FUJITSU

PRIMERGY RX600 S5

System configurator and order-information guide

October 2011

Contents

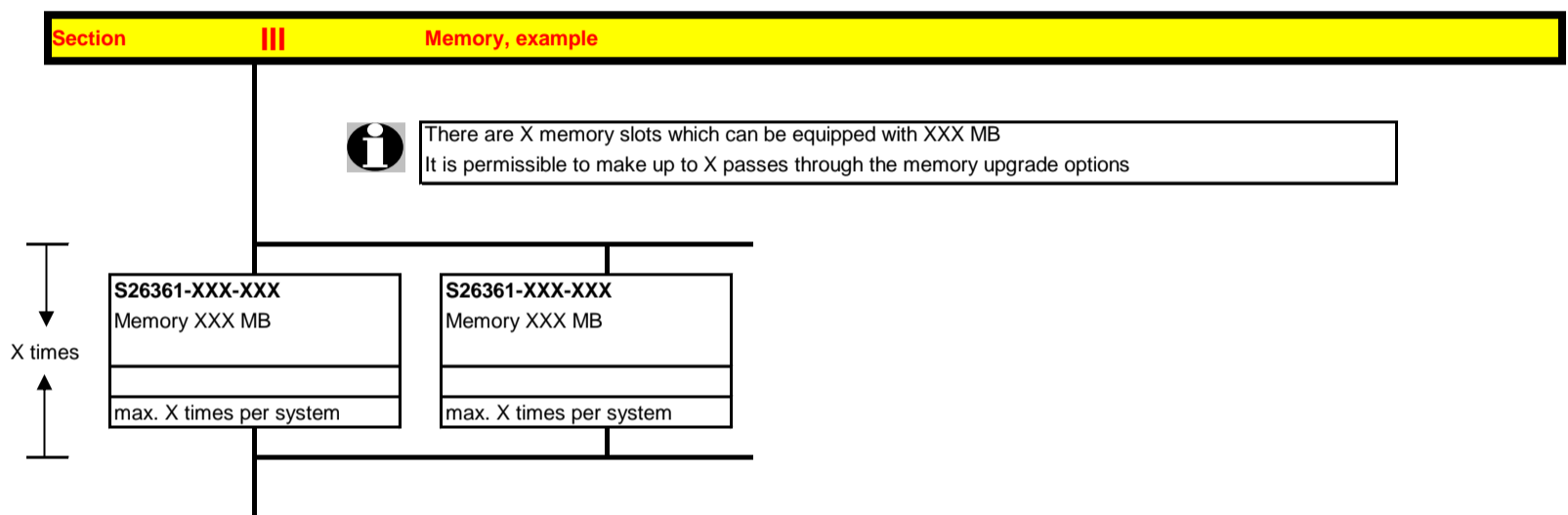## PRIMERGY Server

Instructions

This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect

Only these tools will ensure a fast and proper configuration of your PRIMERGY server or your complete PRIMERGY Rack system.
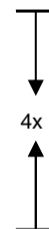
You can configure your individual PRIMERGY server in order to adjust your specific requirements.

The System configurator is divided into several chapters that are identical to the current price list and PC-/System-Architect.

Please follow the lines. If there is a junction, you can choose which way or component you would like to take. Go through the configurator by following the lines from the top to the bottom.

Section	III	Memory, example

There are X memory slots which can be equipped with XXX MB
It is permissible to make up to X passes through the memory upgrade options

X times

S26361-XXX-XXX
Memory XXX MB

max. X times per system

S26361-XXX-XXX
Memory XXX MB

max. X times per system

In one chapter you can only select as many components (here 4x) as the arrow indicates.

4x

Please note that there are information symbols which indicate necessary information.
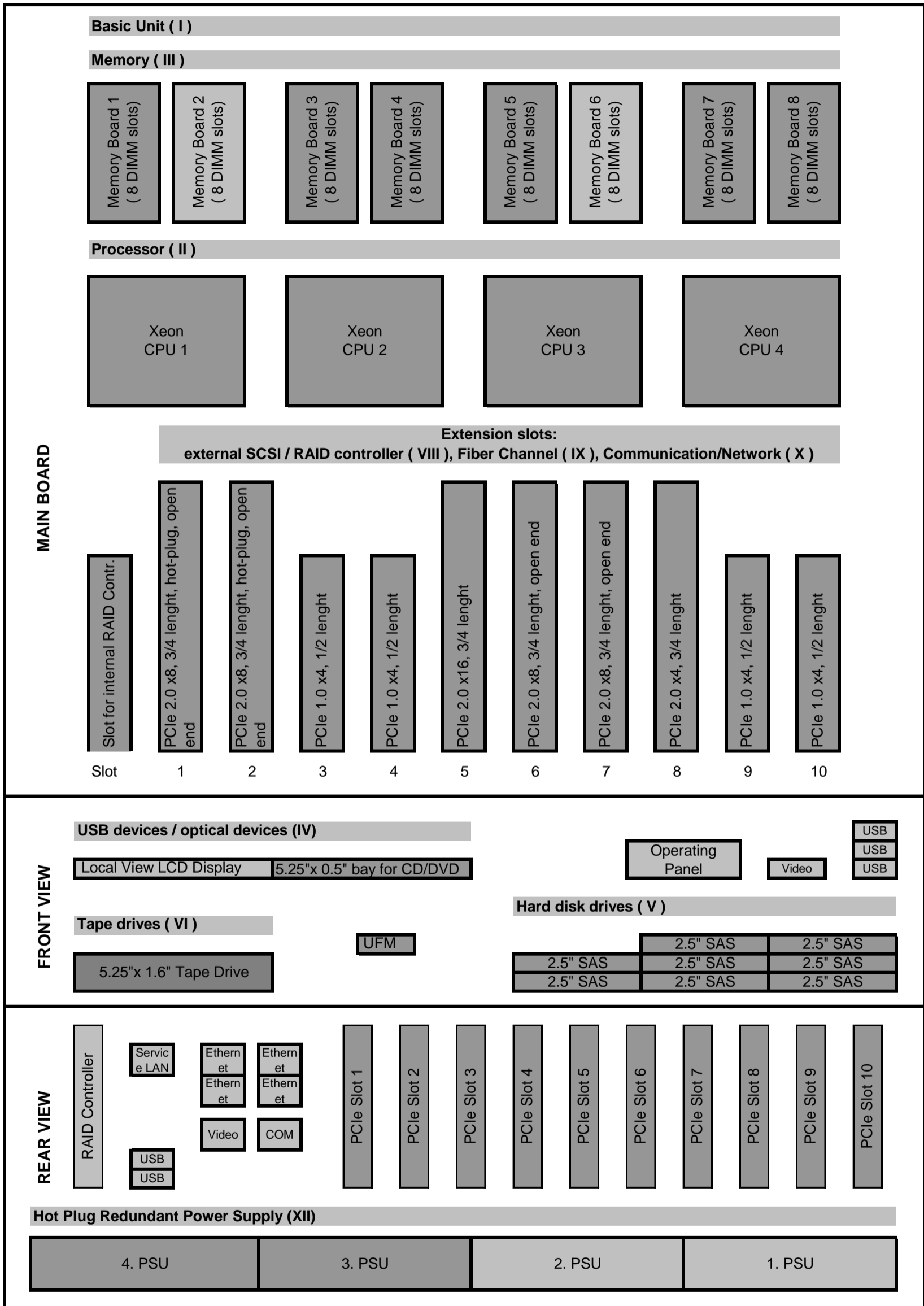
Further information in the internet see:

http://ts.fujitsu.com/products/standard_servers/index.html   (internet)

https://partners.ts.fujitsu.com/com/order-supply/configurators/primergy_config/current/P (extranet)

Prices and availability see price list and PC-/System-Architect.
Subject to change and errors excepted.

Configuration diagram PRIMERGY RX600 S5

Basic Unit (I)

Memory (III)

Memory Board 1 (8 DIMM slots)
Memory Board 2 (8 DIMM slots)
Memory Board 3 (8 DIMM slots)
Memory Board 4 (8 DIMM slots)
Memory Board 5 (8 DIMM slots)
Memory Board 6 (8 DIMM slots)
Memory Board 7 (8 DIMM slots)
Memory Board 8 (8 DIMM slots)

Processor (II)

Xeon CPU 1
Xeon CPU 2
Xeon CPU 3
Xeon CPU 4

MAIN BOARD

Extension slots:
external SCSI / RAID controller (VIII), Fiber Channel (IX), Communication/Network (X)

Slot	1	2	3	4	5	6	7	8	9	10
Slot for internal RAID Contr.	PCIe 2.0 x8, 3/4 lenght, hot-plug, open end	PCIe 2.0 x8, 3/4 lenght, hot-plug, open end	PCIe 1.0 x4, 1/2 lenght	PCIe 1.0 x4, 1/2 lenght	PCIe 2.0 x16, 3/4 lenght	PCIe 2.0 x8, 3/4 lenght, open end	PCIe 2.0 x8, 3/4 lenght, open end	PCIe 2.0 x4, 3/4 lenght	PCIe 1.0 x4, 1/2 lenght	PCIe 1.0 x4, 1/2 lenght

FRONT VIEW

USB devices / optical devices (IV)

Local View LCD Display | 5.25"x 0.5" bay for CD/DVD

Operating Panel | Video | USB / USB / USB

Tape drives (VI)

5.25"x 1.6" Tape Drive

UFM

Hard disk drives (V)

	2.5" SAS	2.5" SAS
2.5" SAS	2.5" SAS	2.5" SAS
2.5" SAS	2.5" SAS	2.5" SAS

REAR VIEW

RAID Controller

Service LAN

Ethernet / Ethernet
Ethernet / Ethernet

Video | COM

USB / USB

PCIe Slot 1
PCIe Slot 2
PCIe Slot 3
PCIe Slot 4
PCIe Slot 5
PCIe Slot 6
PCIe Slot 7
PCIe Slot 8
PCIe Slot 9
PCIe Slot 10

Hot Plug Redundant Power Supply (XII)

4. PSU	3. PSU	2. PSU	1. PSU

Key: ▢ Included in basic unit
▢ Option

Start "PRIMERGY RX600 S5"

Section   O   SW Configurator 64 bit (EM64T / IA64)

with OEM-Software
for PRIMERGY Server

without OEM-Software
for PRIMERGY Server

OEM- SW is bound to HW and is not allowed to be ordered separately.
Exceptions: VMware SW, Citrix XenServer

For all SW products please refer to the corresponding software configurator accessible via the Extranet under "Configuration & Tools, -All configurations, -Software, URL see below.

VMware-Software
- VirtualCenter Management Server for any server released for Windows Server 2003
- Virtual Infrastructure 3 for PRIMERGY > except all mono PRIMERGY systems
- ESX2 for PRIMERGY RX/TX300S2, RX/TX600S3, BX620S2, BX630 Dual/Quad, BX630 8-way

Citrix XenServer / Essentials for XenServer
- XenCenter Management Server for any server released for Windows 2000/XP/Vista and Server 2003/2008
- XenServer and Essentials for XenServer released for RX600 S5

Microsoft Hyper-V Server and System Center
- Microsoft System Center Virtual Machine Manager Workgroup Edition for any server released for Windows Server 2008 R2
- Microsoft System Center Essentials Management Suite for any server released for Windows Server 2008 SP2
- Microsoft Hyper-V Server 2008 R2

Microsoft - Windows Server 2008 R2 Server Licenses
- Windows Server 2008 R2 Datacenter
- Windows Server 2008 R2 Enterprise
- Windows Server 2008 R2 Standard

only EM64T | **Linux - Software *) **)**
\# Open Enterprise Server ***)
- SuSE Linux ES (OEM): LO
- Red Hat EL (OEM): LO

Microsoft - Windows Server 2008 Server Licenses
- Windows Server 2008 Datacenter
- Windows Server 2008 Enterprise
- Windows Server 2008 Standard

PRIMECLUSTER *)
- Clustering
- Load Balancing

Microsoft - Windows Server 2008 Client Access Licenses
- Windows Server 2008 Device CAL
- Windows Server 2008 User CAL
- Windows Server 2008 Remote Desktop Services Device CAL
- Windows Server 2008 Remote Desktop Services User CAL

only EM64T | **QuickTransit (QT)**
Transition Solaris Apps. to x86-64 PY with Linux

only EM64T | **MultiPath, Duplex Data Manager (DDM) Windows, Linux (W-DDM)**

Details eg. version numbers are published on the page referred to

only EM64T | **Manageability Software: V**)**
- iRMC advanced Pack
- RemoteView Software
- RemoteView Service Board
- RemoteView Diagnosis
- RemoteDeploy

*) Pay attention to the PRIMECLUSTER release and ordering information in the Extranet under
https://partners.ts.fujitsu.com/com/products/software/cluster%20technology/primecluster/Pages/default.aspx

**) Pay attention to release and order information in PRINCE -> Operating System
https://partners.ts.fujitsu.com/com/products/servers/primergy/Pages/default.aspx

***) Supply over distribution or procurement from FSC VP BC Software

You'll find single software configurators and release lists (OS-matrix / system management / security) under following addresses:

for internal users: http://sp.ts.fujitsu.com/dmsp/docs/osrel.xlsx
for partners: https://partners.ts.fujitsu.com/com/products/servers/primergy/Pages/default.aspx

Continue with PRIMERGY HW configurator

Start PRIMERGY RX600 S5

PRIMERGY RX600 S5

Rack unit 4U with
- 2 hot-plug power supplys (additional PSU as option)
- 2 memory boards (up to 6 additional boards optional)
- LCD-Display for LocalView (Service Display)
- 1 bay (0,5" height) for optical disc drives
- 1x 5.25" bays FH (1,6" high) for accessible drives
- 8 bays for 2.5" SAS/SATA HDD`s
- Power cord for rackmounting (ICE 320 C14->C13 plug)
- no Rack- mounting kit included

Base unit **Standard** with
- 8x Fan (redundant)   **S26361-K1287-V400** ★

Systemboard with
- Intel 7500 chipset with serial QPI links (Quick Path Interconnect)
- 10 PCI-Express Slots
  2x PCIe 1.0 x4   (2x half length)
  3x PCIe 2.0 x4   (1x half length, 2x 3/4 length)
  4x PCIe 2.0 x8   (4x 3/4 length; 2x hot plug)
  1x PCIe 2.0 x16   (1x 3/4 length)
- 4x socket for Xeon 75xx processor
- SATA controller on-board (for ODD)
- iRMC S2 (integrated Remote Management Controller)
   with graphics controller and 10/100Mbit Service LAN-port
- 2x Dual-Port GBit LAN Controller on-board (4 ports, WOL-capable)
- SAS RAID controller as option
- ServerView Suite Software package
  incl. ServerStart, ServerBooks, Management Software and Updates

Interfaces:
Front side
- 3x USB 2.0
- 1x VGA (15 pin)
Rear Side
- 2x USB 2.0
- 1x VGA (15 pin)
- 1x RS-232-C (serial, 9 pin)
- 4x on board LAN RJ45, 1x Service LAN RJ45
Internal
- 1x internal USB Interfaces for backup device
- 1x internal port for uSSD Module (Embedded vSphere ESXi 4.0)
no PS/2 connection for KB / Mouse (USB must be used instead)

S26361-F2735-E111 ★
No Rackmount-Kit option
Only for loose deliveries
No mounting in Racks possible
max. 1x per system

S26361-F2735-E202 ★
RMK-F2_3-xU-Servers_Drop-in
telescopic rails, full extraction,
toolless mounting
consisting of
- 1 pair of telescopic rails
   with easy-mounting-clips
   and drop-in mechanism
1x per system

S26361-F2735-E7 ★
Cable management PC-Rack
- for FJ Primecenter /
  Datacenter racks
- not for 3rd party

1x per system

S26361-F2201-E20 ★
2U cable arm
- for 3rd party racks
1x per system

S26361-F2735-L202
RMK-F2_3-xU-Servers_Drop-in
for loose delivery

S26361-F2735-L7
Cable management PC-Rack
for loose delivery

S26361-F2201-L20
2U cable arm 3rd party racks
for loose delivery

Cable arm has to be mounted
above rack mount kit.

PRIMERGY PRIMECENTER-rack

SNP:SY-F1647E301-P ★
Installation ex works for one
server or subsystem.
Hereby the rack will be delivered
completely pre-mounted and
all wired connections are tested.
With racks 12U, 24U, 38U:
Systems and components
will be delivered installed in the rack
With racks 46U:
Systems and components
will be delivered separately
To be ordered only together with
a PRIMERGY PRIMECENTER rack
 e.g.:
S26361-K826-V10x
refer configurator PC-Rack
max. 1x per System

"Rack-mounting ex factory"
This service is to be ordered once
per installable server/storage
subsystem, in order to get the
server/storage subsystem
mounted into the PRIMERGY racks.
In case of the 46 U PRIMERGY Rack,
this service has to be ordered,
to get the mounting kits and the
cables installed.

A

A

Two CPU must be configured as minimum, as maximum 4 CPU´s are possible.
Later upgrading to a 3 or 4 processor system is also possible,
but requires possibly adding of PSU modules.
Extension CPUs must be identical to the already installed CPU´s.

Following CPU´s can be configured max. 4x per system

As minimum two CPU´s must be configured

Quad-Socket CPU`s

- 1x Intel Xeon processor 7500 series
   incl. passive heat sink
   occupies socket for one CPU

E7520 (4 core 1.86Ghz / 18M / 4.8GT/s 95W)	S26361-F3999-E520	
E7530 (6 core 1.86Ghz / 12M / 5.8GT/s 105W)	S26361-F3999-E530	
E7540 (6 core 2.00Ghz / 18M / 6.4GT/s 105W)	S26361-F3999-E540	extended lead time
X7542 (6 core 2.67Ghz / 18M / 5.8GT/s 130W)	S26361-F3999-E542	
L7545 (6 core 1.86Ghz / 18M / 5.86GT/s 95W (LV))	S26361-F3999-E545	extended lead time
X7550 (8 core 2.00Ghz / 18M / 6.4GT/s 130W)	S26361-F3999-E550	
X7560 (8 core 2.26Ghz / 24M / 6.4GT/s 130W)	S26361-F3999-E560	extended lead time ★
L7555 (8 core 1.86Ghz / 24M / 5.86GT/s 95W (LV))	S26361-F3999-E555	extended lead time

2x - 4x

RX600 S5 Architecture — FUJITSU

B

B
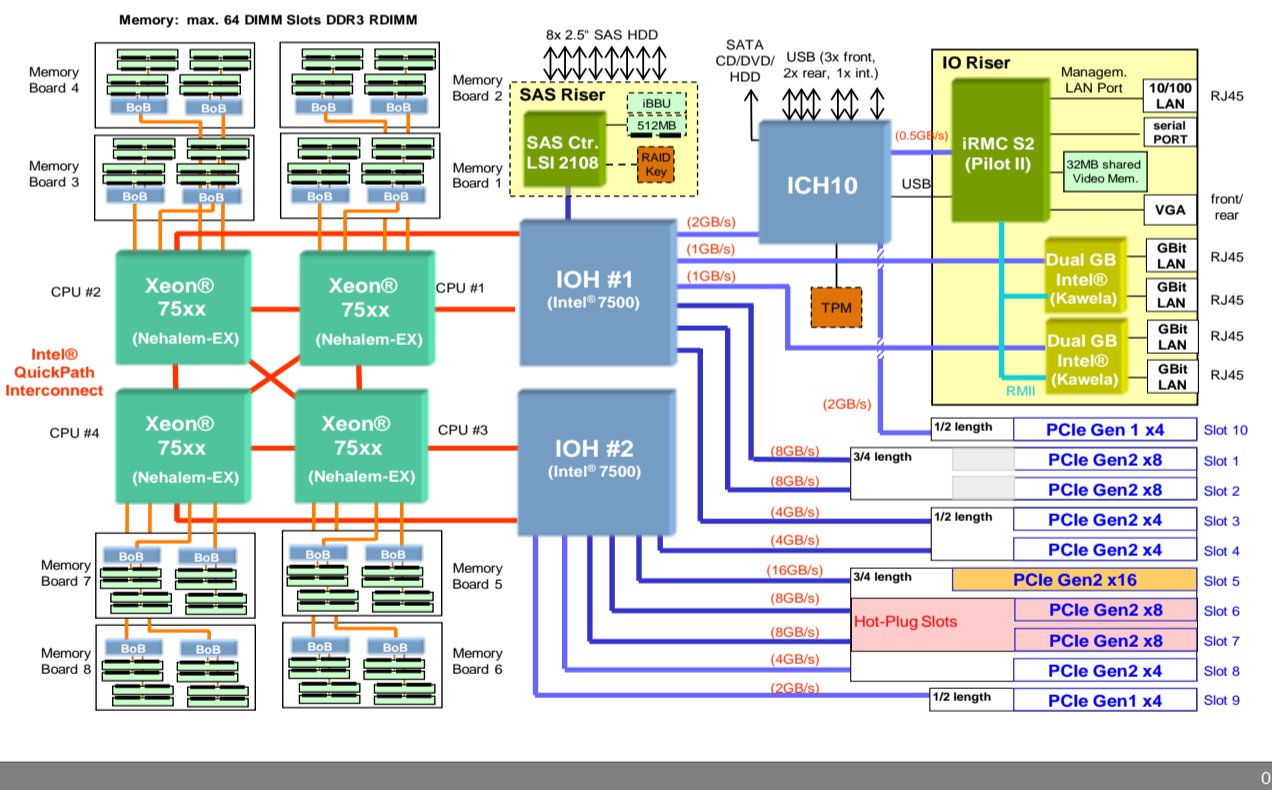
Memory configuration modes
There are three different configuration modes:

– Independend mode   (no special order code)

– Interleaving mode   (S26361-F4003-E2)
– Mirroring mode   (S26361-F4003-E3)

-Interleaving Mode (S26361-F4003-E2)
In Interleaving mode the cache lines will be distributed over different memory boards
for better performance.
Interleaving mode **requires 2 memory boards per CPU.**
All DIMMS must be identical (same capacity and technology)!
Three types of interleaving are available:

2-way interleaving (also called "Intra Socket Interleaving")
The data are distributed over the memory controller of each CPU.
This type is possible with 2, 3 or 4 CPUs.
Each CPU requires 1, 2, 3 or 4 set of DIMM´s (with 4 Modules each).

4-way interleaving mode (also called "Inter Socket Interleaving")
The data are distributed over the memory controller of two CPUs.
Each CPU requires 1, 2 or 4 set of DIMM´s (with 4 DIMMs´s each).

8-way interleaving mode (also called "Inter Socket Interleaving")
The data are distributed over the memory controller of four CPUs.
This type is only possible with 4 CPUs
and requires 4, 8, 12 or 16 set of DIMMs (with 4 DIMM´s each).

The default setting for this mode ex factory is 2-way Interleaving.

-Mirroring mode (S26361-F4003-E3)
In mirroring mode, all data are copied within the main memory.
Therefore only 50 % of the total memory is available for the operating system.
This mode allows hot plug of memory boards

Mirroring mode **requires 2 memory boards per CPU.**
All DIMMS must be identical (same capacity and technology)!

Two types of mirroring modes are available:

Intrasocket Mirroring
Memory will be mirrored from one memory controller to the other memory controller
within the same CPU.
Intrasocket Mirroring is possible for all CPU configurations (2, 3 or 4).

Intersocket Mirroring
Memory will be mirrored from one memory controller to an memory controller on
another CPU (home agent to mirror agent).
Intersocket mirroring is only possible with 4 CPUs (not with 2 or 3 CPUs).

C

C
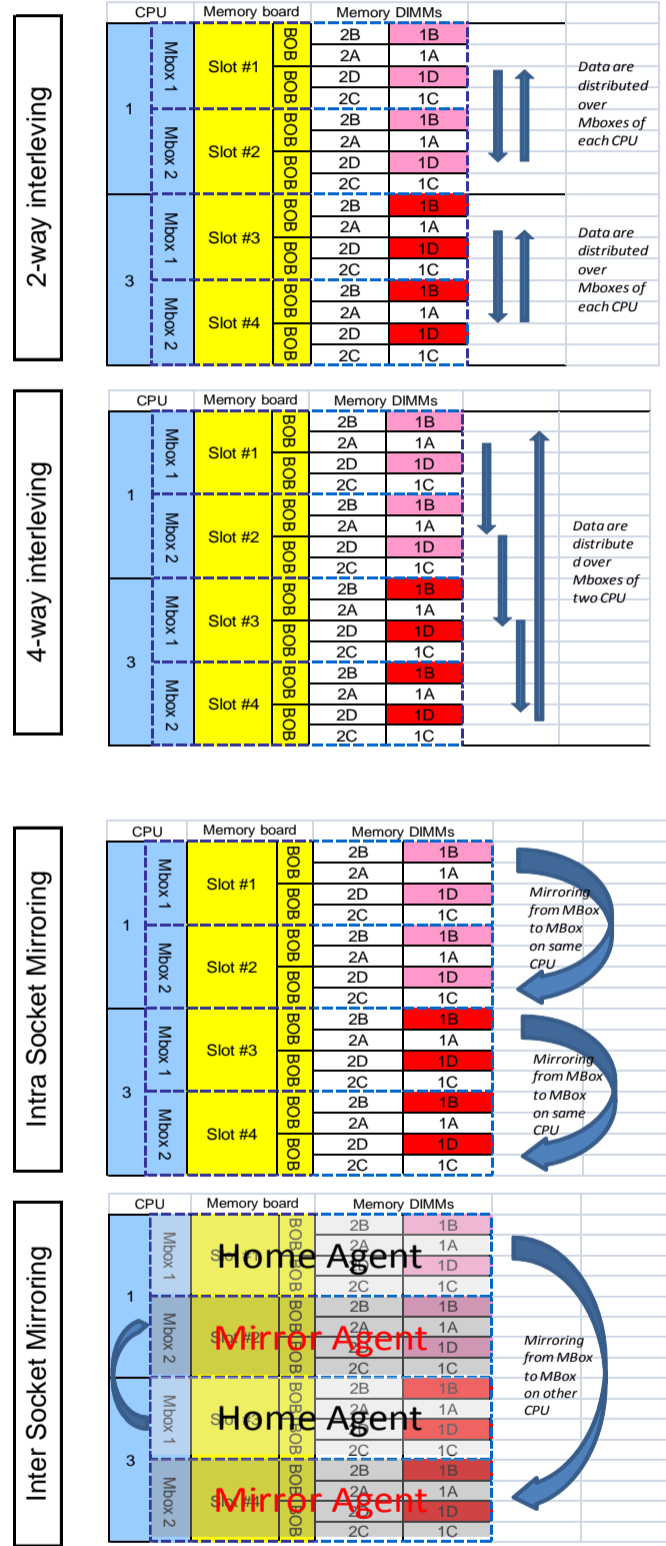
ℹ️ **Max. Capacity / Features**
The system can be equipped with up to 64 DIMMs (distributed on 8 memory boards)
Each DIMM slot can optionally be equipped with 2GB, 4GB, or 8GB DDR3 DIMM modules,
so the maximal memory size is 512 GB with 8GB modules.
ECC with SDDC (Chipkill) is standard for RX600 S5.
Max. Memory Speed depends on CPU QPI Speed, but is limited to 1066 MHz.

S26361-F4003-E2 ★	S26361-F4003-E3 ★
Interleaving Mode Installation	Mirrored Mode Installation
BIOS setup for Interleaving mode	BIOS setup for Mirrored mode
Preinstallation ex factory	Preinstallation ex factory
max. 1x per system	max. 1x per system

as long   as stock lasts

S26361-F4003-E643	S26361-F4003-E642	S26361-F4003-E644 ★	S26361-F4003-E645	S26361-F4003-E646
Memory 8GB	Memory 16GB	Memory 16GB	Memory 32GB	Memory 64GB
DDR3 Single Rank	DDR3, Single Rank	DDR3 Dual Rank	DDR3 Dual Rank	DDR3 Quad Rank
consisting of	consisting of	consisting of	consisting of	consisting of
4x 2GB modules SR	4x 4GB modules SR	4x 4GB modules DR	4x 8GB modules DR	4x 16GB modules QR
occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots
max. 16x per system	max. 16x per system	max. 16x per system	max. 16x per system	max. 16x per system

up to 3x memory upgrades in base unit

as long   as stock lasts

S26361-F4003-E643	S26361-F4003-E642	S26361-F4003-E644 ★	S26361-F4003-E645	S26361-F4003-E646
Memory 8GB	Memory 16GB	Memory 16GB	Memory 32GB	Memory 64GB
DDR3 Single Rank	DDR3, Single Rank	DDR3 Dual Rank	DDR3 Dual Rank	DDR3 Quad Rank
consisting of	consisting of	consisting of	consisting of	consisting of
4x 2GB modules SR	4x 4GB modules SR	4x 4GB modules DR	4x 8GB modules DR	4x 16GB modules QR
occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots
max. 16x per system	max. 16x per system	max. 16x per system	max. 16x per system	max. 16x per system

up to 6 additional memory boards

S26361-F3990-E100 ★
Memory Board RX600 S5
for 8 DIMM modules
max. 6x per system

ℹ️ Per CPU max. 2 Memory Boards can be installed
 - with 2 CPU = max. 4 Memory boards
   (two included in the Base unit)
 - with 3 CPU = max. 6 Memory boards
 - with 4 CPU = max. 8 Memory boards

with up to 12x memory upgrades

as long   as stock lasts

S26361-F4003-E643	S26361-F4003-E642	S26361-F4003-E644 ★	S26361-F4003-E645	S26361-F4003-E646
Memory 8GB	Memory 16GB	Memory 16GB	Memory 32GB	Memory 64GB
DDR3 Single Rank	DDR3, Single Rank	DDR3 Dual Rank	DDR3 Dual Rank	DDR3 Quad Rank
consisting of	consisting of	consisting of	consisting of	consisting of
4x 2GB modules SR	4x 4GB modules SR	4x 4GB modules DR	4x 8GB modules DR	4x 16GB modules QR
occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots	occupies 4 memory slots
max. 16x per system	max. 16x per system	max. 16x per system	max. 16x per system	max. 16x per system

ℹ️ **Loose delivery / upgrade memory**

8GB (4x2) DDR3 1333 MHz PC3-10600 rg s	singel rank	**S26361-F4003-L643**	
16GB (4x4) DDR3 1333 MHz PC3-10600 rg s	single rank	**S26361-F4003-L642**	
16GB (4x4) DDR3 1333 MHz PC3-10600 rg d	dual rank	**S26361-F4003-L644**	limited availability
32GB (4x8) DDR3 1333 MHz PC3-10600 rg d	dual rank	**S26361-F4003-L645**	
64GB (4x16) DDR3 1066 MHz PC3-8500 rg q	quad rank	**S26361-F4003-L646**	

After the introduction of 16GB (4x4) Single Rank memory modules,
please pay attention on the right chioce for field upgrade:
In order to keep interleaving mode or mirror mode operation,
already installed and upgraded memory modules need to be identical.

D

D

Section	IV	USB devices / optical devices / UFM

Setup RX600 S5 by SV Installation Manager is supported with following configurations:

built in CD/DVD or USB CD/DVD, no Floppy disk drive:

    UNC Network share reachable

Following USB Components are available	
1) USB DVD SM / Blu-Ray as soon as available	
External SuperMulti Drive	
External Blu-Ray Drive	
2) USB Keyboard:	S26381-K340-V120
KBPC PX D, professional keyboard	
3) USB Mouse:	S26381-K430-L100
Laser Moue USB/PS2 Combo	
4) USB Sticks:	
MyUSBS A910 8GB, MLC Flash	S26391-F6048-L208
MyUSBS A910 16GB, MLC Flash	S26391-F6048-L216
Additionally a monitor can be connected to the VGA 15-pin interface.	

One UFM (USB Flash Module) can be configured	
The UFM is bundeld with VMWare offering:	
VMware ESXi 4.1 Embedded UFM Device	S26361-F2341-E431

1x

S26361-F3531-E2	**S26361-F3269-E2** ★
Blu-ray Combo slim SATA	DVD-RW supermulti slim SATA
6x BD-ROM, 16x DVD, 40x CD	all formats, DUAL/DL, DVD-RAM
BD DL and all CD/DVD formats	only W2K, W3K and Linux
0.5 x 5.25", black bezel	0.5 x 5.25", black bezel
max. 1x per system	max. 1x per system

E

E

A. SSD SATA 2.5"

S26361-F3298-E32
SSD 32GB
Solid State Disk
SATA 3Gb/s
hot plug/hot replace tray
max. 8x per system

B. BC SATA 2,5"

S26361-F3601-E250	**S26361-F3601-E500**
HD 250GB 7.2krpm 2.5"	HD 500GB 7.2krpm 2.5"
7200rpm,<9,5ms, 32MB Cache	7200rpm,<9,5ms, 32MB Cache
BC SATA	**BC SATA**
hot plug/hot replace tray	hot plug/hot replace tray
max. 8x per system	max. 8x per system

max. 8

C. HDD SAS 10krpm 2.5"

SAS 6Gb/s 2.5" with hot plug/hot replace tray	
146GB 10000rpm,<4,5ms, 8MB Cache	**S26361-F4482-E114**
300GB 10000rpm,<4,5ms, 8MB Cache	**S26361-F4482-E130**
450GB 10000rpm,<4,5ms, 8MB Cache	**S26361-F4482-E145**
600GB 10000rpm,<4,5ms, 8MB Cache	**S26361-F4482-E160**
900GB 10000rpm,<4,5ms, 8MB Cache	**S26361-F4482-E190**

as soon as available

configuration of
SAS-HDDs requires
SAS RAID controller

C. HDD SAS 15krpm 2.5"

73GB 15krpm,<4,5ms, 8MB Cache	**S26361-F4482-E573**
146GB 15krpm,<4,5ms, 8MB Cache	**S26361-F4482-E514**
300GB 15krpm,<4,5ms, 8MB Cache	**S26361-F4482-E530**
max. 8x per system	

as soon as available

only on special release

S26361-F4522-E321	**S26361-F4522-E641**
PCIe-SSD 320GB MLC	PCIe-SSD 640GB MLC
ioDrive 320GB	ioDrive 640GB
PCIe 1.1	PCIe 1.1
PCIe x4, Low Profile	PCIe x4, Low Profile
max. 2x per system	max. 2x per system

No mix of
320GB and 640GB SSD
possible

F

F

Section	VII	Tapes devices

1x

A) RDX USB Drive (connectet to internal USB port)

S26361-F3857-E4
RDX drive USB 5.25" internal
80-320GB, 25MB/s, USB 2.0
Connector: USB "B"
with USB cable
incl. description (Ger/US)
without RDX cartridges
1.6 * 5.25", black bezel
max. 1x per system

RDX cartridges must be ordered separately
RDX 160GB = S26361-F3857-L160
RDX 320GB = S26361-F3857-L320
RDX 500GB = S26361-F3857-L500
RDX 1TB = S26361-F3857-L600
10x RDX160 = S26361-F3857-L169
10x RDX320 = S26361-F3857-L329

B) DDS USB Drive (connectet to internal USB port)

S26361-F3324-E4	S26361-F3325-E4
Tape drive DDS Gen5 USB 5.25"	Tape drive DDS Gen6 USB 5.25"
36GB, 3MB/s, USB 2.0	80GB, 6MB/s, USB 2.0
Connector: USB "B"	Connector: USB "B"
with USB cable	with USB cable
incl. description (Ger/US)	incl. description (Ger/US)
cleaning cartridge	cleaning cartridge
1.6 * 5.25", black bezel	1.6 * 5.25", black bezel
max. 1x per system	max. 1x per system

C) LTO SAS Drive (connected with PCIe SAS controller)

S26361-F3257-E4
4 port SAS RAID Controller
LSI
MegaRAID SAS 1064
no Cache, no BBU
RAID 0, 1 & 1E
SAS 3Gb/sec
4 internal ports
PCIe x4, 160mm
max. 1x per system

S26361-F4009-E4	S26361-F3561-E4	S26361-F3626-E1	S26361-F3627-E1
Tape drive LTO2HH Ultrium SAS	Tape drive LTO3HH Ultrium SAS	Tape drive LTO4HH Ultrium SAS	Tape drive LTO5HH Ultrium SAS
200GB, 24MB/s, SAS 3Gb	400GB, 60MB/s, SAS 3Gb	800GB, 120MB/s, SAS 3Gb	1500GB, 140MB/s, SAS 6Gb
Connector: mini-SAS	Connector: mini-SAS	Connector: SATA	Connector: mini-SAS
incl. SAS cable	incl. SAS cable	incl. SAS cable	incl. SAS cable
incl. description (Ger/US)	incl. description (Ger/US)	incl. description (Ger/US)	incl. description (Ger/US)
cleaning cartridge	cleaning cartridge	cleaning cartridge	cleaning cartridge
1.6 * 5.25", black bezel	1.6 * 5.25", black bezel	1.6 * 5.25", black bezel	1.6 * 5.25", black bezel
max. 1x per system	max. 1x per system	max. 1x per system	max. 1x per system

G

G

Section VIII internal SAS RAID 0/1 and RAID5 Controller for HDD´s

S26361-F3554-E8

RAID Ctrl SAS 6G 8port internal

Based on chip LSI SAS 2008

LSI MegaRAID

no Cache, no BBU

RAID 0, 1 & 1E

Support for 3Gb/s and 6Gb/s

SATA and SAS hard drives

PCIe x4

Low-profile MD2 form factor

max. 1x per system

RAID controller must be ordered, if at least one internal HDD is configured!

1x

S26361-F3554-E512

RAID Ctrl SAS 6G 8port internal

Based on chip LSI SAS 2108

LSI MegaRAID

512MB Cache with ECC

RAID 0, 1, 10, 5, 50, 6, 60

optional BBU

Support for 3Gb/s and 6Gb/s

SATA and SAS hard drives

PCIe x4

Low-profile MD2 form factor

max. 1x per system

S26361-F3257-E170

Cache Battery Backup Unit

with 70cm cable set

max. 1x per controller

BBU max. 2x per system possible

for loose delivery please order

S26361-F3257-L110

H

G

A. SCSI Controller for external backup drives   (External only the FibreCAT TXF is released)

max. 2x

S26361-F3270-E1
SCSI U320 Controller
Adaptec SCSI Card 29320LPE
PCIe x1,
int: LVD HD68
ext: VHDCI 68pin
max. 2x per system

B. SAS controller for external backup drives

max. 3x

S26361-F3271-E1
SAS Controller 3Gb/s 8 port
LSI SAS3442E-R
PCIe x4,
int: 4 port
ext: 4 port
max. 3x per system

S26361-F3628-E1
SAS Controller 6Gb/s 8 port
LSI SAS9200-8e
PCIe 2.0 x4,
ext: 8 port
max. 2x per system

C. SAS RAID controller for JBOD subsystems

max. 2x

S26361-F3593-E1
8 port SAS 6G RAID Controller
LSI
MegaRAID SAS9280-8e 6Gb/s
512MB Cache with ECC
RAID 0, 1, 10, 5, 50, 6 & 60
without iBBU
SAS 6Gb/sec
8 port external
PCIe x4, 167mm
full height bracket
max. 2x per system

The RAID controller can be used only for the connection of
 external subsystems (FibreCAT SX40, Eternus JX40)

Cables for the connection from the RAID Controllers
to the subsystem see configurator FibreCAT SX40
The usage of the internal SAS ports is not supported !

S26361-F3257-E170
Cache Battery Backup Unit
with 70cm cable set
max. 1x per controller

BBU max. 2x per system possible
for loose delivery please order
S26361-F3257-L110

P

P

Section   X   Fibre Channel

Qlogic   Emulex

S26361-F3631-E1

8GBit/s FC Controller

Qlogic

QLE2560, full height bracket

1 channel 8GBit/sec FC Controller

LC Interface for 50µm Fiber

PCIe x8, 170mm

max. 6x per system

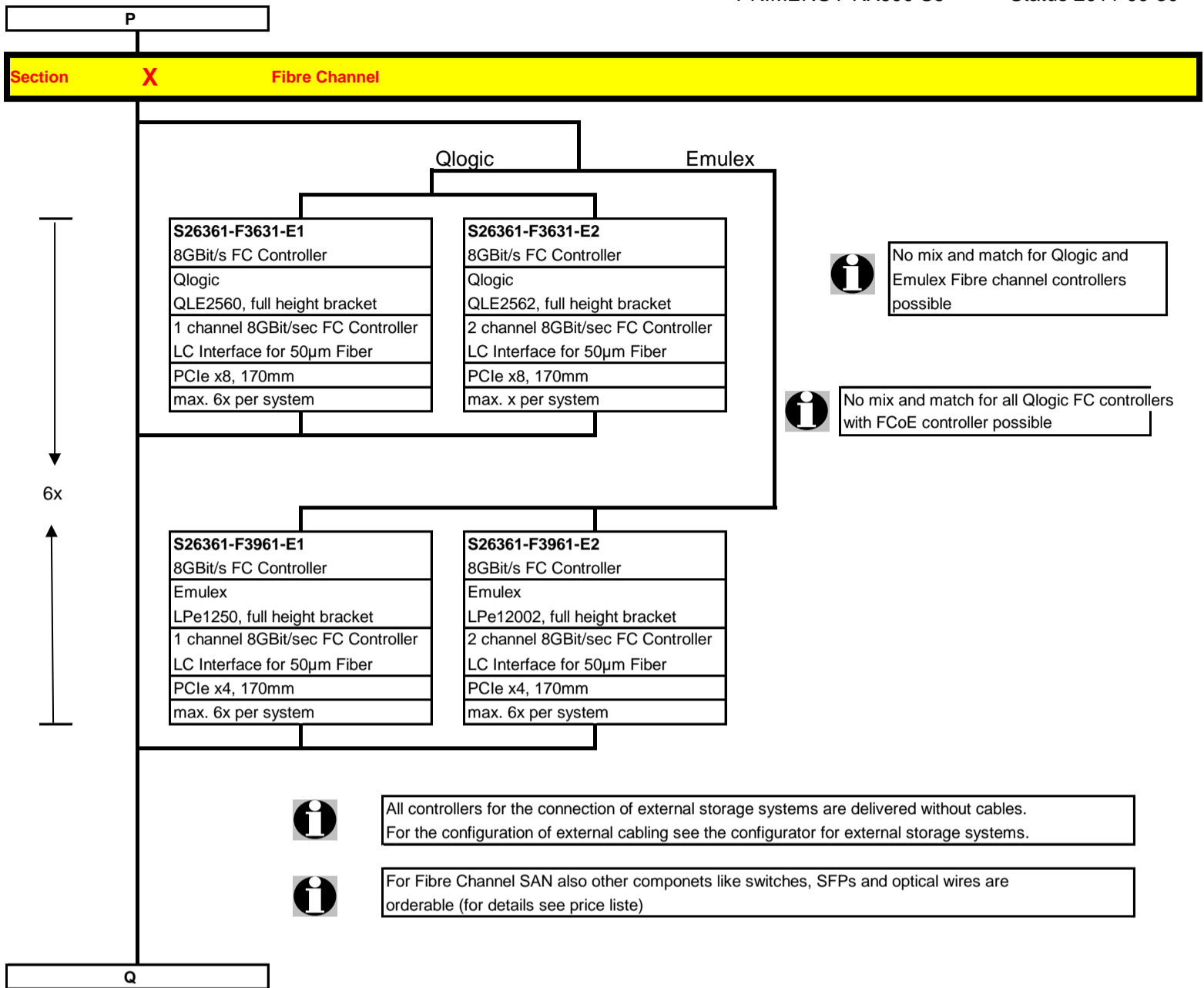**S26361-F3631-E2**

8GBit/s FC Controller

Qlogic

QLE2562, full height bracket

2 channel 8GBit/sec FC Controller

LC Interface for 50µm Fiber

PCIe x8, 170mm

max. x per system

No mix and match for Qlogic and Emulex Fibre channel controllers possible

No mix and match for all Qlogic FC controllers with FCoE controller possible

6x

S26361-F3961-E1

8GBit/s FC Controller

Emulex

LPe1250, full height bracket

1 channel 8GBit/sec FC Controller

LC Interface for 50µm Fiber

PCIe x4, 170mm

max. 6x per system

S26361-F3961-E2

8GBit/s FC Controller

Emulex

LPe12002, full height bracket

2 channel 8GBit/sec FC Controller

LC Interface for 50µm Fiber

PCIe x4, 170mm

max. 6x per system

All controllers for the connection of external storage systems are delivered without cables.
For the configuration of external cabling see the configurator for external storage systems.

For Fibre Channel SAN also other componets like switches, SFPs and optical wires are orderable (for details see price liste)

Q

I

Section   XI   Communication / Network / CNA / IB

on-board LAN Controller

2x Dual Gbit Ethernet Contr. on-board
Intel 82576 NS (Kawela wo/IPsec)

ext: 4x RJ45 connector, Cat 5

Teaming: Failover, Load Balancing
The Intel LAN Controllers Pro 1000MT, 1000MF, 1000PT, 1000PF
can be used with the on-board controller in Teaming Mode
Two onboard LAN ports can likewise educate a team.

A) Single Port LAN Adapter PCIe

S26361-F3242-E1   (Sheepshead Bay)
Gigabit Ethernet Contr. 1000SX
Eth Ctrl 1x1Gbit PCIe Pro/1000PF LC
Intel PRO/1000 PF Server Adapter
PCIe x4
ext:LC-connector
max. 4x per system

★

B) Dual Port LAN Adapter PCIe x4/x8

S26361-F3610-E2
Gigabit Ethernet Controller Dual 1000TX
Eth Ctrl 2x1Gbit PCIe x4 D2735 Cu
Intel Kawela based 2 port Server Adapter
PCIe x4,
ext: for RJ45-plug, Cat 5
max. 4x per system

Loose Delivery: S26361-F3610-L502

4x

C) Quad Port LAN Adapter PCIe x4

S26361-F3611-E1
Gigabit Ethernet Controller Quad 1000TX
Eth Ctrl 4x1Gbit PCIe x4 D2745 Cu
Intel Barton Hills based 4 Port Server Ad.
PCIe x4,
ext: for RJ45-plug, Cat 5
max. 4x per system

I1

I1

D) 10GbE 2-Port SFP+ for MMF Module and SFP+ Twinax Cable

4
4
4

S26361-F3629-E2
10 Gigabit Ethernet Contr. dual port SFP+
Eth Ctrl 2x1Gbit PCIe x4 D2755
Intel Niantec based 2 port Server Adapter
PCIe x8
ext:SFP+ for MMF LC Module or Twinax cable
max. 4x per system

The controller is delivered without SFP+ modules for optical cables, these must be ordered separately. Without SFP+ modules copper twinax cables are supported.

The adapter is also available as loose delivery with
FH and LP bracket included: S26361-F3629-L502

S26361-F3986-E3
SFP+ Module MMF 10GbE LC
SFP+ module for 10 Gbit
Ethernet FO cabling
ext:LC-connector
max. 2x per adapter

The SFP+ Module is also available as loose delivery
S26361-F3986-L3
Instead SFP+ Modules, SFP+ twinax cables from
the switch vendors may be used

S26361-F3592-E2
10GBit/s CNA
Emulex
OCe10102
2 channel 10GBit/sec CNA
SFP+ Cage
PCIe x8, 170mm
max. 6x per system

No mix and match for QLogic FC controllers
with FCoE controller possible

All controllers for the connection of external storage systems are delivered without cables.
For the configuration of external cabling see the configurator for external storage systems.

S26361-F3592-E108
SFP+ Module MMF 10GbE LC
SFP+ module for 10 Gbit FCoE
Ethernet FO cabling
ext:LC-connector
max. 2x per adapter

The SFP+ Module is also available as loose delivery
S26361-F3592-L108
Instead SFP+ Modules, SFP+ twinax cables from
the switch vendors may be used

E) Infiniband HCA's

S26361-F4475-E102
IB HCA 40Gb 1 port QDR
IB HCA 1x 40Gb
PCIe 2.0 (5,0GT/s)
PCIe x8, low profile
ext: 1x QSFP-connector
max.4x per system

S26361-F4475-L102
for loose delivery

Low Profile PCIe form factor with exchangeable
Full Height (FH) or Low Profile (LP) bracket

S26361-F3996-E500
InfiniBand Cu Cable 40Gb
costimized
QSFP, 1m and 3m
max. 1x per adapter

If additional length of copper cable or optical cable are needed,
then they must be ordered from the cable vendor directly
Copper cable are also available for loose delivery as
S26361-F3996-L101, QSFP, 40Gb, 1m
S26361-F3996-L103, QSFP, 40Gb, 3m

max. 2x
controller

S26361-F4475-E202
IB HCA 40Gb 2 port QDR
IB HCA 2x 40Gb
PCIe 2.0 (5,0GT/s)
PCIe x8, low profile
ext: 2x QSFP-connector
max. 4x per system

S26361-F4475-L202
for loose delivery

Low Profile PCIe form factor with exchangeable
Full Height (FH) or Low Profile (LP) bracket

S26361-F3996-E500
InfiniBand Cu Cable 40Gb
costimized
QSFP, 1m and 3m
max. 2x per adapter

If additional length of copper cable or optical cable are needed,
then they must be ordered from the cable vendor directly
Copper cable are also available for loose delivery as
S26361-F3996-L101, QSFP, 40Gb, 1m
S26361-F3996-L103, QSFP, 40Gb, 3m

J

J

Section   XI   Energy Star

S26361-F3301-E601

RX600 S5 E-Star Fam1

Limits configuration in accordance

with Energy Star requirements

max. 1x per system

**The following order components out of the specific sections
are allowed together with RX600 S5 E-Star Fam1:**

Quad-Socket CPU`s

- 1x Intel Xeon processor 7500 series
    with 1066 or 1333MHz Frontside Bus
    occupies socket for one CPU

X7560 (8 core 2.26Ghz / 24M / 6.4GT/s 130W)	**S26361-F3999-E560**
Always 4x per system (Config < 4 CPU is out of Energy Star specification)	

Memory

16GB (4x 4GB DDR modules)	**S26361-F4003-E644**
max. 16x per system	
Interleaving Mode Installation	**S26361-F4003-E2**
max. 1x per system	
Mirrored Mode Installation	**S26361-F4003-E3**
max. 1x per system	
Memory Board RX600 S5	**S26361-F3990-E100**
max. 8x per system	

DVD Drives

DVD-RW supermulti slim SATA	**S26361-F3269-E2**
max. 1x per system	

Hard Disk Drives

HD 73GB 15krpm 2.5"	**S26361-F4482-E573**
max. 8x per system	

Internal SAS RAID 5 Controller for HDD´s

RAID Ctrl SAS 6G 8port internal	**S26361-F3554-E512**
max. 1x per system	
Cache Battery Backup Unit	**S26361-F3257-E170**
max. 1x per controller	

Fibre Channel Controller (4x pro system)

1 channel 4GBit/s Emulex LPe1150	**S26361-F3306-E1**
max. 2x per system	
2 channel 4GBit/s Emulex LPe11002	**S26361-F3306-E2**
max. 2x per system	

Gigabit Ethernet Controller

Gigabit Ethernet Controller Quad 1000TX	**S26361-F3462-E1**
max. 2x per system	

System Management Products

iRMC S2 advanced pack	**S26361-F1790-E241**
max. 1x per system	
TPM Module	**S26361-F3552-E1**
max. 1x per system	

K

J

Section   XII   System Management Products (RemoteView)

S26361-F1790-E241

iRMC S2 advanced pack

integrated remote management controller

activation key for

graphical console redirection

and remote media redirection

max. 1x per system

S26361-F3552-E1

TPM Module

Trusted Platform Module on Motherboard

Use according to import restrictions

max. 1x per system

Be aware of import restrictions!
Loose delivery for later
integration possible for customer.

S26361-F3552-L1

TPM Module add-on kit

for later integration (loose delivery)

Trusted Platform Module on Motherboard

Use according to import restrictions

max. 1x per system

Section   XIII   Optional PSU / power cords

Base system will be shipped with two power cords ICE320 C14->C13 for rack installation.
Country specific power cords are not required.

In addition to the base configuration with two power supplies units (1+1 redundancy)
max. two addition PSU´s can be installed.

Configurations with more than 2 CPU´s or more than 2 memory boards
requiring one additional PSU (2+1 redundancy).

For configurations with more than 6 memory boards or if phase redundancy/dual power feed
is requested two additional PSU´s needed. (3+1 or 2+2 redundancy).

For later upgrade the following kit is available:

S26113-F561-E10

3nd / 4rd power supply module

850W, hot plug

for max. configuration

incl. 1x power cord ICE320 C14->C13

max. 2x per system

S26113-F561-L10

3nd / 4rd power supply module

850W, hot plug

for max. configuration

incl. 1x power cord ICE320 C14->C13

max. 2x per system

End PRIMERGY RX600 S5

Change Report

Date	Order number	Changes
2011-10-01	S26361-F3601-E250	new BC SATA HD - now available
2011-10-01	S26361-F3298-E64	64 GB SSD - no longer available
2011-05-23	S26361-F3301-E601	Energy Star restrictions added
2011-05-03	S26361-F3610-E2/L502	Formal change from E1 / L501
2011-04-13	S26361-K1287-V200	Base unit Entry (4 x Fan, non redundant) removed
2011-03-31	S26361-F3629-E2	10 Gigabit Ethernet controller added
2011-03-18	S26361-F4522-Exxx	PCIe SSD added
2011-03-18	S26361-F4475-Ex02	max. Number of Infiniband HCA´s increased to 4x each / 4 x total
2011-02-15	S26361-F4003-L640	New 4GB single Rank Modules
2011-01-06	S26361-F3631-E1 / E2	Qlogic 8Gbit FC Controller added
2010-11-18	S26361-F3628-E1	Ctrl SAS 6G 8port external added
2010-09-16	S26361-F3610-E1 S26361-F3611-E1	New LAN controller added
2010-09-16		Config w/o RAID Controller enabled
2010-07-20		no Config w/o RAID Controller
2010-07-15	S26361-F4003-E646	16 GB DIMM Modules added
2010-07-14		Infiniband HCA eingefügt
2010-05-30	S26361-F3592-E108	SFP+ module for CNA, order number changed
2010-05-07		SFP+ modules as option
2010-05-01		First Release