

Data Sheet

Fujitsu PRIMERGY BX924 S3 Dual Socket Server Blade

High-end server blade with maximum scalability for demanding applications

Fujitsu PRIMERGY BX Blade Servers provide a faster, simpler and lower-cost way to build and run an IT infrastructure in your midsize organization, branch office or large data center. The PRIMERGY BX system family is designed so that the chassis components can be used throughout the family. Server, storage and connection blades can be added or replaced without any additional cabling or administration effort. PRIMERGY Blade Servers provide maximum performance and maximum redundancy, but with only minimum space requirements and low power consumption. Business agility is achieved through simple, modular design and a large number of useful features that help reduce deployment time to hours or even only minutes. You can use thousands of applications and a large number of certified operating systems, and you can arrange your own individual combinations of virtual machines, storage and server blades together with a wide-ranging selection of internal and external connections, such as Ethernet, Fibre Channel, SAS and InfiniBand. And as business requirements change, the Fujitsu PRIMERGY Blade Servers can be adapted to meet individual needs in a suitable manner.

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 (SSD) or a hard disk drive. 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 and Benefits

Main Features	Benefits
<p>Excellent Blade Density</p> <ul style="list-style-type: none"> 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. 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. <p>Industry-leading management</p> <ul style="list-style-type: none"> Save time and conserve valuable IT resources by simplifying remote management with the integrated Remote Management Controller (iRMC S3). Deploy servers quickly, manage virtual or physical server health, and optimize power consumption with Fujitsu's ServerView Suite. <p>Peak performance levels on the data highway</p> <ul style="list-style-type: none"> The integrated dual-channel 10 Gbit/s Converged Network Adapter delivers high bandwidth for network intensive applications. 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. 	<ul style="list-style-type: none"> 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. Management via the integrated Remote Management Controller (iRMC S3) enables access to each server and extensive control, even at remote locations. Simplified and comprehensive power management with different selectable power modes results in significant cost savings. 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.

Technical details

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: 1066 MHz, 80 W)
Intel® Xeon® processor E5-2609 (4C/4T, 2.40 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1066 MHz, 80 W)
Intel® Xeon® processor E5-2620 (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1333 MHz, 95 W)
Intel® Xeon® processor E5-2630 (6C/12T, 2.30 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1333 MHz, 95 W)
Intel® Xeon® processor E5-2630L (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1333 MHz, 60 W)
Intel® Xeon® processor E5-2637 (2C/4T, 3.00 GHz, TLC: 5 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 80 W)
Intel® Xeon® processor E5-2640 (6C/12T, 2.50 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1333 MHz, 95 W)
Intel® Xeon® processor E5-2643 (4C/8T, 3.30 GHz, TLC: 10 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 130 W)
Intel® Xeon® processor E5-2650 (8C/16T, 2.00 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 95 W)
Intel® Xeon® processor E5-2650L (8C/16T, 1.80 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 70 W)
Intel® Xeon® processor E5-2660 (8C/16T, 2.20 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 95 W)
Intel® Xeon® processor E5-2665 (8C/16T, 2.40 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 115 W)
Intel® Xeon® processor E5-2667 (6C/12T, 2.90 GHz, TLC: 15 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 130 W)
Intel® Xeon® processor E5-2670 (8C/16T, 2.60 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 115 W)
Intel® Xeon® processor E5-2680 (8C/16T, 2.70 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 MHz, 130 W)
Intel® Xeon® processor E5-2690 (8C/16T, 2.90 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1600 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

Memory options	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1600 MHz, PC3-12800, DIMM
	16 GB (1 module(s) 16 GB) DDR3 LR LV, registered, ECC, 1333 MHz, PC3-10600, LRDIMM
	16 GB (1 module(s) 16 GB) DDR3 LV, registered, ECC, 1600 MHz, PC3-12800, DIMM
	32 GB (1 module(s) 32 GB) DDR3 LR LV, registered, ECC, 1333 MHz, PC3-10600, LRDIMM

Memory options	2 GB (1 module(s) 2 GB) DDR3 LV, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM 4 GB (1 module(s) 4 GB) DDR3 LV, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM
Interfaces	
USB 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
Service LAN (RJ45)	Service 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 3.0 x8	2 x BX900 Mezzanine card
Storage drive bays	2 x 2.5-inch non hot-plug SATA SSD
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

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
	Novell® SUSE Linux Enterprise Server 11
	Novell® SUSE Linux Enterprise Server 10
Novell® SUSE Linux Enterprise Server 10 with XEN	
Red Hat® Enterprise Linux 6	
Red Hat® Enterprise Linux 5	
Red Hat® Enterprise Linux 5 with XEN	
Citrix® XenServer®	
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421
Operating system notes	Support of other Linux derivatives on demand

Server Management

Standard	<ul style="list-style-type: none"> ServerView Suite - Deploy <ul style="list-style-type: none"> SV Installation Manager SV Scripting Toolkit SV Deployment Manager (30-day trial version) ServerView Suite - Control <ul style="list-style-type: none"> SV Operations Manager incl. PDA and ASR & R (Prefailure and Analysis; Automatic Server Recovery and Restart) SV Performance Management SV Power Management SV RAID Manager ServerView Suite - Maintain <ul style="list-style-type: none"> SV Remote Management (iRMC) SV Update Management (BIOS, Firmware, Windows Drives and SV Agents) SV Asset Management SV Online Diagnostics ServerView Suite - Integrate <ul style="list-style-type: none"> SV Integration packs e.g. for Microsoft System Center, Nagios, HP, SIM, HP NNM, IBM Tivoli, Altiris Deployment Solutions and others
Option	ServerView VIOM - Virtual IO Manager
Server Management notes	Regarding Operating System dependencies for ServerView Suite Software Products see dedicated Product Data sheets.

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 locations)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Electrical values	
Compliance	
Germany	GS
Europe	CE Class A *
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment)
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.
Compliance link	http://sp.ts.fujitsu.com/sites/certificates/

Components

Storage disks	SSD SATA, 3 Gb/s, 400 GB, MLC, non hot plug, 2.5-inch, enterprise SSD SATA, 3 Gb/s, 200 GB, MLC, non hot plug, 2.5-inch, enterprise SSD SATA, 3 Gb/s, 100 GB, MLC, non hot plug, 2.5-inch, enterprise SSD SATA, 3 Gb/s, 32 GB, SLC, non hot plug, 2.5-inch, enterprise SSD SAS, 6 Gb/s, 200 GB, MLC, non hot plug, 2.5-inch, enterprise HDD SATA, 3 Gb/s, 500 GB, 5400 rpm, non hot plug, 2.5-inch, economic HDD SATA, 3 Gb/s, 320 GB, 5400 rpm, non hot plug, 2.5-inch, economic
Mezzanine Cards	Ethernet Mezzanine Card 4 x 1 Gb Fujitsu , PCIe x4 CNA Mezzanine Card 2 x 10 Gb Emulex (MC-CNA112E), PCIe Gen2 x8 Ethernet Mezzanine Card 2 x 10 Gb Fujitsu , PCIe Gen2 x8 Fibre Channel Mezzanine Card 2 x 8 Gb Emulex (MC-FC82E), PCIe x4 InfiniBand CX2 Mezzanine Card 2 x 40 Gb Mellanox , PCIe x8 InfiniBand Mezzanine Card 2 x 56 Gb Mellanox (), PCIe Gen3 x8 SAS HBA Mezzanine Card x 6 Gb Fujitsu (), PCIe Gen2 x8
LAN Controller notes	The dual-channel 10 Gbit/s CNA provides either 2 10 Gbit/s ports, or 4 1 Gbit/s ports.
Warranty	
Standard Warranty	3 years
Service level	(depending on country)
Maintenance and Support Services - the perfect extension	
Recommended Service	7x24, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Spare Parts availability	5 years
Service Weblink	http://www.fujitsu.com/fts/services

More information

Fujitsu platform solutions

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.

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products

www.fujitsu.com/global/services/computing/

Software

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 resolve issues of environmental energy efficiency through IT. Please find further information at <http://www.fujitsu.com/global/about/environment/>



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