DDR3) registered

Memory capacity (min. - max.) 4 GB - 768 GB

Memory protection  
Advanced ECC  
Memory Scrubbing  
SDDC (Chipkill™)  
Memory Mirroring support  
Hot-spare memory support

### Interfaces

USB 2.0 ports 5 (4x USB at the front via special cable)

Graphics (15-pin) 1 x VGA at the front via special cable

Serial connection 1 x RS232 (9-pin) at the front via special cable

LAN / Ethernet (RJ-45) 2 x 10 Gbit CNA via Midplane to Ethernet Connection Blade

Management LAN (RJ45) Management LAN traffic can be switched to shared onboard Gbit LAN port

**I/O controller on board**

RAID controller	RAID 0/1 for internal drives
SATA Controller	Intel® C600
Remote Management Controller	Integrated Remote Management Controller (iRMC) incl. graphics controller
Trusted Platform Module (TPM)	Infineon / 1.2 (option)

**Slots**

PCI-Express 2.0 x8	2 x BX900 Mezzanine Card
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**Drive bays**

Storage drive bays	2 x 2.5-inch non hot-plug SATA SSD
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**Operating panel**

Operating buttons	On/off switch ID button
Status LEDs	Power (amber / green) System status (orange) LAN connection (green) Identification (blue) CSS (yellow)

**BIOS**

BIOS features	BIOS settings save and restore Local and remote update via ServerView Update Manager Remote PXE boot support SMBIOS V2.6 Online update tools for main Windows and Linux versions ROM based setup utility Local BIOS update from USB device
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**Operating Systems and Virtualization Software**

Certified or supported operating systems and virtualization software	Microsoft® Hyper-V™ Server 2008 R2
	Microsoft® Windows Server® 2008 R2 Datacenter
	Microsoft® Windows Server® 2008 R2 Enterprise
	Microsoft® Windows Server® 2008 R2 Standard
	Microsoft® Windows HPC Server® 2008 R2 Suite
	Microsoft® Windows® Small Business Server 2011 Premium Add-On
	Microsoft® Windows® Small Business Server Standard 2011
	Microsoft® Windows® Server 2008 Datacenter
	Microsoft® Windows® Server 2008 Enterprise
	Microsoft® Windows® Server 2008 Standard
	VMware vSphere™ 5.0 Embedded
	VMware vSphere™ 5.0
	VMware vSphere™ 4.1
	VMware vSphere™ 4.1 Embedded
	VMware vSphere™ 4.1 Installable
	VMware vSphere™ 4.0
	VMware vSphere™ 4.0 Embedded
	VMware vSphere™ 4.0 Installable
	SUSE® Linux Enterprise Server 11
	SUSE® Linux Enterprise Server 10
	SUSE® Linux Enterprise Server 10 with XEN
	Red Hat® Enterprise Linux 7
	Red Hat® Enterprise Linux 6
Red Hat® Enterprise Linux 5	
Red Hat® Enterprise Linux 5 with XEN	
Citrix® XenServer®	
Operating system release link	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473">http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473</a>

**Operating Systems and Virtualization Software**

Operating system notes	Support of other Linux derivatives on demand
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**Server Management**

<b>Standard</b>	<ul style="list-style-type: none"> <li>ServerView Suite - Deploy               <ul style="list-style-type: none"> <li>SV Installation Manager</li> <li>SV Scripting Toolkit</li> </ul> </li> <li>ServerView Suite - Control               <ul style="list-style-type: none"> <li>Operations Manager incl. PDA and ASR &amp; R (Prefailure and Analysis; Automatic Server Recovery and Restart)</li> <li>Agents and CIM Providers</li> <li>System Monitor</li> <li>RAID Manager</li> <li>Capacity Management</li> <li>Power Management</li> <li>Storage Support</li> </ul> </li> <li>ServerView Suite - Maintain               <ul style="list-style-type: none"> <li>Remote Management (iRMC)</li> <li>Update Management (BIOS, Firmware, Windows Drives and SV Agents)</li> <li>Performance Measurement</li> <li>Asset Management</li> <li>Online Diagnostics</li> </ul> </li> <li>ServerView Suite - Integrate               <ul style="list-style-type: none"> <li>Integration packs e.g. for Microsoft System Center, VMware vCenter, Nagios, HP SIM and others</li> </ul> </li> <li>Deployment Solutions and others</li> </ul>
<b>Option</b>	ServerView VIOM - Virtual IO Manager

**Dimensions / Weight**

Dimensions (W x D x H)	45 x 500 x 210 mm
Weight	7 kg
Weight notes	Actual weight may vary depending on configuration

**Environmental**

Temperature note	In accordance with the corresponding PRIMERGY 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>

**Electrical values****Compliance**

<b>Global</b>	<ul style="list-style-type: none"> <li>CB</li> <li>RoHS (Restriction of hazardous substances)</li> <li>WEEE (Waste electrical and electronic equipment)</li> </ul>
<b>Germany</b>	GS
<b>Europe</b>	CE Class A *
<b>Compliance link</b>	<a href="http://globalsp.ts.fujitsu.com/sites/certificates">http://globalsp.ts.fujitsu.com/sites/certificates</a>
<b>Compliance notes</b>	<p>In combination with corresponding PRIMERGY BX system unit</p> <p>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.</p> <p>* Warning:</p> <p>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.</p>

## Components

<b>Mezzanine Cards</b>	<p>Ethernet Mezzanine Card 4 x 1 Gbit/s PCIe x4 Fujitsu</p> <p>Ethernet Mezzanine Card 2 x 10 Gbit/s PCIe 2.0 x8 Fujitsu</p> <p>Fibre Channel Mezzanine Card 2 x 8 Gbit/s PCIe 2.0 x8 Emulex</p> <p>InfiniBand CX2 Mezzanine Card 2 x 40 Gbit/s PCIe x8 Mellanox</p> <p>SAS HBA Mezzanine Card 2 x 6 Gbit/s PCIe 2.0 x8 Fujitsu</p> <p>SAS RAID Mezzanine Card 2 x 6 Gbit/s PCIe 2.0 x8 Fujitsu</p>
<b>LAN Controller notes</b>	The dual-channel 10 Gbit/s CNA provides either 2 10 Gbit/s ports, or 4 1 Gbit/s ports.
<b>Warranty</b>	
<b>Standard Warranty</b>	3 years
<b>Maintenance and Support Services - the perfect extension</b>	
<b>Recommended Service</b>	24x7, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
<b>Spare Parts availability</b>	5 years
<b>Service Weblink</b>	<a href="http://www.fujitsu.com/fts/services/support">http://www.fujitsu.com/fts/services/support</a>

# More information

## Fujitsu OPTIMIZATION Services

In addition to Fujitsu PRIMERGY BX924 S3, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

## Fujitsu Portfolio

Build 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 offering. This allows customers to leverage 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/services/computing/](http://www.fujitsu.com/global/services/computing/)

## Software

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

## More information

Learn more about Fujitsu PRIMERGY BX924 S3, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
<http://www.fujitsu.com/>

## 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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