FUJITSU

PRIMERGY RX200 S6

System configurator and order-information guide

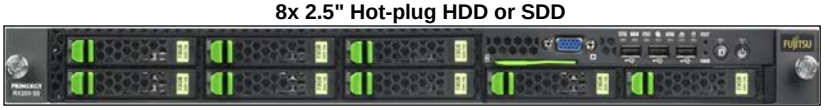
June 2012

ENERGY STAR

Contents

4x or 6x 2.5" Hot-plug HDD or SSD

8x 2.5" Hot-plug HDD or SDD



Instructions
Configuration diagram
Configurator

0	System software
I	Basic unit
II	Processor
III	Memory
IV	Graphics
V	Accessible drives
G-VI	Drive Bay for 6x 2.5" HD Basic Unit
G-VII	Modular Raid 0/1, Raid5 for 4x 2.5" or 6x 2.5" SAS or SATA HD or SSD. On-board Controller for 4x 2.5" SATA HD`s
G-VIII	4x or 6x 2.5" SAS / SATA Hard disk drives
G-IX	4x 2.5" SATA HD or SSD
H-VI	Drive Bay for 8x 2.5" HD Basic Unit
H-VII	Modular Raid 0/1 and Raid5 Controller for 8x 2.5" SAS or SATA HD`s
H-VIII	8x 2.5" SAS / SATA HD or SSD
X	External SAS Disk Array, SAS backup drives or SCSI peripheral devices
XI	Fibre-Channel controller
XII	Communication/Network
XIII	System Management Products (RemoteView)
XIV	Miscellaneous
XV	Country specific power cord
XVI	Energy Star

Change report

PRIMERGY Server

Instructions

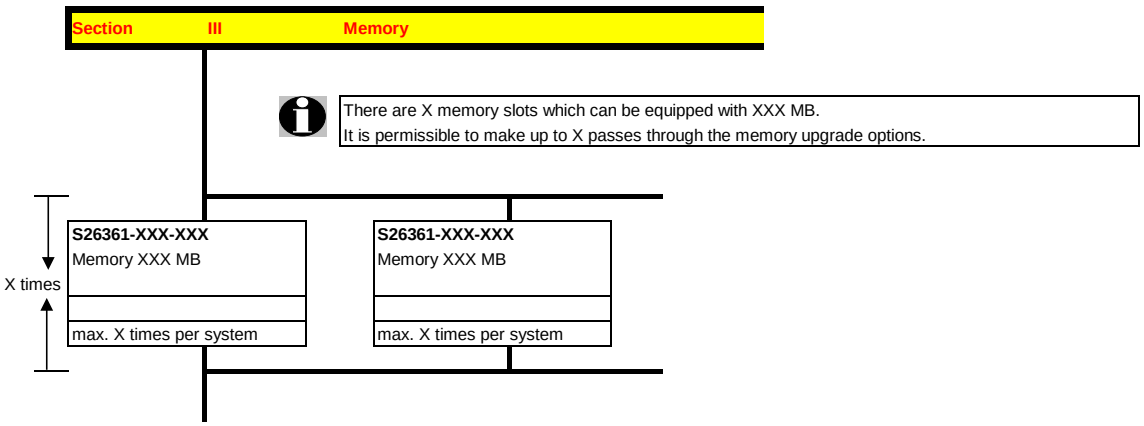
This document contains basic product and configuration information that will enable you to configure your system via PC-/SystemArchitect.

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-/SystemArchitect.

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.



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

Please note that there are information symbols which indicate necessary information.

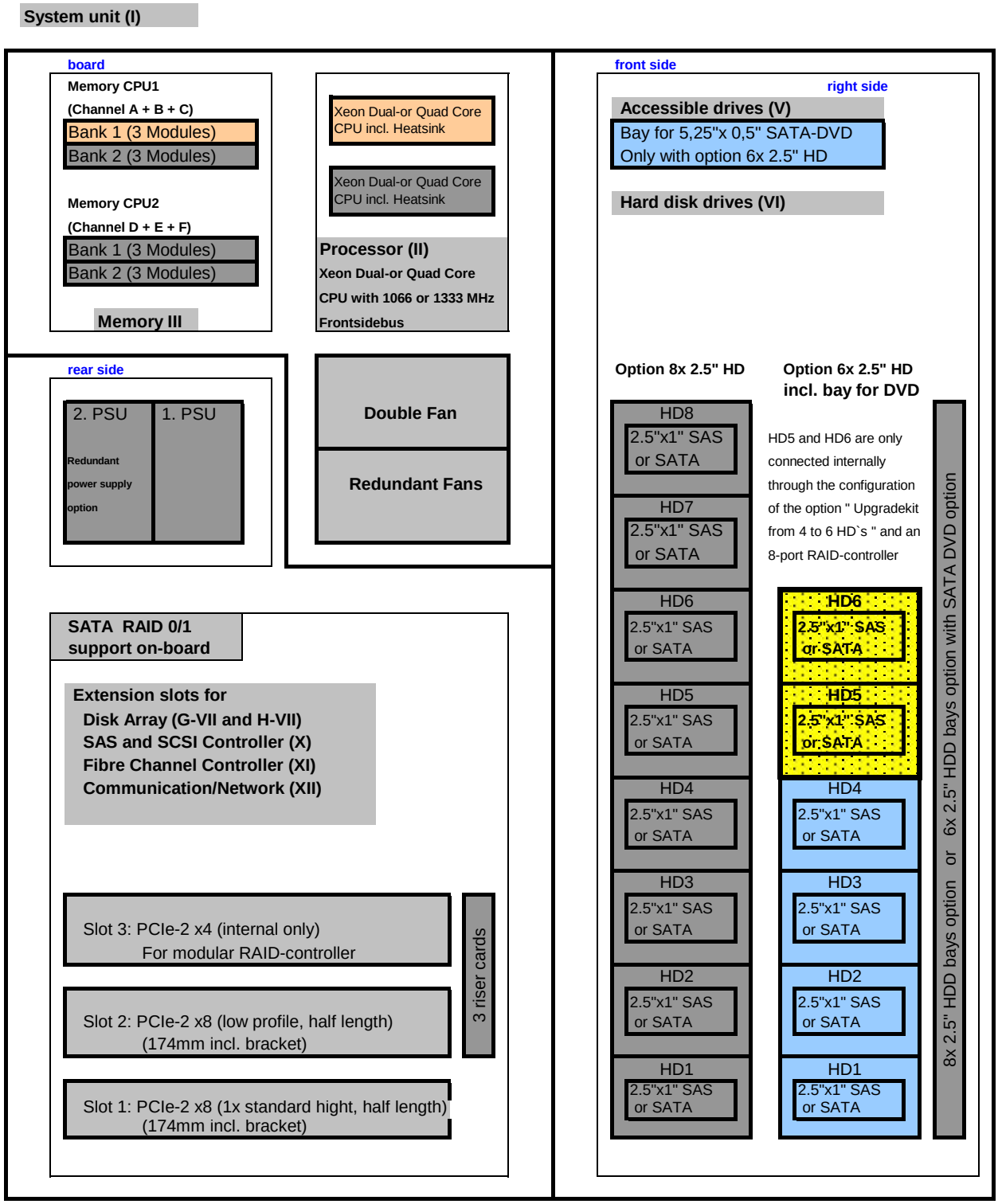
For further information see:

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

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

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

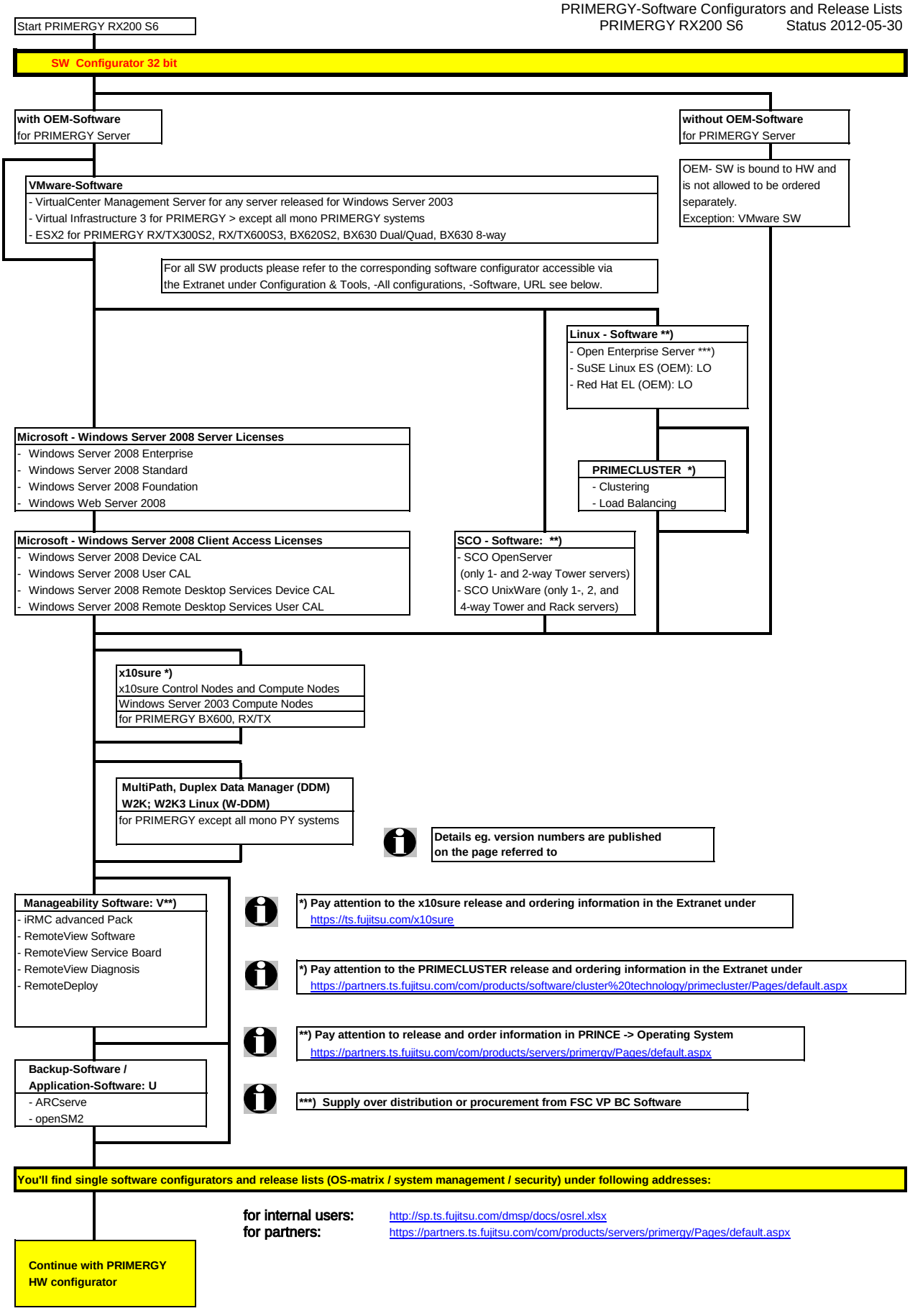
Configuration diagram PRIMERGY RX200 S6



Key:

Included in basic unit or = Option

One CPU (first CPU) and one memory (first memory) has to be selected for an orderable basic unit.


Start PRIMERGY RX200 S6
SW Configurator 32 bit
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.
Exception: VMware SW
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
For all SW products please refer to the corresponding software configurator accessible via the Extranet under Configuration & Tools, -All configurations, -Software, URL see below.
Linux - Software **)
- Open Enterprise Server ***)
- SuSE Linux ES (OEM): LO
- Red Hat EL (OEM): LO
Microsoft - Windows Server 2008 Server Licenses
- Windows Server 2008 Enterprise
- Windows Server 2008 Standard
- Windows Server 2008 Foundation
- Windows Web Server 2008
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
SCO - Software: **)
- SCO OpenServer (only 1- and 2-way Tower servers)
- SCO UnixWare (only 1-, 2, and 4-way Tower and Rack servers)
x10sure *)
x10sure Control Nodes and Compute Nodes
Windows Server 2003 Compute Nodes
for PRIMERGY BX600, RX/TX
MultiPath, Duplex Data Manager (DDM) W2K; W2K3 Linux (W-DDM)
for PRIMERGY except all mono PY systems
Details eg. version numbers are published on the page referred to
Manageability Software: V**)
- iRMC advanced Pack
- RemoteView Software
- RemoteView Service Board
- RemoteView Diagnosis
- RemoteDeploy
*) Pay attention to the x10sure release and ordering information in the Extranet under
https://ts.fujitsu.com/x10sure
*) 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
Backup-Software / Application-Software: U
- ARCserve
- openSM2
***) 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 RX200S6

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 RX200S5, RX300S4/S5, RX600S4, BX620S4/S5, BX920S1

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
- Windows Server 2008 R2 Foundation
- Windows Web Server 2008 R2

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

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

Linux - Software *) **)

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

PRIMECLUSTER *)
- Clustering
- Load Balancing

QuickTransit (QT)

only EM64T 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

Manageability Software: V)**

only EM64T
- 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 RX200 S6

Section | Basic unit

System unit consisting of:
*** 1U Housing including**
- power cord rack 4m length
(PSU has to be configured min 1x)

*** Fans**
- Redundant and hot plug system fans (**6x**)

*** Drives / Bays**
- 6x 2.5" SAS / SATA HDD option or 8x 2.5" SAS / SATA HDD option
(Four bays are supported with the onboard SATA controller or with the 1064 modular RAID controller
6 or 8 bays are supported with the 1068 and 1078 modular RAID controllers.)
- 1 bay SATA DVD-ROM 0,5" height (option)

*** Integrated ServerView Diagnostics Technology for indication of internal failed components**

Options:

*** 450W / 770W PSU, 2nd hot plug power supply module for redundancy**
*** Two optional Rackmount kits**
RMK-F1_RX100-200-300 (full extraction) or
RMK-ST_RX100-200 (partial extraction with lower cost)

*** 6x 2.5" HD backplane kit (SAS 2.0) with additional DVD option**
*** 8x 2.5" HD backplane kit (SAS 2.0; no DVD possible)**

*** - Optional modular RAID 0/1/1e controller with IME (Integrated Mirroring Enhanced) support**
based on LSI 1064 / 1068 chipset or as alternative
- optional modular RAID 5 controller based on LSI 1078 chipset

*** LED`s in the front panel for indication of a failed CSS component (Customer Self Service)**
Simultaneously components are marked which can be replaced by the customer.
This LEDs can be dispalyed during service even without mains connection.

Systemboard D2786 with:
*** Up to two Xeon Dual Core, Quad-Core or Turbo Quad/Six Core CPU`s (Westmere-EP, LGA 1366 socket)**
with serial QPI links (Quick Path Interconnect) and three memory channels per CPU
First CPU has to be selected for an orderable basic unit,
*** Chipset Intel® 5500 (codenamed Tylersburg-24D = Tylersburg-EN)**
*** ICH10R Southbridge with onboard SATA-RAID 0/1 support**
*** 3 PCIe slots**
-1x PCIe-2 x8 (standard and Low Profile cards) and 1x PCIe-2 x8 (Low Profile cards only)
-1x PCIe-2 x4 internal for modular RAID controller only
*** 12 memory slots for max. 192GB with 16GB registered DDR3 RAM or**
max. 24GB with 2GB unbuffered DDR3 RAM available
- Memory is divided into 6 DIMMs per CPU (3 channels with 2 slots per channel)
- Max. 2x registered modules or 2x unbuffered modules are possible per channel
- No mix of registered and unbuffered modules is allowed
- First Memory (one module) has to be selected for an orderable basic unit per CPU
- Memory upgrade is possible module wise for the Independent Channel Mode or
for the Performance Mode,
- Mirrored Channel Mode is supported with 2 identical modules in channel A+B CPU 1 or D+E CPU 2
- Spare Channel Mode is supported with 3 identical modules in channel A+B+C CPU 1 or D+E+F CPU 2
- SDDC (Chipkill) is supported only for registered memory modules,

*** 4-port SATA controller on-board included in Intel Southbridge ICH10R for SATA Raid0/1,**
Max. 4 SATA HD`s are supported
*** One SATA port on-board for 1x DVD integrated in the Intel Southbridge ICH10R**

*** Dual Port 10/100/1000 x4 PCI Express* Gigabit Ethernet Intel LAN controller 82575EB (Zoar) on-board**
*** iRMC S2 (integrated Remote Management Controller) on-board server management controller with**
dedicated 10/100 Service LAN-port and integrated graphics controller.
The Service LAN-port can be switched alternatively on standard Gbit LAN port 1

*** Graphics Controller integrated in iRMC S2 (integrated Remote Management Controller):**
1600x1200x16bpp 60Hz, 1280x1024x16bpp 60Hz, 1024x768x32bpp 75Hz, 800x600x32bpp 85Hz,
640x480x32bpp 85Hz
(1280x1024x24bpp 60Hz only possible if local monitor or remote video redirection is off)

A

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Interfaces at the rear:
* 1x RS-232-C (serial, 9 pins) (usable for BMC or OS or shared)
* 1x VGA (15 pins): If Front-VGA is used, then Rear-VGA is disabled
* 3x USB 2.0 (UHCI) with 480MBit/s, no USB wakeup
* 2x LAN RJ45, 1x Service-LAN RJ45

Interfaces on the front:
* 3x USB 2.0 (UHCI) with 480MBit/s, no USB wakeup
* 1x VGA (15 pins): If Front-VGA is used, then Rear-VGA is disabled

Interfaces internal:
* 1x USB 2.0 (UHCI) with 480MBit/s for dongle funcionality (uSSD memory), no USB wakeup
* 1x SATA interface for DVD (only usable with 6x 2.5" HDD + DVD Option)
* 4x SATA interface for 4 SATA HD`s (only usable with 6x 2.5" HDD + DVD Option)

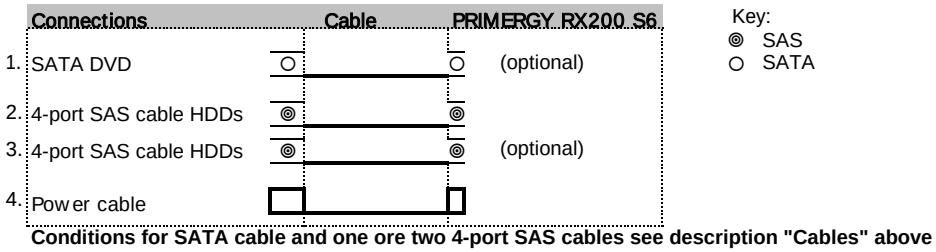
Cables:
1. One SAS cable for up to 4 internal hot plug HDDs within the **6x 2.5" HDD + DVD Base Unit**
   Second SAS cable is optional for port 5 and 6 if max 6 HD`s are required
2. Two SAS cables for up to 8 internal hot plug HDDs within the **8x 2.5" HDD base unit**
3. Power cable

Software:
- ServerView Suite Software package incl. ServerStart, ServerBooks, Management Software and Updates
- Documentation engl. (multilingual on CD)

Mounting kits for PRIMERGY RX200 S6
- 1 pair of telescopic rails either full or partial extraction
  with partial extraction server can not be fully pulled out, but lower cost version of RMK
- 1 Vario carrier DC-PC-3rd party Rack
  allows toolless adjustable in depth and easy mounting

Mounting kit for mounting of servers in FSC 19" PRIMECENTER- racks and all server racks conforming to EIA standard EIA-310-D for 19" racks. Therefore the mounting kit is variable in depth from 704-790mm

Cables included in basic unit



Conditions for SATA cable and one ore two 4-port SAS cables see description "Cables" above

B

B

Rack version for 19" racks with NO PSU included in Base Unit	
No Rack-mounting kit included	
For an orderable basic unit one CPU = first CPU, one memory = first memory one PSU = first PSU as well as one of two possible rack-mount kit options has to be selected	
Basic unit with 6x 2,5" HDD + ODD Bay, no PSU	S26361-K1342-V101
Basic unit with 8x 2,5" HDD bays, no ODD bay, no PSU	S26361-K1342-V201

S26113-F570-E1 450W PSU module / 92% eff (2nd PSU for redundancy)
uses hot plug PSU slot
min. 1 / max. 2x per system

S26113-F539-E1 770W PSU module (2nd PSU for redundancy)
uses hot plug PSU slot
min. 1 / max. 2x per system

Full redundancy cannot be guaranteed for a max. configuration with e.g. two 130W CPUs. In this case SysArch will generate a warning and Powersafeguard will throttle CPUs and memory in case of a PSU failure. So, power consumption will be limited to 450W.

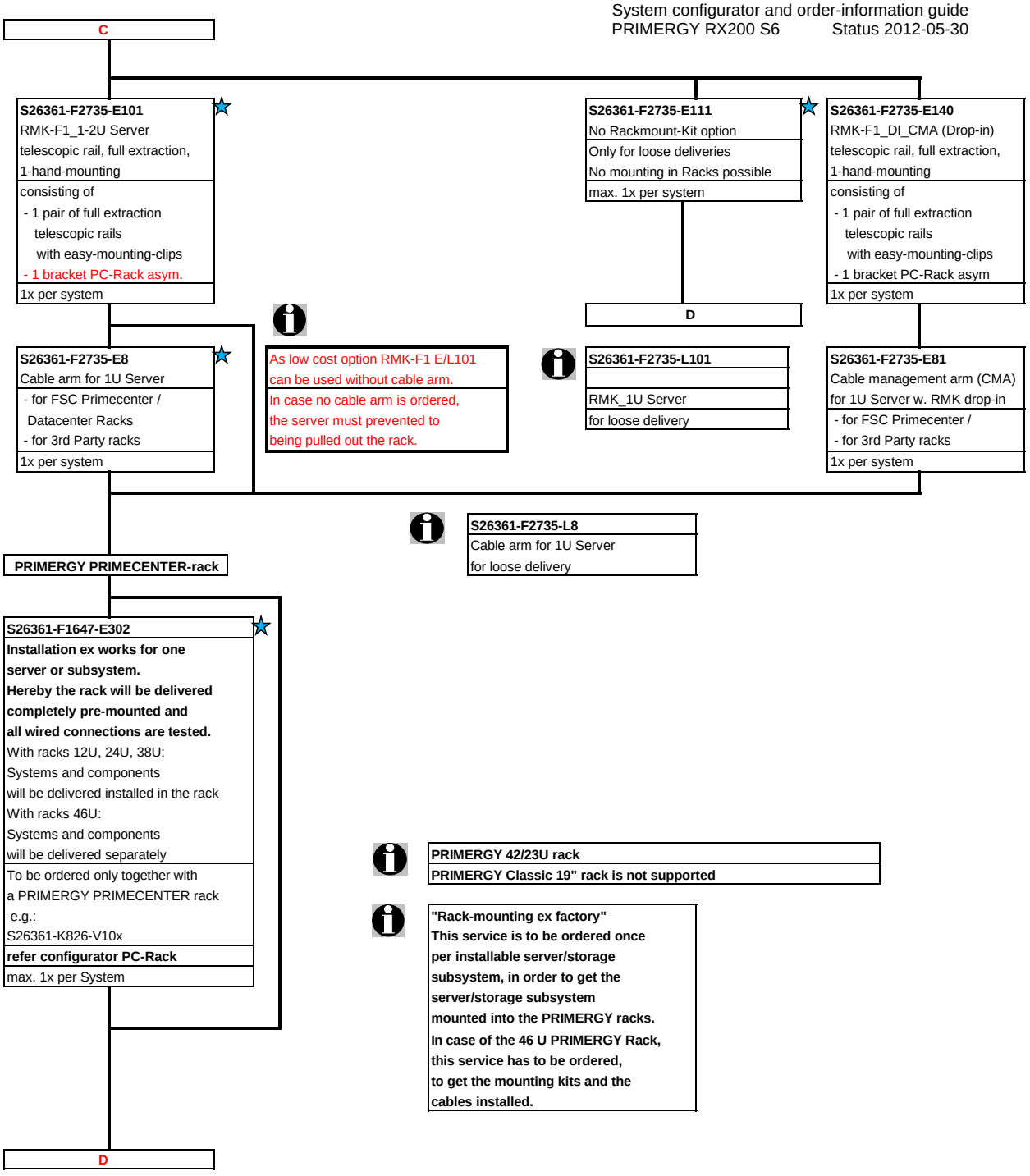
For later redundancy upgrade the following kit is available:	
One 450W power supply module hot plug incl. power cord	S26113-F570-L1
One 770W power supply module hot plug incl. power cord	S26113-F539-L1

S26361-F3552-E1
TPM Module
Trusted Platform Module on Motherboard
Use according to import restrictions
max. 1x per system

Be aware of import restrictions!
Only 1 TPM per system.
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

C


C
S26361-F2735-E101
RMK-F1_1-2U Server
telescopic rail, full extraction,
1-hand-mounting
consisting of
- 1 pair of full extraction
telescopic rails
with easy-mounting-clips
- 1 bracket PC-Rack asym.
1x per system
S26361-F2735-E111
No Rackmount-Kit option
Only for loose deliveries
No mounting in Racks possible
max. 1x per system
S26361-F2735-E140
RMK-F1_DI_CMA (Drop-in)
telescopic rail, full extraction,
1-hand-mounting
consisting of
- 1 pair of full extraction
telescopic rails
with easy-mounting-clips
- 1 bracket PC-Rack asym
1x per system
D
S26361-F2735-E8
Cable arm for 1U Server
- for FSC Primecenter /
Datacenter Racks
- for 3rd Party racks
1x per system
As low cost option RMK-F1 E/L101
can be used without cable arm.
In case no cable arm is ordered,
the server must prevented to
being pulled out the rack.
S26361-F2735-L101
RMK_1U Server
for loose delivery
S26361-F2735-E81
Cable management arm (CMA)
for 1U Server w. RMK drop-in
- for FSC Primecenter /
- for 3rd Party racks
1x per system
S26361-F2735-L8
Cable arm for 1U Server
for loose delivery
PRIMERGY PRIMECENTER-rack
S26361-F1647-E302
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
PRIMERGY 42/23U rack
PRIMERGY Classic 19" rack is not supported
"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.
D

D

Section II Processor

There are 2 processor sockets available.
The first socket is always equipped with the **first CPU** which can be selected via configurator
It is also possible to upgrade a dual-processor system later on with a **second CPU**
Two processors with different clock frequencies are not possible
A multi-processor operating system is required for a dual-processor system.

Max. two CPU`s can be selected per basic unit		
One of following CPU´s has to be selected as first CPU for an orderable basic unit		
Optional second CPU has to be the same type like the first CPU		
Dual-Core CPU - 1x 64-bit Intel Xeon (4MB shared TLC = Third Level Cache) 800 MHz DDR3 Bus, 4,80 GT/s QPI Bus and passive heat sink occupies socket for one CPU		
Xeon E5503 2C/2.00GHz/2M/4,80GT/s (80W)	**S26361-F3286-E200**	
Quad-Core CPU`s - 1x 64-bit Intel Xeon (4MB shared TLC = Third Level Cache) 800 MHz DDR3 Bus, 4,80 GT/s QPI Bus and passive heat sink occupies socket for one CPU		
Xeon E5506 4C/2.13GHz/4M/4,8GT/s (80W)	**S26361-F4479-E213**	
Xeon E5507 4C/2.26GHz/4M/4,8GT/s (80W)	**S26361-F3287-E226**	
Xeon E5603 4C/1.60GHz/4M/4,80GT/s (80W)	**S26361-F4483-E160**	
Xeon E5606 4C/2.13GHz/8M/4,80GT/s (80W)	**S26361-F4484-E213**	
Xeon E5607 4C/2.26GHz/8M/4,80GT/s (80W)	**S26361-F4491-E226**	on special release
Turbo Quad-Core CPU`s - 1x 64-bit Intel Xeon (12MB shared TLC = Third Level Cache); Hyper-Threading (HT); 1066 MHz DDR3 Bus, 5,86 GT/s QPI Bus and passive heat sink occupies socket for one CPU		
Xeon E5620 4C/2.40GHz/12M/5,86GT/s (80W)	**S26361-F4419-E240**	☆
Xeon E5630 4C/2.53GHz/12M/5,86GT/s (80W)	**S26361-F4419-E253**	☆
Xeon E5640 4C/2.66GHz/12M/5,86GT/s (80W)	**S26361-F4419-E266**	☆
Turbo Six-Core CPU`s - 1x 64-bit Intel Xeon (12MB shared TLC = Third Level Cache); Hyper-Threading (HT); 1333 MHz DDR3 Bus, 5,86 GT/s QPI Bus and passive heat sink occupies socket for one CPU		
Xeon E5645 6C/2.40GHz/12M/5,86GT/s (80W)	**S26361-F4485-E240**	
Xeon E5649 6C/2.53GHz/12M/5,86GT/s (80W)	**S26361-F4486-E253**	
Turbo Six-Core CPU`s - 1x 64-bit Intel Xeon (12MB shared TLC = Third Level Cache); Hyper-Threading (HT); 1333 MHz DDR3 Bus, 6,40 GT/s QPI Bus and passive heat sink occupies socket for one CPU		
Xeon X5650 6C/2.66GHz/12M/6,40GT/s (95W)	**S26361-F4417-E266**	
Xeon X5660 6C/2.80GHz/12M/6,40GT/s (95W)	**S26361-F4417-E280**	
Xeon X5670 6C/2.93GHz/12M/6,40GT/s (95W)	**S26361-F4417-E293**	
Xeon X5675 6C/3.06GHz/12M/6,40GT/s (95W)	**S26361-F4487-E306**	
Xeon X5680 6C/3.33GHz/12M/6,40GT/s (130W)	**S26361-F4417-E333**	
Xeon X5690 6C/3.46GHz/12M/6,40GT/s (130W)	**S26361-F4488-E346**	
Frequency Optimized Turbo Quad-Core CPU`s - 1x 64-bit Intel Xeon (12MB shared TLC = Third Level Cache); Hyper-Threading (HT); 1333 MHz DDR3 Bus, 6,40 GT/s QPI Bus and passive heat sink occupies socket for one CPU		
Xeon X5647 4C/2.93GHz/12M/5,86GT/s (130W)	**S26361-F4489-E293**	
Xeon X5667 4C/3.06GHz/12M/6,40GT/s (95W)	**S26361-F4418-E306**	on special release
Xeon X5677 4C/3.46GHz/12M/6,40GT/s (130W)	**S26361-F4418-E346**	on special release
Xeon X5687 4C/3.60GHz/12M/6,40GT/s (130W)	**S26361-F4490-E360**	
Low Voltage Quad-Core CPU with max. 800MHz DDR3 speed - 1x 64-bit Intel Xeon (4MB shared TLC = Third Level Cache) 800 MHz DDR3 Bus, 4,80 GT/s QPI Bus and passive heat sink occupies socket for one CPU		
Xeon L5609 4C/1.86GHz/12M/4.80GT/s (40W)	**S26361-F4420-E186**	
Low Voltage Turbo Quad/Six-Core CPU`s with max. DDR3 Bus Speed 1066MHz - 1x 64-bit Intel Xeon (12MB shared TLC = Third Level Cache); Hyper-Threading (HT); 1066 MHz DDR3 Bus, 5,86 GT/s QPI Bus and passive heat sink occupies socket for one CPU		
Xeon L5630 4C/2.13GHz/12M/5,86GT/s (40W)	**S26361-F4421-E213**	
Xeon L5640 6C/2.26GHz/12M/5.86GT/s (60W)	**S26361-F4421-E240**	

Note: Max. DDR3 Bus Speed depends on:
- **max. DDR3 Bus Speed from the CPU and**
- **max. DDR3 Memory Speed and**
- **max. memory modules on one memory channel**

E

E

Section III Memory

- There are 6 memory slots for max. 96GB registered (reg) DDR3 RAM per CPU available with 16GB RDIMMs
or max. 12GB unbuffered (ub) DDR3 RAM per CPU available with 2GB UDIMMs
=> max. 192GB registered or 24GB unbuffered RAM for two CPU`s possible
(For explanation of following terms refer to section "Memory Configurations"
- The memory area is divided into 3 channels per CPU with 2 slots per channel
- Slot 1 of each channel belongs to memory bank 1, the slot 2 belongs to memory bank 2

Registered and unbuffered memory modules can be selected
No mix of registered and unbuffered modules allowed.
DDR3 1066 and 1333MHz modules can be mixed, but run always with the slower speed.
With two DIMMs per channel, 1.5V DIMMs operate with 1333Mhz, 1.35V with 1066MHz as max., dep. on CPU
If 1.5V DIMMs and 1.35V (Low Voltage) DIMMs are mixed, DIMMs will run at 1.5V
SDDC (Chipkill) is supported only for registered memory modules.

1.) In the "Independent Channel Mode" is following configuration possible
- Each slot can optionally be equipped either with registered x4 organized DDR3 modules:
2GB S**ingle Rank (SR)**, 4GB and 8GB D**ual Rank (DR), 16GB Quad Rank (QR)**
or with unbuffered x8 organized DDR3 modules: 1GB S**ingle Rank (SR)** and 2GB D**ual Rank (DR)**

2.) In the "Spare Channel Mode" is following configuration possible
- Each memory bank can optionally be equipped with 3x2GB **single rank**,
3x4GB and 3x8GB **DR or 3x 16GB QR** DDR3 modules.
Each slot of one bank has to be equipped with identical modules for spare channel mode
In channel A and B of CPU 1 or channel D and E of CPU 2 are always the active memory modules,
in channel C of CPU 1 and channel F of CPU 2 is always the spare module

No special order codes with UDIMMs are offered for this mode

3.) In the "Mirrored Channel Mode" is following configuration possible
- Each memory bank can optionally be equipped with 2x2GB **single rank**,
2x4GB and 2x8GB DR or 2x16GB QR DDR3 modules.
In each memory bank channel A and B of CPU 1 or channel D and E of CPU 2 have to be equipped with identical modules for mirrored channel mode. Channel C of CPU 1 and channel F of CPU 2 is not equipped
In channel B is always the mirrored memory of channel A of CPU 1
In channel E is always the mirrored memory of channel D of CPU 2

No special order codes with UDIMMs are offered for this mode

- For each CPU minimum 1 memory module has to be configured in Independent Channel Mode
(=> Additional memory extensions can still be configured up to five times per CPU) or
one bank has to be equipped with two modules (channel A+B for CPU 1 or D+E for CPU 2) in Mirrored Channel Mode
(=> Additional memory extensions can still be configured up to one time per CPU) or
one bank has to be equipped with three modules (channel A+B+C for CPU 1 or D+E+F for CPU 2) in Spare Channel Mode or Performance Mode
(=> Additional memory extensions can still be configured up to one time per CPU)

F

F

For a description of memory configurations refer to section "Memory Configurations"

Minimum one memory module or memory order code per CPU = first memory

6x for each CPU with max. 2 modules per channel

Registered (reg) RDIMMs (1.5V)

For "Independent Channel Mode" usage!	
- One **DDR3 RDIMM** ECC memory module	
2GB (1333MHz/SR)	**S26361-F3604-E513** ☆
4GB (1333MHz/DR)	**S26361-F3604-E514**
8GB (1333MHz/DR)	**S26361-F3604-E515**
16GB (1066MHz/QR)	**S26361-F3604-E516**
Choose up to 6 order codes for SR/DR per CPU	
Choose up to 6 order codes for QR per CPU	

Note 1.)

Max. DDR3 memory speed depends on the memory configuration of one CPU memory channel and on the speed of the CPU itself.
The memory channel with the lowest speed defines the speed of all CPU channels in the system, also for the channels of the second CPU if configured.
One DIMM per channel = max. 1333MHz for 1.5V + 1.35V memory
two DIMMs per channel = max. 1333MHz for 1.5V memory only

Registered (reg) LV RDIMMs (1.35V)

For "Independent Channel Mode" usage!	
- One **DDR3 LV RDIMM** ECC memory module	
4GB (1333MHz/DR)	**S26361-F3605-E514**
8GB (1333MHz/DR)	**S26361-F3605-E515**
Choose up to 6 order codes above per CPU	

Note 2.)

LV Memory (1.35V) is only supported by CPU Type *56xx

Note 3.)

Max. DDR3 memory speed 1333MHz is only possible with CPU`s X56xx, providing 6.4GT/s QPI

Note 4)

Mix of Standard Voltage (1.5V) and Low Voltage (1.35V) Memory modules is supported but not recommended
In mixed mode, all Memory modules will run at Standard Voltage (1.5V)

Unbuffered (ub) UDIMMs cannot be mixed with registered (reg) RDIMMs
Memory speed in all configurations with UDIMMs is max. 1333MHz depending on the used CPU speed

6x for each CPU with max. 2 modules per channel

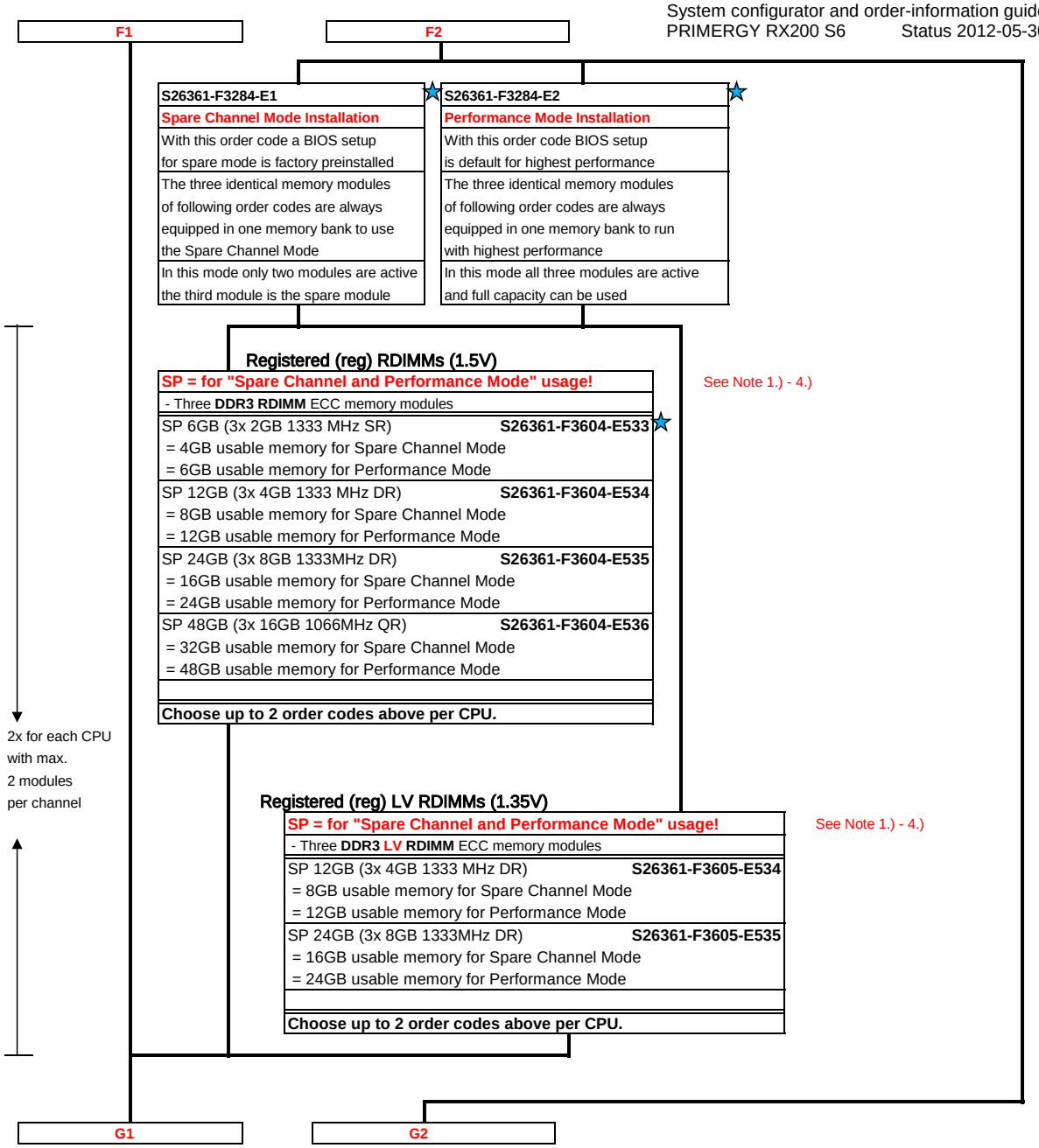
Unbuffered (ub) UDIMMs (1.5V)

For "Independent Channel Mode" usage!	
- One **DDR3-1333 PC3-10600 UB** ECC mem.	
2GB (DR)	**S26361-F3606-E513**
No Chipkill	
Choose up to 6 order codes above per CPU	

Unbuffered (ub) LV UDIMMs (1.35V)

For "Independent Channel Mode" usage!	
- One **DDR3 LV 1333 PC3-10600 UB** ECC mem.	
2GB (DR)	**S26361-F3607-E513** on special release
No Chipkill	
Choose up to 6 order codes above per CPU	

F1 F2


F1
F2
S26361-F3284-E1
Spare Channel Mode Installation
With this order code a BIOS setup for spare mode is factory preinstalled
The three identical memory modules of following order codes are always equipped in one memory bank to use the Spare Channel Mode
In this mode only two modules are active the third module is the spare module
S26361-F3284-E2
Performance Mode Installation
With this order code BIOS setup is default for highest performance
The three identical memory modules of following order codes are always equipped in one memory bank to run with highest performance
In this mode all three modules are active and full capacity can be used
Registered (reg) RDIMMs (1.5V)
SP = for "Spare Channel and Performance Mode" usage!
- Three DDR3 RDIMM ECC memory modules
SP 6GB (3x 2GB 1333 MHz SR) S26361-F3604-E533
= 4GB usable memory for Spare Channel Mode
= 6GB usable memory for Performance Mode
SP 12GB (3x 4GB 1333 MHz DR) S26361-F3604-E534
= 8GB usable memory for Spare Channel Mode
= 12GB usable memory for Performance Mode
SP 24GB (3x 8GB 1333MHz DR) S26361-F3604-E535
= 16GB usable memory for Spare Channel Mode
= 24GB usable memory for Performance Mode
SP 48GB (3x 16GB 1066MHz QR) S26361-F3604-E536
= 32GB usable memory for Spare Channel Mode
= 48GB usable memory for Performance Mode
Choose up to 2 order codes above per CPU.
See Note 1.) - 4.)
2x for each CPU with max. 2 modules per channel
Registered (reg) LV RDIMMs (1.35V)
SP = for "Spare Channel and Performance Mode" usage!
- Three DDR3 LV RDIMM ECC memory modules
SP 12GB (3x 4GB 1333 MHz DR) S26361-F3605-E534
= 8GB usable memory for Spare Channel Mode
= 12GB usable memory for Performance Mode
SP 24GB (3x 8GB 1333MHz DR) S26361-F3605-E535
= 16GB usable memory for Spare Channel Mode
= 24GB usable memory for Performance Mode
Choose up to 2 order codes above per CPU.
See Note 1.) - 4.)
G1
G2

G1 G2

S26361-F3284-E3
Mirrored Channel Mode Installation
With this order code a BIOS setup for Mirrored Channel Mode is factory preinstalled
The two identical memory modules of following order codes are always equipped in one memory bank to use the Mirrored Channel Mode
In this mode only one module contains active data, the second modul contains the mirrored data

2x for each CPU with max. 2 modules per channel

Registered (reg) RDIMMs (1.5V)

MM = for "Mirrored Channel Mode" usage!		
- Two **DDR3 RDIMMs** ECC memory modules		
MM 4GB (2x 2GB 1333MHz SR) = 2GB usable for Mirrored Channel Mode	**S26361-F3604-E523**	
MM 8GB (2x 4GB 1333MHz DR) = 4GB usable for Mirrored Channel Mode	**S26361-F3604-E524**	
MM 16GB (2x 8GB 1333MHz DR) = 8GB usable for Mirrored Channel Mode	**S26361-F3604-E525**	
MM 32GB (2x 16GB 1066MHz QR) = 16GB usable for Mirrored Channel Mode	**S26361-F3604-E526**	
Choose up to 2 order codes above per CPU.		

See Note 1.) - 4.)

Registered (reg) LV RDIMMs (1.35V)

MM = for "Mirrored Channel Mode" usage!	
- Two **DDR3 LV RDIMM** ECC memory modules	
MM 8GB (2x 4GB 1333MHz DR) = 4GB usable for Mirrored Channel Mode	**S26361-F3605-E524**
MM 16GB (2x 8GB 1333MHz DR) = 8GB usable for Mirrored Channel Mode	**S26361-F3605-E525**
Choose up to 2 order codes above per CPU.	

See Note 1.) - 4.)

Loose Delivery of memory modules (upgrade)		
- One **DDR3 RDIMM** ECC memory module, 1.5V		
2GB (1333MHz/SR)	**S26361-F3604-L513**	
4GB (1333MHz/SR)	**S26361-F3604-L510**	
8GB (1333MHz/DR)	**S26361-F3604-L515**	
16GB (1066MHz/QR)	**S26361-F3604-L516**	
32GB (1066MHz/QR)	**S26361-F3604-L517**	on special release, as soon as available
- One **DDR3 LV RDIMM** ECC memory module, 1.35V		
4GB (1333MHz/SR)	**S26361-F3605-L510**	
8GB (1333MHz/DR)	**S26361-F3605-L515**	
- One **DDR3 UDIMM** ECC memory module, 1.5V		
2GB (1333MHz/DR)	**S26361-F3606-L513**	
- One **DDR3 LV UDIMM** ECC memory module, 1.35V		
2GB (1333MHz/DR)	**S26361-F3607-L513**	on special release

H

Section IV Graphics

Graphics Controller integrated in iRMC S2 (integrated Remote Management Controller):
1600x1200x16bpp 60Hz, 1280x1024x16bpp 60Hz, 1024x768x32bpp 75Hz, 800x600x32bpp 85Hz, 640x480x32bpp 85Hz
(1280x1024x24bpp 60Hz only possible if local monitor or remote video redirection is off)

S26361-F2748-E537
PY VGA LP card 512MB PCI-e x1
NVIDIA NVS300
512 MB PCIe-x1
2x DVI or 2x VGA or
1x DVI plus 1x VGA
cables adapters included
Dual head + fully 3-D
supported for Windows OS
only native driver support for Linux OS
full high bracket
max. 1x per system

The hight end optional NVIDIA NVS300 graphic card offers dual head operation
and fully 3D video support.
The cables for either two times DVI or VGA connections are part of the delivery.
Remote Video direction via iRMC must be disabled.
This PCIe-x1 card can also be installed in any PCIe-x4, x8 or x16 slot.
Only one card per server is allowed.

PY VGA card must be installed in slot 1

S26361-F2748-L537
PY VGA LP card 512MB PCI-e x1
for loose delivery

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Memory Configuration PRIMERGY RX200 S6

Each CPU offers 6 Slots for DDR3 Memory Modules organised in **2 Banks and 3 Channels.**
If you need more than 6 Slots you have to configure the 2nd CPU.
Depending on the amount of memory configured you can decide between 4 basic modes of operation (see explanation below).

There are 4 different kinds of DDR3 Memory Modules available: UDIMM / UDIMM LV and RDIMM / RDIMM LV
UDIMM and RDIMM offer different functionality. Mix of UDIMM + RDIMM is not alloved.
Mixing of Standard + Low Voltage DIMM´s of the same type is allowed, but not recommendet (therefore not configurable ex works)
If 1.5V and 1.35V DIMMs are mixed, the DIMMs will run at 1.5V

Mode	Configuration	UDIMM	RDIMM	Application
chip kill support	any	n.a.	yes	detect multi-bit errors
Independant Channel Mode	1, 2 or 3 Modules per Bank	x	x	offers max. flexibility, upgradeability, capacity use UDIMM modules for lowest cost
Mirrored Channel Mode	2 identical Modules / Bank	**)	x	offers maximum security
Performance Mode *)	3 identical Modules / Bank	**)	x	offers maximum performance and capacity
Spare Channel Mode *)	3 identical Modules / Bank	**)	x	balances security and capacity

*) = Performance Mode and Spare Channel Mode use different BIOS settings.
**) = technically possible but no Order Numbers available, use at your own risk

Capacity	Configuration	UDIMM	RDIMM	RDIMM LV	Notes
Min. Memory per CPU	1 Module / CPU	1x2GB	1x2GB	1x 2GB	with one CPU
Max. Memory per CPU	6 Modules / CPU	6x2GB	6x16GB	6x 8GB	with one CPU
Max. Memory per System	12 Modules / System	24GB	192GB	96GB	if second CPU is configured

Memory-Speed:

Max. DDR3 memory speed depends on the memory configuration on one memory channel and the speed of the CPU
One DIMM per channel = max. 1333MHz, two DIMMs per channel = max. 1333MHz for 1.5V / max. 1066 for 1.35V memory, three DIMMs per channel = max. 800MHz. The memory channel with the lowest speed defines the speed of all CPU channels in the system.

DIMM Type	DIMM Slots per Channel	DIMMs populated per Channel	Memory Speed max (CPU dependent)	Ranks per DIMM
RDIMM 1.5V 1333Mhz	2 / 3	1	800, 1066, 1333	SR / DR
	2 / 3	1	800, 1066	QR
	2 / 3	2	800, 1066, 1333	Mix of SR + DR
	2 / 3	2	800	Mix of QR + SR / DR
	3	3	800	Mix of SR + DR
RDIMM LV / 1.35V 1333Mhz	2 / 3	1	800, 1066, 1333	SR / DR
	2 / 3	1	800, 1066	QR
	2 / 3	2	800, 1066	Mix of SR + DR
	2 / 3	2	800	Mix of QR + SR / DR
UDIMM 1.5V 1333Mhz	2 / 3	1	800, 1066, 1333	SR / DR
	2 / 3	2	800, 1066, 1333	Mix of SR + DR
UDIMM LV / 1.35V 1333Mhz	2 / 3	1	800, 1066, 1333	SR / DR
	2 / 3	2	800, 1066	Mix of SR + DR

Used CPU	Max. Memory-Bus speed depending on DIMMs / channel if following memory speed is used for specific CPU`s														
	UDIMM 1333 MHz 1.5V			UDIMM 1333 MHz LV / 1.35V			RDIMM 1333 MHz 1.5V			RDIMM 1333 MHz LV / 1.35V			RDIMM 1066 MHz (QR) 1.5V		
Populated Dimms / Channel	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Dual-Core CPU with max. 800MHz DDR3 speed (4.8GT/s)															
Xeon E5503 2C/2.00GHz/2M/4,80GT/s (80W)	800	800	n.a.	800	800	n.a.	800	800	n.a.	800	800	n.a.	800	800	n.a.
Quad-Core CPU`s with max. 800MHz DDR3 speed (4.8GT/s)															
Xeon E5506 4C/2.13GHz/4M/4,8GT/s (80W)	800	800	n.a.	800	800	n.a.	800	800	n.a.	800	800	n.a.	800	800	n.a.
Xeon E5507 4C/2.26GHz/4M/4,8GT/s (80W)	800	800	n.a.	800	800	n.a.	800	800	n.a.	800	800	n.a.	800	800	n.a.
Turbo Quad-Core CPU`s with max. 1333MHz DDR3 speed (5.86GT/s)															
Xeon E5620 4C/2.40GHz/12M/5,86GT/s (80W)	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	800	n.a.
Xeon E5630 4C/2.53GHz/12M/5,86GT/s (80W)	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	800	n.a.
Xeon E5640 4C/2.66GHz/12M/5,86GT/s (80W)	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	800	n.a.
Turbo Six-Core CPU`s with max. 1333MHz DDR3 speed (6.4GT/s)															
Xeon X5650 6C/2.66GHz/12M/6,40GT/s (95W)	1333	1333	n.a.	1333	1066	n.a.	1333	1333	n.a.	1333	1066	n.a.	1066	800	n.a.
Xeon X5660 6C/2.80GHz/12M/6,40GT/s (95W)	1333	1333	n.a.	1333	1066	n.a.	1333	1333	n.a.	1333	1066	n.a.	1066	800	n.a.
Xeon X5670 6C/2.93GHz/12M/6,40GT/s (95W)	1333	1333	n.a.	1333	1066	n.a.	1333	1333	n.a.	1333	1066	n.a.	1066	800	n.a.
Xeon X5680 6C/3.33GHz/12M/6,40GT/s (130W)	1333	1333	n.a.	1333	1066	n.a.	1333	1333	n.a.	1333	1066	n.a.	1066	800	n.a.
Frequency Optimized Turbo Quad-Core CPU`s with max. 1333MHz DDR3 speed (6.4GT/s)															
Xeon X5667 4C/3.06GHz/12M/6,40GT/s (95W)	1333	1333	n.a.	1333	1066	n.a.	1333	1333	n.a.	1333	1066	n.a.	1066	800	n.a.
Xeon X5677 4C/3.46GHz/12M/6,40GT/s (130W)	1333	1333	n.a.	1333	1066	n.a.	1333	1333	n.a.	1333	1066	n.a.	1066	800	n.a.
Low Voltage Quad-Core CPU with max. 1066MHz DDR3 speed (4.8GT/s)															
Xeon L5609 4C/1.86GHz/12M/4.80GT/s (40W)	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	800	n.a.
Low Voltage Turbo Quad-Core CPU with max. 1333MHz DDR3 speed (5.86GT/s)															
Xeon L5630 4C/2.13GHz/12M/5,86GT/s (40W)	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	1066	n.a.	1066	800	n.a.
Xeon L5640 6C/2.40GHz/12M/5.86GT/s (60W)	1333	1333	n.a.	1333	1066	n.a.	1333	1333	n.a.	1333	1066	n.a.	1066	800	n.a.

SR - Single Rank - 1Rx4
DR - Dual Rank - 2Rx4
QR - Quad Rank - 4Rx4

1333
1066
800
not supported
special release

1DPC = 1 DIMM per Channel
2DPC = 2 DIMM per Channel
3DPC = 3 DIMM per Channel

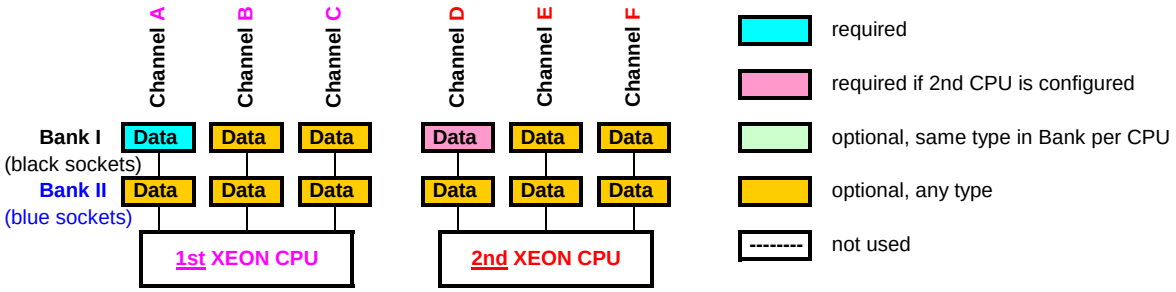
Configuration hints:

- The memory sockets on the systemboard offer a color coding:
  Bank I black sockets
  Bank II blue sockets (or white latch)

- A so called Bank consits of 1 memory module on every Channel available on one CPU (examples see below)
  Bank I on CPU 1 up to 3 memory modules connected to Channel A, B and C on the first CPU
  Bank II on CPU 1 up to 3 memory modules connected to Channel A, B and C on the first CPU
  Bank I on CPU 2 up to 3 memory modules connected to Channel D, E and F on the second CPU
  Bank II on CPU 2 up to 3 memory modules connected to Channel D, E and F on the second CPU

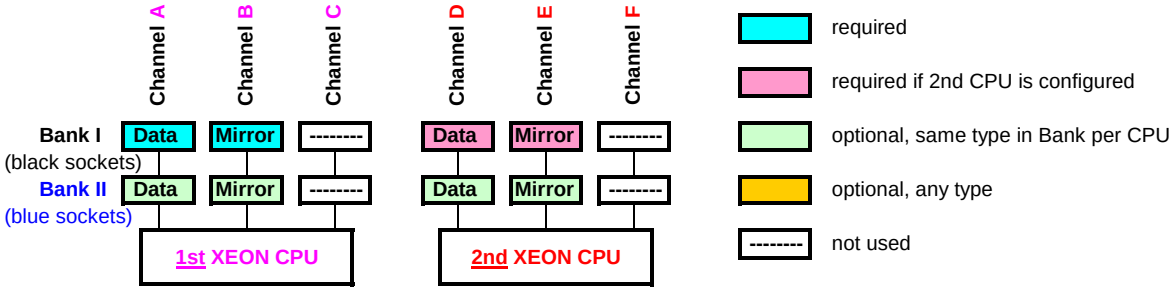
- See below (next page) for a detailed descriptions of the memory configuration supported.

1. Independent Channel Mode



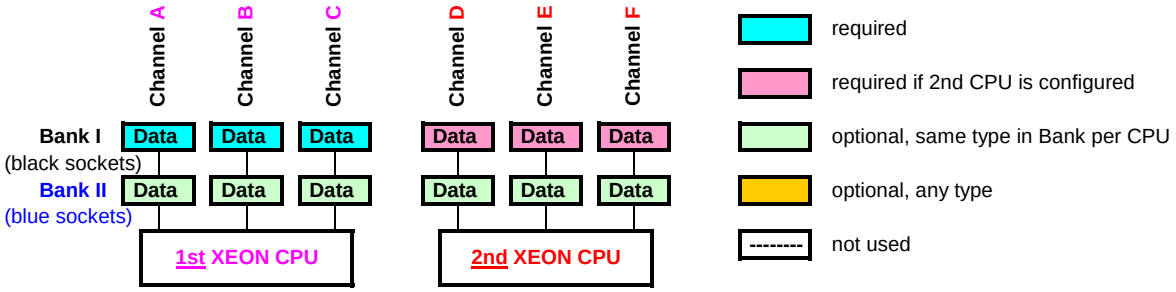
Independent Channel Mode allows all channels to be populated in any order
Can run with differently rated DIMMs and use the settings of the slowest DIMM installed in the system
Independent Channel Mode is supported using UDIMM or RDIMM memory modules

2. Mirrored Channel Mode



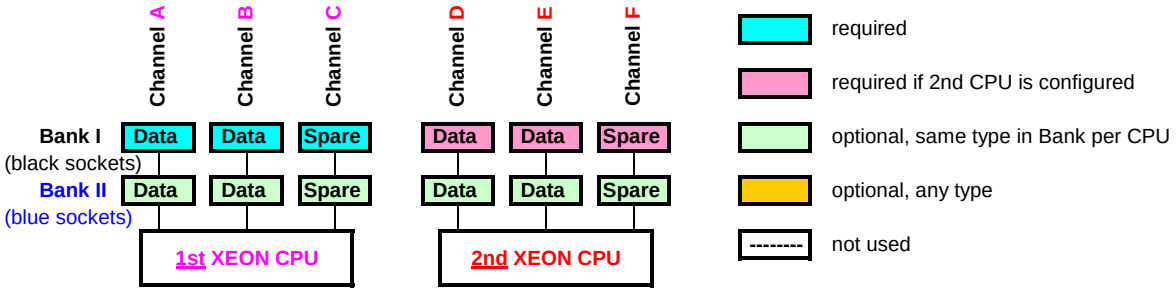
Mirrored Channel Mode requires identical modules on channel A and B (1st CPU) or channel D and E (2nd CPU)
50% of the capacity is used for the mirror => the available memory for applications is only half of the installed memory
channel C (1st CPU) or channel F (2nd CPU) are not usable in Mirrored Channel Mode
Mirrored Channel Mode is supported using RDIMM memory modules

3. Performance Channel Mode



Performance Channel Mode requires identical modules on all channels of each Bank per CPU
Performance Channel Mode is supported using RDIMM memory modules

4. Spare Channel Mode (As soon as released)



Spare Channel Mode requires identical modules on all channels of each Bank per CPU
one third of the capacity is used for the spare => the available memory for applications is two thirds of the installed memory
Spare Channel Mode is supported using RDIMM memory modules

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Section V Accessible drives

Setup RX200 S6 by **ServerStart** is supported with following configurations:
no Floppy, no DVD, no CD:
remote installation only (PXE service & DHCP server required)
built in CD/DVD or USB CD/DVD, no Floppy disk drive:
UNC Network share reachable or USB Floppy connected
USB Floppy, no CD/DVD:
USB CD/DVD connected

If installation is done locally, make sure you have external FDD available for driver installation.

Following USB Components are available	
1) USB DVD SM / Blu-Ray	
External SuperMulti Drive (as soon as released)	?
External Blu-Ray Drive (as soon as released)	?
2) USB Keyboard:	S26381-K340-V120
KBPC PX D, professional keyboard	
3) USB Mouse:	S26381-K415-L100
Optical Wheel Mouse Tilt USB/PS2	
4) USB Memorybird:	
MyUSBS A910 8GB	S26391-F6048-L208
MyUSBS A910 16GB	S26391-F6048-L216

1x

S26361-F3531-E2
Blu-ray Combo slim SATA
6x BD-ROM, 16x DVD, 40x CD
BD DL and all CD/DVD formats
0.5 x 5.25", black bezel
max. 1x per system

S26361-F3269-E2
DVD-RW supermulti slim SATA
all formats, DUAL/DL, DVD-RAM
only W2K, W3K and Linux
0.5 x 5.25", black bezel
max. 1x per system

S26361-F3641-E2
Blu-ray Triple Writer slim SATA
6x BD-RW, 8x DVD, 24x CD
BD DL and all CD/DVD formats
0.5 x 5.25"
max. 1x per system

USB 3.0 adapter

S26361-F3749-E201
USB3.0 PCIe x1 adapter card lp
Sunrich U-720
PCIe x1
1 port intern, 1 port extern
USB 3.0 A jacks
max. 1x per system

The adapter is also available as optional (loose) delivery with FH and LP bracket included
S26361-F3749-L501

Configurations of DVD Drive are only possible for the Base Unit S26361-K1342-V101 (6x 2.5" HDD + DVD Option)
With onboard SATA controller, max. 4x SATA HD`s and one DVD are configurable.

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Section G-VI Drive Bay for 6x / 8x 2.5" HD Basic Unit

Base Unit S26361-K1342-V101
Drive Bay with up to 6x 2.5" HDDs plus one bay for DVD
Only 4 HDD Ports are connected to a RAID Controller. In order to connect HD5 and HD6, the "**UpgradeKit 4 to 6 HDD"** and a 8-port SAS controller is necessary

Base Unit S26361-K1342-V201
Drive Bay with up to 8x 2.5" HDDs
8 HDD Ports are connected to a RAID Ctrl.

Section G-VII Modular Raid 0/1, Raid5 for 4x / 6x / 8x 2.5" SAS or SATA HD`s. On-board Controller for 4x 2.5" SATA HD`s

Modular Raid 0/1 controller with IME support for SAS/SATA-HDs

IME (Integrated Mirroring Enhanced) offers the RAID levels 0, 1, 1E
IME is a RAID 0, 1 implementation, whereby RAID 1 can operate
an odd number of hard disks. Up to 8 hard disks including one hot spare HD
are possible (limited by HHD slots in system).
Administration of IME is possible with the LSI Global Array Manager (GAM).
Windows2003/2008 as well as SUSE and RedHat Linux are supported
(Restrictions refer to Software Configurator)
The SAS IME solution supports 2 independent RAID volumes.

S26361-F3257-E4
4 port SAS RAID Controller
LSI MegaRAID SAS 1064
RAID 0, 1 & 1E no controller cache
SAS 3Gb/sec 4 internal ports
PCIe x4, 160mm **without bracket**
max. 1x per system

UpgradeKit 4 to 6 HDD

S26361-F3257-E250
4-port SAS-cable for ports 5 and 6 necessary for max. 6 HD`s
max. 1x per System

only for Base Unit V201

S26361-F3554-E8
RAID Ctrl SAS 6G 8port internal
Based on chip LSISAS2008 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

Base Units contain a 4-port on-board SATA controller supporting RAID Levels 0, 1

on-board 4-port SATA Raid 0/1 controller included in chipset Southbridge ICH10R

1x

Modular Raid 5 controller for SAS/SATA-HDs

RAID levels 0, 1, 10, 5, 50, 6 and 60 are supported
There is no support of any external storage by this
RAID solution.

S26361-F3554-E512
RAID Ctrl SAS 6G 8port internal
Based on chip LSISAS2108 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. 1 per system

For Raid 5 configurations with max. 4 HD`s no Upgradekit from 4 to 6 HD`s is necessary
For the basic unit with 8x 2.5" HDDs (V201) a 8port modular Raid Ctrl. must be ordered!

S26361-F3257-E155
Cache Battery Backup Unit
max. 1x per Controller

Only one BBU per System possible, either for MegaRAID SAS 9280 or for MegaRAID SAS 2108
Upgrade option: S26361-F3257-L110

J1 J2

J1

J2

Section G-VIII 4x / 6x / 8x 2.5" SAS / SATA Hard disk drives

For basic units V1xx up to 6x SATA / SAS 2.5" hard disks plus ODD can be configured.
For basic units V2xx up to 8 SATA / SAS 2.5" hard disks can be configured.

S26361-F3601-E250
HD 250GB 7.2krpm 2.5"
7200rpm,<9,5ms, 32MB Cache
BC SATA
hot plug/hot replace tray
max. 4x per system

S26361-F3601-E500
HD 500GB 7.2krpm 2.5"
7200rpm,<9,5ms, 32MB Cache
BC SATA
hot plug/hot replace tray
max. 4x per system

while stocks last

S26361-F3298-E64
SSD 64GB
SATA 3Gb/s
hot plug/hot replace tray
max. 4x per system

S26361-F3298-E32
SSD 32GB
SATA 3Gb/s
hot plug/hot replace tray
max. 4x per system

Following HDDs configurable with modular RAID controller
- 4 port 4x 2.5" SAS or SATA hard disks can be configured.
- 8 port 6x / 8x 2.5" SAS or SATA hard disks can be configured.

All combinations of SSD, BC SATA and SAS are possible - but not in same logical drive (RAID array)

4x / 6x
8x

S26361-F3601-E250
HD 250GB 7.2krpm 2.5"
7200rpm,<9,5ms, 32MB Cache
BC SATA
hot plug/hot replace tray
max. 4x / 6x / 8x per system

S26361-F3601-E500
HD 500GB 7.2krpm 2.5"
7200rpm,<9,5ms, 32MB Cache
BC SATA
hot plug/hot replace tray
max. 4x / 6x / 8x per system

S26361-F3298-E32
SSD 32GB
SATA 3Gb/s
hot plug/hot replace tray
max. 4x / 6x / 8x per system

S26361-F3298-E64
SSD 64GB
SATA 3Gb/s
hot plug/hot replace tray
max. 8x per system

SSD SAS 2.5" as soon as available

S26361-F4541-E100
SSD SAS 100GB, SLC
Solid State Disk
SAS 6Gb/s
Enterprise Perfomance
hot plug/hot replace tray
max. 4x / 6x / 8x per system

S26361-F4541-E200
SSD SAS 200GB, SLC
Solid State Disk
SAS 6Gb/s
Enterprise Perfomance
hot plug/hot replace tray
max. 4x / 6x / 8x per system

S26361-F4541-E400
SSD SAS 400GB, SLC
Solid State Disk
SAS 6Gb/s
Enterprise Perfomance
hot plug/hot replace tray
max. 4x / 6x / 8x per system

SAS 6Gb/s 2.5" with hot plug/hot replace tray

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
73GB 15krpm,<4,5ms, 8MB Cache	S26361-F4482-E573
146GB 15krpm,<4,5ms, 8MB Cache	S26361-F4482-E514

max. 8x per system

configuration of SAS-HDDs requires SAS RAID controller

Section G- IX 4x 2.5" SATA Hard disk drives

With onboard SATA controller
up to 4x SATA HD`s or
up to 4x SSD HD`s are possible
Native SATA only supported by basic unit V101

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Section X External SAS Disk Array, SAS backup drives or SCSI peripheral devices

External 8-port SAS-controller for external SAS Disk Array

S26361-F3593-E201
RAID Ctrl SAS 6G 8port external
LSI MegaRAID SAS9280-8e
512MB Cache with ECC
RAID 0, 1, 10, 5, 50, 6 & 60
without iBBU
SAS 6Gb/sec
8 port external
PCIe x4, MD2 form factor
low profile bracket
max. 1x per system

S26361-F3257-E155
Cache Battery Backup Unit
with 55cm cable set
max. 1x per Controller

Only one BBU per System possible, either for MegaRAID SAS 9280 or for MegaRAID SAS 2108

for loose delivery please order

S26361-F3593-L501	Contr. w/o BBU
S26361-F3257-L110	optional BBU

2x

SAS-controller for external backup drives

S26361-F3271-E201
SAS Controller 3Gb/s 8 port LP
LSI SAS3442E-R Low Profile
PCIe x8,
int: 4 port
ext: 4 port
max. 2x per system

S26361-F3628-E201
SAS Controller 6Gb/s 8 port LP
LSI SAS9200-8e LP
PCIe 2.0 x4,
ext: 8 port
max. 2x per system

SCSI-controller for external drives and peripheral devices

S26361-F3270-E201
SCSI U320 Controller
Adaptec SCSI Card 29320LPE
PCIe x1,
int: LVD HD68
ext: VHDCI 68pin
max. 2x per system

Only released for SX10. All contr. for the connection of external storage systems are delivered without cables. For the configuration of external cabling see configurator

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Section XI Fibre Channel

Fibre Channel Controller for external storage systems

S26361-F3961-E201
8GBit/s FC Controller
Emulex
LPe1250, low profile bracket
1 channel 8GBit/sec FC Controller
LC Interface for 50µm Fiber
PCIe x4, 170mm
max. 2x per system

S26361-F3961-E202
8GBit/s FC Controller
Emulex
LPe12002, low profile bracket
2 channel 8GBit/sec FC Controller
LC Interface for 50µm Fiber
PCIe x4, 170mm
max. 2x per system

storage system are delivered without cables.
For the configuration of external cabling see the configurator for external storage system.

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

2x

S26361-F3631-E201
8GBit/s FC Controller
Qlogic
QLE2560, low profile bracket
1 channel 8GBit/sec FC Controller
LC Interface for 50µm Fiber
PCIe x8, 170mm
max. 2x per system

S26361-F3631-E202
8GBit/s FC Controller
Qlogic
QLE2562, low profile bracket
2 channel 8GBit/sec FC Controller
LC Interface for 50µm Fiber
PCIe x8, 170mm
max. 2x per system

No mix of different vendors for FC or FCoE controllers.

S26361-F3592-E202
10GBit/s CNA
Emulex
OCe10102
2 channel 10GBit/sec CNA
SFP+ Cage
PCIe x8, 170mm
max. 2x per system

Loose Delivery: S26361-F3592-L202

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 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

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Section XII Communication / Network

2x 1GBit on-board LAN Controller
Gigabit Ethernet Controller on-board
Dual Port GBit LAN controller
Intel 82575EB (Zoar) *
ext: for RJ 45-connector
SW: AFT, VLAN, Fast Channel

Teaming: Failover, Load Balancing
The Intel LAN Controllers 1000TX and 1000SX
can be used with the on-board controller in Teaming Mode.

* Supporting iSCSI boot (also diskless) by system BIOS and native iSCSI initiators

2 slots PCIe x8 (wired x8) available

A PCIe x1 or x4 card can also be plugged in a PCIe x8 slot

2x

A) 1-Port Copper PCIe Adapter 1000TX

S26361-F3516-E201 (Shelter Island)
Gigabit Ethernet Controller 1000TX LP
Eth Ctrl 1x1Gbit PCI-e Gigabit CT DT Cu LP
Intel® Gigabit CT Desktop Adapter
max. 2x per sys 2) USB Keyboard:

S26361-F3241-E201 (Glyndon)
Gigabit Ethernet Contr. 1000TX
Eth Ctrl 1x1Gbit PCI-e Pro/1000PT Cu
Intel PRO/1000 PT Server Adaptor
max. 2x per system

B) 1-Port MMF PCIe Adapter 1000SX

S26361-F3242-E201 (Sheepshead Bay)
Gigabit Ethernet Contr. 1000SX
Eth Ctrl 1x1Gbit PCI-e Pro/1000PF LC
Intel PRO/1000 PF Server Adapter
PCIe x4
ext:LC-connector
max. 2x per system

C) 2-Port Copper PCIe Adapter 1000TX

while stock lasts

S26361-F3740-E201
(D3035)
Gigabit Ethernet Controller Dual 1000TX LP
Eth Ctrl 2x1Gbit Cu PCIe x4 D3035 lp
Intel Powerville based 2 port Server Adapter
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 5
max. 4x per system

S26361-F3610-E202
(D2735-2)
Gigabit Ethernet Controller Dual 1000TX LP
Eth Ctrl 2x1Gbit PCIe x4 D2735-2 Cu lp
Intel Kawela based 2 port Server Adapter
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 5
max. 4x per system

Loose delivery with
FH and LP bracket included:
S26361-F3740-L501

Loose delivery with
FH and LP bracket included:
S26361-F3610-L502

D) 4-Port Copper PCIe Adapter 1000TX

while stock lasts

S26361-F3739-E201
(D3045)
Gigabit Ethernet Controller Quad 1000TX LP
Eth Ctrl 4x1Gbit Cu PCIe x4 D3045 lp
Intel Powerville based 4 port Server Adapter
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 5
max. 4x per system

S26361-F3611-E201
(D2745)
Gigabit Ethernet Controller Quad 1000TX LP
Eth Ctrl 4x1Gbit PCIe x4 D2745 Cu lp
Intel Barton Hills based 4 port Server Ad.
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 5
max. 4x per system

Loose delivery with
FH and LP bracket included:
S26361-F3739-L501

Loose delivery with
FH and LP bracket included:
S26361-F3611-L501

E) 10GbE 2-Port SFP+ for MMF Module and SFP+

S26361-F3629-E202
(D2755)
10 Gigabit Ethernet Contr. dual port SFP+
Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+
Intel Niantic based dual port 10Gb NIC
PCIe x8, Low Profile, Low Profile Bracket
ext: 2x SFP+ cage
max. 2x 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

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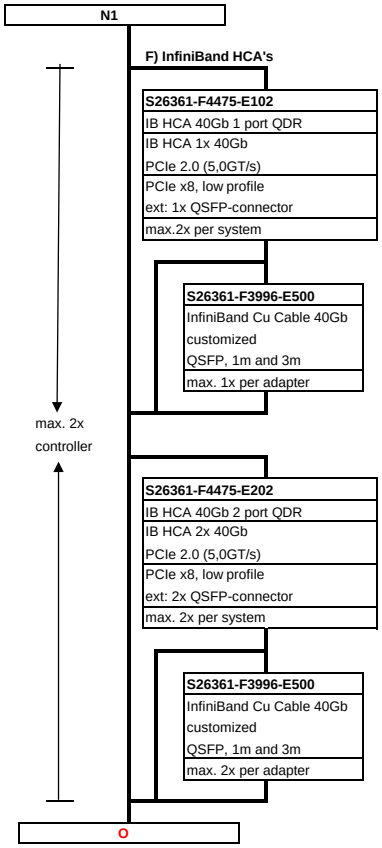


S26361-F4475-L102
for loose delivery

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

If additional length of copper cable or optical cable are needed,
then they must be ordered from the cable vendor directly

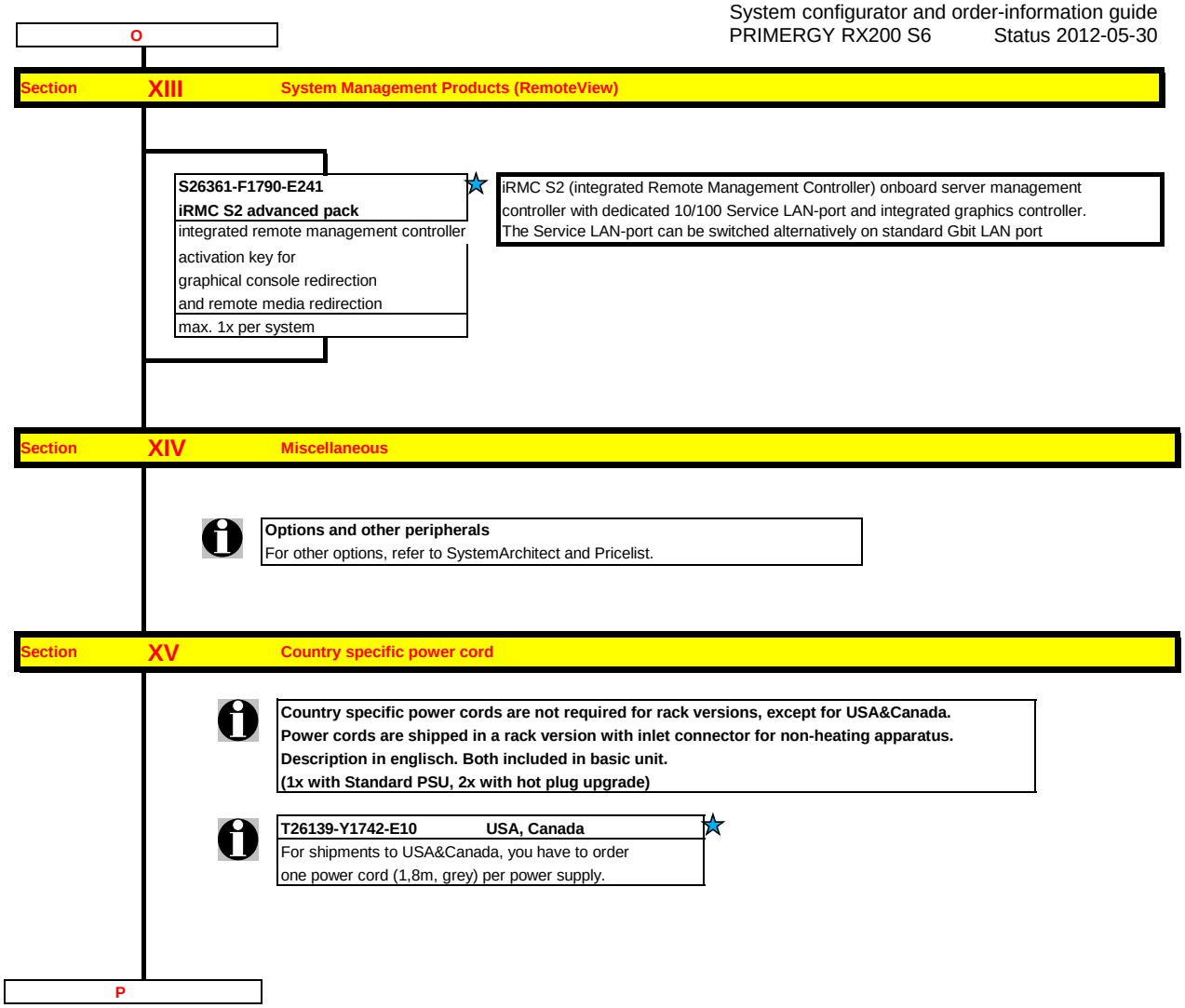
Copper cable are also available for loose delivery as
S26361-F3996-L101, QSFP, 40Gb, 1m
S26361-F3996-L103, QSFP, 40Gb, 3m

S26361-F4475-L202
for loose delivery

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

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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Section XIII 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
iRMC S2 (integrated Remote Management Controller) onboard server management controller with dedicated 10/100 Service LAN-port and integrated graphics controller. The Service LAN-port can be switched alternatively on standard Gbit LAN port
Section XIV Miscellaneous
Options and other peripherals
For other options, refer to SystemArchitect and Pricelist.
Section XV Country specific power cord
Country specific power cords are not required for rack versions, except for USA&Canada.
Power cords are shipped in a rack version with inlet connector for non-heating apparatus.
Description in englisch. Both included in basic unit.
(1x with Standard PSU, 2x with hot plug upgrade)
T26139-Y1742-E10 USA, Canada
For shipments to USA&Canada, you have to order
one power cord (1,8m, grey) per power supply.
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Section XVI Energy Star

S26361-F3301-E401
RX200 S6 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 RX200 S6 E-Star Fam1:

Basic unit with	
6x 2,5" HDD + ODD Bay, no PSU	S26361-K1342-V101
8x 2,5" HDD bays, no ODD bay, no PSU	S26361-K1342-V201

Turbo Quad-Core CPU`s - 1x 64-bit Intel Xeon (12MB shared TLC = Third Level Cache); Hyper-Threading (HT); 1066 MHz DDR3 Bus, 5,86 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5620 4C/2.40GHz/12M/5,86GT/s (80W)	S26361-F3618-E240
Xeon E5630 4C/2.53GHz/12M/5,86GT/s (80W)	S26361-F3618-E253
Xeon E5640 4C/2.66GHz/12M/5,86GT/s (80W)	S26361-F3618-E266
Always 2x per system (only one CPU is out of Energy Star specification)	

Registered (reg) RDIMMs (1.5V)	
2GB (1333MHz/SR)	S26361-F3604-E513
min. 2 / max. 12x per system	
SP 6GB (3x 2GB 1333 MHz SR)	S26361-F3604-E533
MM 4GB (2x 2GB 1333MHz SR)	S26361-F3604-E523
min. 2 / max. 4x per system	

4GBit/s Fibre Channel Controller	
Emulex LPe11002	S26361-F3306-E202
min. 0 / max. 1x per system	

Gigabit Ethernet Controller	
Gigabit Ethernet Controller Quad 1000TX	S26361-F3462-E1
min. 0 / max. 2x per system	

Raid Controller	
4 port SAS RAID Controller (only V101)	S26361-F3257-E4
4-port SAS-cable for port 5 and 6	S26361-F3257-E250
RAID Ctrl SAS 6G 8port internal (Raid 0, 1 &1E)	S26361-F3554-E8
RAID Ctrl SAS 6G 8port internal (RAID 0, 1, 10, 5, 50, 6, 60)	S26361-F3554-E512
min. 0 / max. 1x per system	

ODD (only V101)	
DVD-RW supermulti slim SATA	S26361-F3269-E2
Blu-ray Combo slim SATA	S26361-F3531-E2
min. 0 / max. 1x per system	

Hard Disk Drives 2.5" SAS	
HD 300GB 10krpm 2.5"	S26361-F4482-E130
HD 73GB 15krpm 2.5"	S26361-F4482-E573
HD 146GB 15krpm 2.5"	S26361-F4482-E514
min. 0 / max. 6x / 8x per system	

PSU	
450W PSU module / 92% eff	S26113-F570-E1
min. 1 / max. 2x per system	

others
e.g. BBU, RMK, iRMC, …

End PRIMERGY RX200 S6

Change Report

Date	Order number	Changes
2012-11-28	S26361-F3317-L500	removed
2012-11-22	F3749-Ex	"as soon as available" removed
2012-10-10	S26361-F3749-E201	Added USB 3.0 Adapter
2012-01-30	S26361-F3641-E2	new Blue-ray Triple Writer added
2011-12-21	S26361-F4482-E114	SAS HD 6G 144GB - no longer available
2011-10-30	S26361-F4541-Ex00	new SAS SSD with 100, 200, 400 GB added - as soon as available
2011-10-01	S26361-F3601-E250	new BC SATA HD - now available
2011-10-01	S26361-F3298-E64	64 GB SSD - no longer available
2011-08-19	S26361-F2735-E140/E81	New RMK/Cablemanagement added
2011-05-03	S26361-F3610-E202/L502	Formal change from E201 / L501
2011-03-31	S26361-F3629-E202	10 Gigabit Ethernet controller added
2011-01-18		memory configuration sheet adjusted - L5609 supports max. 1066MHz DDR3 speed (4.8GT/s)
2010-01-10	S26361-F4483-E160	Westmere-EP Refresh CPUs added
2010-11-18	S26361-F3628-E201	Ctrl SAS 6G 8port external added
2010-08-01		Energy Star information included (new sheet and blue stars)
2010-08-01	S26361-F3611-E201	New Quad LAN GbE controller - as soon as available
2010-08-01	S26361-F3610-E201	New Dual LAN GbE controller - as soon as available
2010-07-09		EPA restrictions implemented
2010-05-01		First Release