FUJITSU

Data Sheet
FUJITSU Server PRIMERGY BX924 S3 Dual Socket Server Blade

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 (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 & Benefits

Main Features	Benefits
Excellent Blade Density ■ 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.	■ 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.
Industry-leading management ■ 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.	■ 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.
Peak performance levels on the data highway ■ 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.	■ 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

PRIMERGY BX924 S3

Mainboard

Mainboard type	D3143
Chipset	Intel® C600
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2600 product family
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, 1,333 MHz, PC3-10600, DIMM, single rank
	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM, dual rank
	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM, single rank
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1,333 MHz, PC3-10600, DIMM, dual rank
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM, dual rank
	16 GB (1 module(s) 16 GB) DDR3 LV, registered, ECC, 1,600 MHz, PC3-12800, DIMM, dual rank
	32 GB (1 module(s) 32 GB) DDR3 LR LV, registered, ECC, 1,333 MHz, PC3-10600, LRDIMM, quad rank

Interfaces

USB 2.0 ports	3 (1x USB at the front side + 2x USB via special cable)
Graphics (15-pin)	1 x VGA at the front via special cable
LAN / Ethernet	2 x 10 Gbit/s or 4 x 1Gbit/s via Midplane to Ethernet Connection Blade
Management LAN (RJ45)	Management LAN traffic can be switched to shared onboard LAN port

Onboard or integrated Controller

RAID controller	RAID 0/1 for internal drives
SATA Controller	Intel® C600
LAN Controller	Emulex BladeEngine® 3 (BE3), 2 x 10Gbit/s, 2 or 4 x 1Gbit/s Ethernet depending on installed Connection Blade, in 10Gbit/s mode CNA functionality with: - up to 4 physical function per port - optional one storage function (FCoE or iSCSI) with full offload PXE-Boot via LAN from PXE server in all modes FCoE and iSCSI boot in CNA mode PCI-SIG SR-IOV compliant with up to 128 VFs (depending on OS support) Support for VMware NetQueue and Microsoft VMQ optimizes performance for virtualized servers
Remote Management Controller	Integrated Remote Management Controller (iRMC S3, 32 MB attached memory incl. graphics controller) IPMI 2.0 compatible
Trusted Platform Module (TPM)	Infineon / 1.2 (option)

Slots

PCI-Express 3.0 x8	2 x BX900 Mezzanine card

Drive bays

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

Operating panel

Operating buttons	On/off switch ID button

Operating panel

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	VMware vSphere™ 5.1 Embedded
	Microsoft® Hyper-V Server 2012 R2
	Microsoft® Windows Server® 2012 R2 Datacenter
	Microsoft® Windows Server® 2012 R2 Standard
	Microsoft® Windows Storage Server 2012 R2 Standard
	Microsoft® Hyper-V Server 2012
	Microsoft® Windows Server® 2012 Datacenter
	Microsoft® Windows Server® 2012 Standard
	Microsoft® Windows Storage Server 2012 Standard
	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™ 5.5 Embedded
	VMware vSphere™ 5.5
	VMware vSphere™ 5.1
	VMware vSphere™ 5.0 Embedded
	VMware vSphere™ 5.0
	VMware vSphere™ 4.1
	VMware vSphere™ 4.1 Embedded
	VMware vSphere™ 4.1 Installable
	SUSE® Linux Enterprise Server 11
	SUSE® Linux Enterprise Server 10
	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=d4ebd846-aa0c-478b-8f58-4cfbf3230473
Operating system notes	Support of other Linux derivatives on demand

Server Management

Standard	ServerView Suite - Deploy
	SV Installation Manager
	SV Scripting Toolkit
	ServerView Suite - Control
	Operations Manager incl. PDA and ASR & R
	(Prefailure and Analysis; Automatic Server Recovery and Restart)
	Agents and CIM Providers
	System Monitor
	RAID Manager
	Capacity Management
	Power Management
	Storage Support
	ServerView Suite - Maintain
	Remote Management (iRMC)
	Update Management (BIOS, Firmware, Windows Drives and SV Agents)
	Performance Measurement
	Asset Management
	Online Diagnostics
	ServerView Suite - Integrate
	Integration packs e.g. for Microsoft System Center, VMware vCenter, Nagios, HP SIM and others
	Deployment Solutions and others
Option	ServerView VIOM - Virtual IO Manager
Server Management notes	Regarding 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 specification)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe
Electrical values	

Compliance

Global	CB
	RoHS (Restriction of hazardous substances)
	WEEE (Waste electrical and electronical equipment)
Germany	GS
Europe	CE Class A *
Compliance link	http://globalsp.ts.fujitsu.com/sites/certificates
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.

Components

Storage drives	SSD SATA, 6 Gb/s, 800 GB, Mainstream Endurance, non hot plug, 2.5-inch, enterprise
	SSD SATA, 6 Gb/s, 400 GB, Mainstream Endurance, non hot plug, 2.5-inch, enterprise
	SSD SATA, 6 Gb/s, 200 GB, Mainstream Endurance, non hot plug, 2.5-inch, enterprise
	SSD SATA, 6 Gb/s, 100 GB, Mainstream Endurance, non hot plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 800 GB, Mainstream Endurance, non hot plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 400 GB, Mainstream Endurance, non hot plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 200 GB, Mainstream Endurance, non hot plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 400 GB, MLC, non hot plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 200 GB, MLC, non hot plug, 2.5-inch, enterprise
	HDD SATA, 1 TB, 5,400 rpm, non hot plug, 2.5-inch, economic
Mezzanine Cards	Ethernet Mezzanine Card 4 x 1 Gbit/s PCIe x4 Fujitsu
	CNA Mezzanine Card 2 x 10 Gbit/s PCIe 2.0 x8 Emulex
	Ethernet Mezzanine Card 2 x 10 Gbit/s PCIe 2.0 x8 Fujitsu
	Fibre Channel Mezzanine Card 2 x 8 Gbit/s PCIe 2.0 x8 Emulex
	InfiniBand CX2 Mezzanine Card 2 x 40 Gbit/s PCIe x8 Mellanox
	InfiniBand Mezzanine Card 2 x 56 Gbit/s PCIe 3.0 x8 Mellanox
	SAS HBA Mezzanine Card 2 x 6 Gbit/s PCIe 2.0 x8 Fujitsu
	SAS RAID Mezzanine Card 2 x 6 Gbit/s PCIe 2.0 x8 Fujitsu
LAN Controller notes	The dual-channel 10 Gbit/s onboard CNA provides either 2 10 Gbit/s ports, or 4 1 Gbit/s ports.

Warranty

Standard Warranty	3 years
Service level	Onsite Service

Maintenance and Support Services - the perfect extension

Support Pack Options	Globally available in major business areas: 9x5, Next Business Day Onsite Response Time 9x5, 4h Onsite Response Time 24x7, 4h Onsite Response Time
Recommended Service	24x7, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Spare Parts availability	5 years
Service Lifecycle	5 years after end of product life
Service Weblink	http://www.fujitsu.com/fts/services/support

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/

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 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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