

# Data Sheet

## FUJITSU Server PRIMERGY BX2580 M2 Dual Socket Server Blade

Feature-rich 2-socket server blade designed for maximum performance

FUJITSU Server PRIMERGY will give you the servers you need to power any workload and changing business requirements. As business processes expand so does the need for applications. Each has its own resource footprint, so you need a way to optimize your computing to better serve your users. PRIMERGY systems will help you match your computing capabilities to your business priorities with our complete portfolio of expandable PRIMERGY tower servers for remote and branch offices, versatile rack-mount servers, compact and scalable blade systems, as well as hyper-converged scale-out servers. They convince by business proven quality with a wide range of innovations, highest efficiency cutting operational cost and complexity, provide more agility in daily operations, and integrate seamlessly to let help you concentrate on core business functions.

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 M2

Optimized for a broad spectrum of workloads including virtualized workloads, consolidating applications as well as ERP and CRM applications, the PRIMERGY BX2580 M2 provides dense computing features with ultra-large memory capabilities. The server blade delivers improved performance for data centers and remote sites. Based on the latest Intel® Xeon® processor E5-2600 v4 product family, it offers up to 1536 GB of memory (24 DIMM slots) and up to two disk drives. The PRIMERGY BX2580 M2 offers exceptional levels

of flexibility and I/O throughput to run the most demanding applications. The system is equipped with a dual port 10 Gigabit Ethernet, Data Center Bridging (DCB)-capable LAN on motherboard (LOM) that supports NIC, iSCSI, and FCoE and can in addition be configured with two mezzanine cards. The onboard converged network adapter can be partitioned in up to eight physical functions per port that can be dynamically configured. The adapters serve as a common interface for both storage and IP traffic retaining familiar FC and networking software stacks, OS drivers, and management.



# Features & Benefits

Main Features	Benefits
<p><b>Scalability and performance</b></p> <ul style="list-style-type: none"> <li>■ Support of up to two processors, 44 cores with up 88 threads, up to 55 MB Last-level Cache (LLC) that maximizes the concurrent execution of multi-threaded applications.</li> <li>■ Up to 2400 MHz memory speeds in a dual RDIMM configuration to help maximize system performance.</li> <li>■ Up to 1.5 TB of memory capacity with 64 GB load-reduced DIMMs, or LRDIMMs.</li> <li>■ Up to 16 virtual I/O ports with embedded 2x 10 Gbit/s LoM that offers the choice of Ethernet, iSCSI, or Fibre Channel over Ethernet (FCoE) connectivity.</li> </ul> <p><b>Usability and serviceability</b></p> <ul style="list-style-type: none"> <li>■ SD-Card connected to iRMC to support e.g. backup and restore functions or embedded lifecycle management (eLCM).</li> <li>■ Optional Trusted Platform Module (TPM) for safer storage of keys.</li> <li>■ Tool-less cover removal provides easy access to upgrades and serviceable parts.</li> <li>■ Status LED's with illuminated icons and Customer Self Service (CSS) concept that enables to identify and replace affected component in case of error scenarios.</li> <li>■ Automatic Server Reconfiguration and Restart (ASR&amp;R) restarts the system in the event of an error and automatically "hides" the defective system components.</li> <li>■ Prefailure Detection and Analyzing (PDA) technology analyzes and monitors all components that are critical for system reliability.</li> </ul> <p><b>Energy efficiency</b></p> <ul style="list-style-type: none"> <li>■ The Intel Xeon processor E5-2600 v4 product family built on latest 14nm process technology offers significantly better performance over the previous CPU generation.</li> <li>■ Fujitsu's enhanced power management features provide a range of possibilities that enable the energy consumption of the blade chassis and the individual server blades to be dynamically monitored and influenced.</li> <li>■ Low-voltage 1.2 V DDR4 memory DIMMs use up to 20% less energy compared to 1.35 V DDR3 DIMMs.</li> </ul>	<ul style="list-style-type: none"> <li>■ The PRIMERGY BX2580 M2 offers enhanced features that boost performance, improve scalability while reducing costs.</li> <li>■ Ready for the future and data growth scenarios with the performance of two processors – marking the standard of tomorrow with an increase in computing power of about 20% compared to the previous generation.</li> <li>■ DDR4 memory enables for higher bandwidth and lower consumption, optimized for data center tasks, enterprise applications but also collaboration &amp; messaging solutions.</li> </ul> <ul style="list-style-type: none"> <li>■ The PRIMERGY BX2580 M2 enhances usability and serviceability to increase system up-time.</li> <li>■ The comprehensive tools of the Fujitsu ServerView Suite eases the administrators life.</li> <li>■ Lifecycle investment protection: Updates are very important in a fast-paced world, especially considering cyber crime.</li> </ul> <ul style="list-style-type: none"> <li>■ The PRIMERGY BX2580 M2 increases the efficiency to be able to save energy and reduce operational costs.</li> </ul>

# Technical details

## PRIMERGY BX2580 M2

### Mainboard

Mainboard type	D3321
Chipset	Intel® C610
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5-2600 v4 product family

### Processor

Intel® Xeon® processor E5-2603v4 (6C/6T, 1.70 GHz, TLC: 15 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,866 MHz, 85 W, AVX Base 1.70 GHz)
Intel® Xeon® processor E5-2609v4 (8C/8T, 1.70 GHz, TLC: 20 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,866 MHz, 85 W, AVX Base 1.70 GHz)
Intel® Xeon® processor E5-2620v4 (8C/16T, 2.10 GHz, TLC: 20 MB, Turbo: 2.30 GHz, 8.0 GT/s, Mem bus: 2,133 MHz, 85 W, AVX Base 1.80 GHz, AVX Turbo 2.30 GHz)
Intel® Xeon® processor E5-2623v4 (4C/8T, 2.60 GHz, TLC: 10 MB, Turbo: 2.90 GHz, 8.0 GT/s, Mem bus: 2,133 MHz, 85 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)
Intel® Xeon® processor E5-2630Lv4 (10C/20T, 1.80 GHz, TLC: 25 MB, Turbo: 2.00 GHz, 8.0 GT/s, Mem bus: 2,133 MHz, 55 W, AVX Base 1.30 GHz, AVX Turbo 2.00 GHz)
Intel® Xeon® processor E5-2630v4 (10C/20T, 2.20 GHz, TLC: 25 MB, Turbo: 2.40 GHz, 8.0 GT/s, Mem bus: 2,133 MHz, 85 W, AVX Base 1.80 GHz, AVX Turbo 2.40 GHz)
Intel® Xeon® processor E5-2637v4 (4C/8T, 3.50 GHz, TLC: 15 MB, Turbo: 3.60 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 135 W, AVX Base 3.20 GHz, AVX Turbo 3.60 GHz)
Intel® Xeon® processor E5-2640v4 (10C/20T, 2.40 GHz, TLC: 25 MB, Turbo: 2.60 GHz, 8.0 GT/s, Mem bus: 2,133 MHz, 90 W, AVX Base 2.00 GHz, AVX Turbo 2.60 GHz)
Intel® Xeon® processor E5-2643v4 (6C/12T, 3.40 GHz, TLC: 20 MB, Turbo: 3.60 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 135 W, AVX Base 2.80 GHz, AVX Turbo 3.60 GHz)
Intel® Xeon® processor E5-2650Lv4 (14C/28T, 1.70 GHz, TLC: 35 MB, Turbo: 2.00 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 65 W, AVX Base 1.20 GHz, AVX Turbo 1.70 GHz)
Intel® Xeon® processor E5-2650v4 (12C/24T, 2.20 GHz, TLC: 30 MB, Turbo: 2.50 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 105 W, AVX Base 1.80 GHz, AVX Turbo 2.50 GHz)
Intel® Xeon® processor E5-2660v4 (14C/28T, 2.00 GHz, TLC: 35 MB, Turbo: 2.40 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 105 W, AVX Base 1.70 GHz, AVX Turbo 2.40 GHz)
Intel® Xeon® processor E5-2667v4 (8C/16T, 3.20 GHz, TLC: 25 MB, Turbo: 3.50 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 135 W, AVX Base 2.60 GHz, AVX Turbo 3.50 GHz)
Intel® Xeon® processor E5-2680v4 (14C/28T, 2.40 GHz, TLC: 35 MB, Turbo: 2.90 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 120 W, AVX Base 1.90 GHz, AVX Turbo 2.80 GHz)
Intel® Xeon® processor E5-2683v4 (16C/32T, 2.10 GHz, TLC: 40 MB, Turbo: 2.60 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 120 W, AVX Base 1.70 GHz, AVX Turbo 2.50 GHz)
Intel® Xeon® processor E5-2690v4 (14C/28T, 2.60 GHz, TLC: 35 MB, Turbo: 3.20 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 135 W, AVX Base 2.10 GHz, AVX Turbo 2.90 GHz)
Intel® Xeon® processor E5-2695v4 (18C/36T, 2.10 GHz, TLC: 45 MB, Turbo: 2.60 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 120 W, AVX Base 1.70 GHz, AVX Turbo 2.40 GHz)
Intel® Xeon® processor E5-2697Av4 (16C/32T, 2.60 GHz, TLC: 40 MB, Turbo: 3.10 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 145 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)
Intel® Xeon® processor E5-2697v4 (18C/36T, 2.30 GHz, TLC: 45 MB, Turbo: 2.80 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 145 W, AVX Base 2.00 GHz, AVX Turbo 2.70 GHz)
Intel® Xeon® processor E5-2698v4 (20C/40T, 2.20 GHz, TLC: 50 MB, Turbo: 2.70 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 135 W, AVX Base 1.80 GHz, AVX Turbo 2.60 GHz)
Intel® Xeon® processor E5-2699v4 (22C/44T, 2.20 GHz, TLC: 55 MB, Turbo: 2.80 GHz, 9.6 GT/s, Mem bus: 2,400 MHz, 145 W, AVX Base 1.80 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 Memory Mirroring support Rank sparing memory support

<b>Memory options</b>	8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,400 MHz, PC4-2400T-R, DIMM, 1Rx4
	8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,400 MHz, PC4-2400T-R, DIMM, 2Rx8
	16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,400 MHz, PC4-2400T-R, DIMM, 1Rx4
	16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,400 MHz, PC4-2400T-R, DIMM, 2Rx4
	16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,400 MHz, PC4-2400T-R, DIMM, 2Rx8
	32 GB (1 module(s) 32 GB) DDR4, registered, ECC, 2,400 MHz, PC4-2400T-R, DIMM, 2Rx4
	64 GB (1 module(s) 64 GB) DDR4 3DS, registered, ECC, 2,400 MHz, PC4-2400T-R, DIMM, 4Rx4
	64 GB (1 module(s) 64 GB) DDR4, registered, ECC, 2,400 MHz, PC4-2400T-L, LRDIMM, 4Rx4
<b>Interfaces</b>	
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 1 Gbit/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
<b>Onboard or integrated Controller</b>	
SATA Controller	Intel® C610
LAN Controller	Emulex OCI14102. 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 8 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 / TPM 1.2 or TPM 2.0 module; TCG compliant (option)
<b>Slots</b>	
PCI-Express 3.0 x8	2 x BX900 Mezzanine card
<b>Drive bays</b>	
Storage drive bays	2 x 1.8-inch SATA SSD
<b>Operating panel</b>	
Operating buttons	On/off switch ID button
Status LEDs	Power (amber / green) System status (orange) LAN connection (green) Identification (blue) CSS (orange)
<b>BIOS</b>	
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 Linux versions Local and remote update via ServerView Update Manager IPv4/IPv6 remote PXE & iSCSI boot support

## Eco System

BX900: Supported with MMB-FW >=5.50  
 BX400: Supported with MMB-FW >=6.80

## 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 Server® 2012 R2 Essentials  
 Microsoft® Windows Storage Server 2012 R2 Standard  
 Microsoft® Hyper-V Server 2012  
 Microsoft® Windows Server® 2012 Datacenter  
 Microsoft® Windows Server® 2012 Standard  
 Microsoft® Windows Server® 2012 Essentials  
 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  
 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  
 Installation Manager  
 Scripting Toolkit  
 ServerView Suite - Control  
 Operations Manager incl. PDA and ASR & R  
 (Prefailure and Analysis; Automatic Server Recovery and Restart)  
 Agents and CIM Providers / Agentless Service  
 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 Drivers, Agents and CIM Providers)  
 Performance Measurement  
 Asset Management  
 Online Diagnostics  
 ServerView Suite - Integrate  
 Integration packs for Microsoft System Center, VMware vCenter, VMware vRealize, Nagios, and HP SIM  
 Deployment tools and others

<b>Server Management</b>	
<b>Option</b>	ServerView embedded Lifecycle Management Enhanced management functionalities for simplified, highly integrated and automated management processes ServerView Suite - Maintain iRMC Advanced Pack incl. Advanced Video Redirection (AVR), video capturing and Virtual Media ServerView Suite - Dynamize Virtual-IO Manager (VIOM)
<b>Server Management notes</b>	Regarding dependencies for ServerView Suite software products see dedicated product data sheets.
<b>Dimensions / Weight</b>	
<b>Dimensions (W x D x H)</b>	45 x 500 x 210 mm
<b>Weight</b>	7 kg
<b>Weight notes</b>	Actual weight may vary depending on configuration
<b>Environment</b>	
<b>Temperature note</b>	In accordance with the corresponding PRIMERGY BX900 System Unit
<b>Operating environment</b>	FTS 04230 – Guideline for Data Center (installation specification)
<b>Operating environment link</b>	<a href="http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe">http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe</a>
<b>Electrical values</b>	
<b>Active power (max. configuration)</b>	500 W
<b>Heat emission (max. configuration)</b>	1800.0 kJ/h (1706.1 BTU/h)
<b>Compliance</b>	
<b>Global</b>	CB RoHS (Substance limitations in accordance with global RoHS regulations) WEEE (Waste electrical and electronic equipment)
<b>Germany</b>	GS
<b>Europe</b>	CE Class A *
<b>Compliance link</b>	<a href="http://globalsp.ts.fujitsu.com/sites/certificates">http://globalsp.ts.fujitsu.com/sites/certificates</a>
<b>Compliance notes</b>	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

<b>Solid-State-Drive</b>	SSD SATA, 6 Gb/s, 480 GB, Mixed-use, non hot plug, 1.8-inch, enterprise, 3 DWPD (drive writes per day for 5 years) SSD SATA, 6 Gb/s, 240 GB, Mixed-use, non hot plug, 1.8-inch, enterprise, 3 DWPD (drive writes per day for 5 years)
<b>PCIe SSD &amp; SATA DOM SSD</b>	DOM SATA, 6 Gb/s, 128 GB, non hot plug, enterprise, 0.054 DWPD (drive writes per day for 5 years) DOM SATA, 6 Gb/s, 64 GB, non hot plug, enterprise, 0.054 DWPD (drive writes per day for 5 years)
<b>Mezzanine Cards</b>	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 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
<b>LAN controller notes</b>	The dual-channel 10 Gbit/s onboard CNA provides either 2x 10 Gbit/s ports, or 4x 1 Gbit/s ports.
<b>Warranty</b>	
<b>Warranty period</b>	3 years

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**Warranty**

**Warranty type** Onsite warranty

**Warranty Terms & Conditions** [www.fujitsu.com/support](http://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

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

# More information

## Fujitsu OPTIMIZATION Services

In addition to Fujitsu PRIMERGY BX2580 M2, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

### Fujitsu Portfolio

Built 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 offerings. This allows customers to select 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/](http://www.fujitsu.com/global/products/computing/)

### Software

[www.fujitsu.com/software/](http://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/fts/products/computing/servers/primergy/blades/>

## 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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