

# Data Sheet

## FUJITSU Server PRIMERGY BX900 S2 Blade System

For data centers with dynamic environments

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 BX900 S2

The Fujitsu Server PRIMERGY BX900 S2 chassis is the rock-solid foundation for Fujitsu's blade ecosystem, providing a reliable, flexible and efficient platform for building a converged infrastructure. The PRIMERGY BX900 blade server takes advantage of Fujitsu's more than 20 years' experience in the development of x86 servers. The system provides a modular approach to create an IT infrastructure. The chassis includes all needed

infrastructure elements such as power supplies and fans, networking, and management. The Fujitsu blade server is easy to upgrade, maintain and customize. Inside, you can mix and match almost any combination of server, storage and connection blades to run your choice of operating systems and applications. The PRIMERGY BX900 S2 can be equipped with up to 18 of these blades in a 10U chassis. Thus it's the leader in its class for density in a compact form factor. Fujitsu's Cool-safe® cooling concept, combined with efficient power supply units and holistic power management, reduce your costs and ensures a more efficient use of energy and cooling capacity. Centralized management of physical and virtualized environments and comprehensive I/O virtualization capabilities, combined with a fully redundant system design, supports business agility. Furthermore it is possible to interchange the same blades and network options between other Fujitsu blade chassis, e.g. the PRIMERGY BX400, and manage the entire system with the same tools.



# Features & Benefits

| Main Features  | Benefits  |  |
|--|---|--|
| <p><b>Reliable architecture</b></p> <ul style="list-style-type: none"><li>■ Modular design for computing, storage, switching, power supply and cooling.</li><li>■ Fully redundant and hot-pluggable components to enable seamless switchover.</li><li>■ Passive midplane to prevent single point of failures.</li></ul>  | <ul style="list-style-type: none"><li>■ The PRIMERGY BX900 S2 provides the server reliability, flexibility, and performance you need to achieve your key business objectives.</li></ul> |  |
| <p><b>Individually adaptable</b></p> <ul style="list-style-type: none"><li>■ Optimum combination of up to 18 server blades and/or storage blades per enclosure.</li><li>■ Combines server, storage, and networking as well as infrastructure components into a single chassis in order to convert it into a small data center.</li></ul>   |   |  |
| <p><b>Flexible scalability</b></p> <ul style="list-style-type: none"><li>■ Choice of different server blades using latest Intel® Xeon® processors, adaptable memory configurations and a versatile Universal Converged Network Adapter to provide a common infrastructure for LAN and SAN with the ability to partition the bandwidth, making it ideal to suit the needs of individual applications.</li><li>■ Plus, ServerView Virtual-IO Manager that radically eases data center tasks and greatly simplifies the management in LAN and SAN environments while providing highest flexibility at their deployment and operation.</li></ul> |   | <ul style="list-style-type: none"><li>■ Modular infrastructure, designed to share components throughout the family making it easy to create, customize and grow.</li><li>■ Complete investment protection and flexible growth scenarios.</li></ul>   |
| <p><b>Leading energy efficiency</b></p> <ul style="list-style-type: none"><li>■ PRIMERGY BX900 S2 takes advantage of its world-class design. It contains efficient power supplies with large fan modules and optimized airflow channels to effectively cool the entire chassis while using less power.</li></ul>   |   | <ul style="list-style-type: none"><li>■ Its smart design makes the PRIMERGY BX900 S2 more flexible than other server solutions, offering easy scalability to protect your investments.</li><li>■ Easily deploy more or larger virtual and physical machines than ever before and in this way increase your IT performance and consolidation ratio.</li></ul> |
|  |   | <ul style="list-style-type: none"><li>■ More efficient use of power and cooling to save energy costs as never before.</li></ul>  |

# Technical details

## PRIMERGY BX900 S2

|               |                   |
|---------------|-------------------|
| Base unit     | PRIMERGY BX900 S2 |
| Housing types | Rack              |

### Enclosure

|                            |  |
|----------------------------|--|
| System unit type           | 10 U chassis for 19-inch rack  |
| Front bays                 | 18 half height for server and/or storage blades  |
| Midplane                   | High speed midplane with 4 redundant fabrics   |
| Rear bays                  | 8 x for Connection Blades (2 Connection Blades per fabric)<br>6 x for PSU modules  |
| Management Blades          | 1x hot-plug Management Blade as standard, redundant Management Blade as option   |
| Fan configuration          | Up to 3 additional hot plug, redundant fan modules   |
| Fan notes                  | 2 fan units per module, 2 x 2 fans per unit; modules either part of PSU modules or independent components  |
| Power supply configuration | Up to 6x hot-plug power supply module, 3x as minimum<br>(4th to 6th power supply module necessary for redundancy, and depending on system configuration) |

### Operating panel

|                   |  |
|-------------------|--|
| Operating buttons | On/off switch<br>ID button   |
| Status LEDs       | Power (amber / green)<br>System status (orange)<br>Identification (blue) |
| Service display   | ServerView Local Service Display for Blade (LSB)                         |

### Management Blade

|                        |   |
|------------------------|---|
| Type of Unit           | BX900 MMB S1                                      |
| LAN / Ethernet (RJ-45) | 2 x 1Gbit/s Ethernet                              |
| Management LAN (RJ45)  | Dedicated Service LAN port for MMB (1Gb Ethernet) |
| Serial 1 (9-pin)       | 1 x RS-232-C                                      |
| USB 2.0 ports          | 2 x (at rear side of the system)                  |

### Dimensions / Weight

|                        |  |
|------------------------|--|
| Dimensions (W x D x H) | 482.6 mm (Bezel) / 445mm (Body) x 778 x 438                          |
| Height Unit Rack       | 10 U   |
| 19" rackmount          | Yes  |
| Weight                 | Up to 191 kg   |
| Weight notes           | Fully assembled<br>Actual weight may vary depending on configuration |
| Rack integration kit   | Included   |

### Electrical values

|                                    |   |
|------------------------------------|---|
| Max. input of single power supply  | 3200 W / 1600 W (240 V / 100 V)   |
| Max. output of single power supply | 2880 W / 1360 W (240 V / 100 V)   |
| Rated voltage range                | 100 V - 240 V   |
| Rated frequency range              | 47 Hz - 63 Hz   |
| Rated current max.                 | 65A / 29A (100 V / 240 V)   |
| Active power (max. configuration)  | 11,200 W  |
| Heat emission (max. configuration) | 40320.0 kJ/h (38216.0 BTU/h)  |
| Electrical value notes             | To estimate the power consumption of different configurations use the Power Calculator of the System Architect:<br><a href="http://configurator.ts.fujitsu.com/public/">http://configurator.ts.fujitsu.com/public/</a><br>Suitable power supply cables have to be ordered separately. |

### Environment

|                               |           |
|-------------------------------|-----------|
| Operating ambient temperature | 5 - 30 °C |
|-------------------------------|-----------|

**Environment**

|                               |   |
|-------------------------------|---|
| Operating relative humidity   | 10 - 85 % (non condensing)  |
| Operating environment         | FTS 04230 – Guideline for Data Center (installation specification)  |
| Operating environment link    | <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> |
| Noise emission                | Measured according to ISO 7779 and declared according to ISO 9296   |
| Sound pressure (LpAm)         | < 79 dB(A) (operating) < 64 dB(A) (standby)   |
| Sound power (LWAd; 1B = 10dB) | < 8,6 B   |

**Compliance**

|                       |   |
|-----------------------|---|
| Global                | CB<br>RoHS<br>WEEE  |
| Germany               | GS  |
| Europe                | CE Class A *  |
| USA/Canada            | CSAc/us<br>ULc/us<br>FCC Class A  |
| Japan                 | VCCI:V3 Class A + JIS 61000-3-2   |
| Australia/New Zealand | C-Tick  |
| Taiwan                | BSMI  |
| Compliance link       | <a href="http://globalsp.ts.fujitsu.com/sites/certificates">http://globalsp.ts.fujitsu.com/sites/certificates</a>   |
| Compliance notes      | 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.<br>* Warning:<br>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. |

**Server and Storage Blades pluggable into system unit front side**

| Product Model name | Processor type support   | Processor quantity support | Max. number per BX900   | Memory slots total | Supported capacity RAM (max.) |
|--------------------|--|----------------------------|---|--------------------|-------------------------------|
| PRIMERGY BX2560 M2 | Intel® Xeon® processor E5-2600 v4 product family-based platform<br><a href="http://docs.ts.fujitsu.com/dl.aspx?id=f804afd7-dcb0-4763-9d75-a7c9c97ef832">http://docs.ts.fujitsu.com/dl.aspx?id=f804afd7-dcb0-4763-9d75-a7c9c97ef832</a> | 1 - 2                      | 18  | 16                 | 1,024 GB                      |
| PRIMERGY BX2580 M2 | Intel® Xeon® processor E5-2600 v4 product family-based platform<br><a href="http://docs.ts.fujitsu.com/dl.aspx?id=d711b6a2-7466-4b9c-9ea5-7b0daf8b1384">http://docs.ts.fujitsu.com/dl.aspx?id=d711b6a2-7466-4b9c-9ea5-7b0daf8b1384</a> | 1 - 2                      | 18  | 24                 | 1,536 GB                      |
| PRIMERGY SX960 S1  | <a href="http://docs.ts.fujitsu.com/dl.aspx?id=a6f875b7-e6f8-474f-95ca-48040820c54c">http://docs.ts.fujitsu.com/dl.aspx?id=a6f875b7-e6f8-474f-95ca-48040820c54c</a>  |                            | 2   |                    |                               |
| PRIMERGY SX980 S2  | <a href="http://docs.ts.fujitsu.com/dl.aspx?id=c7b36166-3908-4d82-b187-3db4c90e4cef">http://docs.ts.fujitsu.com/dl.aspx?id=c7b36166-3908-4d82-b187-3db4c90e4cef</a>  |                            | max. 6, (for the US market max. 3x SX980 S2 can be installed) |                    |                               |

**Connection Blades (CB) pluggable into system unit rear side**

| Connection type                     | Down-link ports      | Up-link ports                              | Max. number per BX unit        |
|-------------------------------------|----------------------|--|--------------------------------|
| Eth FEX 10Gb 16/8                   | 16 x 10 Gbit/s Eth   | 8 x 10 Gbit/s (SFP+)                       | 6<br>(CB Slot 1/2 3/4 5/6)     |
| Eth Switch/IBP/EHM 10/40Gb 18/8 + 2 | 18 x 1/10 Gbit/s Eth | 8 x 10 Gbit/s (SFP+), 2 x 40Gbit/s (QSFP+) | 6<br>(CB Slot 1/2 3/4 5/6)     |
| Eth Switch/IBP/EHM 1Gb 18/6         | 18 x 1 Gbit/s Eth    | 6 x 1 Gbit/s (RJ45)                        | 8<br>(CB Slot 1/2 3/4 5/6 7/8) |
| Eth Switch/IBP/EHM 1Gb 36/12        | 36 x 1 Gbit/s Eth    | 8 x 1 Gbit/s (RJ45), 4 x 1 Gbit/s (SFP)    | 8<br>(CB Slot 1/2 3/4 5/6 7/8) |
| Eth Switch/IBP/EHM 1Gb 36/8+2       | 36 x 1 Gbit/s Eth    | 8 x 1 Gbit/s (RJ45), 2 x 10 Gbit/s (SFP+)  | 8<br>(CB Slot 1/2 3/4 5/6 7/8) |

**Connection Blades (CB) pluggable into system unit rear side**

| Connection type                           | Down-link ports     | Up-link ports            | Max. number per BX unit |
|---|---------------------|--------------------------|-------------------------|
| FC Pass Thru 8Gb 18/18                    | 18 x 8 Gbit/s FC    | 18 x 8 Gbit/s (SFP/SFP+) | 4<br>(CB Slot 3/4 5/6)  |
| FC Switch 16Gb Brocade 14 Port            | 18 x 8/16 Gbit/s FC | 8 x 8/16 Gbit/s (SFP+)   | 4<br>(CB Slot 3/4 5/6)  |
| FC Switch 16Gb Brocade 26 Port            | 18 x 8/16 Gbit/s FC | 8 x 8/16 Gbit/s (SFP+)   | 4<br>(CB Slot 3/4 5/6)  |
| FC Switch 16Gb Brocade 26 Port Enterprise | 18 x 8/16 Gbit/s FC | 8 x 8/16 Gbit/s (SFP+)   | 4<br>(CB Slot 3/4 5/6)  |
| SAS Switch 6Gb 18/6                       | 18 x 6 Gbit/s SAS   | 6 x 6 Gbit/s SAS         | 2<br>(CB Slots 5+6)     |

**Warranty**

|   |   |
|---|---|
| Warranty period   | 3 years   |
| Warranty type   | Onsite warranty   |
| Warranty Terms & Conditions                             | <a href="http://www.fujitsu.com/support">www.fujitsu.com/support</a>  |
| <b>Product Support Services - the perfect extension</b> |   |
| Support Pack Options                                    | Globally available in major business areas:<br>9x5, Next Business Day Onsite Response Time<br>9x5, 4h Onsite Response Time<br>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   | <a href="http://www.fujitsu.com/fts/products/product-support-services/">http://www.fujitsu.com/fts/products/product-support-services/</a>                   |

# More information

## Fujitsu OPTIMIZATION Services

In addition to Fujitsu PRIMERGY BX900 S2, 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 PRIMERGY BX900 S2, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.  
<http://www.fujitsu.com/primergy>

## 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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