

DATA SHEET

PRIMERGY BX920 S1

Issue: September 2009

- All-around server blade packing lots of compute power in small form factor.

The PRIMERGY BX Blade Servers are the ideal choice for data center solutions of today and tomorrow. Our blade servers provide maximum performance and maximum redundancy, but with only minimum space requirements, low power consumption and a reduction in the time and effort required for cabling. The PRIMERGY BX system family is designed to share components between chassis to enable quick and easy reactions to changing business requirements. Storage and server blades can be added without any extra effort, as would be needed when cabling or adding management software. You can use the same applications, rely on the same server and storage components and establish connections to the same networks. The PRIMERGY BX Blade Servers are flexible and have complete control via a central administration instance that is redundant in design; they minimize administrative time and effort, freeing you of time-consuming administration tasks. Our build-to-order process ensures that only completely installed and previously tested solutions are supplied, which have been precisely adapted to individual requirements and which will grow with future business requirements.

PRIMERGY BX920 S1

The PRIMERGY BX920 S1 server blade uses the Intel® 5500 processors, their newest and most powerful member of the Xeon® family. Utilizing the QuickPath architecture and dedicated on-chip memory controllers, the Intel® Xeon® processors 5500 series easily exceed the capacities of the prior generation. The BX920 S1 blade server can host two of these processors, with up to two hard drives, 72 GB of DDR3 memory, and two dual-channel Intel 82575gigabit Ethernet controllers. The BX920 S1 is ideal for virtualization using hypervisors such as VMware® ESXi, Microsoft Hyper-V™, or Citrix XenServer™. In addition, PRIMERGY BX920 S1 blades are equipped with our state-of-the-art integrated Remote Management Controller (iRMC S2), and with their wide range of processor, disk, and memory options provides IT managers the performance and scalability they need for any data center application.



MAIN FEATURES	BENEFITS
Two Intel® Xeon® 5500 series Dual, Quad or Turbo Quad-Core processors with Turbo Boost technology, Demand Based Switching, QuickPath Interconnect (QPI) and on-chip Memory Management Unit. The Intel® QuickPath architecture remote memory controllers provides the BX920 S1 with high-speed bandwidth of up to 25 Gigabytes/second (GB/s) between processors, processors and memory, and processors and I/O hub.	Tunable performance in a consistent power and thermal envelope.
Management through integrated Remote Management Controller (iRMC S2) enables individual server access and extensive control, even at remote locations. The embedded Pre-failure Detection and Analysis function provides reliable operations in any circumstances.	Easy and reliable management and control.
Multiple server boot options, including local disk, via the network, or USB solid state disk makes this server ideal for any application. It is an excellent platform for both virtualized and physical deployments.	Versatile operations.
Two integrated dual-channel Intel® 82575 gigabit Ethernet controllers are standard. Two PCI Express 2.0 mezzanine slots hosting a combination of quad Gbit Ethernet, dual 8 Gbit fibre channel, dual-channel 10Gbit, and dual-channel DDR or QDR Infiniband, provide superb connectivity via a high-performance midplane. The high I/O capacity of the blade server allows optimal usage of multiple I/O protocols, ensuring smooth operations for demanding applications.	Best in class I/O connectivity.



Technical details

Mainboard

Mainboard type	D 2860
Chipset	Intel® 5520
Processor quantity and type	1 - 2 x Intel® Xeon® processor 5500 series

Processor options

Intel® Xeon® E5502	2C/2T, 1.86 GHz, SLC: 2 x 256 KB, TLC: 4 MB (Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)
Intel® Xeon® E5504	4C/4T, 2.00 GHz, SLC: 4 x 256 KB, TLC: 4 MB (Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)
Intel® Xeon® E5506	4C/4T, 2.13 GHz, SLC: 4 x 256 KB, TLC: 4 MB (Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)
Intel® Xeon® E5520	4C/8T, 2.26 GHz, SLC: 4 x 256 KB, TLC: 8 MB (Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)
Intel® Xeon® E5530	4C/8T, 2.40 GHz, SLC: 4 x 256 KB, TLC: 8 MB (Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)
Intel® Xeon® E5540	4C/8T, 2.53 GHz, SLC: 4 x 256 KB, TLC: 8 MB (Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)
Intel® Xeon® L5506	4C/4T, 2.13 GHz, SLC: 4 x 256 KB, TLC: 4 MB (Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 60 W)
Intel® Xeon® L5520	4C/8T, 2.26 GHz, SLC: 4 x 256 KB, TLC: 8 MB (Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 60 W)
Intel® Xeon® L5530	4C/8T, 2.40 GHz, SLC: 4 x 256 KB, TLC: 8 MB (Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 60 W)
Intel® Xeon® X5550	4C/8T, 2.66 GHz, SLC: 4 x 256 KB, TLC: 8 MB (Turbo: Yes, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
Intel® Xeon® X5560	4C/8T, 2.80 GHz, SLC: 4 x 256 KB, TLC: 8 MB (Turbo: 2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
Intel® Xeon® X5570	4C/8T, 2.93 GHz, SLC: 4 x 256 KB, TLC: 8 MB (Turbo: 2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)

Memory slots	9 (6 slots on CPU 1, 3 slots on CPU 2)
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Memory slot type	DIMM (DDR3)
Memory capacity (min. - max.)	2 GB - 72 GB
Memory protection	Advanced ECC Memory Scrubbing SDDC (Chipkill™) Memory Mirroring support
Memory Modules Independent Mode	1 GB (1 module(s) with 1 GB) DDR3, unbuffered, 1066 MHz, PC3-8500, DIMM 2 GB (1 module(s) with 2 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 2 GB (1 module(s) with 2 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM 2 GB (1 module(s) with 2 GB) DDR3, unbuffered, 1066 MHz, PC3-8500, DIMM 4 GB (1 module(s) with 4 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 4 GB (1 module(s) with 4 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM 8 GB (1 module(s) with 8 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 8 GB (1 module(s) with 8 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
Memory Modules Mirrored Mode	4 GB (2 module(s) with 2 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 4 GB (2 module(s) with 2 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM 8 GB (2 module(s) with 4 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 8 GB (2 module(s) with 4 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM 16 GB (2 module(s) with 8 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 16 GB (2 module(s) with 8 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
Memory Modules Performance Mode	6 GB (3 module(s) with 2 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 6 GB (3 module(s) with 2 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM 12 GB (3 module(s) with 4 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 12 GB (3 module(s) with 4 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM 24 GB (3 module(s) with 8 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM 24 GB (3 module(s) with 8 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
Interfaces	
USB ports	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)	4 x Gbit Ethernet via Midplane at 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	Integrated SAS RAID 0/1 for HDD's
LAN Controller	2 x Intel® 82575, 4 x 10/100/1000 Mbit/s Ethernet,
Remote Management Controller	Integrated Remote Management Controller (iRMC S2, 32 MB attached memory incl. graphics controller)
Trusted Platform Module (TPM)	Infineon / 1.2 (option)
Slots	
PCI-Express Gen2 x8	2 x Mezzanine Card
Drive bays	
Hard disk bays	2 x 2.5-inch hot-plug SAS
Operating panel	
Operating buttons	On/off switch ID button
Status LEDs	Power (amber / green) System status (amber) LAN connection (green) Identification (blue) CSS (yellow)
BIOS	
BIOS features	Local and remote update via ServerView Update Manager Online update tools for main Windows and Linux versions SMBIOS V2.6 Remote PXE boot support Remote iSCSI boot support

Supported operating systems

Supported operating systems	Microsoft® Windows Server® 2008 Microsoft® Windows Server® 2003 Novell SUSE Linux Enterprise Server Red Hat Enterprise Linux Citrix® XenServer™ VMware Infrastructure Note: Support of other Linux derivatives on demand
Operating system release link	http://ts.fujitsu.com/software http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421

Server Management

Standard	ServerView Suite: SV Installation Manager SV Operation Manager SV RAID Manager SV Update Manager SV Agents ASR&R PDA iRMC S2 Advanced Pack
Server Management notes	Regarding Operating System dependencies for ServerView Suite Software Products see dedicated Product Data sheets.

Dimensions / Weight

Dimension (W x D x H)	45 x 500 x 210 mm
Weight	5.75 kg
Weight notes	Weight may vary depending on actual configuration
Floor-stand (W x D x H)	
Rack (W x D x H)	

Environmental

Temperature note	In accordance with the corresponding PRIMERGY BX900 system unit
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Compliance

Germany	GS
Europe	CE
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.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

Components

Hard disk drives	SAS, 3 Gb/s, 300 GB, 10000 rpm, hot plug, 2.5-inch
	SAS, 3 Gb/s, 146 GB, 15000 rpm, hot plug, 2.5-inch
	SAS, 3 Gb/s, 146 GB, 10000 rpm, hot plug, 2.5-inch
	SAS, 3 Gb/s, 73 GB, 15000 rpm, hot plug, 2.5-inch
	SAS, 3 Gb/s, 73 GB, 10000 rpm, hot plug, 2.5-inch

Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.
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Mezzanine Cards	Fibre Channel Mezzanine Card 2 x 8 Gb (MC-FC82E), PCIe x4 Ethernet Mezzanine Card 4 x 1 Gb, PCIe x4
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Warranty

Standard Warranty	3 years
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Maintenance and Support Services - the perfect extension

Recommended Service	7x24, Onsite Response Time: 4h
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:

<http://ts.fujitsu.com/aboutus>

Take back and Recycling information:

<http://ts.fujitsu.com/recycling>

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