PRIMERGY BX620 S3
2-way Server Blade

Options Guide

Edition November 2006

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Fax forms for sending us your comments are included in the back of the manual.

There you will also find the addresses of the relevant User Documentation Department.

Certified documentation according to DIN EN ISO 9001:2000

To ensure a consistently high quality standard and user-friendliness, this documentation was created to meet the regulations of a quality management system which complies with the requirements of the standard DIN EN ISO 9001:2000.

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Contents

1 Preface

The PRIMERGY BX620 S3 2-way server blade is an Intel-based server blade that can be operated in the PRIMERGY BX600 S2 basic unit.

The PRIMERGY BX620 S3 server blade offers several new forward-looking technologies such as dual-core processors, FBD memory modules with extended mirroring, modular hard disk controller configuration and 2.5-inch SAS or SATA hard disks.

1.1 Documentation Overview

PRIMERGY manuals are available in PDF format on the *ServerBooks CD*, which is part of the *ServerView Suite* provided with each server system.

These PDF files can also be downloaded from the Internet free of charge: At *http://manuals.fujitsu-siemens.com* you will find an overview page showing the online documentation available on the Internet. You can go to the PRIMERGY Server documentation by clicking on *industry standard servers*.

Concept and Target Groups

This Options Guide shows you how to extend and upgrade your system.

Caution!

The activities described in this manual may only be performed by specialist personnel with technical training.

The installation and removal of the hot-plug components is described in the Operating Manual supplied with the system.

Additional Server Blade Documentation

The PRIMERGY BX620 S3 documentation comprises the following additional manuals:

– The “Security” manual (printed copy always supplied with the server; also available as a PDF file on the supplied *ServerBooks* CD)

– The “Guarantee” manual (printed copy always supplied with the server; also available as a PDF file on the supplied *ServerBooks* CD)

– The Operating Manual for PRIMERGY BX620 S3 (PDF file available on the supplied *ServerBooks* CD)
– The “BIOS Setup” manual (PDF file available on the supplied *ServerBooks* CD)
– The “Ergonomics” manual (PDF file available on the supplied *ServerBooks* CD)
– The “ServerView Suite” manual (printed copy always supplied with the server; also available as a PDF file on the supplied *ServerBooks* CD)
– The Service Supplement for PRIMERGY BX620 S3 (PDF file available on the supplied *ServerBooks* CD)

You can order an additional copy of the *ServerBooks* CD by sending an e-mail to the following address, quoting your server data:
Reklamat-PC-LOG@fujitsu-siemens.com

Further sources of information:

– Technical Manual for the relevant rack
– Manual for the monitor
– Manual on *ServerView* Server Management
– Manual on the *RemoteView* Remote Test and Diagnostics System
– Documentation for boards and drives
– Documentation for your operating system
– Information files on your operating system

(See also chapter “Related publications” on page 55)

1.2 Extensions and Conversions

Second Processor

If only one processor is installed in your server blade, you can upgrade it to include a second one. You may only use processors of the same type in the server blade. The second processor must have the same clock frequency as the first.

Extension of the Main Memory

The main memory sockets are suitable for "Fully Buffered DIMM" (FBD) 533-MHz memory modules. Memory modules must be installed in pairs. The two memory modules of one bank must always have the same capacity.

Optional I/O Modules

The server blade can be equipped with a 2-Gbit/s FC I/O module or an additional 1-Gbit/s Ethernet I/O module.

To be able to use the additional I/O functionality, at least one FC pass-thru blade (or switch blade) or Ethernet LAN pass-thru blade (or switch blade) must be installed in the NET3 and/or NET4 slots of the PRIMERGY BX600 S2 basic unit.

Storage Modules

The hard disks are controlled by a storage module (controller) that can be plugged into the motherboard and which may also have additional functions. SATA only offers **one** storage module variant, while SAS offers a total of **four** different variants: SAS, SAS/RAID, SAS/PCI-X and SAS/PCIe. The two PCI variants allow the installation of low-profile PCI modules.

Storage modules can be installed/replaced via the front of the server blade without having to take off the housing cover. However, they cannot be replaced while the system is running (non-hot-plug) - the server blade must be switched off.

1.3 Structure of the Server Blade

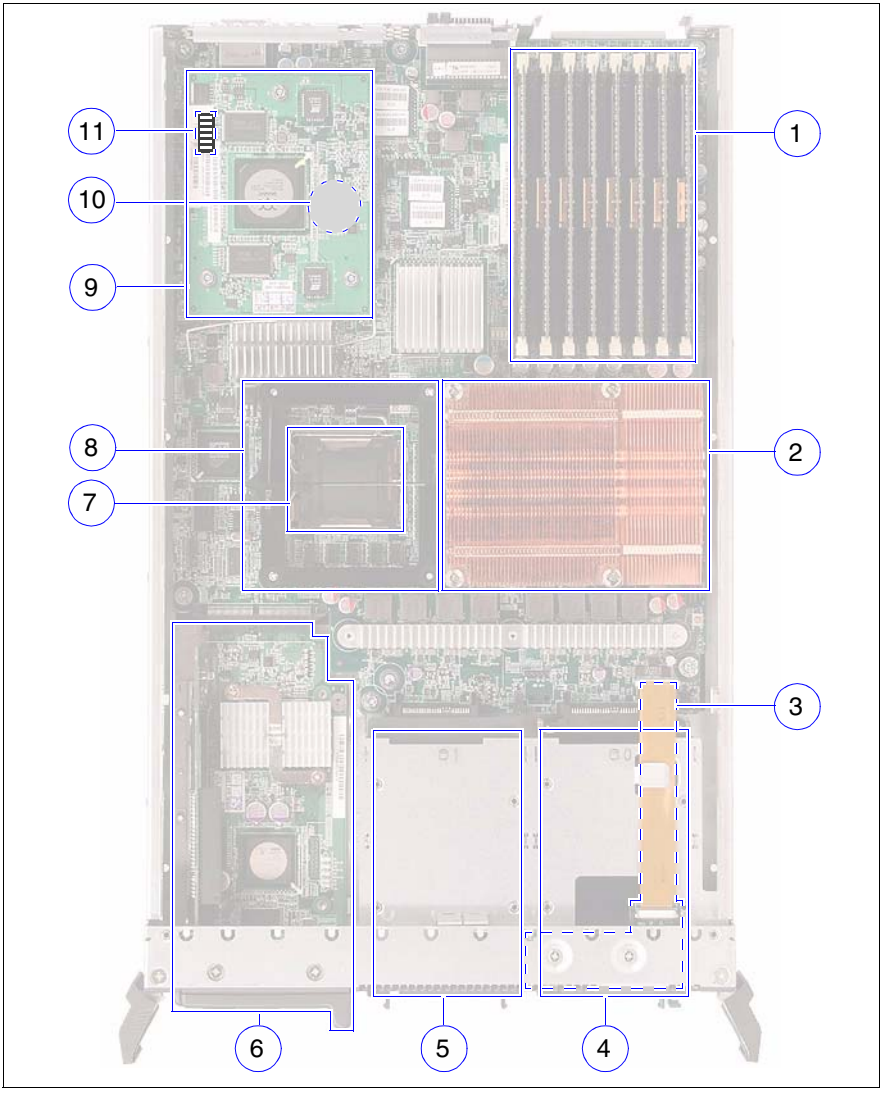


Figure 1: PRIMERGY BX620 S3 server blade

figure 1 shows the positions of the most important components of the BX620 S3 2-way server blade.

1	Sockets for FBD memory modules
2	Heat sink of the first processor
3	Control panel board with foil cable
4	2.5-inch hard disk module 1 (SAS or SATA)
5	2.5-inch hard disk module 2 (SAS or SATA)
6	Storage module
7	Socket for second processor
8	Dummy heat sink
9	I/O daughter card (Fibre Channel or Gigabit Ethernet), optional
10	Lithium battery (on the system board)
11	DIP switch (on the system board)

The memory modules, the I/O daughter card and the storage module must be installed in the server blade before it is placed in the basic unit.

DIP Switch Settings

The server blade comes with the DIP switches set in the following positions:

Switch	Function	Default
1	Delete password	OFF
2	Clear CMOS memory	OFF
3	Restore system BIOS	OFF
4	Not assigned	OFF
5	Switch for keyboard/mouse controller	ON
6	Switch for keyboard/mouse controller	ON

Table 1: Preset DIP switches

The switch settings have the following meanings:

Switch 1	ON	Delete password enabled
	OFF	Delete password disabled
Switch 2	ON	Clear CMOS memory enabled
	OFF	Clear CMOS memory disabled
Switch 3	ON	Restore system BIOS enabled
	OFF	Restore system BIOS disabled
Switch 4	ON	Top block swap enabled
	OFF	Top block swap disabled
Switch 5	ON	Keyboard/mouse controller cannot be programmed (normal operation)
	OFF	Keyboard/mouse controller can be programmed
Switch 6	ON	Keyboard/mouse controller is connected to the power supply (VCC5_SUS).
	OFF	Keyboard/mouse controller is not connected to the power supply.

1.4 Notational Conventions

The following notational conventions are used in this manual:

Italics	indicate commands, menu items or software programs.
“quotation marks”	indicate names of chapters and terms that need to be emphasized.
►	indicates activities that must be performed in the order given.
ATTENTION!	indicates that, if you ignore the information given at this point, your health, the correct functioning of your system or the security of your data may be at risk.
	indicates supplementary information, remarks and tips.

2 Procedure

ATTENTION!

- The activities described in this manual should only be performed by engineers, service personnel or technical specialists.
- Equipment repairs should only be performed by qualified staff.
- Any failure to observe the guidelines in this manual, and any unauthorized opening or improper repairs could endanger the user (through electric shock, fire hazards) or damage the equipment.
- Please note that any unauthorized opening of the device will result in the invalidation of the warranty and exclusion from all liability.

► First of all please familiarize yourself with the safety instructions in the chapter “Notes on Safety” on page 13ff.

► Make sure that all the manuals you need (see “Additional Server Blade Documentation” on page 5) are available, printing out the PDF files if necessary.

You will definitely need

– the Operating Manual for the server blade and
– the Service Supplement.

► Shut down the server blade correctly, switch it off and remove it from the basic unit as described in the chapter “Preparation” on page 17f.

► Extend or upgrade your server blade as described in the relevant chapter.

The installation and removal of the hot-plug components is described in the Operating Manual supplied with the server blade.

► Close the server blade, place it back in the basic unit and switch on the server blade as described in chapter “Completion” on page 49f.

► Start the operating system and, if necessary, configure it as required (see the Operating Manual).

3 Notes on Safety

The following safety instructions can also be found in the manual entitled “Safety”.

This device complies with the relevant safety regulations for data processing equipment, including electronic office machines for use in an office environment.

If you have any questions as to whether you can set up the device in your particular environment, please contact your sales outlet or our customer service centre.

ATTENTION!

- The activities described in this manual should only be performed by engineers, service personnel or technical specialists.
- Equipment repairs should only be performed by qualified staff.
- Any failure to observe the guidelines in this manual, and any unauthorized opening or improper repairs could endanger the user (through electric shock, fire hazards) or damage the equipment.
- Please note that any unauthorized opening of the device will result in the invalidation of the warranty and exclusion from all liability.

Before Setting Up

ATTENTION!

- During installation and before operating the device, observe the instructions on environmental conditions for your device.
- If the device is brought in from a cold environment, condensation may form both inside and on the outside of the machine.

  Before operating the device, wait until it is absolutely dry and has reached approximately the same temperature as the installation site. Failure to observe these guidelines can lead to material damage of the device.

ATTENTION!

- Transport the device only in its original packaging or in packaging which protects it from knocks and jolts.

Installation and Operation

ATTENTION!

- Read the notes on installation and operation in the manual "PRIMERGY BX600 S2 Basic Unit" (see "Related publications" on page 55).
- When installing the server blade in the basic unit, beware of the energy hazard at the midplane conctacts. A short-circuit on these contacts may damage the system.
- Data cables must be adequately shielded to avoid interference.
- For the LAN wiring, the requirements according to standards EN 50173 and EN 50174-1/2 apply. The minimum requirement is the use of a protected LAN line of category 5 for 10/100 Mbps Ethernet, and/or category 5e for Gigabit Ethernet. The requirements of the specification ISO/IEC 11801 must also be taken into account.
- Route the cables in such a way that they do not form a potential hazard (tripping) and cannot be damaged. When connecting the device, refer to the relevant notes in the Operating Manual.
- Do not connect or disconnect any data transmission cables during a thunderstorm (lightning hazard).
- Be careful to ensure that no objects (e.g. jewelry, paper clips etc.) or liquids get inside the device (electric shock, short circuit).
- In emergencies (e.g. damaged casing, control elements or cables, penetration of liquids or foreign bodies), switch off the device immediately, unplug it from the grounded power outlets, and contact your customer service center.

ATTENTION!

- Proper operation of the device (in accordance with IEC60950/EN 60950) is only ensured if the casing is completely assembled and the rear covers for the installation openings are in place (electric shock, cooling, fire protection, interference suppression).
- Install only system extensions that satisfy the requirements and rules governing safety, electromagnetic compatibility, and telecommunications terminal equipment.

  If you install other extensions, you may damage the system or violate these safety regulations.

Information on which system extensions are suitable can be obtained from the customer service center or your sales outlet.

- The components marked with a warning label (e.g. lightning symbol) may only be opened, removed, or exchanged by authorized, qualified personnel, with the exception of the hot-plug/hot-swap components.
- If you cause a defect on the device by installing or exchanging system extensions, the warranty will be invalidated.
- Only set the resolutions and refresh rates specified in the operating manual for your monitor.
  Otherwise, you may damage the monitor. If you are in any doubt, contact your sales outlet or customer service center.

Batteries

CAUTION!

- Incorrect replacement of batteries may lead to a risk of explosion. The batteries may only be replaced with identical batteries or with a type recommended by the manufacturer (see the service supplement (see “Related publications” on page 55).
- Do not throw batteries into the trash can. They must be disposed of in accordance with local regulations concerning special waste.
- The battery must be disposed of in accordance with local regulations concerning special waste.
- Replace the lithium battery on the system board in accordance with the instructions in the service supplement (see “Related publications” on page 55).
- All batteries containing pollutants are marked with a symbol (a crossed-out garbage can). In addition, the marking is provided with the chemical symbol of the heavy metal decisive for the classification as a pollutant:

  Cd Cadmium
  Hg Mercury
  Pb Lead

Modules with Electrostatic-Sensitive Devices

Modules with electrostatic-sensitive devices are identified by the following sticker:

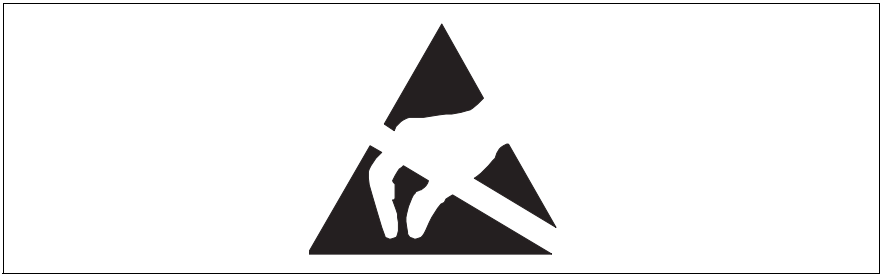


Figure 2: ESD label

When you handle components fitted with ESDs, you must always observe the following points:

- Switch off the system and remove the power plugs from the power outlets before installing or removing components with ESDs.
- You must always discharge static build-up (e.g. by touching a grounded object) before working with such components.
- Any devices or tools that are used must be free of electrostatic charge.
- Wear a suitable grounding cable that connects you to the external chassis of the system unit.
- Always hold components with ESDs at the edges or at the points marked green (touch points).
- Do not touch any connectors or conduction paths on an ESD.
- Place all the components on a pad which is free of electrostatic charge.

For a detailed description of how to handle ESD components, see the relevant European or international standards (EN 61340-5-1, ANSI/ESD S20.20).

4 Preparation

ATTENTION!

Please observe the safety information in the chapter “Notes on Safety” on page 13ff.

4.1 Opening the Server Blade

- ► Exit all applications and shut down the server blade correctly.
- ► Press the On/Off button on the server blade control panel.

Removing the Server Blade from the Basic Unit

Figure 3: Removing the server blade

- ► Press the two touch points (1) to unlock the ejection levers.
- ► Open out the two ejection levers (2) simultaneously to disengage the server blade.

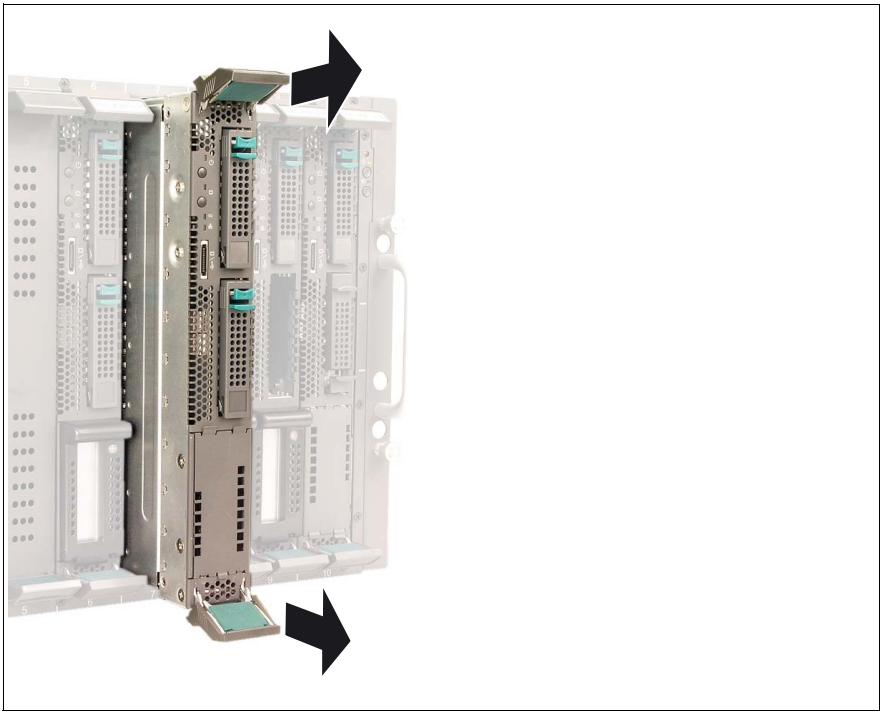


Figure 4: Removing the server blade

► Pull the server blade out of the basic unit.

Removing the Cover

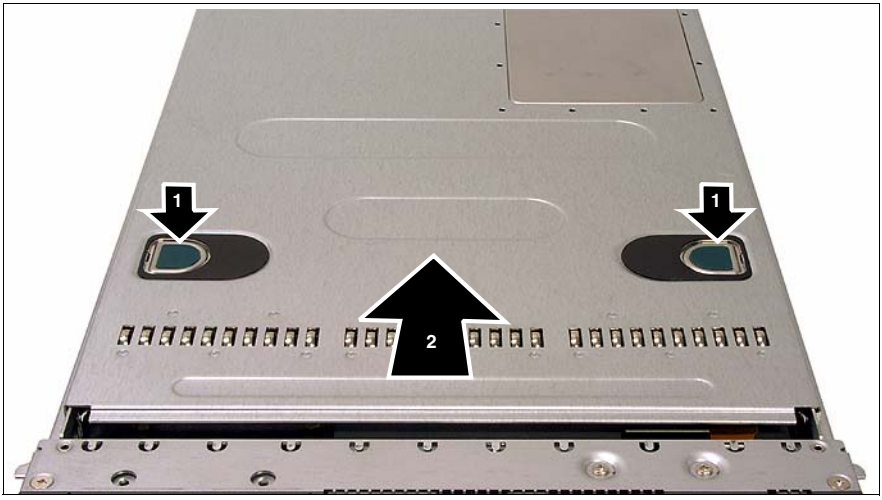


Figure 5: Removing the cover

- ► Press the two touch points (1) of the cover simultaneously to disengage it, and slide back the cover as far as it will go in the direction of the arrow (2).
- ► Take off the cover.

The server blade components are now freely accessible (see figure 1 on page 8).

5 Processors

ATTENTION!

Make sure you observe the safety notes in the chapter “Notes on Safety” on page 13.

Processors are components which are extremely sensitive to electro-static discharge and must be handled with caution.

When you take a processor out of its protective wrapper or out of a socket, place it on an insulated, antistatic surface with the smooth side down.

Never slide a processor over a surface.

5.1 Installing a Second Processor

If only one processor is installed in your server blade, you can upgrade it to include a second one.

ATTENTION!

- Always use processors of the same type. All processors must have the same frequency, capacity and organization. For multi-processor operation use a suitable multi-processor operating system.
- The Clovertown processor is only comlpiant with server blades with part number A3C40083121. You will find the part number on a label on the back side of the server blade or with ServerView (field *Model* in the *server list*).

► Open the server as described in section “Opening the Server Blade” on page 17.

Removing the Dummy Heat Sink

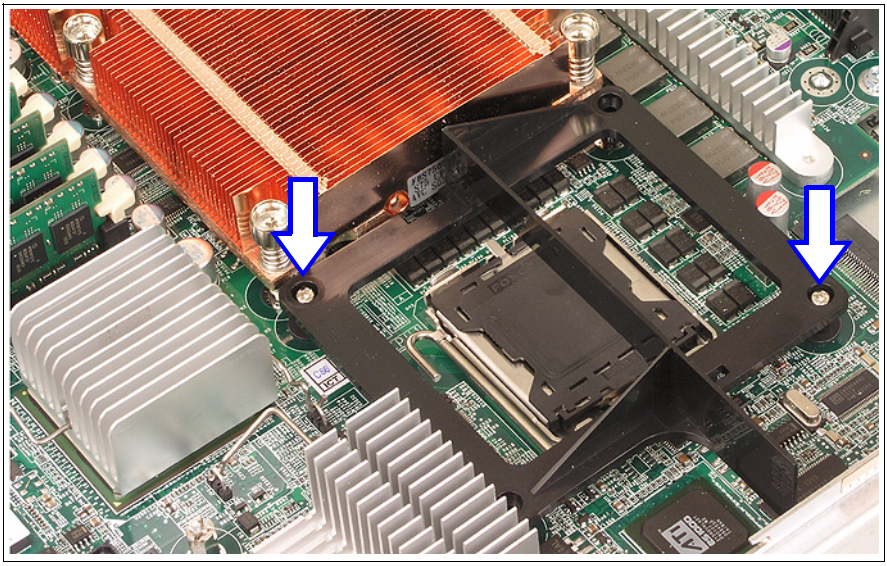


Figure 6: Removing the dummy heat sink

► Undo the two screws which fasten the dummy processor heat sink and remove it.

Installing the Processor

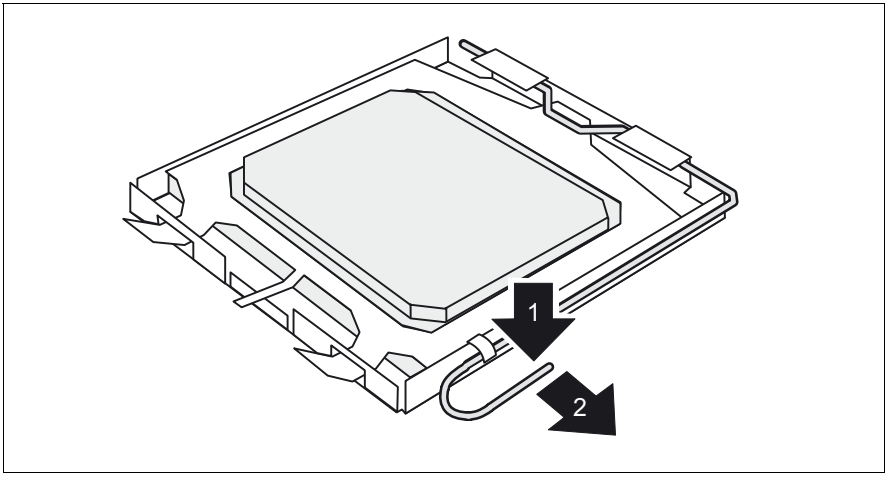


Figure 7: Releasing the locking lever of the processor socket

► Press the locking lever of the processor socket out of its locking position (arrows) and swivel it upward.

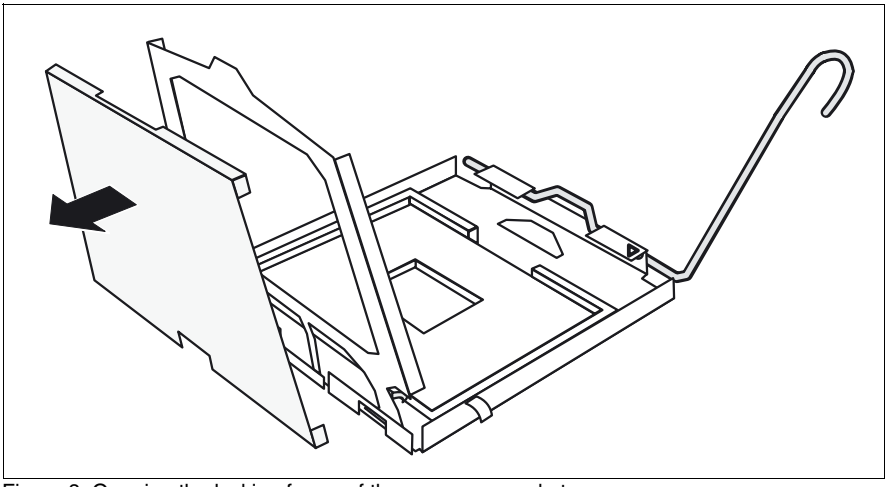


Figure 8: Opening the locking frame of the processor socket

► Open up the locking frame of the processor socket and take off the black protective cover (arrow).

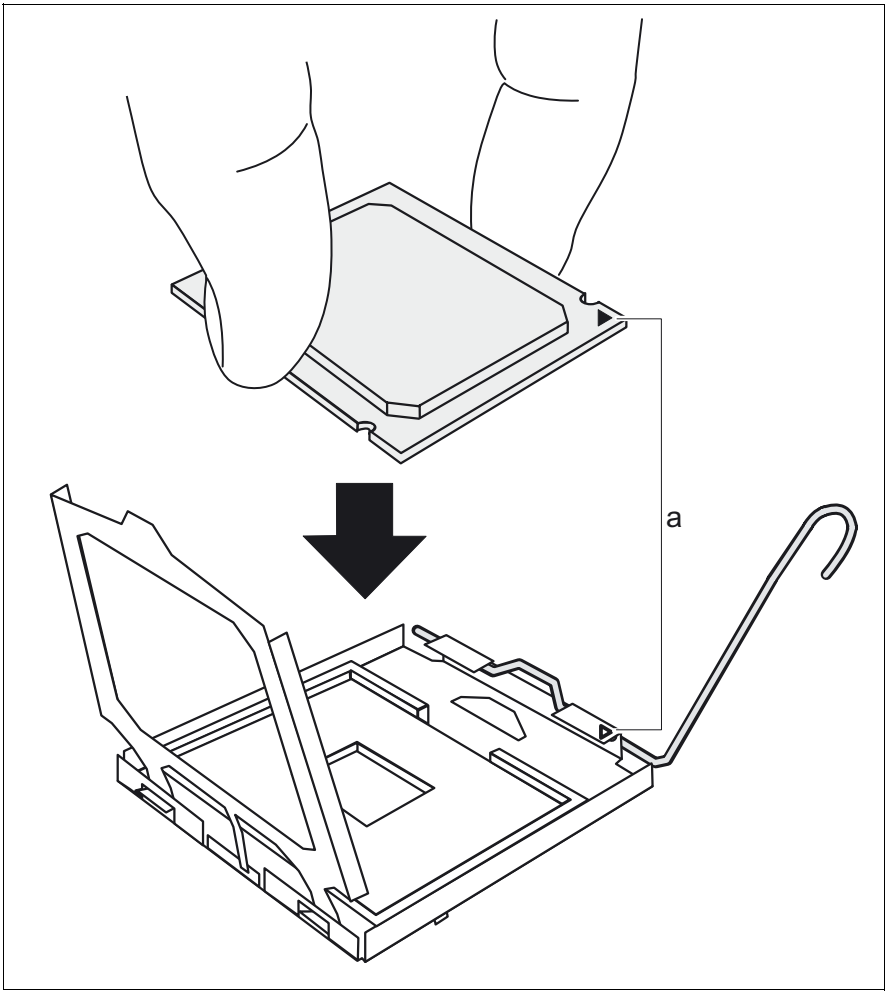


Figure 9: Inserting the processor

► Place the processor in the socket, making sure the marks on the processor point to the corresponding marks on the socket (a).

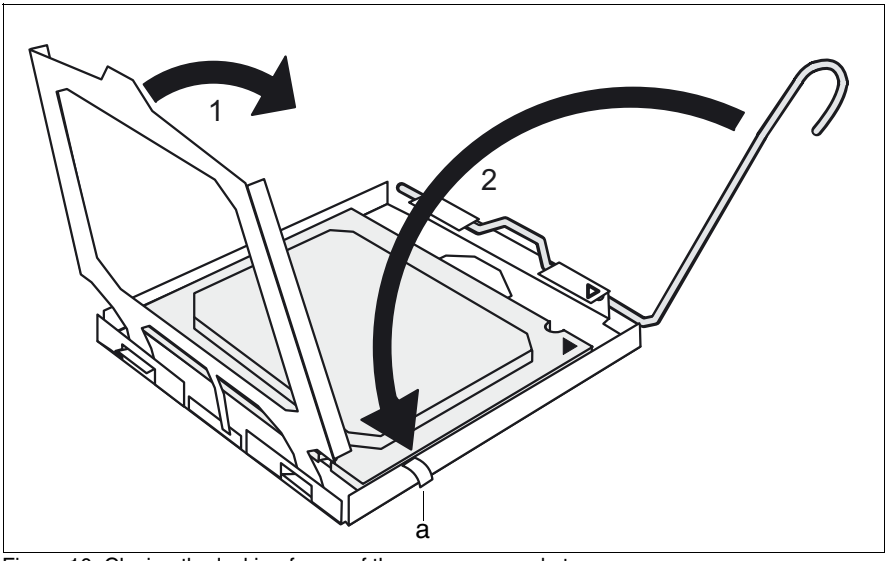


Figure 10: Closing the locking frame of the processor socket

► Close the locking frame of the processor socket (1), swivel the locking lever downward (2) and lock it under the small clip (a) that is attached to the socket.

Installing the Heat Sink

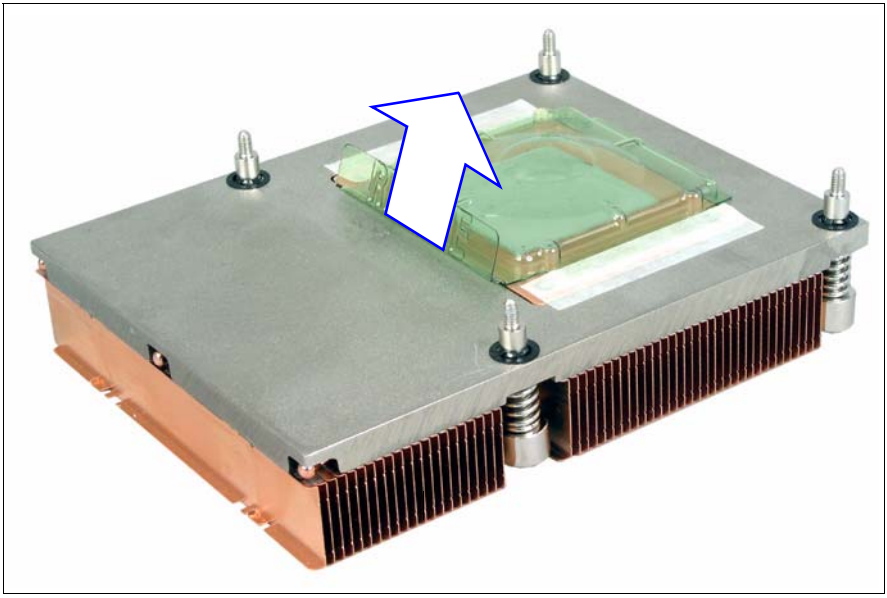


Figure 11: Removing the plastic cover

► Pick up the heat sink and remove the transparent protective cover over the thermal paste on the bottom of the heat sink.

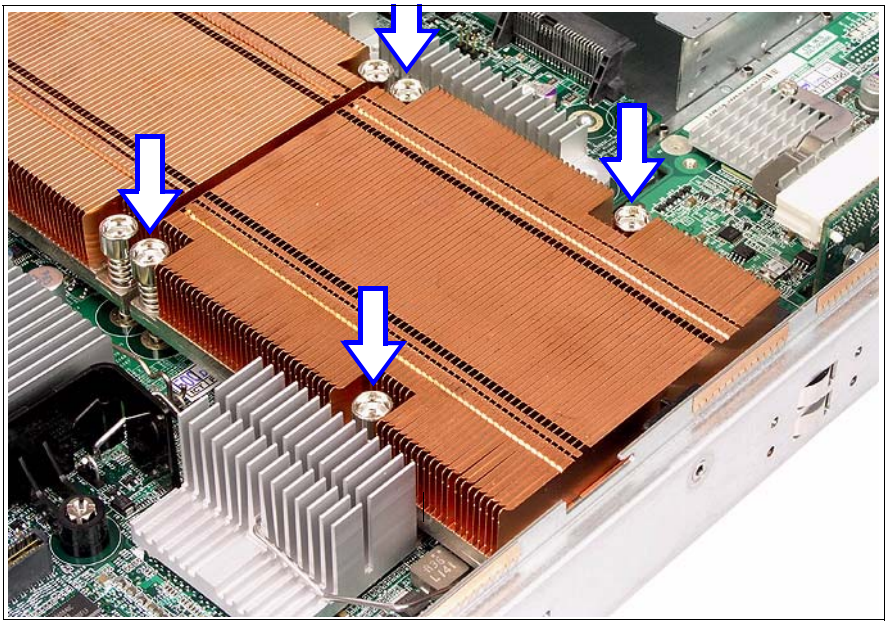


Figure 12: Fastening the processor heat sink

► Place the heat sink on the CPU and fix it by fastening the four premounted screws in diagonally opposite sequence.

ATTENTION!

If you do not add a second CPU to the server blade, a dummy heat sink must be installed in the second CPU socket to make sure that all server blade modules are cooled sufficiently.

To install the dummy heat sink, follow the procedure for removing it in reverse, see page 22.

6 Main Memory

ATTENTION!

Please observe the safety information in the chapter “Notes on Safety” on page 13ff.

The server blade supports up to 32 GB main memory. It offers eight DIMM slots which can be fitted with FBD533/ PC2-4200F memory modules (FBD = Fully Buffered DIMM) in pairs.

The main memory is divided into two branches with two channels each. Two DIMM slots are assigned to each of the four channels. The first slots of each channel (logical slot 0) belong to memory bank 1; the second slots of each channel (logical slot 1) belong to memory bank 2. The following figure shows the distribution of the main memory from a logical point of view:

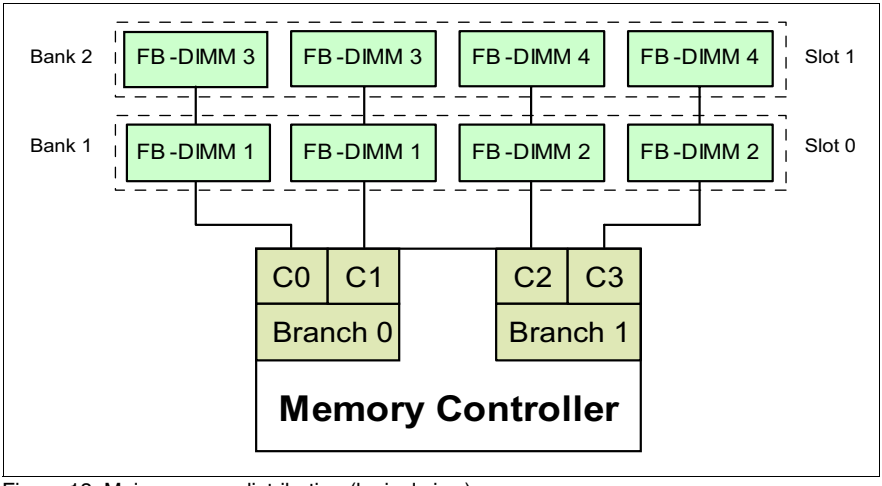


Figure 13: Main memory distribution (logical view)

Because in the basic configuration of the server blade the FB-DIMM 1 slots are fitted with 1 GB, 2 GB, 4 GB or 8 GB memory, the memory can be expanded up to three times for slots FB-DIMM 2, FB-DIMM 3 and FB-DIMM 4.

ECC with memory scrubbing and ChipKill™ is standard.

Maximum performance is reached if all DIMM slots of a memory bank are fitted with DIMM modules of the same capacity.

6.1 Fitting Rules

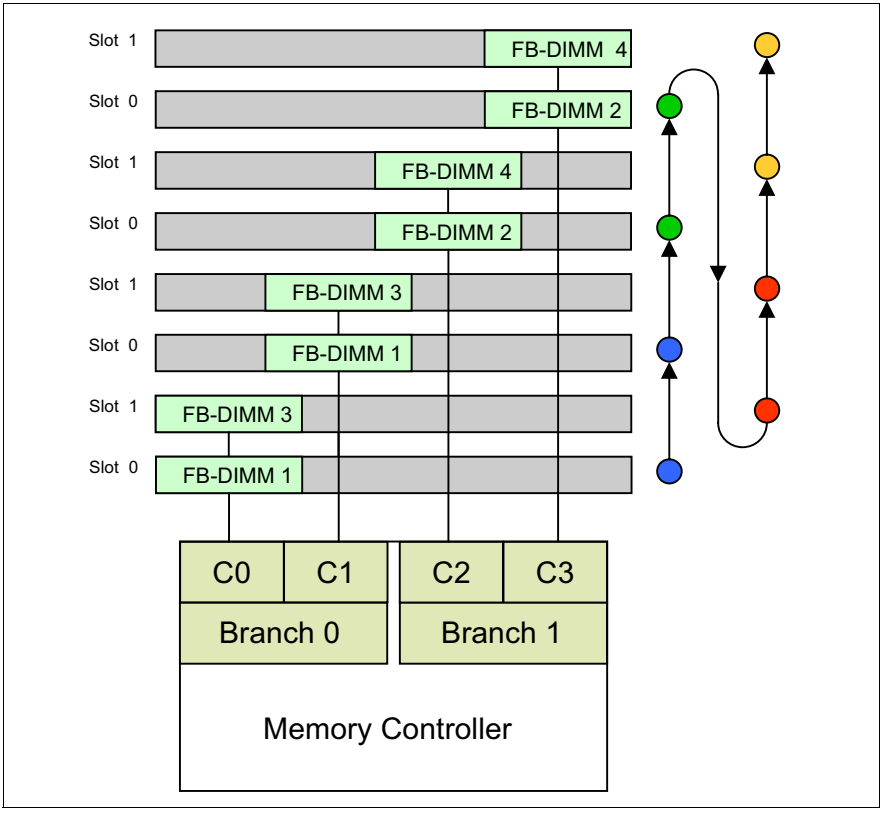


Figure 14: Fitting sequence

– The DIMM modules must only be fitted in pairs within a branch and must occupy the same slot position (logical slot 0 or slot 1).

– The DIMM modules of a pair must have the same capacity, speed and organization.

– The arrow in figure 14 indicates the order in which the DIMM slots must be filled. The same color means the same capacity, speed and organization of the DIMM modules.

Memory Mirroring

Memory mirroring requires that branches 0 and 1 are fitted with two identical pairs of DIMM modules. The memory mirroring functionality is configured in the system BIOS.

The following tables show the configurations for memory mirroring. The same color means the same capacity, speed and organization of the DIMM modules:

	Branch 0		Branch 1	
	Channel 0	**Channel 1**	**Channel 0**	**Channel 1**
Slot 0				
Slot 1				
Slot 0				
Slot 1				
Slot 0				
Slot 1				
Slot 0				
Slot 1				

Table 2: Memory mirroring with four DIMM modules

	Branch 0		Branch 1	
	Channel 0	**Channel 1**	**Channel 0**	**Channel 1**
Slot 0				
Slot 1				
Slot 0				
Slot 1				
Slot 0				
Slot 1				
Slot 0				
Slot 1				

Table 3: Memory mirroring with eight DIMM modules

6.2 Upgrading / Exchanging Main Memory

► Remove the server blade from the basic unit and open it as described in the chapter “Preparation” on page 17f.

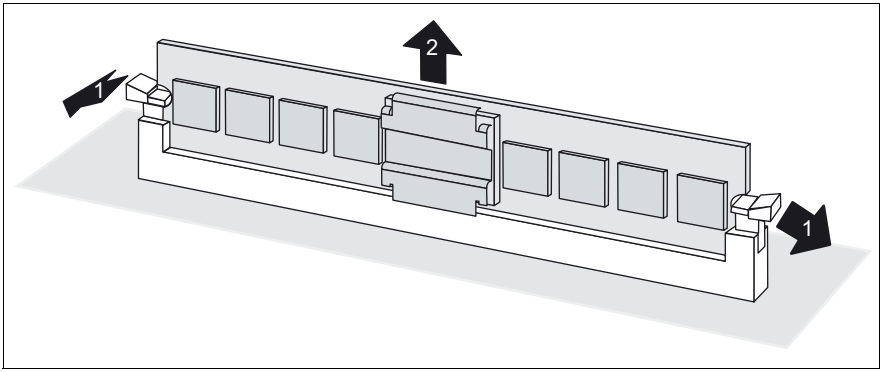


Figure 15: Removing a memory module

► Flip the fastening tabs on each side of the slot outward (1).

► If a memory module was already installed in the slot, remove it from the slot (2).

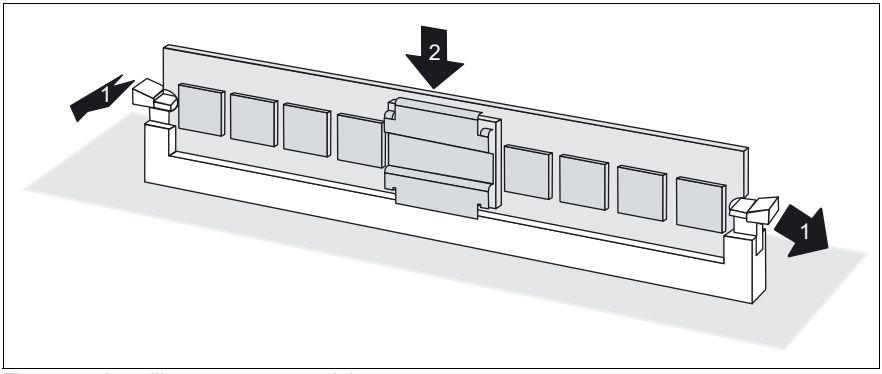


Figure 16: Installing a memory module

► Flip out the fastening tabs on both sides of the slot.

► Carefully press the memory module into the slot (1) until the fastening tabs on both sides of it engage (2).

► Close the server blade, insert it in the basic unit and switch on the server blade as described in chapter “Completion” on page 49ff.

7 Optional I/O Module

The PRIMERGY BX620 S3 server blade can be equipped with an additional I/O module. For this purpose, the server blade has a special slot for a daughter card (see figure 20 on page 37). The following I/O daughter cards are available for the BX630 S3 server blade.

– 2Gbit/s Fibre Channel I/O module
– Gigabit Ethernet I/O module(PCI-X)
– Gigabit Ethernet I/O module(PCIe)

Fibre Channel I/O module

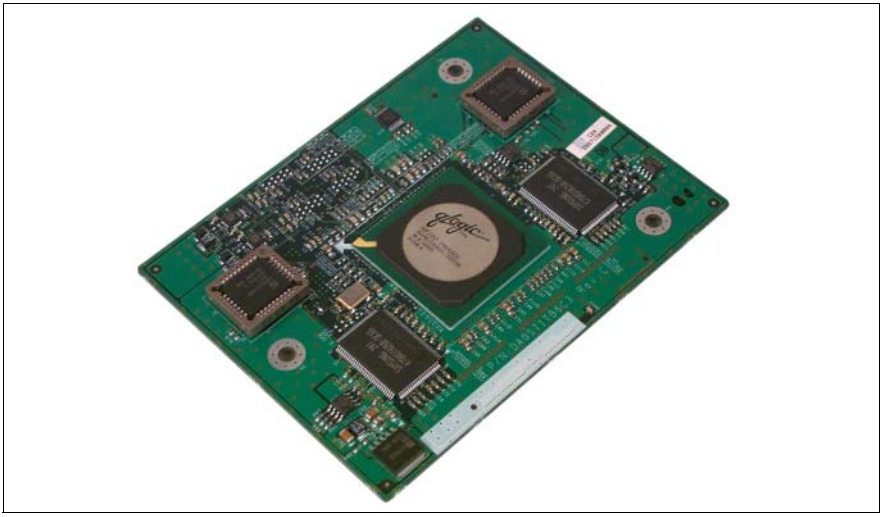


Figure 17: FC daughter card

The FC daughter card provides two independent serial 2-Gbit/s FC ports. It is equipped with a QLogic ISP2312 chip and supports the storage subsystems S80, FibreCAT CXx00, AX100, Symmetrics and FC4700.

Fibre Channel functionality requires at least one Fibre Channel pass-thru blade or a Fibre Channel switch blade in slot NET3 of the basic unit (for more information see the Operating Manual “PRIMERGY BX600 S2 Basic Unit" (see “Related publications” on page 55).

Gigabit Ethernet I/O modules

The **Gigabit Ethernet I/O module (PCI-X)** provides two 1-Gbit/s Ethernet ports.

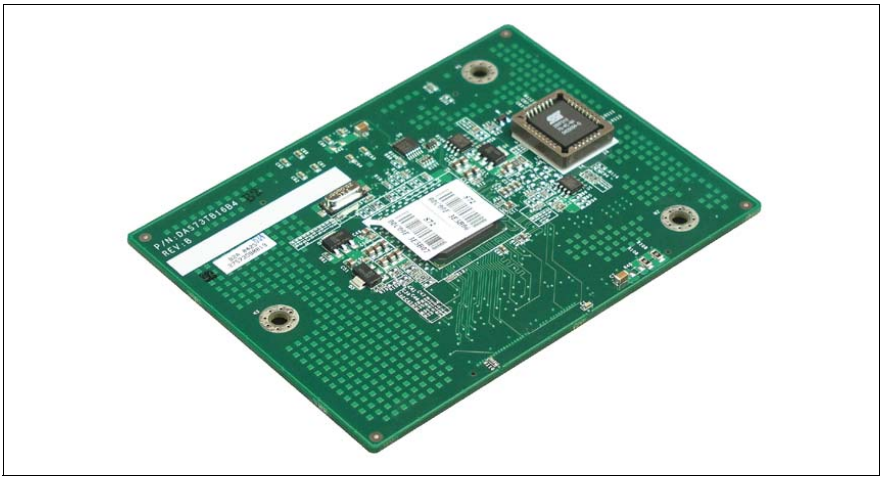


Figure 18: Gigabit Ethernet daughter card (PCI-X)

The **Gigabit Ethernet I/O module (PCIe)** provides two 1-Gbit/s Ethernet ports. In addition this module supports TOE (TCP/IP Offload Engine) and iSCSI.

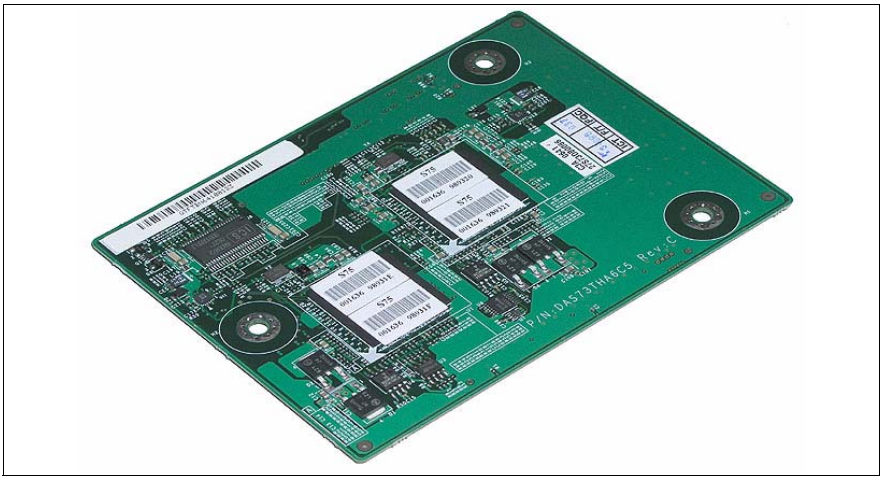


Bild 19: Gigabit Ethernet daughter card (PCIe)

Connecting these additional Ethernet ports requires at least one Ethernet pass-thru blade or an Ethernet switch blade in the NET3 slot of the basic unit (for more information see the Operating Manual “PRIMERGY BX600 S2 Basic Unit" (see “Related publications” on page 55).

7.1 Installing an I/O Daughter Card

ATTENTION!

- Please observe the safety information in the chapter ";Safety Instructions" on page 13ff..

► Remove the server blade from the basic unit and open it as described in the chapter “Preparation” on page 17f.

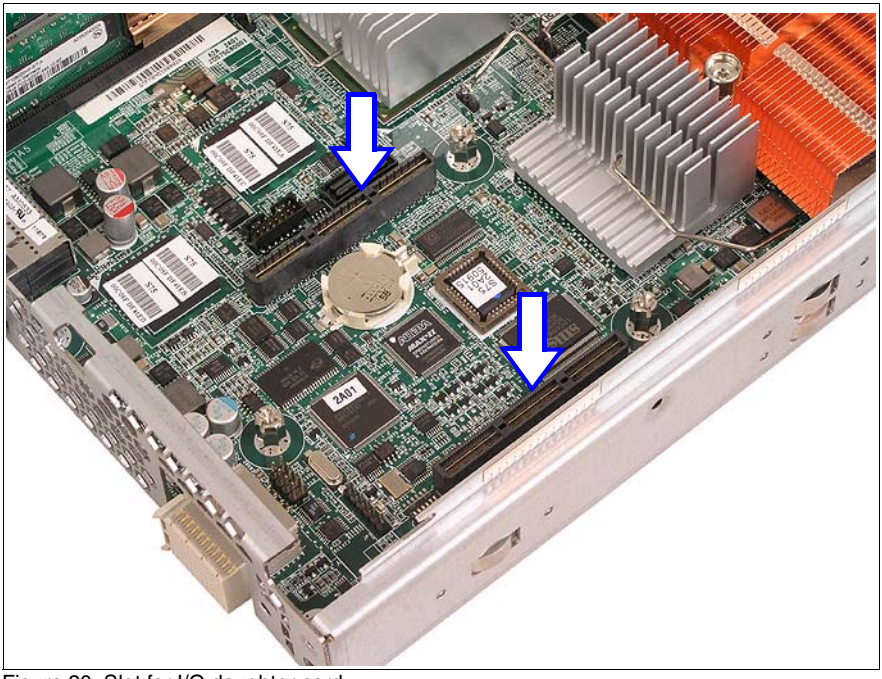


Figure 20: Slot for I/O daughter card

► Place the I/O daughter card on the two sockets (arrows).

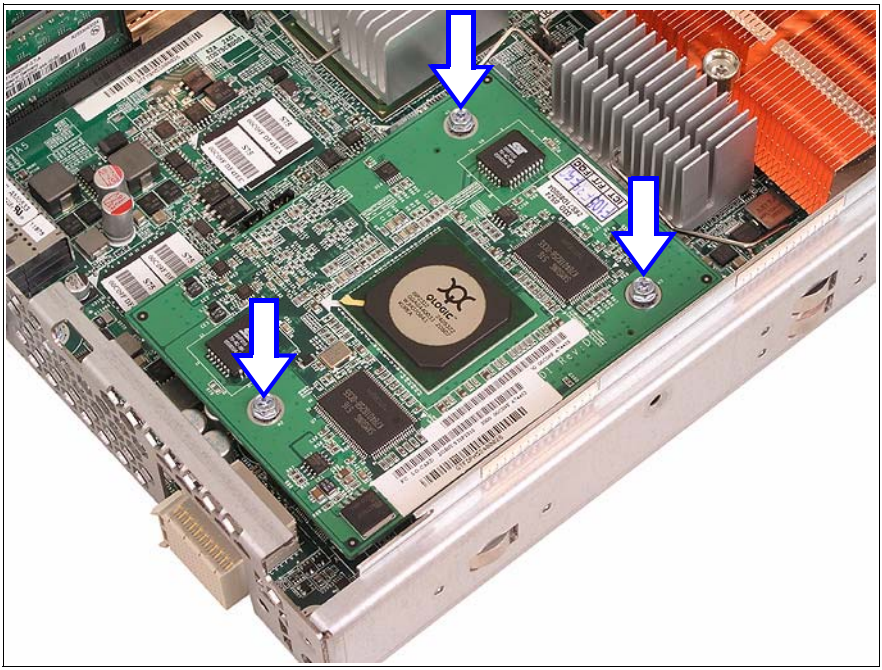


Figure 21: Installing an I/O daughter card

► Fasten the I/O daughter card with three screws.

8 Storage Modules

In the BX620 S3 server blade, the hard disk controller is mounted on a replaceable storage module which can be installed and removed on the front side of the server blade without having to take off the housing cover. The following figure shows the position of the storage module in the open server blade.

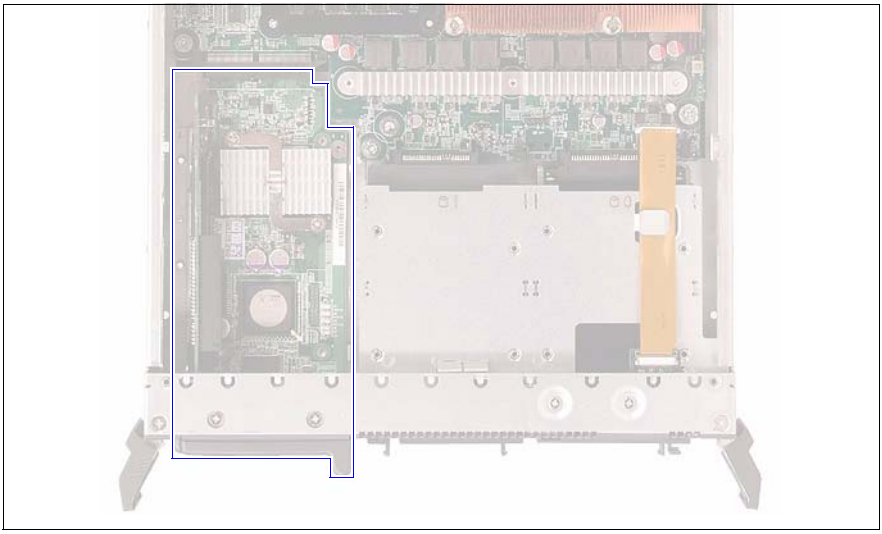


Figure 22: Position of the storage module in the server blade

There is a total of five variants of the storage module available: one variant with a SATA hard disk controller and four variants with SAS hard disk controllers which can also have additional optional functions: SAS, SAS/RAID, SAS/PCI-X and SAS/PCIe. The two PCI variants allow the installation of low-profile PCI modules.

8.1 Storage Module Variants

This section introduces the different storage modules and describes the installation of the optional extensions.

BX620 S3 SATA Storage Module

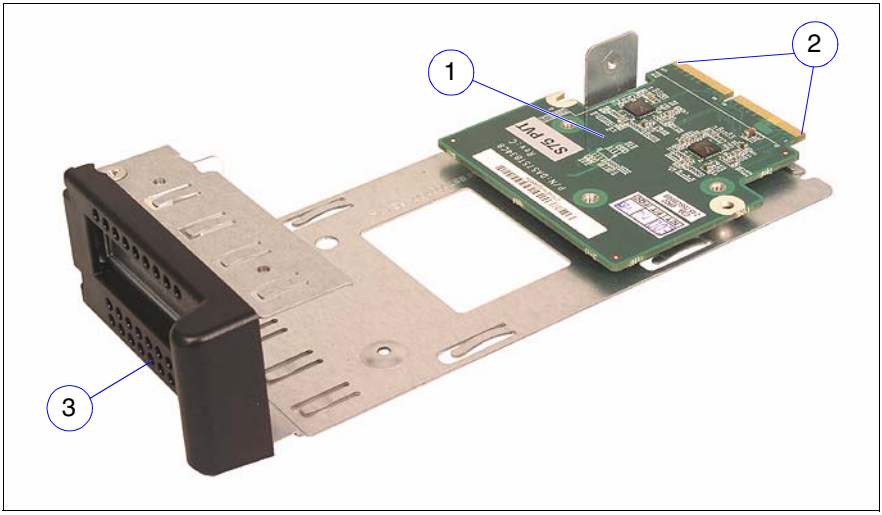


Figure 23: BX620 S3 SATA Storage Module

1	SATA controller
2	Connection to the system board
3	Front panel

BX620 S3 SAS Storage Module

This storage module supports RAID 1 with Advanced Error Logging.

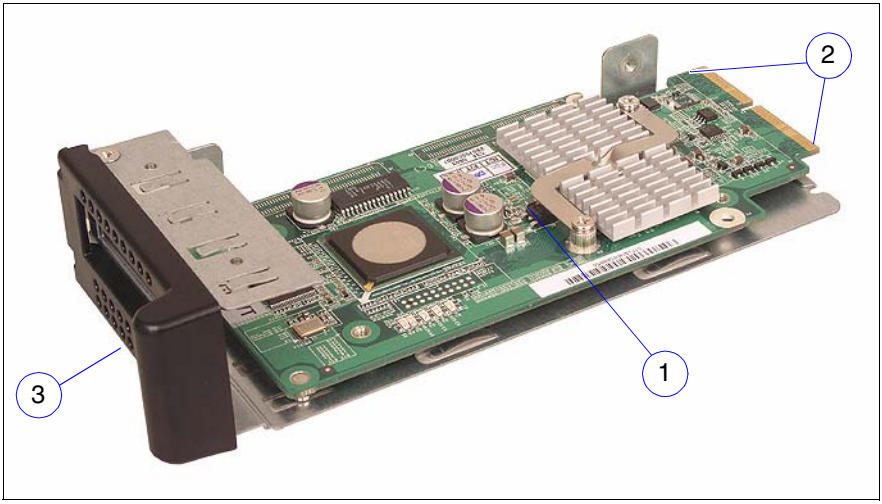


Figure 24: BX620 S3 SAS Storage Module

1	SAS controller
2	Connection to the system board
3	Front panel

BX620 S3 SAS/PCI-X Storage Module

This storage module supports RAID 1 with Advanced Error Logging and allows the installation of a low-profile PCI-X card.

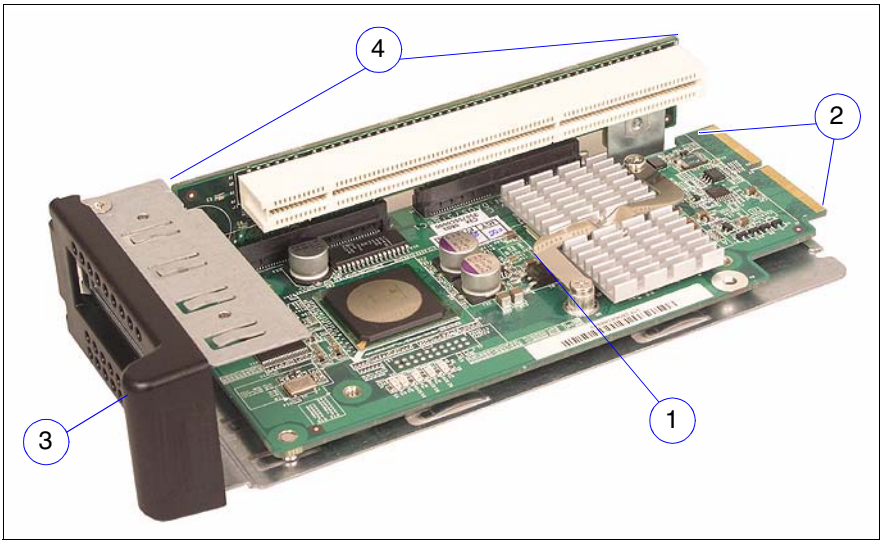


Figure 25: BX620 S3 SAS/PCI-X Storage Module

1	SAS controller
2	Connection to the system board
3	Front panel
4	PCI-X riser card

How to install a PCI card is described under “BX620 S3 SAS/PCI Express Storage Module” on page 43.

BX620 S3 SAS/PCI Express Storage Module

This storage module supports RAID 1 with Advanced Error Logging and allows the installation of a low-profile PCI Express card.

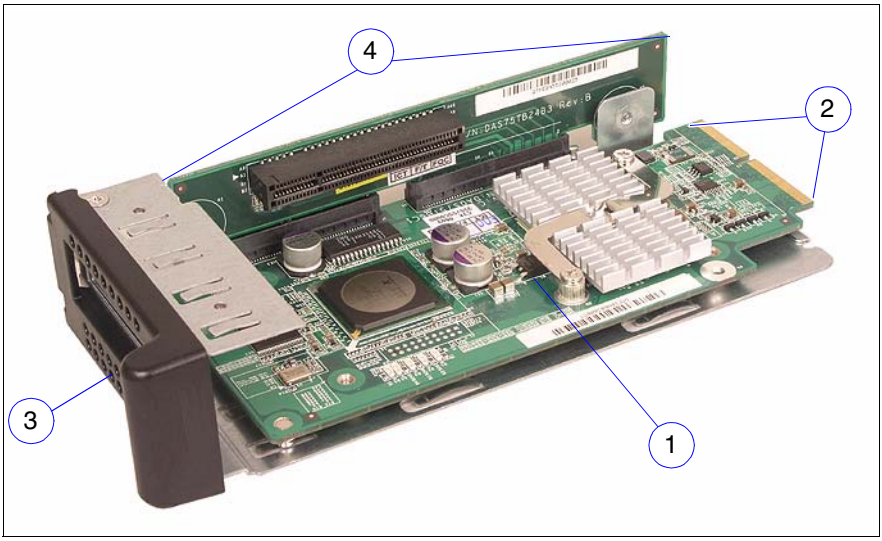
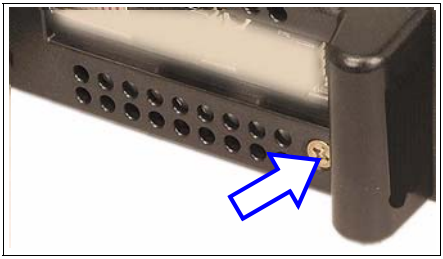


Figure 26: BX620 S3 SAS/PCI Express Storage Module

1	SAS controller
2	Connection to the system board
3	Front panel
4	PCI Express riser card

To install a PCI card in the storage module, proceed as follows:



► Undo the screw which secures the front panel of the storage module.

Figure 27: Opening the front panel

► Open out the front panel to the left.

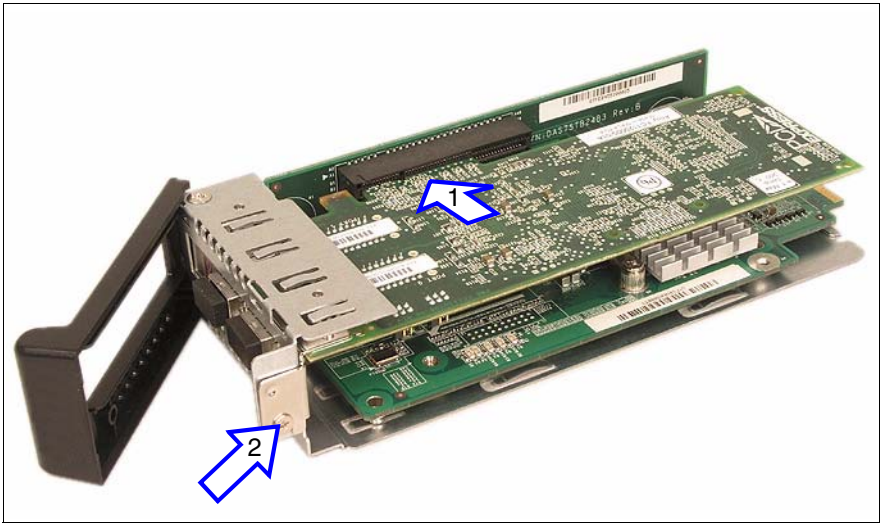


Figure 28: Installing the PCI Card

► Push the PCI card into the slot on the riser card (1).

► Secure the PCI card with a screw (2).

How to install the storage module in the server blade is described in the section “Replacing a Storage Module” on page 47.

BX620 S3 SAS/RAID Storage Module

This storage module supports RAID 0, 1 as standard and optionally RAID 5 with a 256 MB DDR2 Cache/iTBBU card.

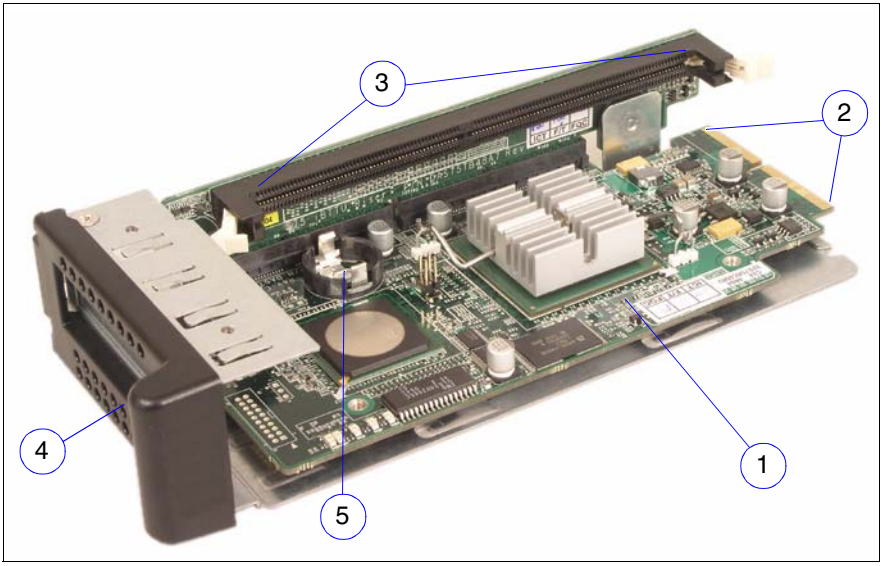


Figure 29: BX620 S3 SAS/RAID Storage Module

1	SAS controller
2	Connection to the system board
3	Riser card for a BBU card
4	Front panel
5	Socket for the RoMB activation key

To install a BBU card in the storage module, proceed as follows:

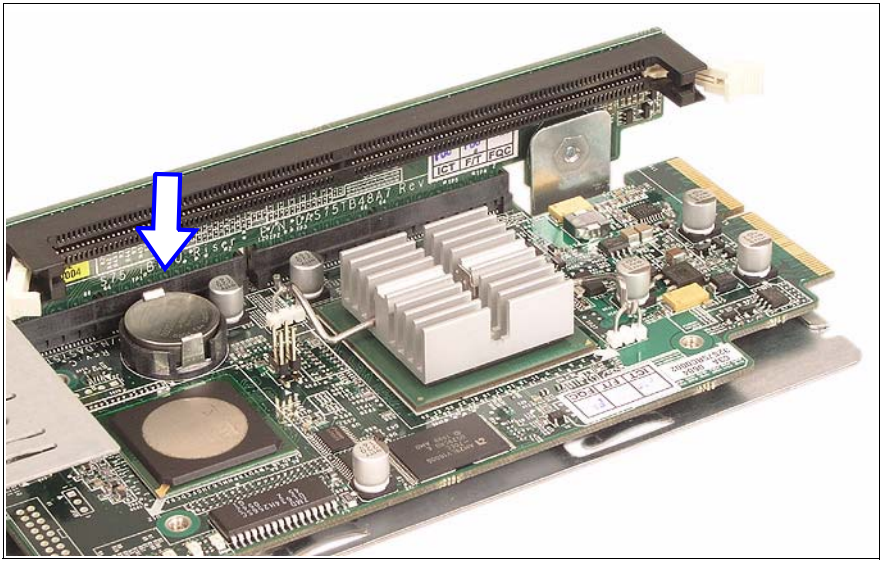


Figure 30: Installing the RoMB Activation Key

► Place the RoMB activation key into the round socket (arrow).

ATTENTION!

The labeling of the RoMB activation key must must face upward.

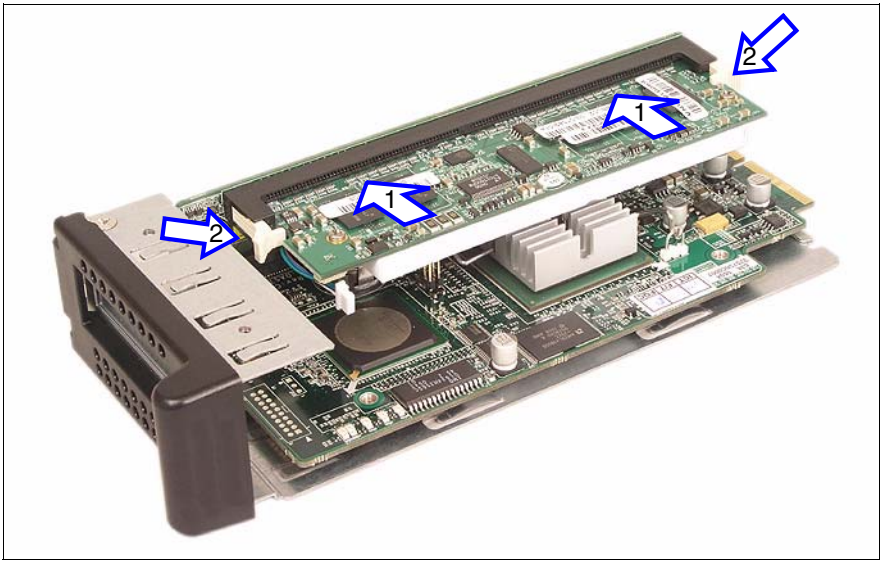


Figure 31: Installing the BBU Card

- ► Push the BBU card into the slot on the riser card (1) as far as it will go.
- ► Let the two ejection tabs on the right and left engage in the notches of the BBU card (2).

How to install the storage module in the server blade is described in the following section.

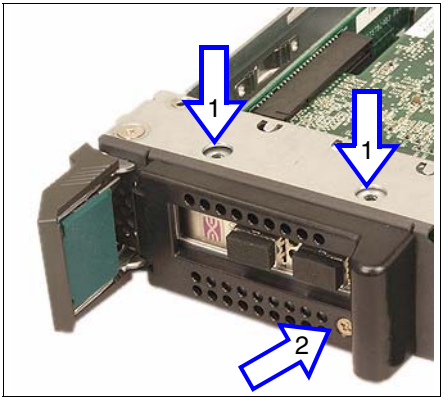
8.2 Replacing a Storage Module

ATTENTION!

- Please observe the safety information in the chapter ";Safety Instructions" on page 13ff..
- You must switch off the server blade before replacing the storage module (non-hot-plug).

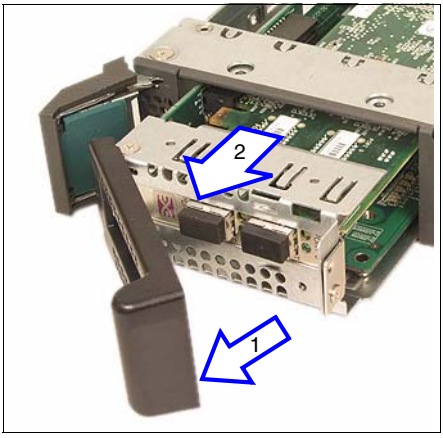
All variants of the storage module are installed and removed in the same way. This section shows the steps using a BX620 S3 SAS/PCI-X module fitted with a Fibre-Channel PCI controller as an example.

Removal



- Undo the two screws (1) which fasten the storage module to the frame of the server blade.
- Undo the screw (1) on the front panel of the storage module.

Figure 32: Undoing the Screws on the Storage Module



- Open out the front panel in the direction of the arrow (1). This unlocks the storage module.
- Pull the storage module out of the server blade chassis (2).

Figure 33: Removing the Storage Module

Installation

To install a storage module, follow the steps in the opposite order.

9 Completion

ATTENTION!

Please observe the safety information in the chapter ";Safety Instructions" on page 13ff..

9.1 Closing the Server Blade

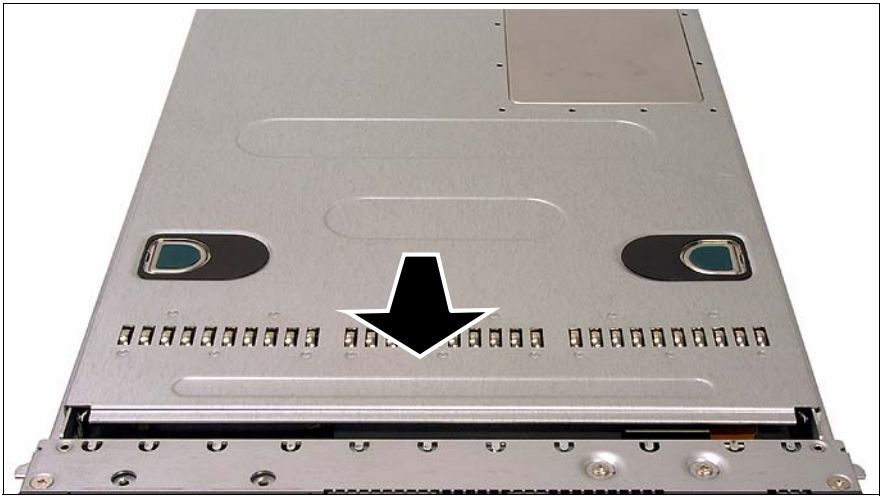


Figure 34: Closing the server blade

- ► Place the cover of the server blade on the housing at a distance of 1-2 cm from the frame, such that the cover lies flush with the edges on both sides.
- ► Push the cover forward in the direction of the arrow (1) until it engages.
- ► Insert the server blade in the basic unit.

To insert the server blade, follow the procedure described in the section "Removing the Server Blade from the Basic Unit" on page 17f in reverse.

Abbreviations

ASR&R
Automatic Server Reconfiguration and Restart

BIOS
Basic Input-Output System

CD
Compact Disk

COM
Communication

CPU
Central Processing Unit

DBMS
Database Management System

DC
Dual Core

DDR
Double Data Rate (RAM)

DIMM
Dual Inline Memory Module

DVD
Digital Versatile Disk

ECC
Error Correcting Code

EDC
Error Detection Code

EMC
Electromagnetic Compatibility

ESD
Electrostatic Discharge

FBD
Fully Buffered DIMMs

FC
Fibre Channel

FSB
Front Side Bus

GAM
Global Array Manager

HDD
Hard Disk Drive

HU
Height Unit

I/O
Input/Output

ID
Identification

IDE
Integrated Drive Electronics

IP
Internet Protocol

iSCSI
Internet Small Computer System Interface over IP

LAN
Local Area Network

LCD
Liquid Crystal Display

LED
Light-Emitting Diode

MRL
Manually Retention Latch

NIC
Network Interface Card

NMI
Non Maskable Interrupt

PCI
Peripheral Component Interconnect

PDA
Prefailure Detection and Analyzing

POST
Power On Self Test

PSU
Power Supply Unit

RAID
Redundant Arrays of Independent Disks

ROM
Read-Only Memory

SAN
Storage Area Network

SAS
Serial Attached SCSI

SATA
Serial Advanced Technology Attachment

SCA
Single Connector Attachment

SCSI
Small Computer System Interface

SCU
Server Configuration Utility

SFP
Small Form Factor Pluggable

TOE
TCP/IP Offload Engine

USB
Universal Serial Bus

VGA
Video Graphics Adapter

VPD
Vital Product Data

WOL
Wakeup on LAN

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[1] **Sicherheit**

[2] **Ergonomie**

[3] **Garantie**

[4] **DataCenter Rack**
Technisches Handbuch/Technical Manual

[5] **PRIMECENTER Rack**
Technisches Handbuch/Technical Manual

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[8] **LSI Logic MegaRAID**
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[9] **PRIMERGY BX600 S2** Basic Unit
Operating Manual

[10] **PRIMERGY BX620 S3**
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Fujitsu Siemens Computers GmbH
User Documentation
33094 Paderborn
Germany

Fax: (++49) 700 / 372 00000

e-mail: manuals@fujitsu-siemens.com
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Comments
Suggestions
Corrections

Submitted by

Comments on PRIMERGY BX620 S3
2-way Server Blade