FUJITSU

Data Sheet
FUJITSU Server PRIMERGY BX920 S3 Dual Socket Server Blade

Datasheet for Red Hat certification

Universal dual socket server blade with advanced computing and I/O performance

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 BX920 S3
The Fujitsu PRIMERGY BX920 S3 is a dual-socket server blade which offers the ideal balance of performance and cost-efficiency. It is designed for large enterprise data centers, midsized businesses and branch offices and delivers efficient compute power that is suitable for mainstream business applications and virtual client computing scenarios.
The server blade leverages CPUs of the latest Intel® Xeon® processor E5-2400 product family utilizing enhanced QuickPath Interconnect architecture. By packing two processors, two hot-plug disk drives,

up to 384 GB of DDR3 memory, and a flexible dual-channel 10 Gigabit Converged Network Adapter on board, the PRIMERGY BX920 S3 server blade delivers highest performance to ensure today's demand while being prepared for future requirements. In addition, the PRIMERGY BX920 S3 server blade is equipped with the state-of-the-art integrated Remote Management Controller (iRMC S3) which enables extensive control even at remote locations. With its wide range of processor, disk and memory options, it provides IT managers with the performance and scalability they need for all their applications. The optimal and secure support of I/O-intensive applications like terminal servers is ensured by the optional use of a RAID controller with a write-back cache on board, optionally protected by a Flash Backup Unit.

Features & Benefits

Main Features	Benefits
Memory and Compute Density ■ Two CPUs with up to 8 cores and 20 MB smart cache, each out of the latest Intel® Xeon® processor E5-2400 product family. The Intel® QPI link provides the BX920 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 12 memory slots, which are accessed via 3 channels per CPU.	■ With its wide range of processor, memory and IO options, the server blade provides IT managers with tunable performance for their mainstream business applications.
Modular storage connections ■ Up to two hot-plug HDD/SSD drives. The optimal and secure support of I/O-intensive applications like terminal servers is ensured by the optional use of a RAID controller with a write-back cache on board, optionally protected by a Flash Backup Unit (RAID module does not consume any slot for I/O mezzanine cards).	■ High versatility of data access provides choice for the most appropriate solution in terms of costs, performance, and safety.
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 BX920 S3

Mainboard

Mainboard type	D3142
Chipset	Intel® C600
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2400 product family

Processor	Intel® Xeon® processor E5-2403 (4C/4T, 1.80 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,066 MHz, 80 W)
	Intel® Xeon® processor E5-2407 (4C/4T, 2.20 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,066 MHz, 80 W)
	Intel® Xeon® processor E5-2420 (6C/12T, 1.90 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,333 MHz, 95 W)
	Intel® Xeon® processor E5-2430 (6C/12T, 2.20 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,333 MHz, 95 W)
	Intel® Xeon® processor E5-2430L (6C/12T, 2.00 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,333 MHz, 60 W)
	Intel® Xeon® processor E5-2440 (6C/12T, 2.40 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,333 MHz, 95 W)
	Intel® Xeon® processor E5-2450 (8C/16T, 2.10 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 95 W)
	Intel® Xeon® processor E5-2450L (8C/16T, 1.80 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 70 W)
	Intel® Xeon® processor E5-2470 (8C/16T, 2.30 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 95 W)

Memory slots	12 (3 channels per CPU with 2 slots each)
Memory slot type	DIMM (DDR3) registered
Memory capacity (min. - max.)	4 GB - 384 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 LR LV, registered, ECC, 1,333 MHz, PC3-10600, LRDIMM, quad 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

Memory options	2 GB (1 module(s) 2 GB) DDR3 LV, unbuffered, ECC, 1,600 MHz, PC3-12800, DIMM, single rank
	4 GB (1 module(s) 4 GB) DDR3 LV, unbuffered, ECC, 1,600 MHz, PC3-12800, DIMM, dual rank

Interfaces

USB 2.0 ports	5 (4 x 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

Remote Management Controller	Integrated Remote Management Controller (iRMC) incl. graphics controller

I/O controller on board	
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 hot-plug SAS/SATA

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 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	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 Operating System dependencies for ServerView Suite Software Products see dedicated Product Data sheets. ServerView VIOM

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, 3 Gb/s, 32 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SAS, 6 Gb/s, 200 GB, MLC, hot-plug, 2.5-inch, enterprise
	HDD SATA, 6 Gb/s, 500 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 250 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 2.5-inch, business critical
	HDD SAS, 6 Gb/s, 900 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 600 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 450 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 146 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 73 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise
RAID Controller	SAS RAID HDD module, 6 Gbit/s, Fujitsu , RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, Optional FBU (based on LSI SAS2208)
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
	SAS HBA Mezzanine Card 2 x 6 Gbit/s PCIe 2.0 x8 Fujitsu
LAN Controller notes	The dual-channel 10 Gbit/s onboard CNA provides 2 additional 1 Gbit/s ports, thus 4 ports in total.

Warranty	
Standard Warranty	3 years
Maintenance and Support Services - the perfect extension	
Recommended Service	24x7, 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/support

More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu PRIMERGY BX920 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 , 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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