FUJITSU

PRIMERGY RX300 S8

System configurator and order-information guide

September 2015

Contents

PRIMERGY Server

Instructions

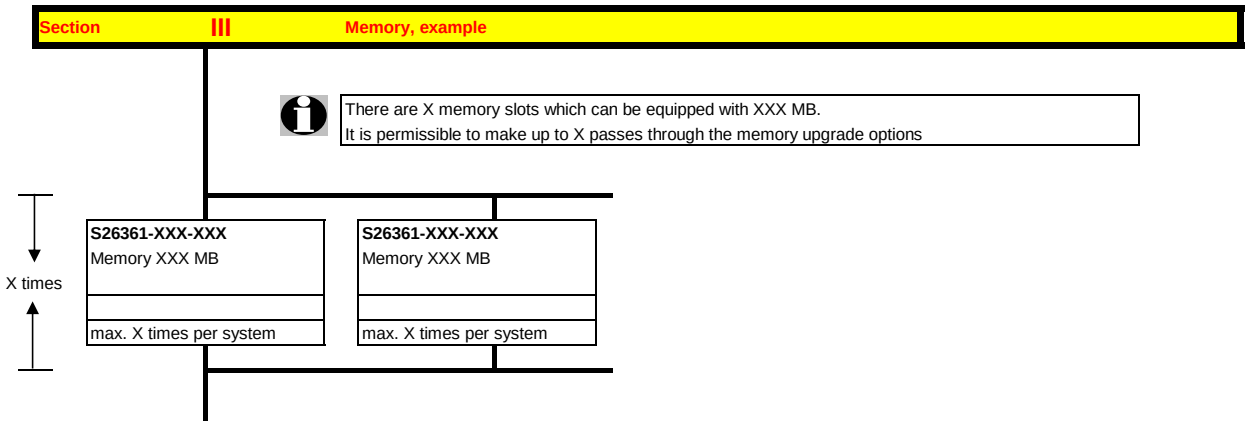
This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect.

Only these tools will ensure a fast and proper configuration of your PRIMERGY server or your complete PRIMERGY Rack system.

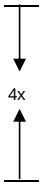
You can configure your individual PRIMERGY server in order to adjust your specific requirements.

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

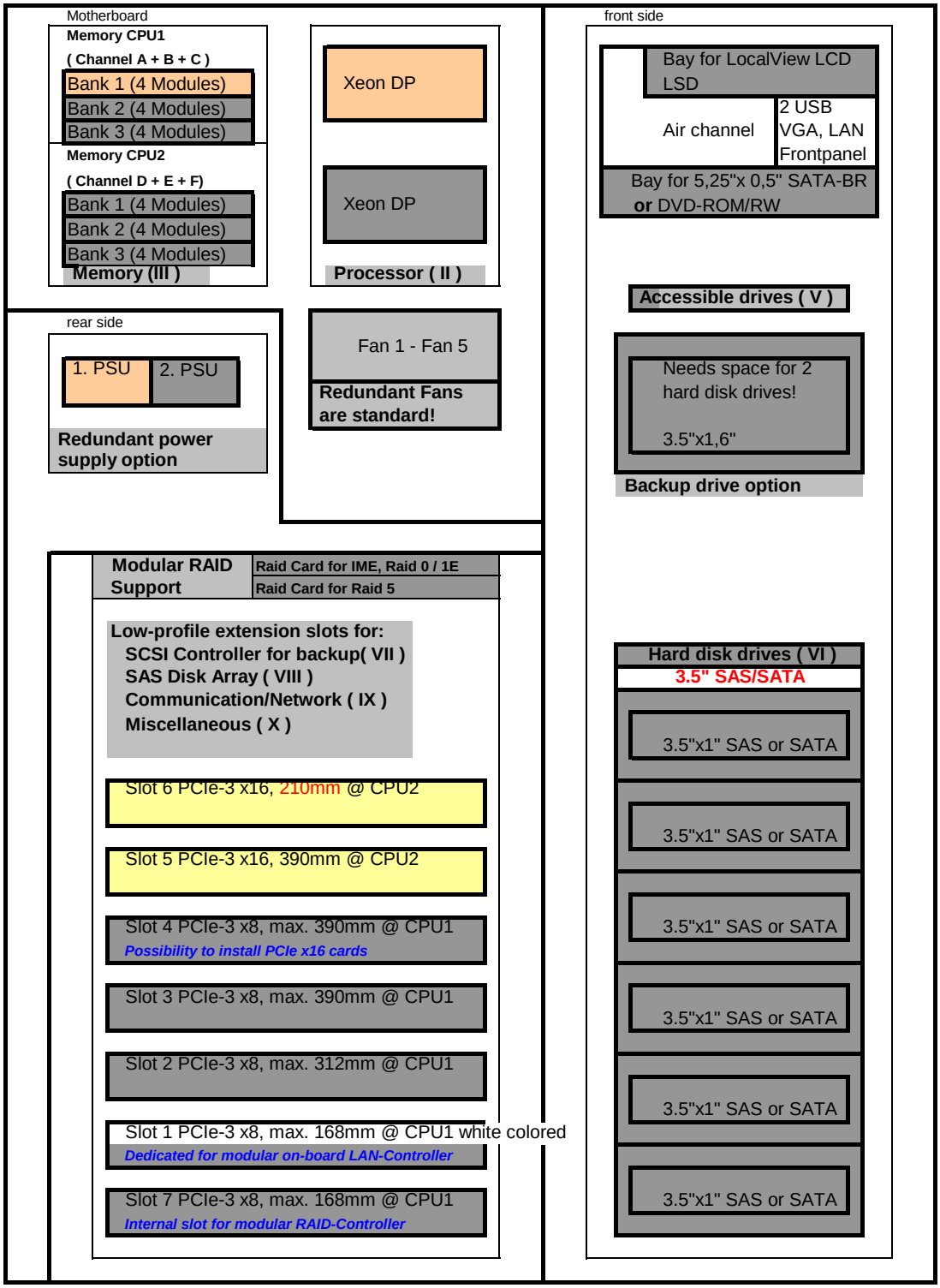
http://ts.fujitsu.com/products/standard_servers/inc (internet)

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

Configuration diagram PRIMERGY RX300 S8

System unit (I)

with up to 6x 3.5" Hard disk drives



Key:

Included in basic unit

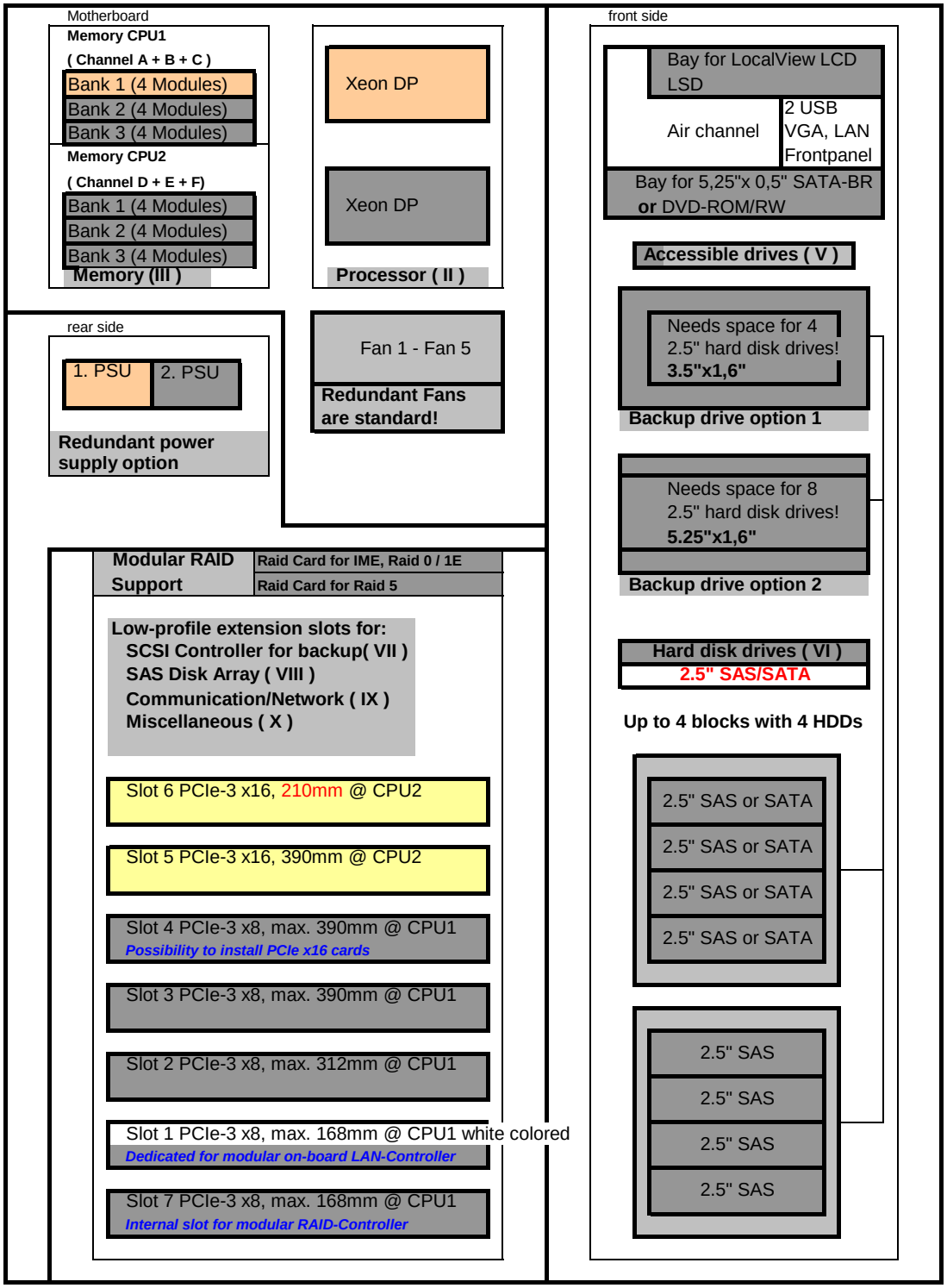
Option

One **CPU**, one **memory** per CPU and one **PSU** has to be selected for an orderable basic unit.

Configuration diagram PRIMERGY RX300 S8

System unit (I)

with up to 4, 8, 12 or 16x 2.5" Hard disk drives or up to 4 or 8 PCIe SSDs 2.5"



Key:

Included in basic unit Option

One **CPU**, one **memory** per CPU and one **PSU** has to be selected for an orderable basic unit.

Start PRIMERGY RX300 S8

Section | Basic unit

System unit consisting of:
*** 2U Housing without power supply modules**
*** Basic units with:**
- 2 Hot-Plug Power Supply Bays
- 5 Fans (full redundancy)
- 12 memory DIMMs per CPU (max 768GB) => Total 24 DIMMs (max 1536GB) for two CPU`s
*** SAS Backplane for 6x 3.5" HD, SAS Backplanes for 4, 8, 12 or 16x 2.5" HD or PCIe Backplanes for 4 or 8 PCIe SSD with cable connection to on-board, modular RAID Controller**

*** Drives/Bays**
- 6 bays 1" for hot plug 3.5" HD (1" high) or 4, 8, 12 or 16 bays for hot plug 2.5" HD
- 1 bay for 3.5" and 1.6" high Backup device, consumes 2 bays for 3.5" HD for basic unit 6x 3.5" HD not possible for basic unit with 12 or 16 x 2,5" HD
- 1 bay for 5.25" and 1.6" high Backup device, not possible for basic unit 6x 3.5" HD for basic unit with 12 or 16 x 2,5" HD
- 1 bay SATA-CD- or DVD-ROM 0,5" height (option)
- 1 bay for opt. LocalView LC-Display

*** Integrated ServerView Diagnostics Technology (Diagnosis LED`s) for indication of internal failed components**

Systemboard D2939-B with:
*** Up to two Xeon DP CPU`s (Socket-R)**
with 2 serial QPI links (Quick Path Interconnect) and four memory channels per CPU
First CPU has to be selected for an orderable basic unit,
*** Chipset Intel® C600 Series (codenamed Patsburg)**

*** 7 PCI slots:** **- 2x PCIe-3 x16 (both slots are connected to CPU 2 and are useable with configured 2nd CPU only!)**
- 4x PCIe-3 x8 (one notched to install x16 cards)
- 1x PCIe-3 x8 (for internal modular RAID controller only)

*** 24 memory slots for max. 1536GB RAM DDR3 available**
- Memory is divided into 12 DIMMs per CPU (4 channels with 3 slots per channel)
Possible max. configurations are:
16x 8GB UDIMM (dual rank modules) = 128GB
24x 16GB RDIMM (dual rank modules) = 384GB
24x 32GB LRDIMM (quad rank modules) = 768GB
24x 64GB LRDIMM (eight rank modules) = 1536GB
First Memory (one module) has to be selected for an orderable basic unit per CPU
- Memory upgrade is possible module wise
- Memory mirrroring is supported with 2 identical modules in channel A+B CPU 1 or D+E CPU 2
- Hot Spare Memory is supported with 3 identical modules in channel A+B+C CPU 1 or D+E+F CPU 2
- SDDC (Chipkill) is supported for memory modules,

*** Dual Port 10/100/1000 x4 PCI Express* Gigabit Ethernet Intel LAN controller Powerville on-board**
*** iRMC S4 (integrated Remote Management Controller) on-board server management controller with dedicated 10/100/1000 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 S4 (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)

Interfaces at the rear:
* 1x RS-232-C (serial, 9 pins) (usable for BMC or OS or shared)
* 1x VGA (15 pins)
* 4x USB **2.0** (UHCI) with **480MBit/s,** no USB wakeup
* 2x LAN RJ45, 1x Service-LAN RJ45

Interfaces on the front:
* 2x USB **2.0** (UHCI) with **480MBit/s,** no USB wakeup
* 1x VGA (15 pins) as an option
* 1x Service-LAN RJ45 as an option

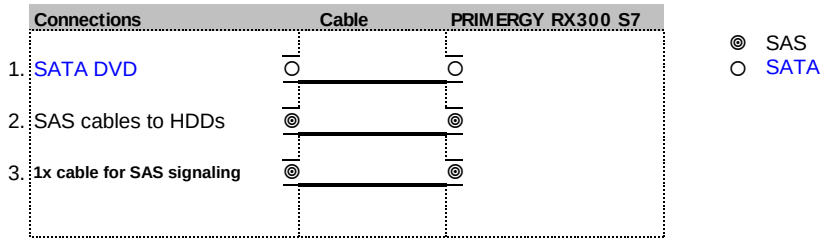
Interfaces internal:
* 1x released internal USB Interfaces for backup devices,
* 1x USB 2.0 (UHCI) with 480MBit/s for dongle funcionality (uSSD memory), no USB wakeup
* 1x SATA interface for DVD (only usable with 4x 2.5" HDD + DVD Option)
* 4x SATA/SAS interface for 4 SATA/SAS HD`s or SAS Backup device
* 2x USB 2.0 ports for internal USB redirection connected to BMC

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

A

A

Cables included in basic unit



Note: Rack Mounting kit and Power Cord for RX300S7 is not included in the basic unit and has to be configured separately

Rack version for 19" racks with No PSU included in Base Unit	
Basic unit is without CPU and Memory For an orderable basic unit one CPU = first CPU and one memory = first memory has to be selected	
Basic unit with **6x 3.5" HDD bays fixed**	**S26361-K1457-V101**
Basic unit with **2.5" HDD bays expandable**	**S26361-K1457-V401**
Basic unit with **8x 2.5" HDD bays fixed**	**S26361-K1457-V201**
Basic unit with **12x 2.5" HDD bays fixed**	**S26361-K1457-V301**

Basic unit with 2.5" HDD bays is modular expandable with various modules for backup devices integration or up to 16x 2.5" HDDs.
Details and pictures see Section Va:
Possible configuration options for basic units

Full redundancy cannot be guaranteed for a max. config. with e.g. two 135W CPUs with 450W PSUs. In this case SysArch will generate a warning and Power Safeguard will throttle CPUs in case of a PSU failure.
So, power consumption will be limited to 450W.

S26113-F575-E12
450W PSU module platinum
1st or 2nd PSU for redundancy
94% efficiency (platinum)
uses hot plug PSU slot
min. 1 / max. 2x per system

S26113-F574-E12
800W PSU module platinum
1st or 2nd PSU for redundancy
94% efficiency (platinum)
uses hot plug PSU slot
min. 1 / max. 2x per system

S26113-F609-E10
800W PSU module -48V DC gold
1st or 2nd PSU for redundancy
92% efficiency (gold)
uses hot plug PSU slot
min. 1 / max. 2x per system

* 110V range not supported

S26113-F615-E10 *
800W PSU module titanium
1st or 2nd PSU for redundancy
96% efficiency (titanium)
uses hot plug PSU slot
min. 1 / max. 2x per system

as soon as availabl

S26113-F574-E99 *
Power Supply Dummy
must be ordered if 1x PSU only
occupies one bay for hot plug power supply
max. 1x per system

For later redundancy upgrade the following kit is available:	
One 450W power supply module hot plug no power cable included!!!	**S26113-F575-L12**
One 800W power supply module hot plug no power cable included!!!	**S26113-F574-L12**
One 800W -48V DC PSU hot plug no power cable included!!!	**S26113-F609-L10**
One 800W power supply module titanium no power cable included!!!	**S26113-F615-L10**

as soon as available

Please order appropriate power cord additionally:	
Powercord for rack, 4m, grey, IEC320 C13->C14 connector	**T26139-Y1968-L10**
Power Cord USA / Canada, 1.8m, grey	**T26139-Y1742-L10**
Power Cord -48V DC, 4m, black	**T26139-Y4024-L10**

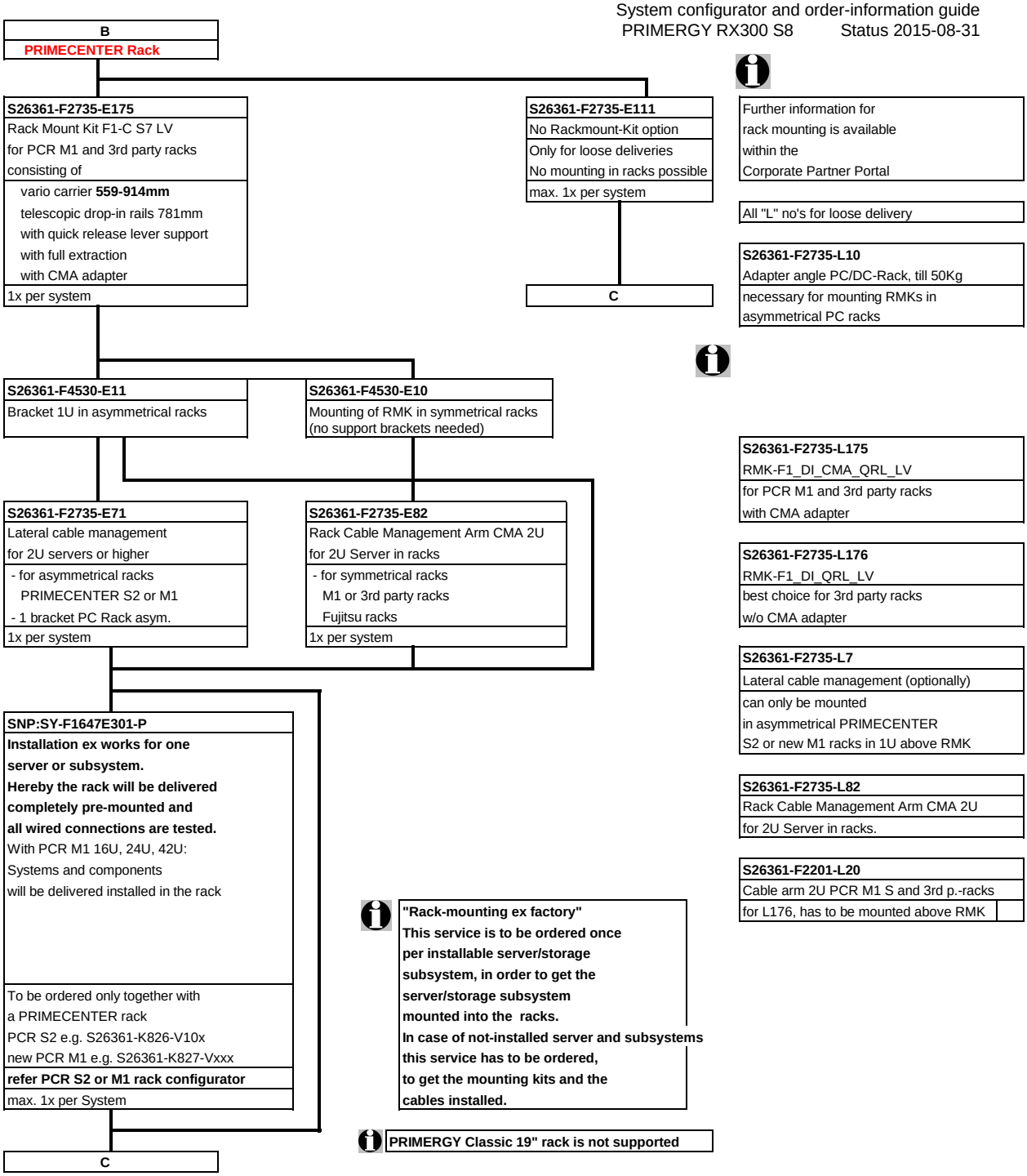
***For order completeness only**
Not shown in system architect
Version > V9.2

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

B


B
PRIMECENTER Rack
S26361-F2735-E175
Rack Mount Kit F1-C S7 LV
for PCR M1 and 3rd party racks
consisting of
vario carrier 559-914mm
telescopic drop-in rails 781mm
with quick release lever support
with full extraction
with CMA adapter
1x per system
S26361-F2735-E111
No Rackmount-Kit option
Only for loose deliveries
No mounting in racks possible
max. 1x per system
C
Further information for
rack mounting is available
within the
Corporate Partner Portal
All "L" no's for loose delivery
S26361-F2735-L10
Adapter angle PC/DC-Rack, till 50Kg
necessary for mounting RMKs in
asymmetrical PC racks
S26361-F4530-E11
Bracket 1U in asymmetrical racks
S26361-F4530-E10
Mounting of RMK in symmetrical racks
(no support brackets needed)
S26361-F2735-L175
RMK-F1_DI_CMA_QRL_LV
for PCR M1 and 3rd party racks
with CMA adapter
S26361-F2735-E71
Lateral cable management
for 2U servers or higher
- for asymmetrical racks
PRIMECENTER S2 or M1
- 1 bracket PC Rack asym.
1x per system
S26361-F2735-E82
Rack Cable Management Arm CMA 2U
for 2U Server in racks
- for symmetrical racks
M1 or 3rd party racks
Fujitsu racks
1x per system
S26361-F2735-L176
RMK-F1_DI_QRL_LV
best choice for 3rd party racks
w/o CMA adapter
S26361-F2735-L7
Lateral cable management (optionally)
can only be mounted
in asymmetrical PRIMECENTER
S2 or new M1 racks in 1U above RMK
S26361-F2735-L82
Rack Cable Management Arm CMA 2U
for 2U Server in racks.
S26361-F2201-L20
Cable arm 2U PCR M1 S and 3rd p.-racks
for L176, has to be mounted above RMK
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 PCR M1 16U, 24U, 42U:
Systems and components
will be delivered installed in the rack
To be ordered only together with
a PRIMECENTER rack
PCR S2 e.g. S26361-K826-V10x
new PCR M1 e.g. S26361-K827-Vxxx
refer PCR S2 or M1 rack configurator
max. 1x per System
C
"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 racks.
In case of not-installed server and subsystems
this service has to be ordered,
to get the mounting kits and the
cables installed.
PRIMERGY Classic 19" rack is not supported

C

Section || **Processor**

There are 2 processor sockets available.
The first socket must always be 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**
Both PCIe-3 x16 slots are connected to CPU 2 and are useable with configured 2nd CPU only!
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	
Basic 4C CPU's - 1x 64-bit Intel Xeon (10MB Smart Cache) 1333 MHz DDR3 Bus; 6,40 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2603v2 4C/4T 1.80GHz 10MB 6.40GT/s 1333MHz 80W	**S26361-F3788-E180**
Xeon E5-2609v2 4C/4T 2.50GHz 10MB 6.40GT/s 1333MHz 80W	**S26361-F3788-E250**
Standard Turbo 6C/8C CPU's - 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 1600 MHz DDR3 Bus; 7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2620v2 6C/12T 2.10GHz 15MB 7.20GT/s 1600MHz 80W	**S26361-F3789-E210**
Xeon E5-2630v2 6C/12T 2.60GHz 15MB 7.20GT/s 1600MHz 80W	**S26361-F3789-E260**
Xeon E5-2640v2 8C/16T 2.00GHz 20MB 7.20GT/s 1600MHz 95W	**S26361-F3789-E200**
Advanced Turbo+ 8C/10C CPU`s - 1x 64-bit Intel Xeon (20/25MB Smart Cache); Hyper-Threading (HT); 1866 MHz DDR3 Bus; 8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2650v2 8C/16T 2.60GHz 20MB 8.00GT/s 1866MHz 95W	**S26361-F3790-E260**
Xeon E5-2660v2 10C/20T 2.20GHz 25MB 8.00GT/s 1866MHz 95W	**S26361-F3790-E220**
Xeon E5-2670v2 10C/20T 2.50GHz 25MB 8.00GT/s 1866MHz 115W	**S26361-F3790-E250**
Xeon E5-2680v2 10C/20T 2.80GHz 25MB 8.00GT/s 1866MHz 115W	**S26361-F3790-E280**
Xeon E5-2690v2 10C/20T 3.00GHz 25MB 8.00GT/s 1866MHz 130W	**S26361-F3790-E300**
Segment Optimized CPU`s - 1x 64-bit Intel Xeon (15/25/30MB Smart Cache); Hyper-Threading (HT); 1866 MHz DDR3 Bus; 8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2637v2 4C/8T 3.50GHz 15MB 8.00GT/s 1866MHz 130W	**S26361-F3791-E350**
Xeon E5-2643v2 6C/12T 3.50GHz 25MB 8.00GT/s 1866MHz 130W	**S26361-F3791-E330**
Xeon E5-2667v2 8C/16T 3.30GHz 25MB 8.00GT/s 1866MHz 130W	**S26361-F3791-E300**
Xeon E5-2695v2 12C/24T 2.40GHz 30MB 8.00GT/s 1866MHz 115W	**S26361-F3791-E240**
Xeon E5-2697v2 12C/24T 2.70GHz 30MB 8.00GT/s 1866MHz 130W	**S26361-F3791-E270**
Low Power 6C/10C CPU's - 1x 64-bit Intel Xeon (15/25MB Smart Cache); Hyper-Threading (HT); 1600 MHz DDR3 Bus; 7,20/8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2630Lv2 6C/12T 2.40GHz 15MB 7.20GT/s 1600MHz 60W	**S26361-F3792-E240**
Xeon E5-2650Lv2 10C/20T 1.70GHz 25MB 8.00GT/s 1600MHz 70W	**S26361-F3792-E170**

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

For CPUs which do not offer 1866 MHz support, (Basic, Standard & Low Power class),
System Architect will not offer memory modules supporting this frequency.

D

D

Section IV Graphics

Graphics Controller integrated in iRMC S3 (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)

max. 1x

S26361-F2571-E26
Optional Front-VGA
for Onboard Controller only
consists of internal cable and
front VGA connector
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-I or VGA (cable kit) connections are part of the delievery.
Optional Front-VGA S26361-F2571-E26 cannot be ordered if NVS300 is required.
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.

S26361-F2748-E637
PY VGA LP card 256MB PCI-e x1
NVIDIA NVS300
512 MB PCIe-x1
Connectors: 1x LFH 59
cable kit for 2x DVI or 2x VGA
cable kits included
Dual head + professional 2-D + 3-D
supported for Windows OS
native driver support for Linux OS
low profile bracket
max. 1x per system

PY VGA card must be installed in slot 4 (x8 wired x8)

S26361-F2748-L637
PY VGA LP card 512MB PCI-e x1
for loose delivery

E

E

Section III Memory

- There are 12 memory slots per CPU for max.
768GB LRDIMM (12x 64GB 8R)
192GB RDIMM (12x 16GB 2R)
64GB UDIMM (8x 8GB) on special Release only
=> max. 1.536GB for two CPU`s (768GB per CPU), using LRDIMM
- The memory area is divided into 4 channels per CPU with 3 slots per channel
- Slot 1 of each channel belongs to memory bank 1, the slot 2 belongs to memory bank 2, slot 3 belongs to memory bank 3

Registered, LR DIMMs and unbuffered memory modules can be selected
No mix of registered, load reduced and unbuffered modules allowed.
Memory can be operated at 1.5V or 1.35V, even if the modules are of low voltage type.
Memory operating voltage can be set within BIOS (**1.5V is default** setting for max. speed).
In a single DIMM per channel configuration, following frequencies are supported:
- 1.5V - 1866MHz max (depending on CPU)
- 1.35V - 1600MHz max (depending on CPU, up to two LRDIMM per channel)
- 1.35V - 1333MHz max (up to two UDIMM or RDIMM per channel)

In a 3 DIMMs per channel configuration, memory will operate at 1.35V or 1.5V (no UDIMM allowed).
SSD (Chipkill) is supported for registered / load reduced x4 organized memory modules only.

1.) In the "Independent Channel Mode" is following configuration possible
Channels can be populated in any order in Independent Channel Mode. All four channels may be populated in any order and have no matching requirements. All channels must run at the same interface frequency but individual channels may run at different DIMM timings (RAS latency, CAS latency, and so forth)
No mix of registered, load reduced and unbuffered modules allowed.

2.) "Rank Sparing Mode" configuration
- Within a memory channel, one rank is a spare of the other ranks.

The Spare Rank is held in reserve and is not available as system memory
For the effective memory capacity, please refer to the spreadsheet below.
The BIOS is set to the rank sparing setting.
Minimum configuration is: 2x 1R, 2x 2R or 1x4R DDR3 module per channel
This mode is not supported by unbuffered memory modules

3.) "Performance Mode" configuration
- In this configuration, the memory module population ex factory is spread across all channels.

The BIOS is set to the max. performance for memory.
Minimum configuration is: 4x identical modules

4.) In the "Mirrored Channel Mode" is following configuration possible
- Each memory bank can optionally be equipped with 4x registered or load reduced or unbuffered DDR3 modules

In each memory bank channel A and B / C and D of CPU 1 or channel E and F / G and H of CPU 2 have to be equipped with identical modules for mirrored channel mode.
In channel B / D is always the mirrored memory of channel A / B of CPU 1
In channel F / H is always the mirrored memory of channel E / G of CPU 2
Minimum configuration is: 4x identical modules
This mode is not supported by unbuffered memory modules

F

F

1x per CPU

S26361-F3694-E10 Independent Mode
Independent Channel Mode allows all channels to be populated in any order. No specific Memory RAS features are defined
Requires min 1 memory Module per CPU

S26361-F3694-E1 Rank Sparing Mode Installation
BIOS Setup factory preinstalled to this mode. One Rank is spare of other ranks on the same channel. Spare Rank is not shown in System Memory.
For effective capacity within a channel, please have a look below.
Supported for RDIMM / LRDIMM only.
Requires min 2x 1R/2R or 1x 4R modules per CPU

S26361-F3694-E2 Performance Mode Installation
BIOS Setup factory preinstalled for max. Performance, LV memory might be set to 1.5V operation. Four identical memory modules will be equipped in one memory bank to achieve highest memory performance. All four modules are active and full capacity can be used.
Multiple of 4 identical modules to be configured per CPU

S26361-F3694-E3 Mirrored Channel Mode Installation
BIOS Setup factory preinstalled to this mode. Four identical memory modules are always equipped in one memory bank to use the Mirrored channel Mode. Only two modules contain active data, the remain two modules contain mirrored data
Supported for RDIMM / LRDIMM only.
Multiple of 4 identical modules to be configured per CPU

Effective Memory capacity / Rank Sparing Mode, 1 Channel populated

	RDIMM				LRDIMM	
	4GB 1R	8GB 1R	8GB 2R	16GB 2R	32GB 4R	64GB 8R
1DPC	na	na	na	na	24GB	48GB
2DPC	4GB	8GB	12GB	28GB	56GB	112GB
3DPC	8GB	16GB	20GB	44GB	80GB	160GB

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

Note 1.)

8/12x per CPU, max. 2/3 modules per channel

Unbuffered Memory (UDIMM) no SDDC (chipkill) support
- one DDR3 unbuffered ECC mem. Module, 1.35V
Choose up to 8 order codes per CPU

8GB (1x8GB) 2Rx8 L DDR3-1600 U ECC	S26361-F3807-E515	special release only

Registered Memory (RDIMM) with SDDC (chipkill) support
- one DDR3 registered ECC mem. Module, 1.35V
1333MHz supported with up to 2DPC (8 modules/CPU) and 1.35V
1600MHz supported with up to 2DPC (8 modules/CPU) and 1.5V
Choose up to 12 order codes per CPU

4GB (1x4GB) 1Rx4 L DDR3-1600 R ECC	S26361-F3781-E514
8GB (1x8GB) 1Rx4 L DDR3-1600 R ECC	S26361-F3781-E515
16GB (1x16GB) 2Rx4 L DDR3-1600 R ECC	S26361-F3781-E516

Registered Memory (RDIMM) with SDDC (chipkill) support
- one DDR3 registered ECC mem. Module, 1.5V
1866MHz supported with up to 2DPC (8 modules/CPU)
Choose up to 12 order codes per CPU

16GB (1x16GB) 2Rx4 DDR3-1866 R ECC	S26361-F3793-E516

Registered Memory (RDIMM) no SDDC (chipkill) support
- one DDR3 registered ECC mem. Module, 1.5V
No mix with any other types of memory modules possible
1866MHz supported with up to 2DPC (8 modules/CPU)
Choose up to 12 order codes per CPU

8GB (1x8GB) 2Rx8 DDR3-1866 R ECC	S26361-F3793-E515

Load Reduced Memory (LRDIMM) with SDDC (chipkill) support
- one DDR3 load reduced ECC mem. Module, 1.35V
Choose up to 12 order codes per CPU

32GB (1x32GB) 4Rx4 L DDR3-1600 LR ECC	S26361-F3782-E517
64GB (1x64GB) 8Rx4 L DDR3-1333 LR ECC	S26361-F3783-E518

Load Reduced Memory (LRDIMM) with SDDC (chipkill) support
- one DDR3 load reduced ECC mem. Module, 1.5V
1866MHz supported with up to 2DPC (8 modules/CPU)
Choose up to 12 order codes per CPU

32GB (1x32GB) 4Rx4 DDR3-1866 LR ECC	S26361-F3848-E517

Note 1)
Max. DDR3 memory speed depends on the memory configuration (No of mem modules per channel) as well as on the CPU type.
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.
For real memory speed (depending on memory type / population), please check the spreadsheet "Memory speed" below

Note 2)
Mix of memory modules is only possible within the same group

G

Memory Configuration PRIMERGY RX300 S8

Each CPU offers 12 **Slots** for DDR3 Memory Modules organised in **3 Banks and 4 Channels.**
If you need more than 12 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 3 different kinds of DDR3 Memory Modules available: UDIMM / RDIMM and LRDIMM
UDIMM / RDIMM / LRDIMM offer different functionality. Mix of UDIMM / RDIMM / LRDIMM is not alloved.

If 1.5V and 1.35V DIMMs are mixed, the DIMMs will run at 1.5V

Mode	Configuration	UDIMM	RDIMM	RDIMM LRDIMM	Application
		x8	x8	x4	
SDDC (chipkill) support	any	no	no	yes	detect multi-bit errors
Independant Channel Mode	1, 2 or 3 Modules per Bank	yes	yes	yes	offers max. flexibility, upgradeability, capacity use UDIMM modules for lowest cost
Mirrored Channel Mode *)	4 identical Modules / Bank	no	no	yes	offers maximum security
Performance Mode	4 identical Modules / Bank	yes	yes	yes	offers maximum performance and capacity
Rank Sparing Mode *)	min. 2 Ranks / Channel	no	no	yes	balances security and capacity

*) For the delivery ex works the system will be prepared with dedicated BIOS setting.

Capacity	Configuration	UDIMM	RDIMM	LRDIMM	Notes
Min. Memory per CPU	1 Module / CPU	1x4GB	1x4GB	1x32GB	with one CPU
Max. Memory per CPU	8/12 Modules / CPU	8x4GB	12x16GB	12x64GB	with one CPU
Max. Memory per System	16/24 Modules / System	64GB	384GB	1536GB	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
The memory channel with the lowest speed defines the speed of all CPU channels in the system

Mem. Speed provided by CPU	Real maximum memory-bus speed depending on CPU type, memory configuration (DPC) and voltage setting (BIOS)																	
	UDIMM 1866MHz						RDIMM 1866MHz						LRDIMM 4R 1866MHz					
Voltage setting (BIOS)	1.5V [default]			1.35V			1.5V [default]			1.35V			1.5V [default]			1.35V		
	1 DPC	2 DPC	3 DPC	1 DPC	2 DPC	3 DPC	1 DPC	2 DPC	3 DPC	1 DPC	2 DPC	3 DPC	1 DPC	2 DPC	3 DPC	1 DPC	2 DPC	3 DPC
CPU with 1866MHz DDR3 Bus	1866	1600	-	1333	1333	-	1866	1866	1066	1333	1333	800	1866	1866	1066	1600	1600	1066
CPU with 1600MHz DDR3 Bus	1600	1600	-	1333	1333	-	1600	1600	1066	1333	1333	800	1600	1600	1066	1600	1600	1066
CPU with 1333MHz DDR3 Bus	1333	1333	-	1333	1333	-	1333	1333	1066	1333	1333	800	1333	1333	1066	1333	1333	1066

1R - Single Rank 4R - Quad Rank
2R - Dual Rank 8R - Eight Rank

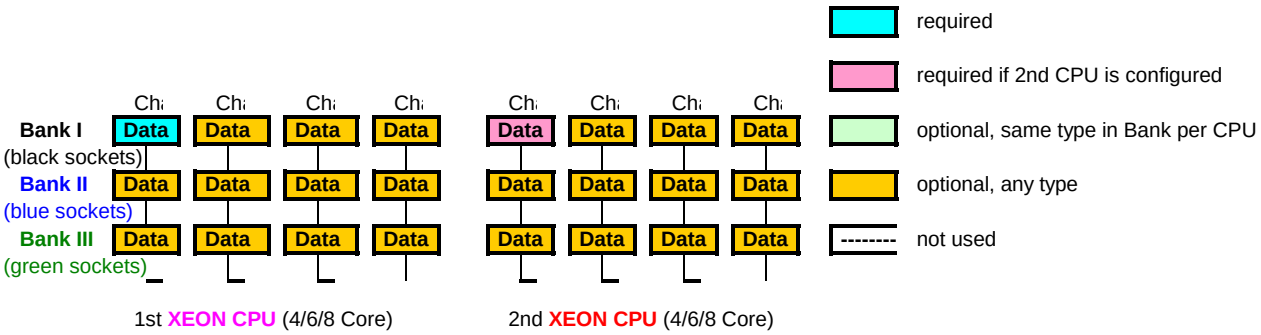
1DPC = 1 DIMM per Channel
2DPC = 2 DIMM per Channel
3DPC = 3 DIMM per Channel

Configuration hints:

- The memory sockets on the systemboard offer a color coding:
  Bank I black sockets
  Bank II blue sockets
  Bank III green sockets

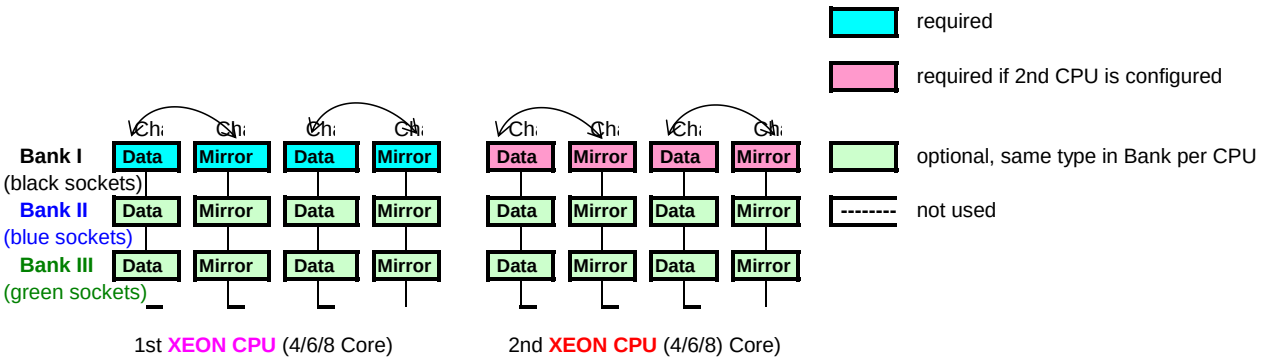
- A so called Bank consits of 1 memory module on every Channel available on one CPU (examples see below)
  Bank I on CPU 1/2 up to 4 memory modules connected to Channel A - H on the 1st/2nd CPU
  Bank II on CPU 1/2 up to 4 memory modules connected to Channel A - E on the 1st/2nd CPU
  Bank III on CPU 1/2 up to 4 memory modules connected to Channel A - E on the 1st/2nd CPU
  (can not be populated by UDIMM or 4R RDIMM memory modules)
- See below and next page for a detailed descriptions of the memory configuration supported.

1. Independent Channel Mode



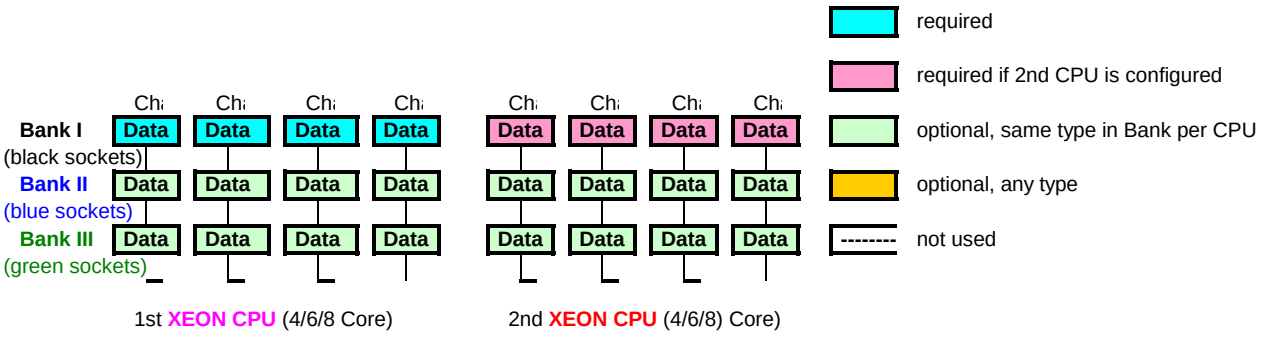
Independent Channel Mode allows all channels to be populated in any order
Can run with differently rated DIMMs and use the settings of the slowest DIMM installed in the system

2. Mirrored Channel Mode



Mirrored Channel Mode requires identical modules on channel A,B, C, D (1st CPU) or channel E, F, G and H (2nd CPU)
50% of the capacity is used for the mirror => the available memory for applications is only half of the installed memory
If this mode is used, a multiple of 4 identical modules has to be ordered.

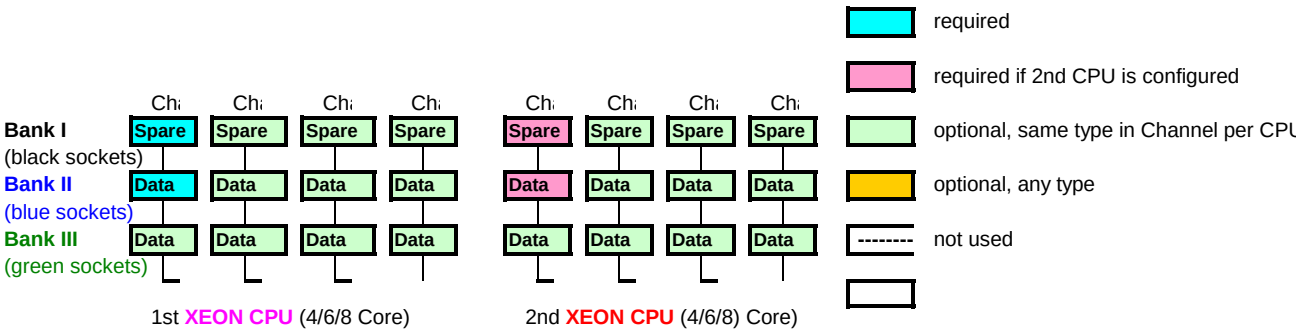
3. Performance Channel Mode



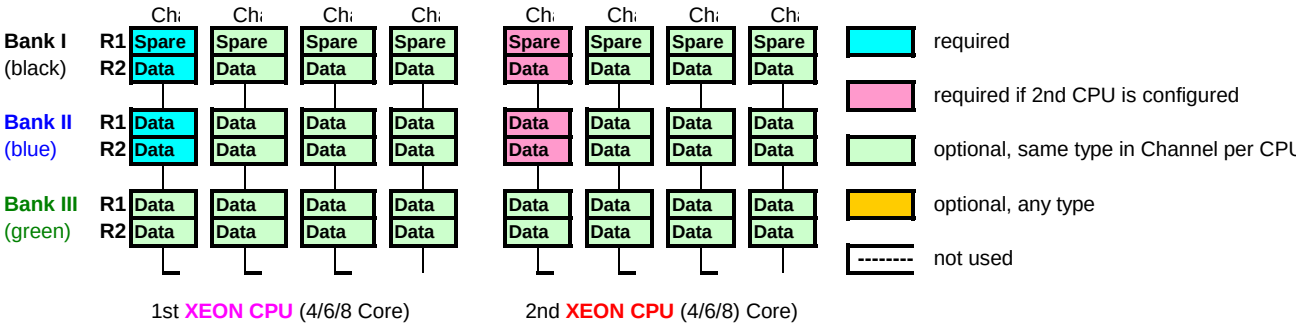
Performance Channel Mode requires identical modules on all channels of each Bank per CPU.
If this mode is used, a multiple of 4 identical modules has to be ordered.

4. Rank Sparing Mode

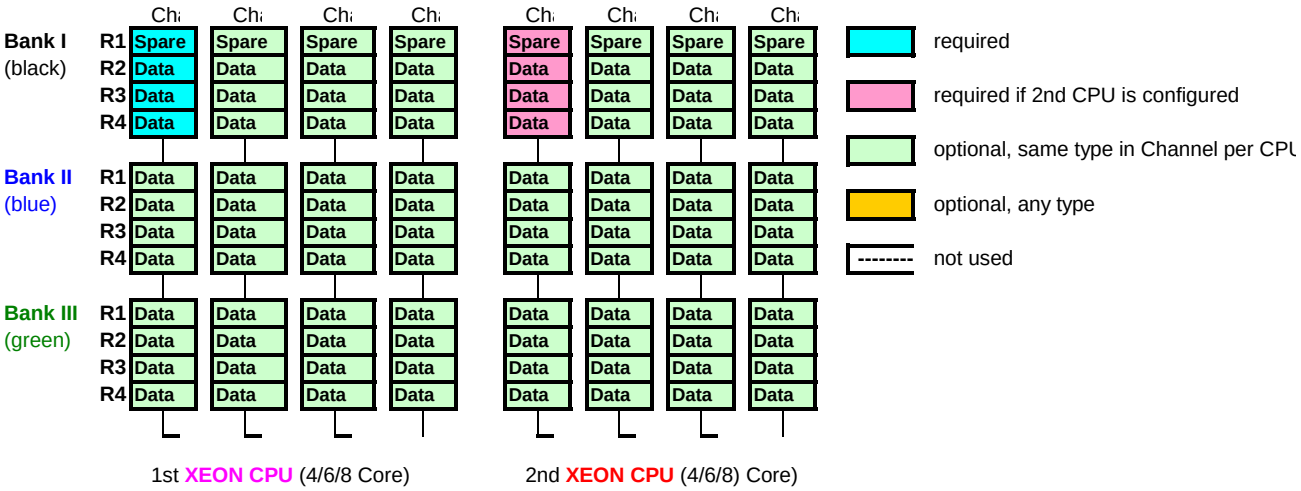
1-Rank Memory modules (RDIMM)



2-Rank Memory modules (RDIMM)



4-Rank Memory modules (LRDIMM)



Rank Sparing Mode requires identical modules (same capacity and technology) within the same channel.
The available memory for applications will vary depending on configuration. Please refer to the spreadsheet above "Effective Memory capacity with active Rank Sparing Mode". Population rule for Rank sparing mode is to achieve max. available memory, e.g. 6 DIMMs will be spread across two channels, each with 3DPC

G

Section Va Possible configuration options for basic units

Config 1: 6x or 4x 3.5" HDD + 3.5" DDS/RDX drive

Is fixed due to selection of basic unit with:	
6x 3,5" HDD bays fixed	**S26361-K1457-V101**

SAS3.0 available since Q2/2014	**no PCIe SSD SFF**

Basic unit S26361-K1457-V401 with	**expandable**
Config 2: 4x 2.5" HDD	**S26361-F1373-E420** *)
Available Upgrade kits for this configuration option:	
Upgrade kit to 8x 2.5" HDD	**S26361-F1373-L424**
Upgrade kit to 12x 2.5" HDD	**S26361-F1373-L427**
Upgrade kit to 4x 2.5" HDD + LTO	**S26361-F1373-L423**
Upgrade kit to 4x + 8x 2.5" SAS3.0	**S26361-F1373-L572**

Basic unit S26361-K1457-V401 with	**expandable**
Config 3: 4x 2.5" HDD + LTO	**S26361-F1373-E430**

Basic unit S26361-K1457-V401 with	**expandable**
Available Upgrade kits for this configuration option:	
Upgrade kit to 8x 2.5" HDD	**S26361-F1373-L436**

Basic unit S26361-K1457-V201 with	
Config. 4: 8x 2,5" HDD bays fixed	**S26361-K1457-V201**
Available Upgrade kits for this fixed configuration:	
Upgrade kit to 12x 2.5" HDD	**S26361-F1373-L247**
Upgrade kit to 16x 2.5" HDD	**S26361-F1373-L248**

Basic unit S26361-K1457-V401 with	**expandable**
Config 5: 8x 2.5" HDD + 3.5" drive	**S26361-F1373-E450**
Config 12: 3.5" drive + 8x SAS3.0	**S26361-F1373-E550**
No Upgrade kit available!	

Basic unit S26361-K1457-V401 with	**expandable**
Config 6: 8x 2.5" HDD + LTO	**S26361-F1373-E460**
Config 15: LTO + 8x SAS3.0	**S26361-F1373-E560**
no ODD and LSD bay available!	
No Upgrade kit available!	

Basic unit S26361-K1457-V301 with	
Config 7: 12x 2,5" HDD bays fixed	**S26361-K1457-V301**
Basic unit S26361-K1457-V401 with	**expandable**
Config 10: 4x SAS2.0 + 8x SAS3.0	**S26361-F1373-E572**
Note: 4x SAS2.0 connected to on-board RAID Ctrl!	
Available Upgrade kits for this configurations:	
Upgrade kit to 16x 2.5" HDD	**S26361-F1373-L378**

Basic unit S26361-K1457-V401 with	**expandable**
Config 8: 16x 2.5" HDD	**S26361-F1373-E480**
no ODD and LSD bay available!	
No Upgrade kit available!	

Includes all necessary bezels, cages, backplanes and cables

*) these are the only noHDD/SSD configuration opportunity without needed RAID controller

H

H

Section Vb Accessible drives

Setup RX300 S7 by ServerStart is supported with following configurations:
no DVD, no CD: remote installation only (PXE service & DHCP server required)
built in CD/DVD or USB CD/DVD 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.

1x

S26361-F3269-E2
DVD-RW supermulti slim SATA
all formats, DUAL/DL, DVD-RAM
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

RDX drives perform better with USB 3.0 Controller

Only for basic unit V4xx

Only for basic unit V1xx

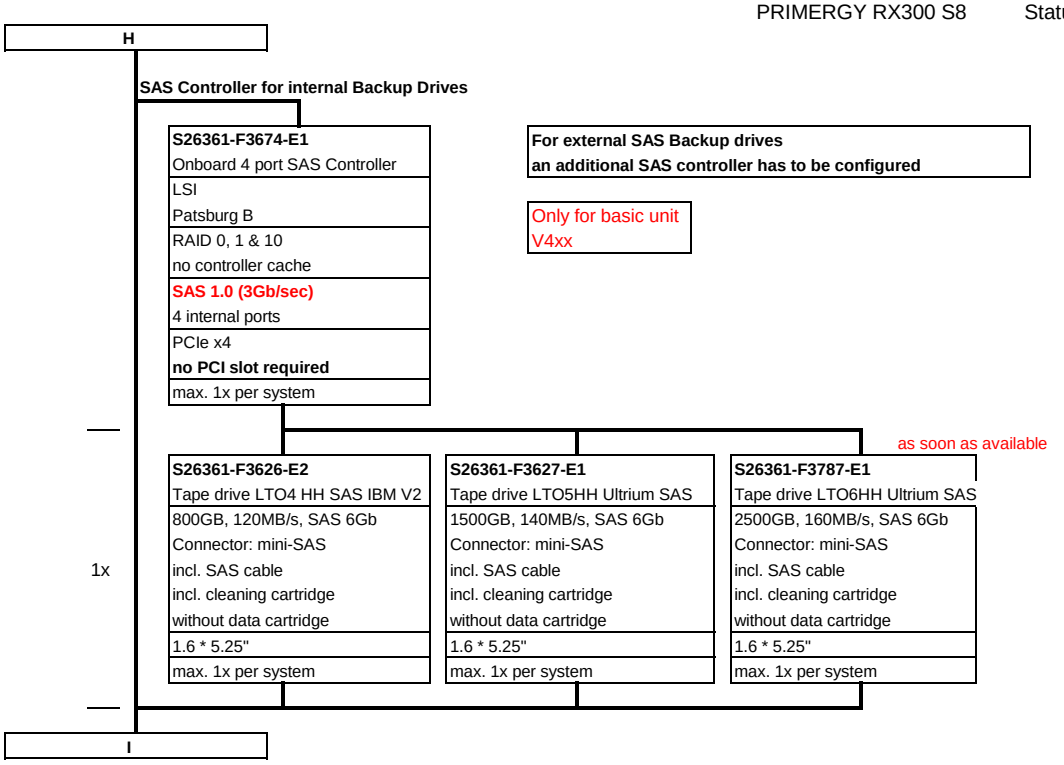
S26361-F3750-E5
RDX Drive USB3.0 3.5" internal
100MB/s, USB 3.0 Connector: USB 3.0 "B" with USB cable without RDX cartridges
1.6 x 3.5", black bezel
max. 1x per system

S26361-F3750-E7
RDX Drive USB3.0 3.5" internal
100MB/s, USB 3.0 Connector: USB 3.0 "B" within tape cage w/ USB cable without RDX cartridges
1.6 x 3.5", black bezel
max. 1x per system

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

The drive is also available as optional (loose) delivery
S26361-F3750-L5/L7 with USB3.0 cable for adapter card.
The USB3.0 Adapter card or the USB2.0 cable set S26361-F3750-L20 must be ordered with the drive!

H


H
SAS Controller for internal Backup Drives
S26361-F3674-E1
Onboard 4 port SAS Controller
LSI
Patsburg B
RAID 0, 1 & 10
no controller cache
SAS 1.0 (3Gb/sec)
4 internal ports
PCIe x4
no PCI slot required
max. 1x per system
For external SAS Backup drives
an additional SAS controller has to be configured
Only for basic unit
V4xx
as soon as available
1x
S26361-F3626-E2
Tape drive LTO4 HH SAS IBM V2
800GB, 120MB/s, SAS 6Gb
Connector: mini-SAS
incl. SAS cable
incl. cleaning cartridge
without data cartridge
1.6 * 5.25"
max. 1x per system
S26361-F3627-E1
Tape drive LTO5HH Ultrium SAS
1500GB, 140MB/s, SAS 6Gb
Connector: mini-SAS
incl. SAS cable
incl. cleaning cartridge
without data cartridge
1.6 * 5.25"
max. 1x per system
S26361-F3787-E1
Tape drive LTO6HH Ultrium SAS
2500GB, 160MB/s, SAS 6Gb
Connector: mini-SAS
incl. SAS cable
incl. cleaning cartridge
without data cartridge
1.6 * 5.25"
max. 1x per system
I

I

Section VI Hard disks drives

Modular Raid controller is connected to internal HDDs
For basic units V1xx up to 6 SAS 3.5" hard disks can be configured also in mixed configuration.
If the option **"Tape drive"** is configured only 4 bays for hard disks are available
Mixed configurations with Eco SATA drives and SAS drives are not allowed
3.5" SAS drives and 3.5" BC SATA drives can be mixed, but not used in one logical RAID volume
***) SSD Mainstream Endurance 10DWPD over 5y**
****) SSD Read-Intesive Endurance 0.3DWPD over 5y**

6x / 4x with Backup drive for basic unit V1xx

SATA Disk Drive 3.5"

HDD SATA 6Gb/s 3.5" with hot plug/hot replace tray	
500GB 7200rpm,<9,0ms, 64MB Cache	S26361-F3670-E500
1TB 7200rpm,<9,0ms, 64MB Cache	S26361-F3670-E100
2TB 7200rpm,<9,0ms, 64MB Cache	S26361-F3670-E200
3TB 7200rpm,<9,0ms, 64MB Cache	S26361-F3670-E300
4TB 7200rpm,<9,0ms, 64MB Cache	S26361-F3670-E400
max. 6x per System	

SAS Disk Drive 3.5"

HDD SAS 6Gb/s 3.5" with hot plug/hot replace tray	
300GB 15000rpm,<4,0ms, 16MB Cache	S26361-F4005-E530
450GB 15000rpm,<4,0ms, 16MB Cache	S26361-F4005-E545
600GB 15000rpm,<4,0ms, 16MB Cache	S26361-F4005-E560
1TB 7200rpm,<9,0ms, 32MB Cache	S26361-F5241-E100
2TB 7200rpm,<9,0ms, 32MB Cache	S26361-F5241-E200
3TB 7200rpm,<9,0ms, 32MB Cache	S26361-F5241-E300
4TB 7200rpm,<9,0ms, 32MB Cache	S26361-F5241-E400
HDD SAS 6Gb/s 3.5" with hot plug/hot replace tray	
300GB 15000rpm,<3,0ms, 64MB Cache	S26361-F5520-E530
450GB 15000rpm,<3,0ms, 64MB Cache	S26361-F5520-E545
600GB 15000rpm,<3,0ms, 64MB Cache	S26361-F5520-E560
max. 6x per System	

Solid State Disk Drive 3.5", Mainstream Endurance*

SSD SATA 6Gb/s 2.5" within 3.5" hot plug/hot replace tray	
100GB, Mainstream Performance	S26361-F5319-E100
200GB, Mainstream Performance	S26361-F5319-E200
400GB, Mainstream Performance	S26361-F5319-E400
800GB, Mainstream Performance	S26361-F5319-E800
120GB, Enterprise (EP), Read-Intensive**	S26361-F5528-E120
240GB, Enterprise (EP), Read-Intensive**	S26361-F5528-E240
480GB, Enterprise (EP), Read-Intensive**	S26361-F5528-E480
800GB, Enterprise (EP), Read-Intensive**	S26361-F5528-E800
SSD SAS 12Gb/s 2.5" within 3.5" hot plug/hot replace tray	
200GB, Enterprise Performance	S26361-F5315-E200
400GB, Enterprise Performance	S26361-F5315-E400
800GB, Enterprise Performance	S26361-F5315-E800
1.6TB, Enterprise Performance	S26361-F5315-E160
max. 6x per System	

3.5" config: no SAS 3.0 support

J

J

Solid State Disk 2.5", Mainstream Endurance*

SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray		
100GB MLC, Mainstream Performance	S26361-F5225-E100	as long as stock
200GB MLC, Mainstream Performance	S26361-F5225-E200	as long as stock
400GB MLC, Mainstream Performance	S26361-F5225-E400	as long as stock
100GB, Mainstream Performance	S26361-F5303-E100	
200GB, Mainstream Performance	S26361-F5303-E200	
400GB, Mainstream Performance	S26361-F5303-E400	
800GB, Mainstream Performance	S26361-F5303-E800	
120GB, Enterprise (EP), Read-Intensive**	S26361-F5524-E120	as soon as available
240GB, Enterprise (EP), Read-Intensive**	S26361-F5524-E240	as soon as available
480GB, Enterprise (EP), Read-Intensive**	S26361-F5524-E480	as soon as available
800GB, Enterprise (EP), Read-Intensive**	S26361-F5524-E800	as soon as available
SSD SAS 6Gb/s 2.5" with hot plug/hot replace tray		
100GB MLC, Enterprise Performance	S26361-F4581-E100	as long as stock
200GB MLC, Enterprise Performance	S26361-F4581-E200	as long as stock
max. 8/12/16x per system		

Solid State Disk Drive, Mainstream Endurance*

SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray	
200GB, Enterprise Performance	S26361-F5297-E200
400GB, Enterprise Performance	S26361-F5297-E400
800GB, Enterprise Performance	S26361-F5297-E800
1.6TB, Enterprise Performance	S26361-F5297-E160
max. 8/12/16x per system, max. 8x 12Gb/s support	

Interface SAS12Gb/s and SAS 6Gb/s.
SAS 12Gb/s support only with PRAID EP400i (Cougar4), *F5243-E1 and max. 8x per System

SAS Disk Drive 2.5"

max 8x for V2xx,
12x for V3xx,
16x for V4xx

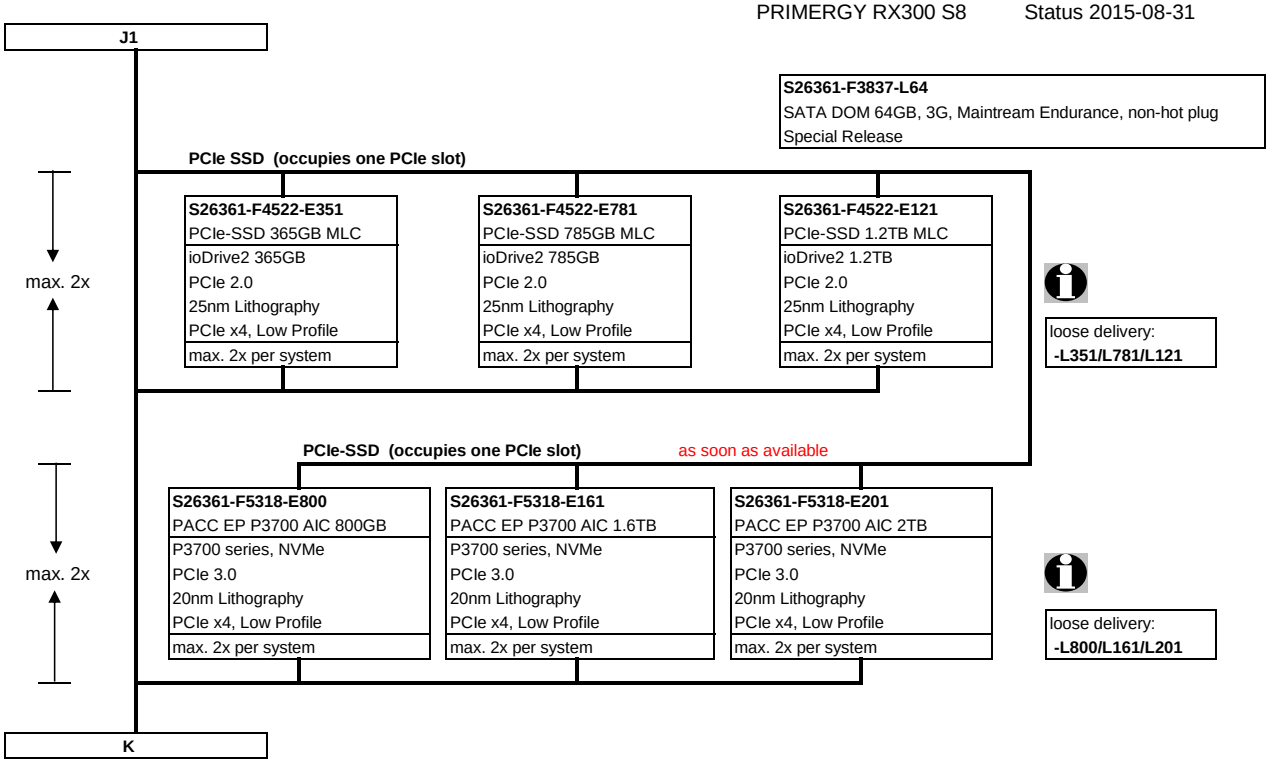
HDD SAS 6Gb/s 2.5" with hot plug/hot replace tray	
300GB 10000rpm,<4,5ms, 32MB Cache	S26361-F5247-E130
450GB 10000rpm,<4,5ms, 32MB Cache	S26361-F5247-E145
600GB 10000rpm,<4,5ms, 32MB Cache	S26361-F5247-E160
900GB 10000rpm,<4,5ms, 32MB Cache	S26361-F5247-E190
1,2TB 10000rpm,<4,5ms, 64MB Cache	S26361-F5247-E112
146GB 15krpm,<4,5ms, 16MB Cache	S26361-F4482-E514
300GB 15krpm,<4,5ms, 32MB Cache	S26361-F4482-E530
500GB 7.2krpm,<9,5ms, 64MB Cache	S26361-F5228-E500
1TB 7.2krpm,<9,5ms, 64MB Cache	S26361-F5228-E100
HDD SAS 12Gb/s 2.5" with hot plug/hot replace tray	
300GB, 10000rpm, 128MB Cache, 512n	S26361-F5551-E130
600GB, 10000rpm, 128MB Cache, 512n	S26361-F5551-E160
900GB, 10000rpm, 128MB Cache, 512n	S26361-F5551-E190
1.2TB, 10000rpm, 128MB Cache, 512n	S26361-F5551-E112
1.8TB, 10000rpm, 128MB Cache, 512e	S26361-F5544-E118
max. 8/12/16x per system	

HDD 512e
512e drives are not supported with the current versions of vSphere and VSAN

SATA Disk Drive 2.5"

HDD SATA 6Gb/s 2.5" with hot plug/hot replace tray	
250GB 7.2krpm,<9,5ms, 64MB Cache	S26361-F3708-E250
500GB 7.2krpm,<9,5ms, 64MB Cache	S26361-F3708-E500
1TB 7.2krpm,<9,5ms, 64MB Cache	S26361-F3708-E100
max. 8/12/16x per system	

J1


J1
S26361-F3837-L64
SATA DOM 64GB, 3G, Maintream Endurance, non-hot plug
Special Release
PCIe SSD (occupies one PCIe slot)
max. 2x
S26361-F4522-E351
PCIe-SSD 365GB MLC
ioDrive2 365GB
PCIe 2.0
25nm Lithography
PCIe x4, Low Profile
max. 2x per system
S26361-F4522-E781
PCIe-SSD 785GB MLC
ioDrive2 785GB
PCIe 2.0
25nm Lithography
PCIe x4, Low Profile
max. 2x per system
S26361-F4522-E121
PCIe-SSD 1.2TB MLC
ioDrive2 1.2TB
PCIe 2.0
25nm Lithography
PCIe x4, Low Profile
max. 2x per system
loose delivery:
-L351/L781/L121
PCIe-SSD (occupies one PCIe slot)
as soon as available
max. 2x
S26361-F5318-E800
PACC EP P3700 AIC 800GB
P3700 series, NVMe
PCIe 3.0
20nm Lithography
PCIe x4, Low Profile
max. 2x per system
S26361-F5318-E161
PACC EP P3700 AIC 1.6TB
P3700 series, NVMe
PCIe 3.0
20nm Lithography
PCIe x4, Low Profile
max. 2x per system
S26361-F5318-E201
PACC EP P3700 AIC 2TB
P3700 series, NVMe
PCIe 3.0
20nm Lithography
PCIe x4, Low Profile
max. 2x per system
loose delivery:
-L800/L161/L201
K

K

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

On board SATA Controller with 3 Gb/sec and up to 4x 2.5" SATA HDDs (no additional controller required)
For up to 4x 2.5" SAS HDDs with RAID 0/1 functionality a Patsburg Upgrade Kit is required
For all other HDD configurations a modular RAID-controller is required

Following optional onboard SAS RAID can be selected for 4x2.5" HDDs or one SAS Tape device

S26361-F3674-E1
Onboard 4 port SAS Controller
LSI
Patsburg B
RAID 0, 1 & 10
no controller cache
SAS 1.0 (3Gb/sec)
4 internal ports
PCIe x4
no PCI slot required
max. 1x per system

For more than 4 hard disks or 6 Gb/sec one of the following modular RAID-controllers is required

Modular Raid 0/1 controller with IME support for SAS/SATA
This RAID controller supports max. 8 HDDs on internal SAS ports

Modular Raid 5 controller for SAS/SATA
RAID levels 0, 1, 10, 5, 50, 6 and 60 are supported.
This RAID controller supports max. 16 HDDs combined with internal SAS expander

The FBU is an option for the controller which can be used once per controller. If the FBU option has been choosen, the TFM Module is needed once per FBU.

S26361-F3554-E8
RAID Ctrl SAS 6G 8port internal
Based on chip LSISAS2008
LSI MegaRAID
no Cache, no BBU
RAID 0, 1 & 10
Support for 3Gb/s and 6Gb/s
SATA and SAS hard drives
PCIe x8
Low-profile MD2 form factor
max. 1x per system

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 x8
Low-profile MD2 form factor
max. 1x per system

S26361-F3669-E4
RAID Ctrl SAS 6G 8port internal
Based on chip LSISAS2208
LSI MegaRAID
1GB Cache with ECC
RAID 0, 1, 10, 5, 50, 6, 60
optional FBU
Support for 3Gb/s and 6Gb/s
SATA and SAS hard drives
PCIe 3.0 x8
Low-profile MD2 form factor
max. 1x per system

S26361-F3257-E216
Cache Battery Backup Unit
with 16 cm cable set
max. 1x per Controller

S26361-F3669-E660
RAID Advanced Software Options
License Activation Key
for CacheCade 2.0 and FastPath
for 1 Controller

1x

Lose delivery options

S26361-F3669-L660
RAID Advanced Software Options
License Activation Key
for CacheCade 2.0 and FastPath
for 1 RAID Ctrl S26361-F3669-xx

S26361-F3669-L100
TFM Module for FBU option
max. 1x per Controller

S26361-F3669-L110
Flash Backup Unit
with 25cm, 55cm, 70cm cable set
max. 1x per Controller

S26361-F3669-E100
TFM Module for FBU option
(flash and FBU control logic)
max. 1x per Controller

S26361-F3669-E125
Flash Backup Unit
with 25cm cable set
max. 1x per Controller

L

L

SAS-/SCSI-/ Fibre-Channel Controller Low Profile

SAS controller for external backup drives or JBOD subsystems (as soon as available)

S26361-F3628-E201
SAS Controller 6Gb/s 8 port LP
LSI SAS9200-8e LP
PCIe 2.0 x4,
ext: 8 port
max. 3x/2x per system

A combination of Emulex and Qlogic FC / FCoE controller is not supported

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

Fibre Channel Controller for external storage systems

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

S26361-F3631-E201	**S26361-F3631-E202**
8GBit/s FC Controller	8GBit/s FC Controller
Qlogic	Qlogic
QLE2560, low profile bracket	QLE2562, low profile bracket
1 channel 8GBit/sec FC Contr.	2 channel 8GBit/sec FC Contr.
LC Interface for 50µm Fiber	LC Interface for 50µm Fiber
PCIe2 x8, 170mm	PCIe2 x8, 170mm
max. 6x per system	max. 6x per system

loose delivery:
Single channel S26361-F3631-L201
Dual Channel S26361-F3631-L202
with mounted LP bracket
FH bracket is not included

S26361-F5313-E201	**S26361-F5313-E202**
16GBit/s FC Controller	16GBit/s FC Controller
Qlogic	Qlogic
QLE2670, low profile bracket	QLE2672, low profile bracket
1 channel 16GBit/sec FC Contr.	2 channel 16GBit/sec FC Contr.
LC Interface for 50µm Fiber	LC Interface for 50µm Fiber
PCIe3 x8, 170mm	PCIe3 x8, 170mm
max. 6x per system	max. 6x per system

loose delivery:
Single channel S26361-F5313-L501
Dual Channel S26361-F5313-L502
contains LP and FH brackets.

6x

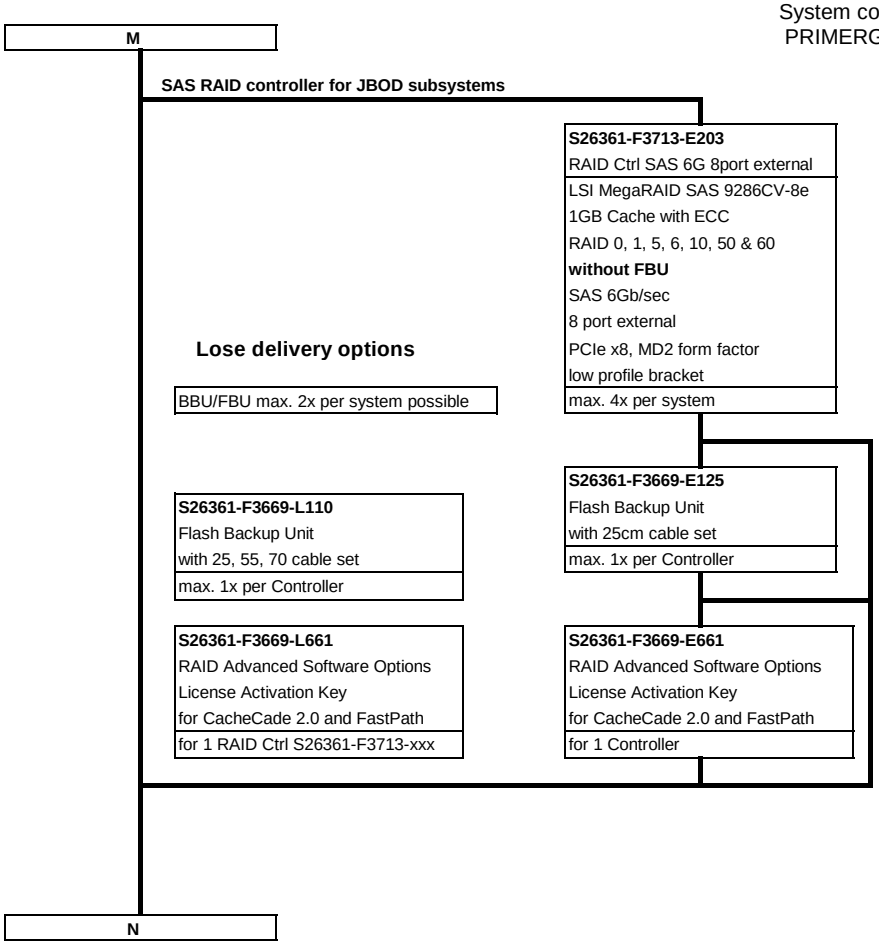
S26361-F3961-E201	**S26361-F3961-E202**
8GBit/s FC Controller	8GBit/s FC Controller
Emulex	Emulex
LPe1250, low profile bracket	LPe12002, low profile bracket
1 channel 8GBit/sec FC Contr.	2 channel 8GBit/sec FC Contr.
LC Interface for 50µm Fiber	LC Interface for 50µm Fiber
PCIe2 x8, 170mm	PCIe2 x8, 170mm
max. 6x per system	max. 6x per system

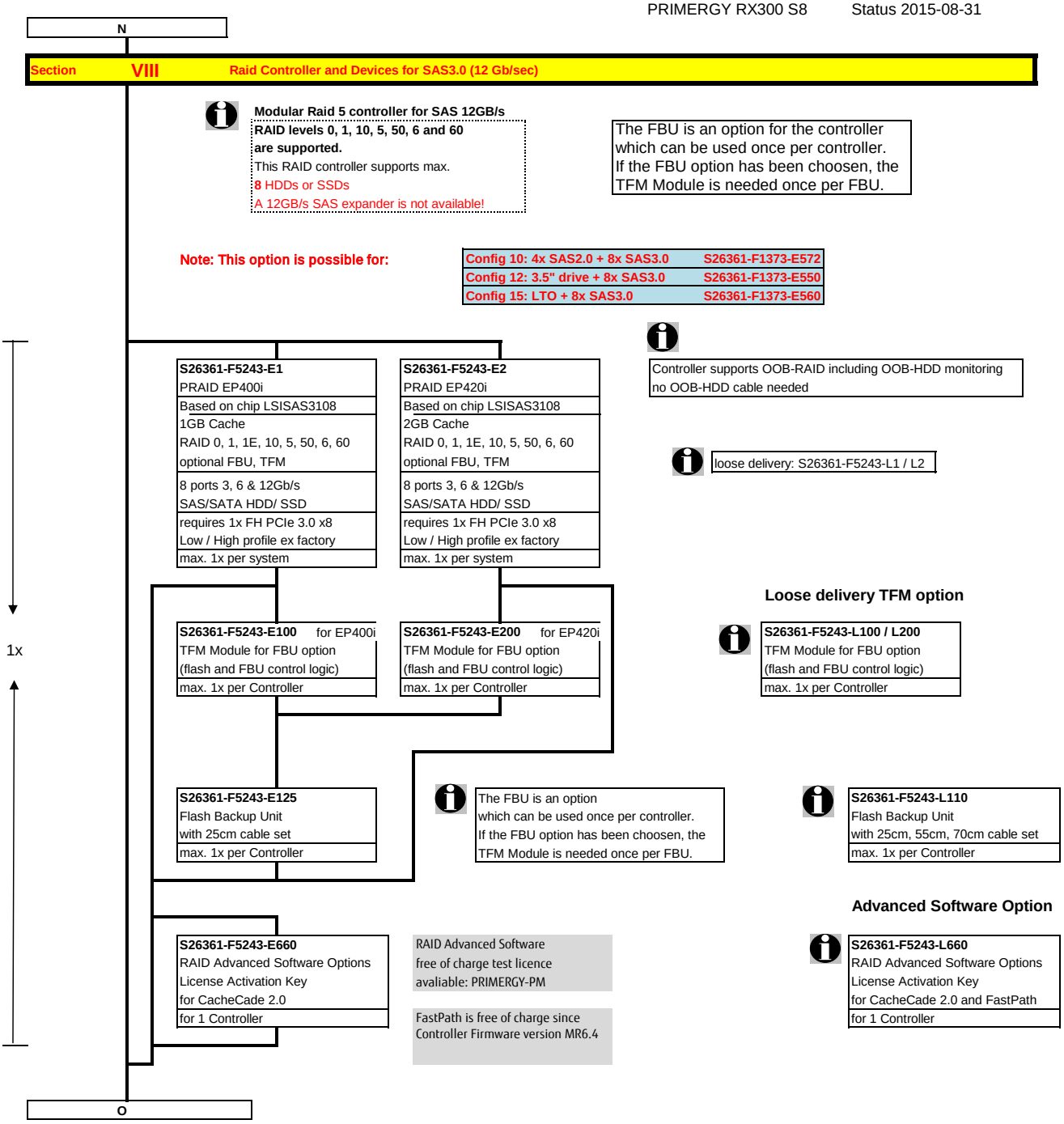
loose delivery:
Single channel S26361-F3961-L201
Dual Channel S26361-F3961-L202
with mounted LP bracket
FH bracket is not included

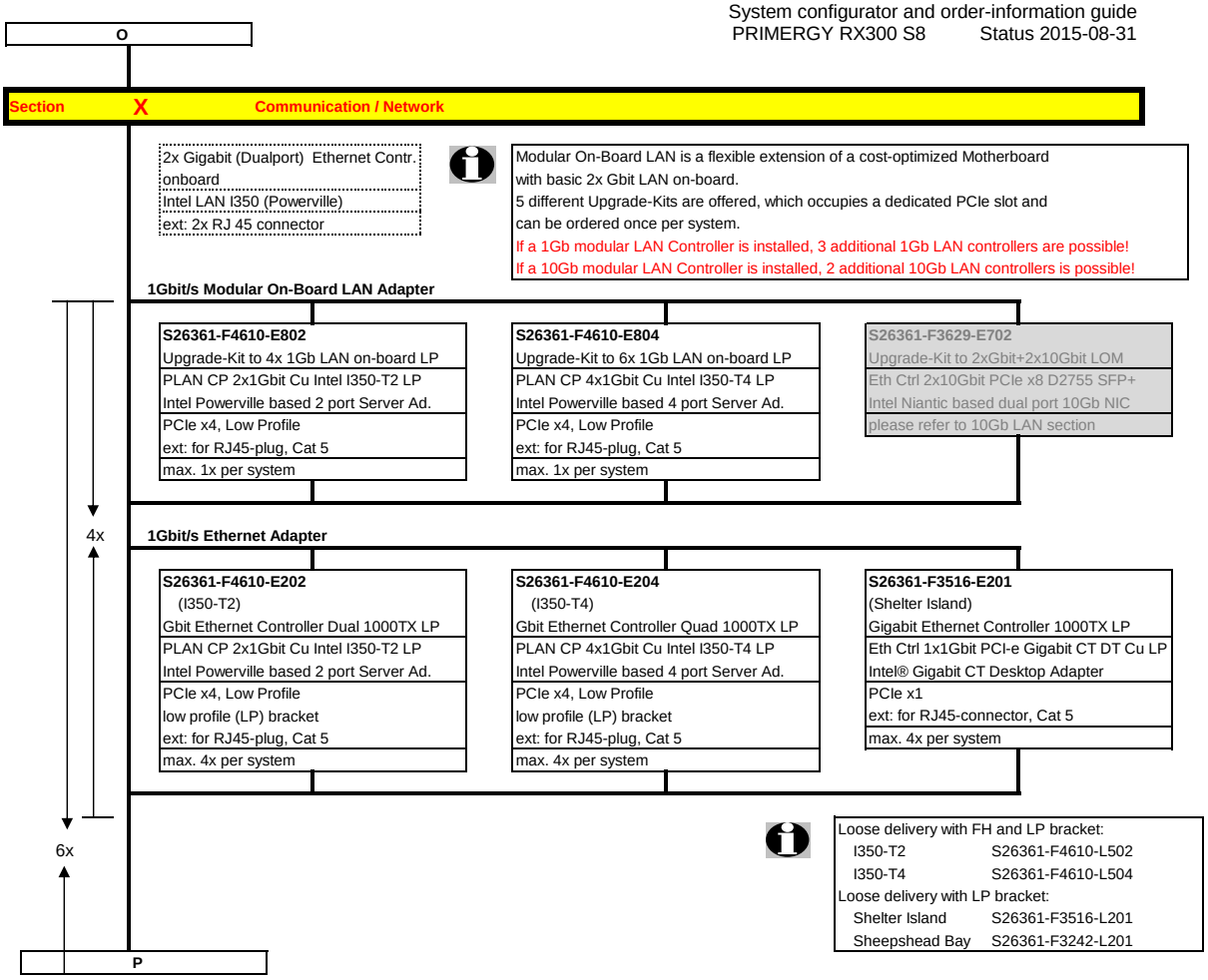
S26361-F4994-E201	**S26361-F4994-E202**
16GBit/s FC Controller	16GBit/s FC Controller
Emulex	Emulex
LPe16000, low profile bracket	LPe16002, low profile bracket
1 channel 16GBit/sec FC Contr.	2 channel 16GBit/sec FC Contr.
LC Interface for 50µm Fiber	LC Interface for 50µm Fiber
PCIe3 x8, 170mm	PCIe3 x8, 170mm
max. 6x per system	max. 6x per system

loose delivery:
Single channel S26361-F4994-L501
Dual Channel S26361-F4994-L502
contains LP and FH brackets.

M


M
SAS RAID controller for JBOD subsystems
S26361-F3713-E203
RAID Ctrl SAS 6G 8port external
LSI MegaRAID SAS 9286CV-8e
1GB Cache with ECC
RAID 0, 1, 5, 6, 10, 50 & 60
without FBU
SAS 6Gb/sec
8 port external
PCIe x8, MD2 form factor
low profile bracket
max. 4x per system
Lose delivery options
BBU/FBU max. 2x per system possible
S26361-F3669-E125
Flash Backup Unit
with 25cm cable set
max. 1x per Controller
S26361-F3669-L110
Flash Backup Unit
with 25, 55, 70 cable set
max. 1x per Controller
S26361-F3669-L661
RAID Advanced Software Options
License Activation Key
for CacheCade 2.0 and FastPath
for 1 RAID Ctrl S26361-F3713-xxx
S26361-F3669-E661
RAID Advanced Software Options
License Activation Key
for CacheCade 2.0 and FastPath
for 1 Controller
N


N
Section VIII Raid Controller and Devices for SAS3.0 (12 Gb/sec)
Modular Raid 5 controller for SAS 12GB/s
RAID levels 0, 1, 10, 5, 50, 6 and 60 are supported.
This RAID controller supports max.
8 HDDs or SSDs
A 12GB/s SAS expander is not available!
The FBU is an option for the controller which can be used once per controller. If the FBU option has been choosen, the TFM Module is needed once per FBU.
Note: This option is possible for:
Config 10: 4x SAS2.0 + 8x SAS3.0 S26361-F1373-E572
Config 12: 3.5" drive + 8x SAS3.0 S26361-F1373-E550
Config 15: LTO + 8x SAS3.0 S26361-F1373-E560
Controller supports OOB-RAID including OOB-HDD monitoring
no OOB-HDD cable needed
S26361-F5243-E1
PRAID EP400i
Based on chip LSISAS3108
1GB Cache
RAID 0, 1, 1E, 10, 5, 50, 6, 60
optional FBU, TFM
8 ports 3, 6 & 12Gb/s
SAS/SATA HDD/ SSD
requires 1x FH PCIe 3.0 x8
Low / High profile ex factory
max. 1x per system
S26361-F5243-E2
PRAID EP420i
Based on chip LSISAS3108
2GB Cache
RAID 0, 1, 1E, 10, 5, 50, 6, 60
optional FBU, TFM
8 ports 3, 6 & 12Gb/s
SAS/SATA HDD/ SSD
requires 1x FH PCIe 3.0 x8
Low / High profile ex factory
max. 1x per system
loose delivery: S26361-F5243-L1 / L2
1x
Loose delivery TFM option
S26361-F5243-E100 for EP400i
TFM Module for FBU option
(flash and FBU control logic)
max. 1x per Controller
S26361-F5243-E200 for EP420i
TFM Module for FBU option
(flash and FBU control logic)
max. 1x per Controller
S26361-F5243-L100 / L200
TFM Module for FBU option
(flash and FBU control logic)
max. 1x per Controller
S26361-F5243-E125
Flash Backup Unit
with 25cm cable set
max. 1x per Controller
The FBU is an option
which can be used once per controller.
If the FBU option has been choosen, the
TFM Module is needed once per FBU.
S26361-F5243-L110
Flash Backup Unit
with 25cm, 55cm, 70cm cable set
max. 1x per Controller
Advanced Software Option
S26361-F5243-E660
RAID Advanced Software Options
License Activation Key
for CacheCade 2.0
for 1 Controller
RAID Advanced Software
free of charge test licence
avaliable: PRIMERGY-PM
FastPath is free of charge since
Controller Firmware version MR6.4
S26361-F5243-L660
RAID Advanced Software Options
License Activation Key
for CacheCade 2.0 and FastPath
for 1 Controller
O


O
Section X Communication / Network
2x Gigabit (Dualport) Ethernet Contr. onboard
Intel LAN I350 (Powerville)
ext: 2x RJ 45 connector
Modular On-Board LAN is a flexible extension of a cost-optimized Motherboard with basic 2x Gbit LAN on-board.
5 different Upgrade-Kits are offered, which occupies a dedicated PCIe slot and can be ordered once per system.
If a 1Gb modular LAN Controller is installed, 3 additional 1Gb LAN controllers are possible!
If a 10Gb modular LAN Controller is installed, 2 additional 10Gb LAN controllers is possible!
1Gbit/s Modular On-Board LAN Adapter
S26361-F4610-E802
Upgrade-Kit to 4x 1Gb LAN on-board LP
PLAN CP 2x1Gbit Cu Intel I350-T2 LP
Intel Powerville based 2 port Server Ad.
PCIe x4, Low Profile
ext: for RJ45-plug, Cat 5
max. 1x per system
S26361-F4610-E804
Upgrade-Kit to 6x 1Gb LAN on-board LP
PLAN CP 4x1Gbit Cu Intel I350-T4 LP
Intel Powerville based 4 port Server Ad.
PCIe x4, Low Profile
ext: for RJ45-plug, Cat 5
max. 1x per system
S26361-F3629-E702
Upgrade-Kit to 2xGbit+2x10Gbit LOM
Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+
Intel Niantic based dual port 10Gb NIC
please refer to 10Gb LAN section
4x
1Gbit/s Ethernet Adapter
S26361-F4610-E202
(I350-T2)
Gbit Ethernet Controller Dual 1000TX LP
PLAN CP 2x1Gbit Cu Intel I350-T2 LP
Intel Powerville based 2 port Server Ad.
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 5
max. 4x per system
S26361-F4610-E204
(I350-T4)
Gbit Ethernet Controller Quad 1000TX LP
PLAN CP 4x1Gbit Cu Intel I350-T4 LP
Intel Powerville based 4 port Server Ad.
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 5
max. 4x per system
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
PCIe x1
ext: for RJ45-connector, Cat 5
max. 4x per system
6x
Loose delivery with FH and LP bracket:
I350-T2 S26361-F4610-L502
I350-T4 S26361-F4610-L504
Loose delivery with LP bracket:
Shelter Island S26361-F3516-L201
Sheepshead Bay S26361-F3242-L201
P

P

If a 10Gb modular LAN Controller is installed, 1 additional 10gb LAN controllers is possible!

: **10Gbit/s Ethernet Adapter**

S26361-F3629-E702 (D2755)
Upgrade-Kit to 2xGbit+2x10Gbit LOM
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. 1x per system

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

S26361-F3752-E202 (Intel X540-T2)
Eth Ctrl 2x10GBase-T lp
Intel Twinville based 2 port Server Ad.
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 6
max. 2x per system

S26361-F3629-E750
Shared 10Gb Management LAN
Install and configure Management LAN on 10Gb Shared LAN port
max. 1x per 10Gb upgrade kit

S26361-F3986-E3
SFP+ Module MMF 10GbE LC
SFP+ module for 10 Gbit Ethernet 50µm FO cabling
ext:LC-SR-connector
max. 2x per controller

S26361-F3986-E4
SFP+ Module SMF 10GbE LC
SFP+ module for 10 Gbit Ethernet 9µm FO cabling
ext:LC-LR-connector
max. 2x per controller

V:TWX Connector-PY for all Twinax (FTS,BR,CI)
max. 2x per controller

The SFP+ modules are also available as loose delivery
S26361-F3986-L3
S26361-F3986-L4
Instead SFP+ Modules, SFP+ twinax cables from the switch vendors may be used

S26361-F3989-E600 *)
SFP+ active twinax cable
customized twinax cable for full rack setup ex factory
cable length is selected by requirement in the factory
Fujitsu branded cable
max. 2x per controller

S26361-F3873-E500 *)
SFP+ active twinax cable
customized twinax cable for full rack setup ex factory
cable length is selected by requirement in the factory
Brocade branded cable
max. 2x per controller

S26361-F4571-E500 *)
SFP+ passive twinax cable
customized twinax cable for full rack setup ex factory
cable length is selected by requirement in the factory
Cisco branded cable
max. 2x per controller

*) in SA only shown in cabling view

The controller D2755 is delivered without SFP+ modules for optical cables, these must be ordered separately.

Loose delivery options (FH and LP bracked included)

D2755	S26361-F3629-L502
X540-T2	S26361-F3752-L502

separate orderable 10Gb Ethernet cables	
S26361-F3989-L102	SFP+ active Twinax Cable Fujitsu 2m
S26361-F3989-L105	SFP+ active Twinax Cable Fujitsu 5m
S26361-F3989-L110	SFP+ active Twinax Cable Fujitsu 10m
S26361-F3873-L501	SFP+ active Twinax Cable Brocade 1m
S26361-F3873-L503	SFP+ active Twinax Cable Brocade 3m
S26361-F3873-L505	SFP+ active Twinax Cable Brocade 5m
S26361-F4571-L101	SFP+ passive Twinax Cable Cisco 1m
S26361-F4571-L103	SFP+ passive Twinax Cable Cisco 3m
S26361-F4571-L105	SFP+ passive Twinax Cable Cisco 5m
S26361-F4571-L107	SFP+ active Twinax Cable Cisco 7m
S26361-F4571-L110	SFP+ active Twinax Cable Cisco 10m

R

R

G) Fibre Channel over Ethernet

4x

as soon as available

S26361-F5536-E202
10GBit/s NIC
Emulex
OCe14102 NIC
2 channel 10GBit/sec NIC
SFP+ Cage
PCIe x8, 170mm
max. 4 per system

S26361-F5250-E201
10GBit/s CNA
Emulex
OCe14102 CNA
2 channel 10GBit/sec CNA
SFP+ Cage
PCIe x8, 170mm
max. 4 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.

Controllers are also available as loose delivery

OCe14102 NIC	S26316-F5536-L502
OCe14102 CNA	S26361-F5250-L501
	contains FH and LP bracket

S26361-F5250-E110
SFP+ Module MMF 10GbE LC
SFP+ module for 10 Gbit Ethernet FO cabling ext:LC-connector
max. 2x per adapter

V:TWX Connector-PY for all Twinax (FTS,BR,CI)
max. 2x per adapter

SFP+ modules are also available as loose delivery

for OCe14102	S26361-F5250-L110

S26361-F3989-E600 *)
SFP+ active twinax cable
customized twinax cable for full rack setup ex factory cable length is selected by requirement in the factory
Fujitsu branded cable
max. 2x per controller

S26361-F3873-E500 *)
SFP+ active twinax cable
customized twinax cable for full rack setup ex factory cable length is selected by requirement in the factory
Brocade branded cable
max. 2x per controller

S26361-F4571-E500 *)
SFP+ passive twinax cable
customized twinax cable for full rack setup ex factory cable length is selected by requirement in the factory
Cisco branded cable
max. 2x per controller

*) in SA only shown in cabling view

separate orderable 10Gb Ethernet cables	
S26361-F3989-L102	SFP+ active Twinax Cable Fujitsu 2m
S26361-F3989-L105	SFP+ active Twinax Cable Fujitsu 5m
S26361-F3989-L110	SFP+ active Twinax Cable Fujitsu 10m
S26361-F3873-L501	SFP+ active Twinax Cable Brocade 1m
S26361-F3873-L503	SFP+ active Twinax Cable Brocade 3m
S26361-F3873-L505	SFP+ active Twinax Cable Brocade 5m
S26361-F4571-L101	SFP+ passive Twinax Cable Cisco 1m
S26361-F4571-L103	SFP+ passive Twinax Cable Cisco 3m
S26361-F4571-L105	SFP+ passive Twinax Cable Cisco 5m
S26361-F4571-L107	SFP+ active Twinax Cable Cisco 7m
S26361-F4571-L110	SFP+ active Twinax Cable Cisco 10m

H) InfiniBand HCA's

2x

S26361-F4475-E122/E222
PIB EP QLE7340e/42e
Intel IB HCA 1x / 2x 40Gb
PCIe 2.0 (5,0GT/s)
PCIe x8, low profile
ext: 1x / 2x QSFP-connector
max. 2x per system

S26361-F4475-E103/E203
IB HCA 40Gb 1 and 2 port QDR enhanced
IB HCA 1x / 2x 40Gb
PCIe 3.0 (8,0GT/s)
PCIe x8, low profile
ext: 1x / 2x QSFP-connector
max. 2x per system

S26361-F4533-E102/E202
IB HCA 56Gb 1 and 2 port FDR
IB HCA 1x / 2x 56Gb
PCIe 3.0 (8,0GT/s)
PCIe x8, low profile
ext: 1x / 2x QSFP-connector
max. 2x per system

only within a rack configuration

S26361-F3996-E203
Intel IB Cu Cable 40Gb QSFP, 3m
max. 2x per adapter

S26361-F3996-E210
Intel IB FO Cable 40Gb QSFP, 10m
max. 2x per adapter

S26361-F3996-E556
InfiniBand Cu Cable 56Gb customized QSFP, 1m and 3m
max. 2x per adapter

loose delivery: S26361-F4475-L122/L222
loose delivery: S26361-F4475-L103/L203
loose delivery: S26361-F4533-L102/L202
Loose delivery with FH and LP bracket included
Copper cable are also available for loose delivery as S26361-F3996-L203, QSFP, 40Gb, 3m S26361-F3996-L210, QSFP, 40Gb, 10m

For the US market only:
Due to EMI restrictions, only **one** IB FDR HCA might be installed per system

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-L561, QSFP, 56Gb, 1m S26361-F3996-L563, QSFP, 56Gb, 3m

S

S

Section XI System Management Products (RemoteView)

iRMC S4 (integrated Remote Management Controller) onboard server management Controller with dedicated 10/100/1000 Service LAN-port and integrated graphics.

S26361-F1790-E243
iRMC S4 advanced pack
integrated remote management controller
activation key for
graphical console redirection
and remote media redirection
max. 1x per system

S26361-F2557-E106
Local Service Display incl. mount. kit
Customer Self Service
LSD module incl. mounting kit
0.5" x 5.25"
max. 1x per system

available April 2014

S26361-F1373-E540
HDD&RAID OOB monitoring by iRMC
Out of Band Status Monitoring for HDD
w/o OS running
Cables and 2x HDD BP for 8x 2.5" HDDs
max. 1x per system

This option enables the out-of-band monitoring function of the HDD by iRMC.
In this case HDD will be monitored without any Server Management agents.
Not necessary for: RAID Ctrl SAS 6G 1GB (D3116C)
Note: This option is possible for S26361-K1457-V401 only!

S26361-F2571-E27
Maintenance LAN
Front management LAN Port
In combination with iRMC adv. pack
For local maintenance / console redirection,
Integrated in front (operating panel)
max. 1x per system

Section XII Miscellaneous

Options and other peripherals
For other options, refer to SystemArchitect and Pricelist
These options are supplied lose with the shipment
For suitable peripherals for this product, please refer to SystemArcitect

S26361-F3776-E101
Cool-safe® Advanced Thermal Design
Restricts configuration to make
5-40° possible
Feature is enabled and fixed ex factory
max. 1x per system

Cool-safe ATD configuration restrictions for RX300S8:
related L-numbers as well restricted

no BBU

Cache Battery Backup Unit	S26361-F3257-E216

no tape drives

Tape drive LTO4 HH SAS IBM V2	S26361-F3626-E2
Tape drive LTO5HH Ultrium SAS	S26361-F3627-E1
Tape drive LTO6HH Ultrium SAS	S26361-F3787-E1

no PCIe SSDs

PCIe-SSD 365GB MLC	S26361-F4522-E351
PCIe-SSD 785GB MLC	S26361-F4522-E781
PCIe-SSD 1.2TB MLC	S26361-F4522-E121

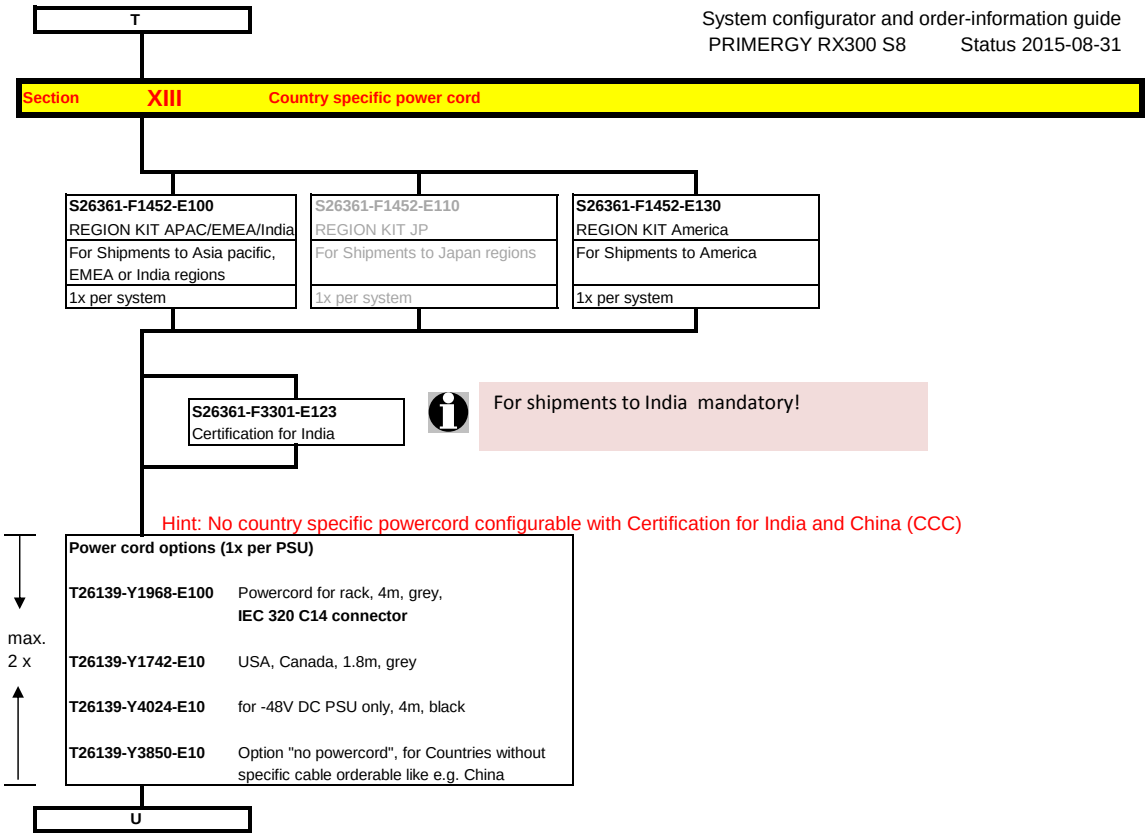
no 130W CPUs

Xeon E5-2690v2 10C/20T 3.00GHz 25MB 8.00GT/s 1866MHz 130W	**S26361-F3790-E300**
Xeon E5-2637v2 4C/8T 3.50GHz 15MB 8.00GT/s 1866MHz 130W	**S26361-F3791-E350**
Xeon E5-2643v2 6C/12T 3.50GHz 25MB 8.00GT/s 1866MHz 130W	**S26361-F3791-E330**
Xeon E5-2667v2 8C/16T 3.30GHz 25MB 8.00GT/s 1866MHz 130W	**S26361-F3791-E300**
Xeon E5-2697v2 12C/24T 2.70GHz 30MB 8.00GT/s 1866MHz 130W	**S26361-F3791-E270**

no 32GB LRDIMM @ 1866 MHz

32GB (1x32GB) 4Rx4 DDR3-1866 LR ECC	**S26361-F3848-E517**

T


T
Section XIII Country specific power cord
S26361-F1452-E100
REGION KIT APAC/EMEA/India
For Shipments to Asia pacific, EMEA or India regions
1x per system
S26361-F1452-E110
REGION KIT JP
For Shipments to Japan regions
1x per system
S26361-F1452-E130
REGION KIT America
For Shipments to America
1x per system
S26361-F3301-E123
Certification for India
For shipments to India mandatory!
Hint: No country specific powercord configurable with Certification for India and China (CCC)
max.
2 x
Power cord options (1x per PSU)
T26139-Y1968-E100 Powercord for rack, 4m, grey, IEC 320 C14 connector
T26139-Y1742-E10 USA, Canada, 1.8m, grey
T26139-Y4024-E10 for -48V DC PSU only, 4m, black
T26139-Y3850-E10 Option "no powercord", for Countries without specific cable orderable like e.g. China
U

U

Section XVI CCC exclusions

S26361-F3301-E120
CCC Certification for China
Limits configuration in accordance with CCC exclusions
max. 1x per system

The following order components out of the specific sections are NOT allowed together with CCC Certification for China:

Front-VGA Interface	**S26361-F2571-E26**
PCIe-SSD 365GB MLC	**S26361-F4522-E351**
PCIe-SSD 785GB MLC	**S26361-F4522-E781**
PCIe-SSD 1.2TB MLC	**S26361-F4522-E121**
PACC EP P3700 AIC 800GB	**S26361-F5318-E800**
PACC EP P3700 AIC 1.6TB	**S26361-F5318-E161**
PACC EP P3700 AIC 2TB	**S26361-F5318-E201**
SAS Ctrl 6G 8ext PCIe lp	**S26361-F3628-E201**
Shared 10Gb Management LAN Kit	**S26361-F3629-E750**
Modulare SV 800W titanium hp	**S26113-F615-E10**
Modulare SV DC -48V 800W gold hp	**S26113-F609-E10**
Cable powercord rack, 4m, grey	**T26139-Y1968-E100**
Ltg Netzanschluss -48V DC, 4m, schwarz	**T26139-Y4024-E10**
Leitung Netzanschluss (USA), 1,8m, grau	**T26139-Y1742-E10**
TPM Modul	**S26361-F3552-E1**

End PRIMERGY RX300 S8

Change Report

Date	Order number	Changes
2015-07-22		RAID controller updated
2015-07-21	S26361-F5520-E*	Added 2.5" SAS 12G 10K 512n HDDs
2015-02-27	S26361-F5520-E*	Added 2.5" SAS 6G 15K HDD up to 600GB within 3.5" Carrier
2014-11-28		2.5" & 3.5" Read-Intensive SATA SSDs added
2014-10-20	S26361-F5536-E2	added Emulex OCe14012 dual channel 10Gb NIC
2014-08-04	S26361-F5313-xxx	16Gb Qlogic added
2014-07-03	S26361-F5315-E*	Added 3.5" SAS 12G SSDs
2014-07-02	S26361-F3848-E517	No ATD functionality with 32GB LRDIMM @ 1866 MHz
2014-06-30	S26361-F3301-E123	Added certification for India
2014-06-16	S26361-F3740-xxx	EOL
2014-06-16	S26361-F3739-xxx	EOL
2014-06-16	S26361-F3242-E201 / -L201	EOL
2014-06-10	S26361-F5319-E*	Added 3.5" SATA 6G SSDs
2014-05-19	S26361-F3848-E517	Added 32 GB LRDIMM 1866 MHz
2014-05-06	S26361-F53250	new CNA OCe14102 added
2014-05-02		PCIe SSD SFF options removed
2014-04-03	S26361-F3776-E101	Cool-safe ATD restriction changed - 32GB and 64GB LRDIMM no more restricted
2014-03-18		SAS3.0 RAID Ctrl updated
2014-03-17	S26361-F3739-E201	phase out
2014-03-17	S26361-F3740-E201	phase out
2014-03-17	S26361-F3610-E202	EOL
2014-03-05	S26361-F1373-E540	HDD&RAID OOB monitoring by iRMC added
2014-01-30	S26361-F5303-*	New SATA SSDs added.
2014-01-30	S26361-F5297-*	New SAS 12G SSDs added.
2013-12-12	S26361-F3554-E8	restricted for ATD
2013-11-29	S26361-F3837-L64	SATA DOM (Disk on module) added
2013-11-27	S26361-F3301-E120	Restrictions CCC Certification for China updated
2013-10-28		SSD support with On-Board controller.
2013-10-28		restriction for 2.5" BC-SAS HDD with "*F3554-E8" removed.
2013-10-18	optional USB Comps	no longer available
2013-10-16	S26361-F4610-E202 / -E204	added new 1Gb NICs from Intel
2013-10-09	S26113-F615-E10	add comment "110V range not supported"
2013-10-08		restrictions for Cool-safe ATD added
2013-09-19		Memory hint on CPU page extended
2013-09-13	S26361-F5247-E112	HDD 1.2TB SAS 10K added.
2013-09-03	RMK	CMA not longer a must component
2013-09-01		First Release