Data Sheet
FUJITSU Server PRIMERGY BX920 S4 Dual Socket Server Blade

Datasheet for Red Hat certification

Mainstream dual-socket server blade for essential enterprise workloads

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 S4

The Fujitsu Server PRIMERGY BX920 S4 is the new general-purpose dual-socket server blade for the PRIMERGY BX400 and BX900, designed for cost-optimized performance, reliability and holistic server lifecycle management. The BX920 S4 provides breakthrough server blade economics for essential enterprise workloads, virtual client computing scenarios and infrastructure services. It is equipped with CPUs of the latest Intel® Xeon® processor E5-2400v2 product family, delivers up to 768GB of memory and 1600MHz speeds via 12 DIMMs, two hot-plug hard disk drives, multiple RAID options for internal storage, and flexible networking options via the onboard dual-channel 10Gbit/s Ethernet Converged Network Adapter, delivering the performance and versatility needed in an enterprise data center.
Fujitsu Server PRIMERGY BX920 S4 supports FUJITSU Software ServerView® Suite integrated Remote Management Controller (iRMC S4) that enables extensive monitoring and management of servers regardless of their system status – even at decentralized locations. iRMC S4 combines long-term expertise and practical experience gained with its successful predecessors with additional functionalities such as remote control of server-internal HDDs and RAID configurations also in agentless out-of-band operation.

Features & Benefits

Main Features	Benefits
Improved Application, Storage, and I/O Performance	
■ Two CPUs with up to 10 cores and 25 MB smart cache, each out of the latest Intel® Xeon® processor E5-2400v2 product family. The Intel® QPI link provides the BX920 S4 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.	■ Breakthrough server blade economics for essential enterprise workloads, virtual client computing scenarios and infrastructure services. ■ Considerably more performance in same power envelope compared to the previous generation enables to run significantly more virtual machines. ■ Improved security with Intel® Secure Key & Intel® OS Guard for additional HW embedded security.
Multiple RAID Solutions	
■ Up to two hot-plug hard disk drives drives with different RAID options for internal drives: ■ Intel® C600 Chipset based RAID ■ Intel® C600 Chipset based RAID with SAS upgrade ■ SAS RAID HDD Module with LSI MegaRAID SAS2208 w/o cache ■ SAS RAID HDD Module with LSI MegaRAID SAS2208 w/ 512 MB Cache and optional Flash Backup Unit (FBU)	■ High versatility of data access provides choice for the most appropriate solution in terms of costs, performance, and safety.
Holistic Server Lifecycle Management	
■ Save time and conserve valuable IT resources by simplifying remote management with the new, CIM compliant, integrated Remote Management Controller (iRMC S4). ■ The iRMC S4 is based on its successful predecessor iRMC S3 and provides additional functionalities such as HDD and RAID monitoring, Video Capturing and virtual media support for multiple CD/DVD, HDD or FDD images or physical drives. ■ Deploy servers quickly, manage virtual or physical server health, and optimize energy consumption with Fujitsu's ServerView Suite, supported by the Intel® Node Manager.	■ Standards conform management via the integrated Remote Management Controller (iRMC S4) 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. ■ ServerView Remote Management enables fully remote control and analysis of Fujitsu PRIMERGY servers irrespective of their system status and location. In the event of a failure administrators or service providers can access the server in order to run failure diagnostics and maintenance tasks on a remote basis and in a highly efficient manner.
Converged Performance	
■ The integrated dual-channel 10 Gbit/s Ethernet Converged Network Adapter provides the ability to customize server networking today and the ability to meet future needs without overhauling server hardware. Provides choice of bandwidth and fabric (Ethernet, iSCSI, FCoE). ■ Two PCI Express 3.0 mezzanine slots for a combination of quad-port 1 Gbit/s, or dual-port 10 Gbit/s Ethernet, dual-port 8 Gbit/s Fibre Channel, dual-port 10 Gbit/s CNA (FCoE), and dual-port 56 Gbit/s Infiniband offer excellent I/O connection options.	■ Common infrastructure for network and storage reduces investment costs (fewer adapters, ports, Connection Blades and switches) as well as operational expenses for IT administration. ■ 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 S4	
Mainboard	
Mainboard type	D3142
Chipset	Intel® C600
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2400 v2 product family
Processor	Intel® Xeon® processor E5-2403v2 (4C/4T, 1.80 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,333 MHz, 80 W)
	Intel® Xeon® processor E5-2407v2 (4C/4T, 2.40 GHz, TLC: 10 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,333 MHz, 80 W)
	Intel® Xeon® processor E5-2420v2 (6C/12T, 2.20 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,600 MHz, 80 W)
	Intel® Xeon® processor E5-2430Lv2 (6C/12T, 2.40 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,600 MHz, 60 W)
	Intel® Xeon® processor E5-2430v2 (6C/12T, 2.50 GHz, TLC: 15 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,600 MHz, 80 W)
	Intel® Xeon® processor E5-2440v2 (8 Cores / 16 Threads, 1.90 GHz, TLC: 20 MB, Turbo: Yes, 7.2 GT/s, Mem bus: 1,600 MHz, 95 W)
	Intel® Xeon® processor E5-2450Lv2 (10C/20T, 1.70 GHz, TLC: 25 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 60 W)
	Intel® Xeon® processor E5-2450v2 (8 Cores / 16 Threads, 2.50 GHz, TLC: 20 MB, Turbo: Yes, 8.0 GT/s, Mem bus: 1,600 MHz, 95 W)
	Intel® Xeon® processor E5-2470v2 (10C/20T, 2.40 GHz, TLC: 25 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 - 768 GB
Memory protection	Advanced ECC Memory Scrubbing SDDC (Chipkill™) Memory Mirroring support Rank sparing memory support
Memory options	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, 1,600 MHz, PC3-12800, DIMM, single 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, registered, ECC, 1,600 MHz, PC3-12800, DIMM, quad rank
	64 GB (1 module(s) 64 GB) DDR3 LR, registered, ECC, 1,333 MHz, PC3-10600, DIMM, octo rank
Memory options	8 GB (1 module(s) 8 GB) DDR3, unbuffered, ECC, 1,600 MHz, PC3-12800, DIMM, dual 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 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 S4, 256 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 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 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® Server 2008 Enterprise Microsoft® Windows® Server 2008 Standard VMware vSphere™ 5.5 Embedded VMware vSphere™ 5.5 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 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 SV Deployment Manager (30-day trial version) ServerView Suite - Control 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 SV Remote Management (iRMC) SV Update Management (BIOS, Firmware, Windows Drives and SV Agents) SV Asset Management SV Online Diagnostics ServerView Suite - Integrate SV Integration packs e.g. for Microsoft System Center, Nagios, HP, SIM, HP NNM, IBM Tivoli, Altiris
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 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 SAS, 12 Gb/s, 800 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 400 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 200 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise
	SSD SAS, 12 Gb/s, 1.6 TB, Mainstream Endurance, 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, 500 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical
	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, 1.2 TB, 10,000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 2.5-inch, business critical
RAID Controller	SAS RAID HDD module, 8 Gbit/s, Fujitsu , RAID level: 0, 1, 10, No BBU support (based on LSI SAS2208)
	SAS RAID HDD module, 8 Gbit/s, Fujitsu , RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, Optional BBU (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 Gen2 x8 Emulex
	Ethernet Mezzanine Card 2 x 10 Gbit/s PCIe Gen2 x8 Fujitsu
	Fibre Channel Mezzanine Card 2 x 8 Gbit/s PCIe x4 Emulex
	InfiniBand CX2 Mezzanine Card 2 x 40 Gbit/s PCIe x8 Mellanox
	InfiniBand Mezzanine Card 2 x 56 Gbit/s PCIe Gen3 x8 Mellanox
	SAS HBA Mezzanine Card 2 x 6 Gbit/s PCIe Gen2 x8 Fujitsu
	SAS RAID Mezzanine Card 2 x 6 Gbit/s PCIe Gen2 x8 Fujitsu
LAN Controller notes	The dual-channel 10 Gbit/s onboard CNA provides either 2x 10 Gbit/s ports, or 4x 1 Gbit/s ports.

Warranty	
Standard Warranty	3 years
Service level	Onsite Service (depending on country)
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 BX920 S4, 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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