Data Sheet
FUJITSU Server PRIMERGY BX2580 M1 Dual Socket Server Blade

Cope with the most demanding 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 BX2580 M1

Optimized for extensive virtualization and consolidation projects, the FUJITSU Server PRIMERGY BX2580 M1 offers versatile performance to be able to cope with the dramatic increase of data and digital information. The PRIMERGY BX2580 M1 is built with the Intel® Xeon® E5-2600 v3 processor family, up to 1,536 GB of DDR4 memory (with 64 GB DIMMs), up to two 1,8" SSD drives, as well as further boot options by local UFM and SATADOM flash devices. It offers exceptional levels of flexibility and I/O throughput to run the most demanding applications. In comparison to the also record-breaking predecessor version the server blade maximizes the number of virtual machines per server and reduces the hardware requirements for your virtualized environment with 24 DIMM slots and up to 36 cores. This extreme memory density and number of cores are critical elements for a variety of workloads including demanding high performance computing applications. In addition it provides the possibility to scale the network throughput to match individual application needs with the integrated dual-channel 10 Gbit/s Ethernet Universal Converged Network Adapter and two further mezzanine card options.
The PRIMERGY BX2580 M1 supports the FUJITSU Software ServerView® Suite and integrated Remote Management Controller iRMC S4 with a complete set of embedded management features throughout the lifecycle of the server. The ServerView® embedded Lifecycle Management (eLCM) consolidates and enhances management functionalities directly available within the server for simplified, highly integrated and automated management processes. eLCM significantly enhances the management functionality of the managed node with focus on its remote management capabilities (Out-of-Band management). This intelligent server environment can meet the needs of a growing business, while enhancing the performance of your applications and improving the computing power of the whole IT infrastructure.

Features & Benefits

Main Features	Benefits
Increased performance in the datacenter	
■ The PRIMERGY BX2580 M1 offers a performance boost with up to two Intel® Xeon® E5-2600 v3 processers per server blade (up to 36 cores and 45 MB cache).	■ The PRIMERGY BX2580 M1 provides the flexibility to optimize your most demanding applications. It delivers tailor-made performance and scalability to overcome data growth with fastest time to value and latest innovations.
Hyper-dense system architecture	
■ In order to avoid performance bottlenecks the BX2580 M1 with its exceptional 24 DIMM memory capacity and up to 36 cores offers outstanding throughput in an industry-standard server blade. The new DDR4 memory technology runs at speeds up to 2,133 MHz while operating at two dual inline memory modules (DIMMs) per channel and 1.2V.	■ New DDR4 memory technology is available only all new PRIMERGY dual-socket M1, providing higher performance with lower power requirements than previous memory technologies.
Converged performance across different workloads	
■ Integrated dual-channel 10 Gbit/s Ethernet Universal Converged Network Adapter providing the ability to customize server networking (universal multi-channel with up to 8 physical functions per port), the flexibility to partition the bandwidth and fabric (Ethernet, iSCSI, FCoE, and RDMA over Converged Ethernet). ■ Two PCIe 3.0 I/O expansion slots support the highest performing mezzanine option cards now and into the future.	■ 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.
Greater versatility than ever before	
■ Every BX2580 M1 Server Blade includes USB 3.0, Micro-SD Card connected to iRMC supporting e.g. backup/restore functions, eLCM, as well as UFM and SATADOM flash devices for local boot options.	■ Innovations which simplify the management, freeing up IT resources. ■ ServerView embedded Lifecycle Management (eLCM) consolidates and enhances management functionalities directly available ("embedded") within the server for simplified, highly integrated and automated management processes.

Technical details

PRIMERGY BX2580 M1	
Mainboard	
Mainboard type	D3321
Chipset	Intel® C610
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2600 v3 product family-based platform
Processor	Intel® Xeon® processor E5-2603v3 (6C/6T, 1.60 GHz, TLC: 15 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,600 MHz, 85 W, AVX Base 1.30 GHz)
	Intel® Xeon® processor E5-2609v3 (6C/6T, 1.90 GHz, TLC: 15 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,600 MHz, 85 W, AVX Base 1.90 GHz)
	Intel® Xeon® processor E5-2620v3 (6C/12T, 2.40 GHz, TLC: 15 MB, Turbo: 2.60 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 85 W, AVX Base 2.10 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® processor E5-2623v3 (4C/8T, 3.00 GHz, TLC: 10 MB, Turbo: 3.30 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 105 W, AVX Base 2.70 GHz, AVX Turbo 3.30 GHz)
	Intel® Xeon® processor E5-2630Lv3 (8C/16T, 1.80 GHz, TLC: 20 MB, Turbo: 2.10 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 55 W, AVX Base 1.50 GHz, AVX Turbo 2.10 GHz)
	Intel® Xeon® processor E5-2630v3 (8C/16T, 2.40 GHz, TLC: 20 MB, Turbo: 2.60 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 85 W, AVX Base 2.10 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® processor E5-2637v3 (4C/8T, 3.50 GHz, TLC: 15 MB, Turbo: 3.60 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 3.20 GHz, AVX Turbo 3.50 GHz)
	Intel® Xeon® processor E5-2640v3 (8C/16T, 2.60 GHz, TLC: 20 MB, Turbo: 2.80 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 90 W, AVX Base 2.20 GHz, AVX Turbo 2.80 GHz)
	Intel® Xeon® processor E5-2643v3 (6C/12T, 3.40 GHz, TLC: 20 MB, Turbo: 3.60 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 2.80 GHz, AVX Turbo 3.40 GHz)
	Intel® Xeon® processor E5-2650Lv3 (12C/24T, 1.80 GHz, TLC: 30 MB, Turbo: 2.10 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 65 W, AVX Base 1.50 GHz, AVX Turbo 2.10 GHz)
	Intel® Xeon® processor E5-2650v3 (10C/20T, 2.30 GHz, TLC: 25 MB, Turbo: 2.60 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 105 W, AVX Base 2.00 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® processor E5-2660v3 (10C/20T, 2.60 GHz, TLC: 25 MB, Turbo: 2.90 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 105 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)
	Intel® Xeon® processor E5-2667v3 (8C/16T, 3.20 GHz, TLC: 20 MB, Turbo: 3.40 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 2.70 GHz, AVX Turbo 3.30 GHz)
	Intel® Xeon® processor E5-2670v3 (12C/24T, 2.30 GHz, TLC: 30 MB, Turbo: 2.60 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 120 W, AVX Base 2.00 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® processor E5-2680v3 (12C/24T, 2.50 GHz, TLC: 30 MB, Turbo: 2.90 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 120 W, AVX Base 2.10 GHz, AVX Turbo 2.80 GHz)
	Intel® Xeon® processor E5-2683v3 (14C/28T, 2.00 GHz, TLC: 35 MB, Turbo: 2.50 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 120 W, AVX Base 1.70 GHz, AVX Turbo 2.50 GHz)
	Intel® Xeon® processor E5-2690v3 (12C/24T, 2.60 GHz, TLC: 30 MB, Turbo: 3.10 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 2.30 GHz, AVX Turbo 3.00 GHz)
	Intel® Xeon® processor E5-2695v3 (14C/28T, 2.30 GHz, TLC: 35 MB, Turbo: 2.80 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 120 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)
	Intel® Xeon® processor E5-2697v3 (14C/28T, 2.60 GHz, TLC: 35 MB, Turbo: 3.10 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 145 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)
	Intel® Xeon® processor E5-2698v3 (16C/32T, 2.30 GHz, TLC: 40 MB, Turbo: 2.80 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 1.90 GHz, AVX Turbo 2.50 GHz)
	Intel® Xeon® processor E5-2699v3 (18C/36T, 2.30 GHz, TLC: 45 MB, Turbo: 2.80 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 145 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)
Memory slots	24 (4 channels per CPU with 3 slots each)
Memory slot type	DIMM (DDR4)
Memory capacity (min. - max.)	8 GB - 1536 GB
Memory protection	Advanced ECC Memory Scrubbing SDDC (Chipkill™) Memory Mirroring support Rank sparing memory support

Memory options	8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 1Rx4
	8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 2Rx8
	16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 2Rx4
	32 GB (1 module(s) 32 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133P, LRDIMM, 4Rx4
	32 GB (1 module(s) 32 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 2Rx4
	64 GB (1 module(s) 64 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133P, LRDIMM, 4Rx4
Interfaces	
USB 2.0 ports	4 (4x USB via special cable)
USB 3.0 ports	2 (1x USB at the front side + 1x USB intern)
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
Serial 1 (9-pin)	
Management LAN (RJ45)	Management LAN traffic can be switched to shared onboard LAN port
Onboard or integrated Controller	
SATA Controller	Intel® C610
LAN Controller	Emulex OCl14102. 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 S4, 256 MB attached memory incl. graphics controller) IPMI 2.0 compatible
Trusted Platform Module (TPM)	Infineon / 1.4 (option)
Slots	
PCI-Express 3.0 x8	2 x BX900 Mezzanine card
Drive bays	
Storage drive bays	2 x 1.8-inch 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 (orange)
BIOS	
BIOS features	UEFI compliant Legacy BIOS compatibility customer configuration option Secure boot support ROM based setup utility GPT support for boot drives larger than 2.2 TB Memory Redundancy support (Mirroring, Sparing) IPMI support Recovery BIOS BIOS settings save and restore Local BIOS update from USB device Online update tools for main Windows and Linux versions Local and remote update via ServerView Update Manager IPv4/IPv6 remote PXE & iSCSI boot support
Eco System	
	BX900: Supported with MMB-FW >=5.41 BX400: Supported with MMB-FW >=6.75

Operating Systems and Virtualization Software

Certified or supported operating systems and virtualization software	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
	VMware vSphere™ 6.0
	VMware vSphere™ 5.5
	VMware vSphere™ 5.1 Embedded
	VMware vSphere™ 5.1
	SUSE® Linux Enterprise Server 12
	SUSE® Linux Enterprise Server 11
	Red Hat® Enterprise Linux 7
	Red Hat® Enterprise Linux 6
	Citrix® XenServer®
	Oracle® Linux 7
	Oracle® Linux 6
	Oracle® VM 3
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 in combination with Intel® Node Manager) 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
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

Environmental	
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	
Active power (max. configuration)	500 W
Heat emission	1800.0 kJ/h (1706.1 BTU/h)
Compliance	
Global	CB RoHS (Substance limitations in accordance with global RoHS regulations) 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

Hard disk drives	
Solid-State-Drive	SSD SATA, 6 Gb/s, 400 GB, Mainstream Endurance, non hot plug, 1.8-inch, enterprise
	SSD SATA, 6 Gb/s, 200 GB, Mainstream Endurance, non hot plug, 1.8-inch, enterprise
	DOM SATA, 6 Gb/s, 128 GB, non hot plug, enterprise, 345TBW (Seq. write)
	DOM SATA, 6 Gb/s, 64 GB, non hot plug, enterprise, 172TBW (Seq. write)
	DOM SATA, 6 Gb/s, 32 GB, non hot plug, enterprise, 86TBW (Seq. write)
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 16 Gbit/s PCIe 3.0 x8 Emulex
	Fibre Channel Mezzanine Card 2 x 8 Gbit/s PCIe 2.0 x8 Emulex
	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 2x 10 Gbit/s ports, or 4x 1 Gbit/s ports.
Warranty	
Warranty period	3 years
Service level	Onsite warranty
Warranty Terms & Conditions	www.fujitsu.com/support
Product 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 Service with 4h Onsite Response Time
Spare Parts availability	5 years
Service Lifecycle	5 years after end of product life

Warranty

Service Weblink	http://www.fujitsu.com/fts/products/product-support-services/

More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu PRIMERGY BX2580 M1, 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/products/computing/

Software
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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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