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 3072 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

<table>
<thead>
<tr>
<th>Main Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scalability and performance</strong></td>
<td>The PRIMERGY BX2580 M2 offers enhanced features that boost performance, improve scalability while reducing costs.</td>
</tr>
<tr>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Up to 2400 MHz memory speeds in a dual RDIMM configuration to help maximize system performance.</td>
<td>DDR4 memory enables for higher bandwidth and lower consumption, optimized for data center tasks, enterprise applications but also collaboration &amp; messaging solutions.</td>
</tr>
<tr>
<td>Up to 3 TB of memory capacity with 64 GB load-reduced DIMMs, or LRDIMMs.</td>
<td>The PRIMERGY BX2580 M2 enhances usability and serviceability to increase system up-time.</td>
</tr>
<tr>
<td>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.</td>
<td>The comprehensive tools of the Fujitsu ServerView Suite eases the administrators life.</td>
</tr>
<tr>
<td><strong>Usability and serviceability</strong></td>
<td>Lifecycle investment protection: Updates are very important in a fast-paced world, especially considering cyber crime.</td>
</tr>
<tr>
<td>SD-Card connected to iRMC to support e.g. backup and restore functions or embedded lifecycle management (eLCM).</td>
<td>The PRIMERGY BX2580 M2 enhances usability and serviceability to increase system up-time.</td>
</tr>
<tr>
<td>Optional Trusted Platform Module (TPM) for safer storage of keys.</td>
<td>The comprehensive tools of the Fujitsu ServerView Suite eases the administrators life.</td>
</tr>
<tr>
<td>Tool-less cover removal provides easy access to upgrades and serviceable parts.</td>
<td>Lifecycle investment protection: Updates are very important in a fast-paced world, especially considering cyber crime.</td>
</tr>
<tr>
<td>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.</td>
<td>The PRIMERGY BX2580 M2 enhances usability and serviceability to increase system up-time.</td>
</tr>
<tr>
<td>Automatic Server Reconfiguration and Restart (ASR&amp;R) restarts the system in the event of an error and automatically ‘hides’ the defective system components.</td>
<td>The comprehensive tools of the Fujitsu ServerView Suite eases the administrators life.</td>
</tr>
<tr>
<td>Prefailure Detection and Analyzing (PDA) technology analyzes and monitors all components that are critical for system reliability.</td>
<td>Lifecycle investment protection: Updates are very important in a fast-paced world, especially considering cyber crime.</td>
</tr>
<tr>
<td><strong>Energy efficiency</strong></td>
<td>The PRIMERGY BX2580 M2 increases the efficiency to be able to save energy and reduce operational costs.</td>
</tr>
<tr>
<td>The Intel Xeon processor E5-2600 v4 product family built on latest 14nm process technology offers significantly better performance over the previous CPU generation.</td>
<td>The PRIMERGY BX2580 M2 enhances usability and serviceability to increase system up-time.</td>
</tr>
<tr>
<td>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.</td>
<td>The comprehensive tools of the Fujitsu ServerView Suite eases the administrators life.</td>
</tr>
<tr>
<td>Low-voltage 1.2 V DDR4 memory DIMMs use up to 20% less energy compared to 1.35 V DDR3 DIMMs.</td>
<td>Lifecycle investment protection: Updates are very important in a fast-paced world, especially considering cyber crime.</td>
</tr>
</tbody>
</table>
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 E5-2699v4 (22C/44T, 2.20 GHz, up to 2.8 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2699Av4 (22C/44T, 2.40 GHz, up to 3.0 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2698v4 (20C/40T, 2.20 GHz, up to 2.7 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2697v4 (18C/36T, 2.30 GHz, up to 2.8 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2697Av4 (16C/32T, 2.60 GHz, up to 3.1 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2690v4 (14C/28T, 2.60 GHz, up to 3.2 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2683v4 (16C/32T, 2.10 GHz, up to 2.6 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2680v4 (14C/28T, 2.40 GHz, up to 2.9 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2667v4 (8C/16T, 3.20 GHz, up to 3.5 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2660v4 (14C/28T, 2.00 GHz, up to 2.4 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2650v4 (12C/24T, 2.20 GHz, up to 2.5 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2650Lv4 (14C/28T, 1.70 GHz, up to 2.0 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2643v4 (6C/12T, 3.40 GHz, up to 3.6 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2640v4 (10C/20T, 2.40 GHz, up to 2.6 GHz, 8.0 GT/s)
Intel® Xeon® processor E5-2637v4 (4C/8T, 3.50 GHz, up to 3.6 GHz, 9.6 GT/s)
Intel® Xeon® processor E5-2630v4 (10C/20T, 2.20 GHz, up to 2.4 GHz, 8.0 GT/s)
Intel® Xeon® processor E5-2630Lv4 (10C/20T, 1.80 GHz, up to 2.0 GHz, 8.0 GT/s)
Intel® Xeon® processor E5-2623v4 (4C/8T, 2.60 GHz, up to 2.9 GHz, 8.0 GT/s)
Intel® Xeon® processor E5-2620v4 (8C/16T, 2.10 GHz, up to 2.3 GHz, 8.0 GT/s)
Intel® Xeon® processor E5-2609v4 (8C/16T, 1.70 GHz, 6.4 GT/s)
Intel® Xeon® processor E5-2603v4 (6C/6T, 1.70 GHz, 6.4 GT/s)

Memory slots  24 (4 channels per CPU with 3 slots each)
Memory slot type  DIMM (DDR4)
Memory capacity (min. - max.)  8 GB - 3072 GB
Memory protection  Advanced ECC
                   Memory Scrubbing
                   SDDC
                   Memory Mirroring support
                   Rank sparing memory support

Standard memory modules

8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,400 MT/s, PC4-2400T-R, DIMM, 1Rx4
8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,400 MT/s, PC4-2400T-R, DIMM, 2Rx8
16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,400 MT/s, PC4-2400T-R, DIMM, 2Rx4
16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,400 MT/s, PC4-2400T-R, DIMM, 2Rx8
32 GB (1 module(s) 32 GB) DDR4, registered, ECC, 2,400 MT/s, PC4-2400T-R, DIMM, 2Rx4
64 GB (1 module(s) 64 GB) DDR4 3DS, registered, ECC, 2,400 MT/s, PC4-2400T-R, DIMM, 4Rx4
64 GB (1 module(s) 64 GB) DDR4, registered, ECC, 2,400 MT/s, PC4-2400T-L, LRDIMM, 4Rx4
128 GB (1 module(s) 128 GB) DDR4, registered, ECC, 2,400 MT/s, PC4-2400T-L, LRDIMM, 8Rx4

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
Interfaces

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 OC114102
2 x 10 Gbit/s, 2x 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)

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 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

<table>
<thead>
<tr>
<th>Certified or supported operating systems and virtualization software</th>
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<td>Hyper-V Server 2016</td>
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<tr>
<td>Windows Server 2016 Datacenter</td>
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<tr>
<td>Windows Server 2016 Standard</td>
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<tr>
<td>Windows Server 2016 Essentials</td>
</tr>
<tr>
<td>Windows Server Datacenter, version 1709</td>
</tr>
<tr>
<td>Hyper-V Server 2012 R2</td>
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<tr>
<td>Windows Server 2012 R2 Datacenter</td>
</tr>
<tr>
<td>Windows Server 2012 R2 Standard</td>
</tr>
<tr>
<td>Windows Server 2012 R2 Essentials</td>
</tr>
<tr>
<td>Windows Storage Server 2012 R2 Standard</td>
</tr>
<tr>
<td>Hyper-V Server 2012</td>
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<tr>
<td>Windows Server 2012 Datacenter</td>
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<tr>
<td>Windows Server 2012 Standard</td>
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<tr>
<td>Windows Server 2012 Essentials</td>
</tr>
<tr>
<td>Windows Storage Server 2012 Standard</td>
</tr>
<tr>
<td>Hyper-V™ Server 2008 R2</td>
</tr>
<tr>
<td>Windows Server 2008 R2 Datacenter</td>
</tr>
<tr>
<td>Windows Server 2008 R2 Enterprise</td>
</tr>
<tr>
<td>Windows Server 2008 R2 Standard</td>
</tr>
<tr>
<td>VMware vSphere™ 6.5</td>
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<tr>
<td>VMware vSphere™ 6.7</td>
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<tr>
<td>VMware vSphere™ 6.0</td>
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<tr>
<td>VMware vSphere™ 5.5</td>
</tr>
<tr>
<td>SUSE® Linux Enterprise Server 12</td>
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<tr>
<td>SUSE® Linux Enterprise Server 11</td>
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<tr>
<td>Red Hat® Enterprise Linux 7</td>
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<tr>
<td>Red Hat® Enterprise Linux 6</td>
</tr>
<tr>
<td>Citrix® XenServer®</td>
</tr>
<tr>
<td>Oracle® Linux 7</td>
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<tr>
<td>Oracle® Linux 6</td>
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<tr>
<td>Oracle® VM 3</td>
</tr>
</tbody>
</table>

#### Operating system release link

#### 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
  - 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
Server Management

Option

- ServerView embedded Lifecycle Management (eLCM)
- Lifecycle management
- ServerView Suite - Maintain
  - iRMC Advanced Pack incl. Advanced Video Redirection (AVR), video capturing and Virtual Media
- ServerView Suite - Dynamize
  - Virtual-I/O Manager (VIOM)
- Infrastructure Manager (ISM)
  - Automate device config
  - Mass OS Installation
  - Node Management
  - Health Status Monitoring
  - Capacity Management
  - Power Management
  - Converged View
  - Network & Virtual IO Management
  - Update Management
  - Integrate IT
  - Remote Management
  - Update Management
  - Logging and Auditing
  - Integrate in to
    - Enterprise Management
    - Vendor specific Management
    - Monitor 3rd party platforms

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

Environment

Temperature note

In accordance with the corresponding PRIMERGY BX900 System Unit

Operating environment

FTS 04230 – Guideline for Data Center (installation specification)

Operating environment link


Electrical values

Active power (max. configuration)

500 W

Heat emission (max. configuration)

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

https://sp.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

Solid-State-Drive

- SSD M.2 SATA, 6 Gb/s, 480 GB, non hot plug, enterprise, 1.4 DWPD (Drive Writes Per Day for 5 years)
- SSD M.2 SATA, 6 Gb/s, 240 GB, non hot plug, enterprise, 1.4 DWPD (Drive Writes Per Day for 5 years)
### PCIe SSD & SATA DOM SSD
- **DOM SATA, 6 Gb/s, 128 GB, non hot plug, enterprise, 0.13 DWPD (Drive Writes Per Day for 5 years)**
- **DOM SATA, 6 Gb/s, 64 GB, non hot plug, enterprise, 0.14 DWPD (Drive Writes Per Day for 5 years)**

### 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**
- **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
- **Warranty type**: Onsite warranty
- **Warranty Terms & Conditions**: [www.fujitsu.com/support](http://www.fujitsu.com/support)

### Support Pack Options
- Globally available in major business areas:
  - 9x5, Next Business Day Onsite Response Time
  - 9x5, 4h Onsite Response Time (depending on country)
  - 24x7, 4h Onsite Response Time (depending on country)
- **Recommended Service**: 24x7 Onsite Service with 4h Onsite Response Time

### Spare Parts availability
- 5 years
- **Spare Parts availability**: 5 years

### Service Weblink
More information

Fujitsu products, solutions & services
In addition to FUJITSU Server 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/

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/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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