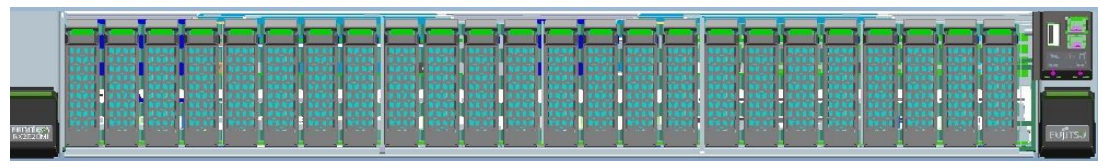
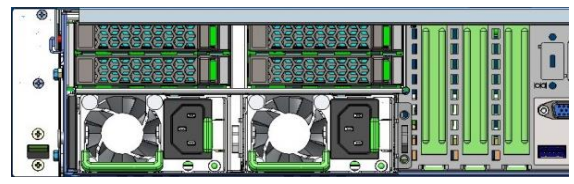
PRIMERGY RX2540 M1

System configurator and order-information guide

July 2017

Contents





PRIMERGY Server

Instructions

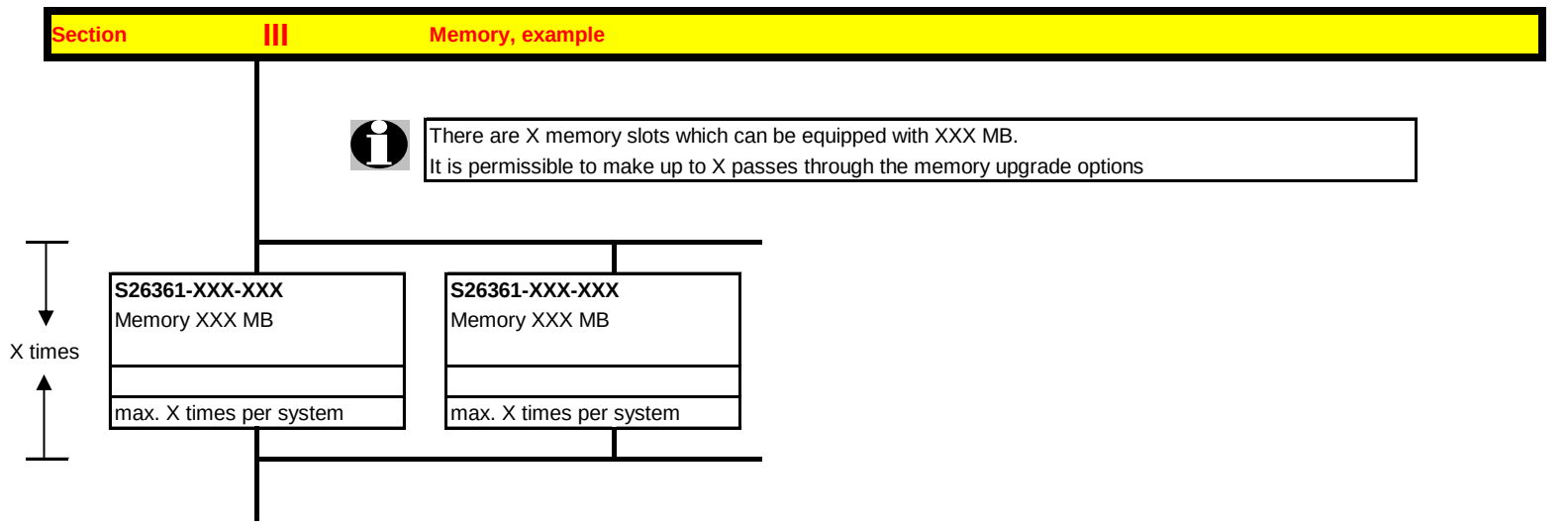
This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect.

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 RX2540 M1 LFF

System unit (I)

with up to 4x, 8x or 12x 3.5" Hard disk drives (detailed front configuration see section Va)

Motherboard

Memory CPU1

(Channel A + B + C)

- Bank 1 (4 Modules)
- Bank 2 (4 Modules)
- Bank 3 (4 Modules)

Memory CPU2

(Channel D + E + F)

- Bank 1 (4 Modules)
- Bank 2 (4 Modules)
- Bank 3 (4 Modules)

Memory (III)

- Xeon DP
- Xeon DP

Processor (II)

rear side

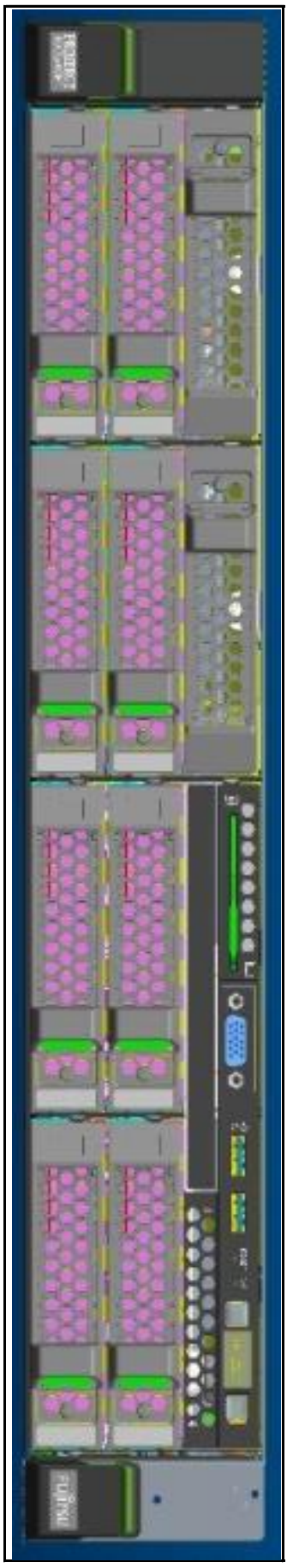
- 1. PSU
- 2. PSU

Redundant power supply option

Fan 1 - Fan 5

Redundant Fans are standard!

front side



Dynamic LOM Support	**2x 1 Gb**
	4x 1 Gb
	2x 10 Gb SFP+
	2x 10 Gb T

Slot 11 PCIe-3 x8, max. 270mm @ CPU2	full-height slot
Slot 10 PCIe-3 x8, max. 270mm @ CPU2	full-height slot
Slot 9 PCIe-3 x16, max. 198mm @ CPU2	low-profile slot

Possibility to install PCIe riser with 2x x8 slots or x16 double width

Slot 8 PCIe-3 x16, max. 198mm @ CPU2	low-profile slot
Slot 7 PCIe-3 x8, max. 198mm @ CPU2	low-profile slot

Internal slot for 3rd modular RAID-Controller

Slot 5 PCIe-3 x8, max. 270mm @ CPU1	full-height slot
Slot 4 PCIe-3 x8, max. 270mm @ CPU1	full-height slot
Slot 3 PCIe-3 x16, max. 198mm @ CPU1	low-profile slot

Possibility to install PCIe riser with 2x x8 slots or x16 double width

Slot 2 PCIe-3 x8, max. 198mm @ CPU1	low-profile slot

Internal slot for 2nd modular RAID-Controller

Slot 1 PCIe-3 x8, max. 198mm @ CPU1	low-profile slot

Internal slot for 1st modular RAID-Controller

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 RX2540 M1 SFF

System unit (I)

with up to 8x, 16x or 24x 2.5" Hard disk drives (detailed front configuration see section Va)

Motherboard

Memory CPU1

(Channel A + B + C)

- Bank 1 (4 Modules)
- Bank 2 (4 Modules)
- Bank 3 (4 Modules)

Memory CPU2

(Channel D + E + F)

- Bank 1 (4 Modules)
- Bank 2 (4 Modules)
- Bank 3 (4 Modules)

Memory (III)

- Xeon DP
- Xeon DP

Processor (II)

rear side

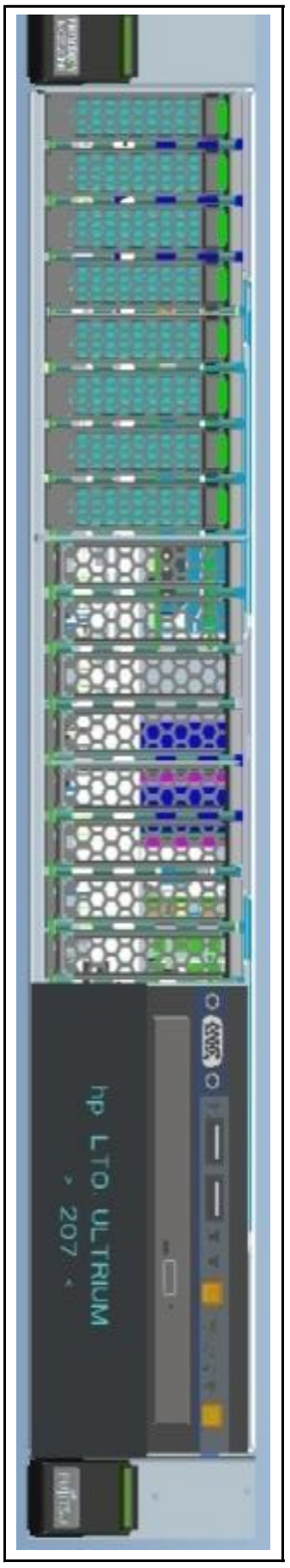
- 1. PSU
- 2. PSU

Redundant power supply option

- Fan 1 - Fan 5

Redundant Fans are standard!

front side



Dynamic LOM Support	**2x 1 Gb**
	4x 1 Gb
	2x 10 Gb SFP+
	2x 10 Gb T

Slot 11 PCIe-3 x8, max. 270mm @ CPU2	full-height slot
Slot 10 PCIe-3 x8, max. 270mm @ CPU2	full-height slot
Slot 9 PCIe-3 x16, max. 198mm @ CPU2	low-profile slot

Possibility to install PCIe riser with 2x x8 slots or x16 double width

Slot 8 PCIe-3 x16, max. 198mm @ CPU2	low-profile slot
Slot 7 PCIe-3 x8, max. 198mm @ CPU2	low-profile slot

Internal slot for 3rd modular RAID-Controller

Slot 5 PCIe-3 x8, max. 270mm @ CPU1	full-height slot
Slot 4 PCIe-3 x8, max. 270mm @ CPU1	full-height slot
Slot 3 PCIe-3 x16, max. 198mm @ CPU1	low-profile slot

Possibility to install PCIe riser with 2x x8 slots or x16 double width

Slot 2 PCIe-3 x8, max. 198mm @ CPU1	low-profile slot

Internal slot for 2nd modular RAID-Controller

Slot 1 PCIe-3 x8, max. 198mm @ CPU1	low-profile slot

Internal slot for 1st modular RAID-Controller

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 RX2540 M1

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 as soon as available: max 3072GB per system with two CPU`s
*** SAS Backplanes for 4x, 8x or 12x 3.5" HD LFF or for 8, 16 or 24x 2.5" HD SFF or PCIe SFF backplanes with cable connection to on-board, modular RAID Controller or PCIe Switch**

*** Drives/Bays**
- 4, 8 or 12 bays 1" for hot plug 3.5" HD (1" high) or 8, 16 or 24 bays for hot plug 2.5" HD
- 1 bay SATA-DVD-RW 0,4" height (option, not for basic unit with 12x 3.5" HD and with 24 x 2,5" HD)
- 1 bay for 5.25" and 1.6" high Backup device, not possible for basic units with 3.5" HD and for basic unit with 24 x 2,5" HD

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

Systemboard D3289 with:
*** Up to two Xeon DP CPU`s (Socket-R3) 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® C610 Series (codenamed Wellsburg)**

*** 6 PCI slots low profile: - 3x PCIe-3 x16 (2 slots are connected to CPU 2 and are useable with configured 2nd CPU only!)**
- 2x PCIe-3 x8 (notched to install x16 cards, 1 slot is connected to CPU 2)
- 1x PCIe-3 x8 (may be used for modular RAID controller)
8 PCI slots are possible with PCIe riser card options (4x full height, please see Section VII)

*** 24 memory slots (each CPU 12 slots) DDR4 are available**
- Memory is divided into 12 DIMMs per CPU (4 channels with 3 slots per channel)
First Memory (one module) has to be selected for an orderable basic unit per CPU

*** Dynamic LOM**
Quad Port 1Gb/10Gb Emulex Controller XE104 (Skyhawk) on motherboard
up to Quad Port 1Gb or
Dual Port 10Gb NIC plus full CNA functionality with iSCSI-, FCoE- RDMA and UMC support
connectors (external interfaces) are added by different variants of DynamicLoM interface modules
The Service LAN-port can be switched alternatively to a standard LAN (port 1)

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

*** 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) **optional**
* 1x VGA (15 pins)
* 2x USB **3.0** (UHCI) with **5 GBit/s,** no USB wakeup
* 2x USB **2.0** (UHCI) with **480MBit/s,** no USB wakeup
* 2x or 4x LAN 1Gb RJ45 or 2x LAN 10 Gb SFP+ or RJ45, 1x Service-LAN RJ45

Interfaces on the front:
* 2x USB **3.0** (UHCI) with **5 GBit/s,** no USB wakeup (only 1x USB 2.0 for basic unit with 12x 3.5" HD and with 24 x 2,5" HD)
* 1x VGA (15 pins) as an option (not for basic unit with 12x 3.5" HD and with 24 x 2,5" HD)

Interfaces internal:
* 1 port for UFM Module
* 1 port for backup device USB3.0 (USB 3.0 Type A Connector)
* 1x SATA 3Gbit interface for ODD
* 1x SATA 3GBit for DOM
* 8x SATA 3Gbit interface for 8 SATA HD

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

A

A

Cables included in basic unit

Connections	Cable	PRIMERGY RX2540 M1
1. SATA ODD		
2. SAS cables to HDDs		
3. 1x cable for SAS signaling		

SAS
SATA

Note: Rack Mounting kit and Power Cord for RX2540 M1 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	
3.5" HDD bays expandable	**S26361-K1495-V101**
3.5" HDD bays exp long lifecycle	**S26361-K1495-V102** planned
12x 3.5" HDD bays	**S26361-K1495-V112**
Basic unit with	
2.5" HDD bays expandable	**S26361-K1495-V401**
2.5" HDD bays exp long lifecycle	**S26361-K1495-V402**
24x 2.5" HDD bays	**S26361-K1495-V424**

S26113-F575-E13
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-E13
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-F616-E10
1200W PSU module platinum
1st or 2nd PSU for redundancy
94% efficiency (platinum)
110V range: 1000W, <110V:900W
uses hot plug PSU slot
min. 1 / max. 2x per system

S26113-F615-E10
800W PSU module titanium
1st or 2nd PSU for redundancy
96% efficiency (titanium)
110V range not supported
uses hot plug PSU slot
min. 1 / max. 2x per system

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-L13**
One 800W power supply module hot plug no power cable included!!!	**S26113-F574-L13**
One 1200W power supply module hot plug no power cable included!!!	**S26113-F616-L10**
One 800W power supply module titanium no power cable included!!!	**S26113-F615-L10**

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**

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

S26361-F3552-E6
TPM Module
Trusted Platform Module on Motherboard
Use according to import restrictions
max. 1x per system

S26361-F3552-L6
TPM Module add-on kit
for later integration (loose delivery)
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.

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 15kg
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-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-L175
RMK-F1_DI_CMA_QRL_LV
for PCR M1 and 3rd party racks
with CMA adapter

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
Two processors with different clock frequencies are not possible

Max. two CPU`s can be selected per basic unit	
One of following CPU´s can be selected once (only as first CPU) for an orderable basic unit	
Optional second CPU has to be the same type like the first CPU	
Xeon E5-2600v3 (R) Basic - 1x 64-bit Intel Xeon (15MB Smart Cache) 1600 MHz DDR4 Bus; 6.4 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2603v3 6C/6T 1.60GHz 15MB 6.4GT/s 1600MHz 85W	**S26361-F3849-E103**
Xeon E5-2609v3 6C/6T 1.90GHz 15MB 6.4GT/s 1600MHz 85W	**S26361-F3849-E109**
Xeon E5-2600v3 (R) Standard - 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 1866 MHz DDR4 Bus; 8.0 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2620v3 6C/12T 2.40GHz 15MB 8.0GT/s 1866MHz 85W	**S26361-F3849-E120**
Xeon E5-2630v3 8C/16T 2.40GHz 20MB 8.0GT/s 1866MHz 85W	**S26361-F3849-E130**
Xeon E5-2640v3 8C/16T 2.60GHz 20MB 8.0GT/s 1866MHz 90W	**S26361-F3849-E140**
Xeon E5-2600v3 (R) Advanced - 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2650v3 10C/20T 2.30GHz 25MB 9.6GT/s 2133MHz 105W	**S26361-F3849-E150**
Xeon E5-2600v3 (R) Frequency Optimized - 1x 64-bit Intel Xeon (10-20MB Smart Cache); Hyper-Threading (HT); 1866 & 2133 MHz DDR4 Bus; 8.0 & 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2623v3 4C/8T 3.00GHz 10MB 8.0GT/s 1866MHz 105W	**S26361-F3849-E123**
Xeon E5-2600v3 (R) Advanced - 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2660v3 10C/20T 2.60GHz 25MB 9.6GT/s 2133MHz 105W	**S26361-F3849-E160**
Xeon E5-2670v3 12C/24T 2.30GHz 30MB 9.6GT/s 2133MHz 120W	**S26361-F3849-E170**
Xeon E5-2680v3 12C/24T 2.50GHz 30MB 9.6GT/s 2133MHz 120W	**S26361-F3849-E180**
Xeon E5-2690v3 12C/24T 2.60GHz 30MB 9.6GT/s 2133MHz 135W	**S26361-F3849-E190**
Xeon E5-2600v3 (R) Frequency Optimized - 1x 64-bit Intel Xeon (10-20MB Smart Cache); Hyper-Threading (HT); 1866 & 2133 MHz DDR4 Bus; 8.0 & 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2637v3 4C/8T 3.50GHz 15MB 9.6GT/s 2133MHz 135W	**S26361-F3849-E137**
Xeon E5-2643v3 6C/12T 3.40GHz 20MB 9.6GT/s 2133MHz 135W	**S26361-F3849-E143**
Xeon E5-2667v3 8C/16T 3.20GHz 20MB 9.6GT/s 2133MHz 135W	**S26361-F3849-E167**
Xeon E5-2600v3 (R) High Core Count - 1x 64-bit Intel Xeon (35-40MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2683v3 14C/28T 2.00GHz 35MB 9.6GT/s 2133MHz 120W	**S26361-F3849-E183**
Xeon E5-2695v3 14C/28T 2.30GHz 35MB 9.6GT/s 2133MHz 120W	**S26361-F3849-E195**
Xeon E5-2697v3 14C/28T 2.60GHz 35MB 9.6GT/s 2133MHz 145W	**S26361-F3849-E197**
Xeon E5-2698v3 16C/32T 2.30GHz 40MB 9.6GT/s 2133MHz 135W	**S26361-F3849-E198**
Xeon E5-2699v3 18C/36T 2.30GHz 45MB 9.6GT/s 2133MHz 145W	**S26361-F3849-E199**
Xeon E5-2600v3 (R) Low Power - 1x 64-bit Intel Xeon (20/30MB Smart Cache); Hyper-Threading (HT); 1866/2133 MHz DDR4 Bus; 8.0/9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2630Lv3 8C/16T 1.80GHz 20MB 8.0GT/s 1866MHz 55W	**S26361-F3849-E131**
Xeon E5-2650Lv3 12C/24T 1.80GHz 30MB 9.6GT/s 2133MHz 65W	**S26361-F3849-E151**

Max. DDR4 Bus Speed depends on:
- max. DDR4 Bus Speed from the CPU and
- max. DDR4 Memory Speed and
- max. memory modules on one memory channel

S26361-F3849-E100
Cooling Kit 2nd CPU

C1

C2

C1

C2

One of following CPU´s has to be selected as second CPU	
Optional second CPU has to be the same type like the first CPU	
Xeon E5-2600v3 (R) Basic - 1x 64-bit Intel Xeon (15MB Smart Cache) 1600 MHz DDR4 Bus; 6.4 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2603v3 6C/6T 1.60GHz 15MB 6.4GT/s 1600MHz 85W	**S26361-F3849-E103**
Xeon E5-2609v3 6C/6T 1.90GHz 15MB 6.4GT/s 1600MHz 85W	**S26361-F3849-E109**
Xeon E5-2600v3 (R) Standard - 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 1866 MHz DDR4 Bus; 8.0 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2620v3 6C/12T 2.40GHz 15MB 8.0GT/s 1866MHz 85W	**S26361-F3849-E120**
Xeon E5-2630v3 8C/16T 2.40GHz 20MB 8.0GT/s 1866MHz 85W	**S26361-F3849-E130**
Xeon E5-2640v3 8C/16T 2.60GHz 20MB 8.0GT/s 1866MHz 90W	**S26361-F3849-E140**
Xeon E5-2600v3 (R) Advanced - 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2650v3 10C/20T 2.30GHz 25MB 9.6GT/s 2133MHz 105W	**S26361-F3849-E150**
Xeon E5-2660v3 10C/20T 2.60GHz 25MB 9.6GT/s 2133MHz 105W	**S26361-F3849-E160**
Xeon E5-2670v3 12C/24T 2.30GHz 30MB 9.6GT/s 2133MHz 120W	**S26361-F3849-E170**
Xeon E5-2680v3 12C/24T 2.50GHz 30MB 9.6GT/s 2133MHz 120W	**S26361-F3849-E180**
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Xeon E5-2643v3 6C/12T 3.40GHz 20MB 9.6GT/s 2133MHz 135W	**S26361-F3849-E143**
Xeon E5-2667v3 8C/16T 3.20GHz 20MB 9.6GT/s 2133MHz 135W	**S26361-F3849-E167**
Xeon E5-2600v3 (R) High Core Count - 1x 64-bit Intel Xeon (35-40MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2683v3 14C/28T 2.00GHz 35MB 9.6GT/s 2133MHz 120W	**S26361-F3849-E183**
Xeon E5-2695v3 14C/28T 2.30GHz 35MB 9.6GT/s 2133MHz 120W	**S26361-F3849-E195**
Xeon E5-2697v3 14C/28T 2.60GHz 35MB 9.6GT/s 2133MHz 145W	**S26361-F3849-E197**
Xeon E5-2698v3 16C/32T 2.30GHz 40MB 9.6GT/s 2133MHz 135W	**S26361-F3849-E198**
Xeon E5-2699v3 18C/36T 2.30GHz 45MB 9.6GT/s 2133MHz 145W	**S26361-F3849-E199**
Xeon E5-2600v3 (R) Low Power - 1x 64-bit Intel Xeon (20/30MB Smart Cache); Hyper-Threading (HT); 1866/2133 MHz DDR4 Bus; 8.0/9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2630Lv3 8C/16T 1.80GHz 20MB 8.0GT/s 1866MHz 55W	**S26361-F3849-E131**
Xeon E5-2650Lv3 12C/24T 1.80GHz 30MB 9.6GT/s 2133MHz 65W	**S26361-F3849-E151**

Separate orderable CPU upgrade kits		
S26361-F3849-L403	Xeon E5-2603v3 6C/6T 1.60GHz 15MB 6.4GT/s 1600MHz 85W	
S26361-F3849-L409	Xeon E5-2609v3 6C/6T 1.90GHz 15MB 6.4GT/s 1600MHz 85W	
S26361-F3849-L420	Xeon E5-2620v3 6C/12T 2.40GHz 15MB 8.0GT/s 1866MHz 85W	
S26361-F3849-L430	Xeon E5-2630v3 8C/16T 2.40GHz 20MB 8.0GT/s 1866MHz 85W	
S26361-F3849-L440	Xeon E5-2640v3 8C/16T 2.60GHz 20MB 8.0GT/s 1866MHz 90W	
S26361-F3849-L450	Xeon E5-2650v3 10C/20T 2.30GHz 25MB 9.6GT/s 2133MHz 105W	
S26361-F3849-L423	Xeon E5-2623v3 4C/8T 3.00GHz 10MB 8.0GT/s 1866MHz 105W	
S26361-F3849-L437	Xeon E5-2637v3 4C/8T 3.50GHz 15MB 9.6GT/s 2133MHz 135W	special release only
S26361-F3849-L443	Xeon E5-2643v3 6C/12T 3.40GHz 20MB 9.6GT/s 2133Mhz 135W	special release only
S26361-F3849-L460	Xeon E5-2660v3 10C/20T 2.60GHz 25MB 9.6GT/s 2133MHz 105W	special release only
S26361-F3849-L467	Xeon E5-2667v3 8C/16T 3.20GHz 20MB 9.6GT/s 2133MHz 135W	special release only
S26361-F3849-L480	Xeon E5-2680v3 12C/24T 2.50GHz 30MB 9.6GT/s 2133MHz 120W	special release only
S26361-F3849-L490	Xeon E5-2690v3 12C/24T 2.60GHz 30MB 9.6GT/s 2133MHz 135W	special release only
S26361-F3849-L498	Xeon E5-2698v3 16C/32T 2.30GHz 40MB 9.6GT/s 2133MHz 135W	special release only
S26361-F3849-L499	Xeon E5-2699v3 18C/36T 2.30GHz 45MB 9.6GT/s 2133MHz 145W	special release only

D

D

Section III Memory

- There are 12 memory slots per CPU for max.
768GB LRDIMM (12x 64GB 4R)
384GB RDIMM (12x 32GB 2R)
=> max. 1.536GB for two CPUs (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 and Load Reduced DIMMs can be selected
No mix of registered and load reduced modules is allowed.
Memory will be operated at 1.2V.
Depending on the CPU following memory speeds will be reached:
In a single DIMM per channel configuration 2133MHz will be supported
This is also valid for a dual LRDIMM configurations (2166MHz)
In a dual RDIMM configuration 1866MHz will be supported
All 3DPC configurations support 1600MHz
SDDC (Chipkill) is supported for registered and load redueced x4 organized memory modules

1.) In the "Independent Channel Mode" the following configuration is 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 and load reduced modules is 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 DDR4 module per channel

3.) "Performance Mode" configuration
In this configuration, the memory module population ex factory is spread across all channels.
The BIOS is set to the maximum performance for memory.
Minimum configuration is four identical modules per CPU

4.) "Mirrored Channel Mode" configuration
Each memory bank can optionally be equipped with four registered or load reduced DDR4 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 four identical modules per CPU

E

E

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.	
Requires min 2x 1R/2R or 1x 4R modules per CPU	
S26361-F3694-E2	**Performance Mode Installation**
BIOS Setup factory preinstalled for maximum Performance, 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	
Multiple of 4 identical modules to be configured per CPU	

Effective Memory capacity / Rank Sparing Mode, 1 Channel populated

	RDIMM			LRDIMM	
	8GB 1R	16GB 2R	32GB 2R	32GB 4R	64GB 4R
1DPC				24GB	48GB
2DPC	8GB	24GB	48GB	56GB	112GB
3DPC	16GB	40GB	80GB	88GB	176GB

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

Note 1)

Max. DDR4 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

12x per CPU, max. 3 modules per channel

Registered Memory (RDIMM) with SDDC (chipkill) support	
- one DDR4 registered ECC memory Module, 1.2V	
Choose up to 12 order codes per CPU	
8GB (1x8GB) 1Rx4 DDR4-2133 R ECC	S26361-F3843-E514
16GB (1x16GB) 2Rx4 DDR4-2133 R ECC	S26361-F3843-E516
32GB (1x32GB) 2Rx4 DDR4-2133 R ECC	S26361-F3843-E517
Registered Memory (RDIMM) no SDDC (chipkill) support	
- one DDR4 registered ECC memory Module, 1.2V	
Choose up to 12 order codes per CPU	
8GB (1x8GB) 2Rx8 DDR4-2133 R ECC	S26361-F3843-E515
Load Reduced Memory (LRDIMM) with SDDC (chipkill) support	
- one DDR4 load reduced ECC memory Module, 1.2V	
Choose up to 12 order codes per CPU	
32GB (1x32GB) 4Rx4 DDR4-2133 LR ECC	S26361-F3844-E517
64GB (1x64GB) 4Rx4 DDR4-2133 LR ECC	S26361-F3844-E518

F

Memory Configuration PRIMERGY RX2540 M1

Each CPU offers 12 **Slots** for DDR4 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 2 different kinds of DDR4 Memory Modules available: RDIMM and LRDIMM
Mix of RDIMM and LRDIMM is not allowed.

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

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

Capacity	Configuration	RDIMM	LRDIMM	Notes
Min. Memory per CPU	1 Module / CPU	1x8GB	1x32GB	with one CPU
Max. Memory per CPU	12 Modules / CPU	12x32GB	12x64GB	with one CPU
Max. Memory per System	24 Modules / System	768GB	1536GB	if second CPU is configured

Memory-Speed:
Max. DDR4 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)					
	RDIMM 2133MHz			LRDIMM 2133MHz		
Voltage setting (BIOS)	1.2V			1.2V		
	1 DPC	2 DPC	3 DPC	1 DPC	2 DPC	3 DPC
CPU with 2133MHz DDR4 Bus	2133	2133	1600	2133	2133	1600
CPU with 1866MHz DDR4 Bus	1866	1866	1600	1866	1866	1600
CPU with 1600MHz DDR4 Bus	1600	1600	1600	1600	1600	1600

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

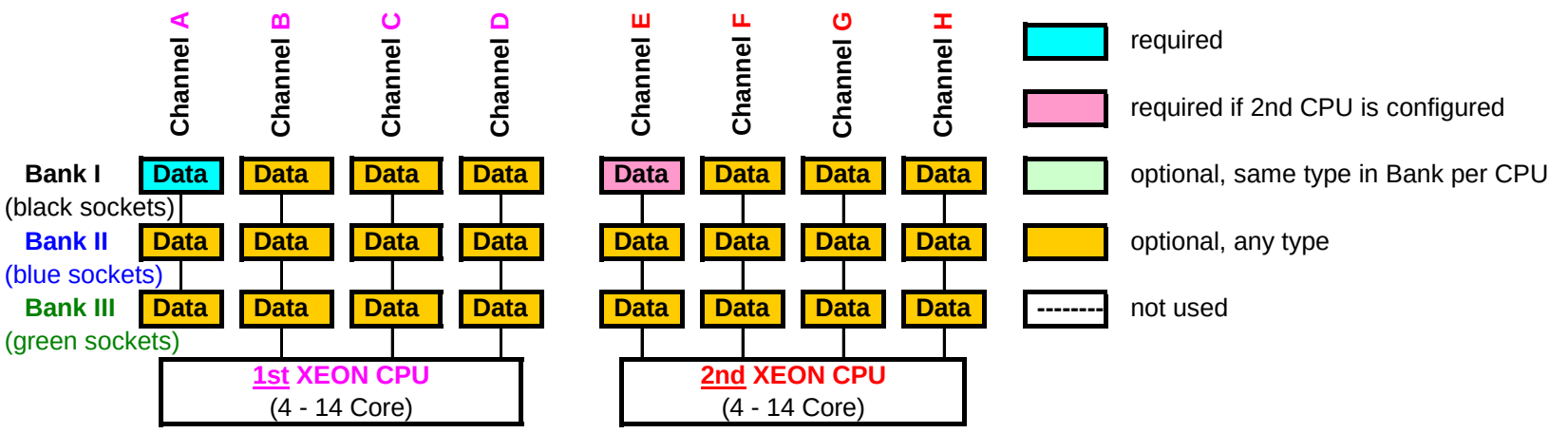
1DPC = 1 DIMM per Channel
2DPC = 2 DIMM per Channel
3DPC = 3 DIMM per Channel

Configuration hints:

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

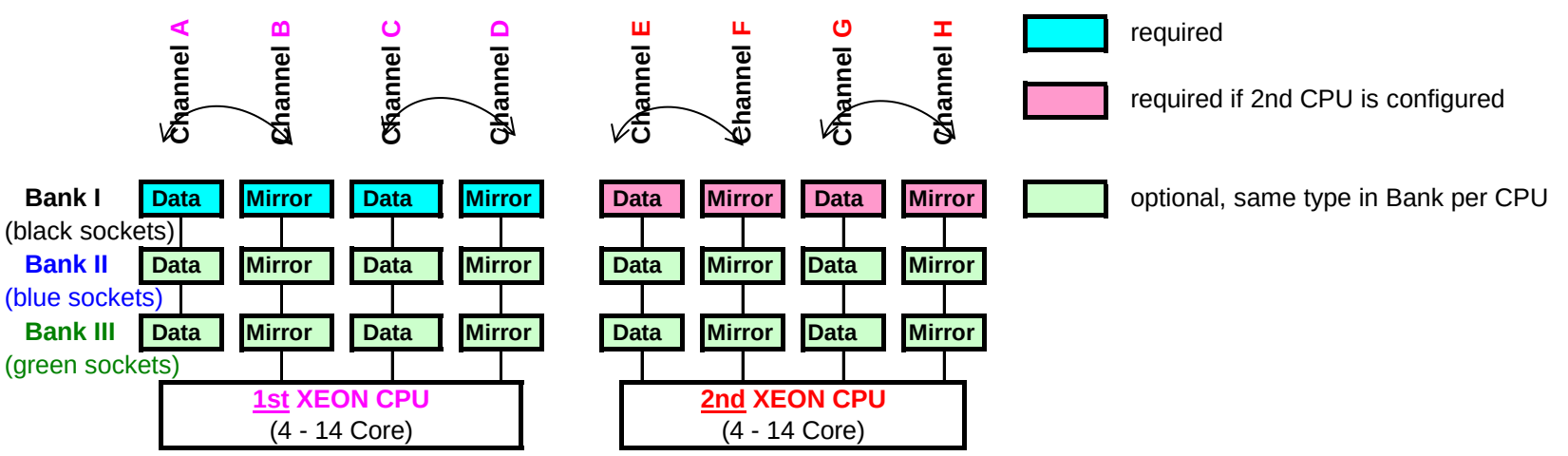
- A so called Bank consits of 1 memory module on every Channel available on one CPU (examples see below)
  Bank I on CPU 1/2 up to 4 memory modules connected to Channel A - H on the 1st/2nd CPU
  Bank II on CPU 1/2 up to 4 memory modules connected to Channel A - H on the 1st/2nd CPU
  Bank III on CPU 1/2 up to 4 memory modules connected to Channel A - H on the 1st/2nd CPU
- See below and next page for a detailed descriptions of the memory configuration supported.

1. Independent Channel Mode



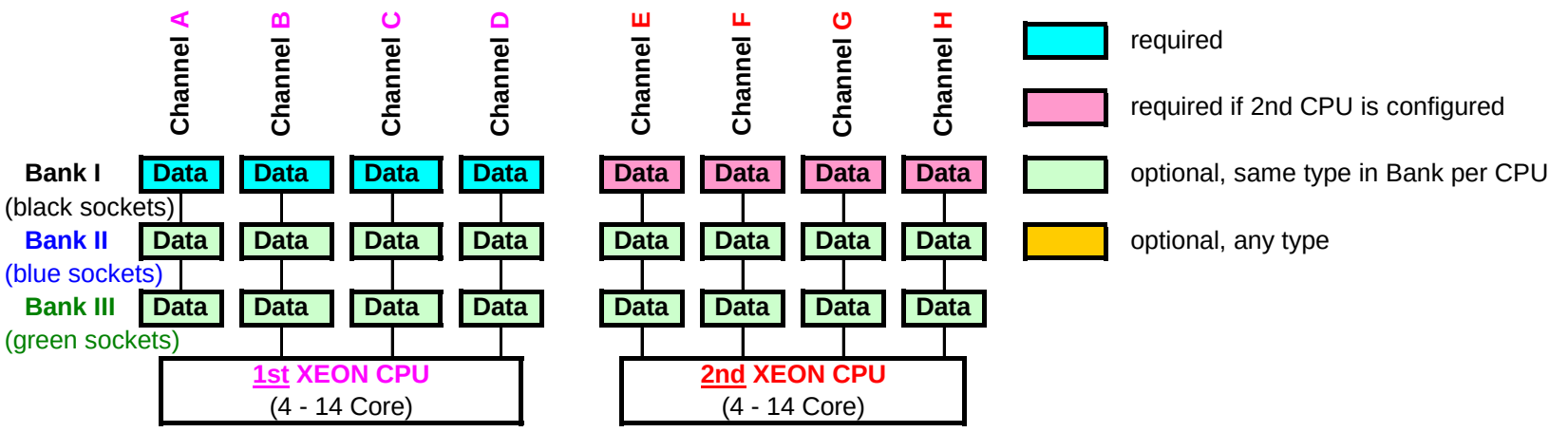
Independent Channel Mode allows all channels to be populated in any order
Can run with differently rated DIMMs and use the settings of the slowest DIMM installed in the system

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.

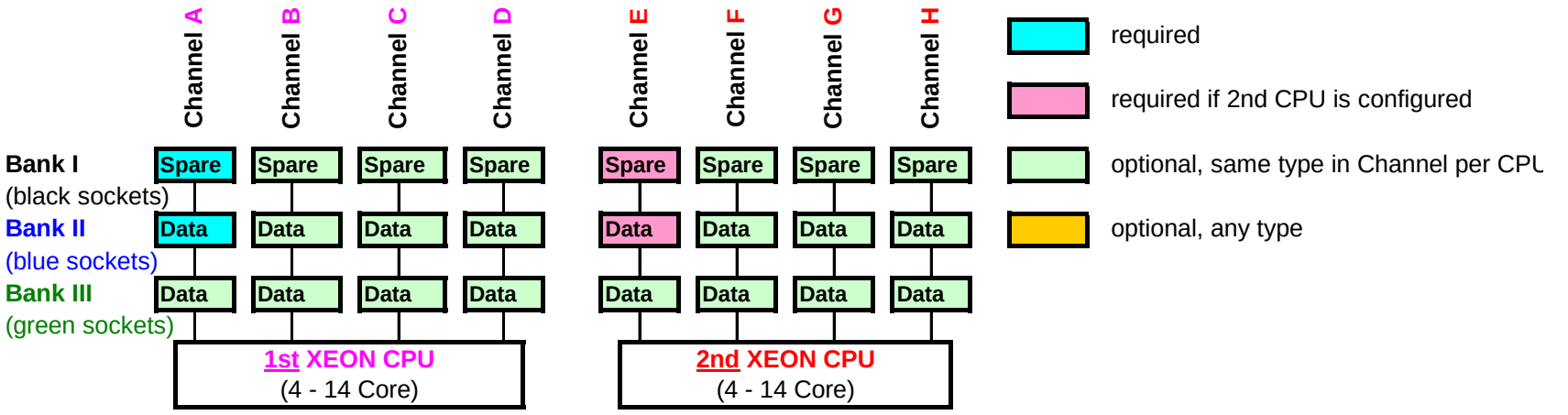
3. Performance Channel Mode



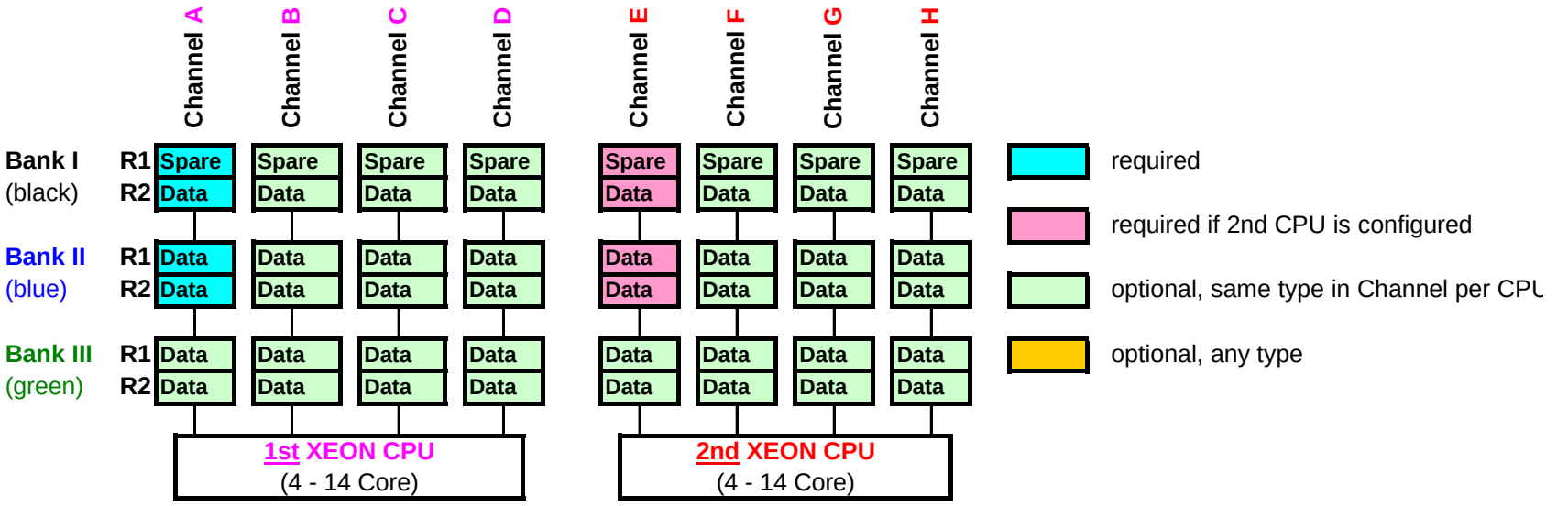
Performance Channel Mode requires identical modules on all channels of each Bank per CPU.
If this mode is used, a multiple of 4 identical modules has to be ordered.

4. Rank Sparing Mode

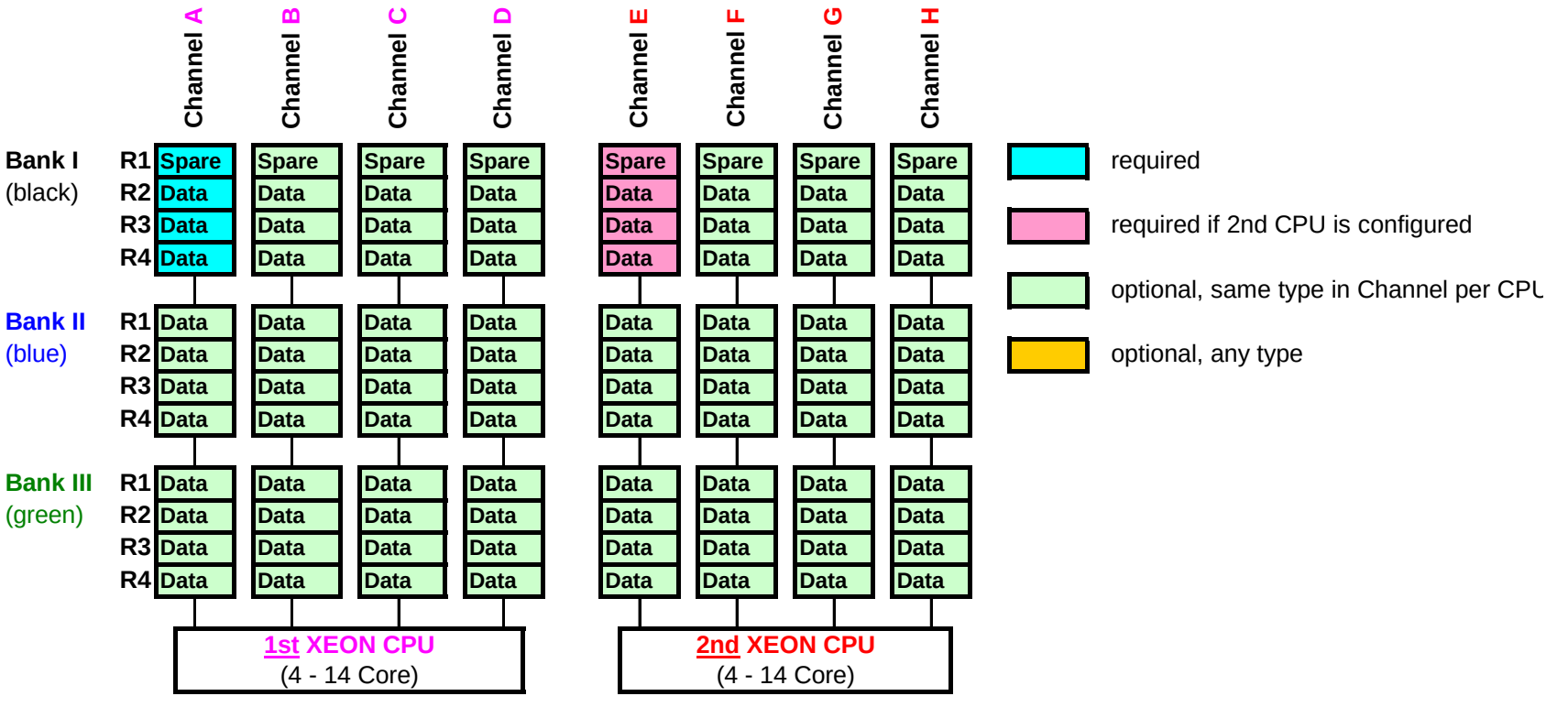
1-Rank Memory modules (RDIMM)



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

F

Section IV -- Graphics & GPGPU & Co-Processors

Graphics Controller integrated in iRMC S4 (integrated Remote Management Controller) with following resolutions:
1920x1200x16bpp, 1920x1080x16bpp, 1600x1200x16bpp, 1680x1050x16bpp, 1440x900x16bpp, 1152x864x16bpp,
1280x1024x32bpp, 1024x768x32bpp, 800x600x32bpp, 640x480x32bpp

Opt. Front VGA
Please refer to Sys.Manag. XII

Optional Front VGA
only possible for
onboard graphics

S26361-F2748-E638
PGRA CP NVS 1GB VGA LP PCIe x16
NVIDIA NVS315
1024 MB PCIe-x16
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

S26361-F2748-L638
PGRA CP NVS 1GB VGA LP PCIe x16
for loose delivery

PY VGA card can be installed in slot 3 (CPU1) or slot 8 (CPU2)

The hight end optional NVIDIA NVS315 graphic card offers dual head operation
and fully 3D video support.
The cables for either two times DVI-I or VGA connections are part of the delievery.
Remote Video direction via iRMC must be disabled.
This PCIe-x16 card can also be installed in slit PCIe-x4, x8 or standard x16 slot.
Only one card per server is allowed.

Note:
Max 8x 2.5" or 4x 3.5" HDD
is possible with GRID K1/K2
No more restriction for CPUs!

NVIDIA GRID K1/K2 GPU pass through / vGPU

Mounting Kit consumes PCIe x16 low profile slot.

S26361-F3846-L11/L12
PY GRID K1/K2 Mounting Kit right/left
For later upgrade a service technician needed

1x

S26361-F3846-E11
PY GRID K1/K2 Mounting Kit right
max. 1x per system required

S26361-F3846-E12
PY GRID K1/K2 Mounting Kit left
max. 1x per system required, needs 2nd CPU

S26361-F2222-L914
for later upgrade

S26361-F2222-L924
for later upgrade

2x

S26361-F2222-E914
PY NVIDIA GRID K1 VDI card
NVIDIA GRID K1 Card with 728 graphic cores & 18GB DDR3 RAM. PCIe Gen3
power cables from PSU need to be ordered separately. 800W PSU is recommended
PCIe *16 (Gen2) - double width - occupies space for two PCIe slots, Full height bracket
max. 2x per system

S26361-F2222-E924
PY NVIDIA GRID K2 VDI card
NVIDIA GRID K2 Card with 3.072 graphic cores & 8GB DDR5 RAM. PCIe Gen3
power cables from PSU need to be ordered separately. 800W PSU is recommended
PCIe *16 (Gen2) - double width - occupies space for two PCIe slots, Full height bracket
max. 2x per system

Supported for GPU pass through and vGPU (shared GPU) under Citrix XenServer 6.5 and XenDesktop. Workload depends on application. Ideal for virtualized GPU or shared GPU workload like "Power Users" or "Knowlegde Workers", including "Designer" as full power graphic USER (GRID K2 only).
Supported for VMware ESXi 5.5 shared (vSGA) & dedicated (vDGA) virtual graphic support and Microsoft RemoteFX under Windows Server 2012 R2.
All guests OSes are supported if listed at OS vendors HCL.
NOT certified for CAD / CAM / CAX type of applications using dedicated GPU.

G

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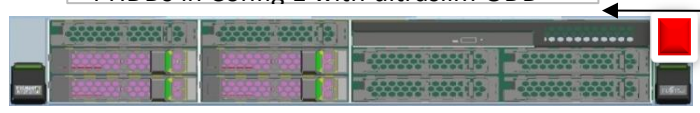
Section Va Possible configuration options for basic units

4 HDDs in Config 1 with ultraslim ODD

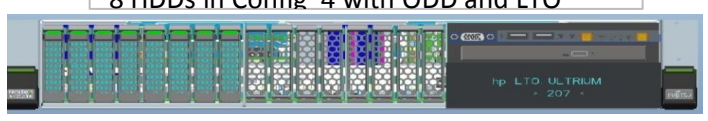


Config 1, 2 or 3: Up to 4x, 8x or 12x 3.5” HDD (LFF)	
Basic unit S26361-K1495-V101	**expandable**
Config 1: Max. 4x 3.5” HDD	**included**
Available Upgrade kits for this configuration option:	
Upgrade kit to 8x 3.5" HDD	**S26361-F2495-L112**
Config 2: Max. 8x 3.5” HDD	**S26361-F2495-E120**
Available Upgrade kits for this configuration option:	
Upgrade kit to 12x 3.5" HDD	**not possible!**
Basic unit S26361-K1495-V112 with 12x 3.5" HDDs	
Config 3: Up to 12x 3.5” HDD, no ODD	**included**
Available Upgrade kits for this configuration option:	
None	

8 HDDs in Config 2 with ultraslim ODD

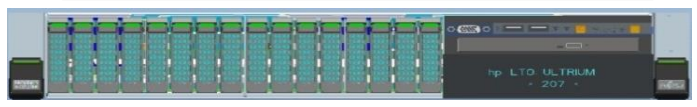
12x HDDs for -V112, no ODD possible

8 HDDs in Config 4 with ODD and LTO

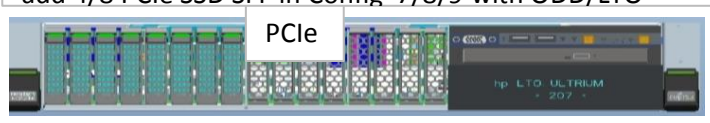


Basic unit S26361-K1495-V401 with	**expandable**
Config. 4: 8x 2.5" HDD bays	**S26361-F2495-E440**
Available Upgrade kits for this configuration option:	
Upgrade kit 4 to 16x 2.5" HDD	**S26361-F2495-L445**
Upgrade kit 4 to 24x 2.5" HDD	**S26361-F2495-L442**
Upgrade kit 4 to +4x PCIe SDD SFF	**S26361-F2495-L448**
Config. 5: 16x 2.5" HDD bays	**S26361-F2495-E450**
Config. 6: 16x 2.5" HDD @ Dual RAID	**S26361-F2495-E452**
Available Upgrade kits for this configuration option:	
Upgrade kit 5 to 24x 2.5" HDD	**S26361-F2495-L452**
Config. 7: 4x PCIe-SSD SFF	**S26361-F2495-E470**
Available Upgrade kits for this configuration option:	
Upgrade kit 7 to +8x 2.5" HDD	**S26361-F2495-L478**
Upgrade kit 7 to +4x 2.5" PCIe-SSD	**on special release**
Config. 8: 8x 2.5" + 4x PCIe-SSD SFF	**S26361-F2495-E480**
Config. 9: 8x PCIe-SSD SFF	**on special release**

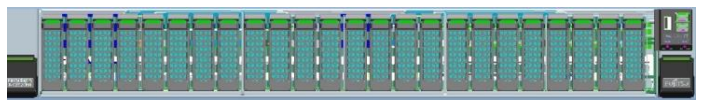
16 HDDs in Config 5/6 with ODD and LTO



add 4/8 PCIe SSD SFF in Config 7/8/9 with ODD/LTO



24 HDDs in Config 24, no ODD/LTO possible



Basic unit S26361-K1495-V424 with 24x 2.5" HDDs	
Config 24: Up to 24x 2.5” HDD, no ODD/Backup	**included**
Available Upgrade kits for this configuration option:	
None	
Includes all necessary bezels, cages, backplanes and cables	

rear 2.5" SAS/SATA HDD/SSD SFF
rear 2.5" PCIe-SSD SFF

Modular REAR SFF HDD/SSD options are possible for every basic unit, so V1xx as well as V4xx are expandable	
S26361-F3853-E10	**Option REAR SAS/SATA HDD/SSD**
S26361-F3853-E20	**Option REAR PCIe SSD SFF**
Available Upgrade kits for this configuration option:	
S26361-F3853-L10	**Upgrade REAR SAS/SATA HDD/SSD**
S26361-F3853-L20	**Upgrade REAR PCIe SSD SFF**
Provides 4 rear hot-plug bays for SAS/SATA HDD/SSD SFF or PCIe-SSD SFF devices	
Note: Separate SAS-Controller or PCIe switch needed in slot 9 which requires a 2nd CPU!	
Note: Consumes space for PCIe riser 2x x8 left	
max. 1x per system	
Includes all necessary bezels, cages, backplanes and cables	

H

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Section Vb Accessible drives

Setup RX2540 M1 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.

Only for basic unit V401 with max 16 HDDs and V101 with max 8 HDD

1x

S26361-F3778-E1	**S26361-F3641-E6**	**S26361-F3718-E2**
DVD-RW supermulti ultraslim	Blu-ray Triple Writer ultraslim SATA	DVD-ROM ultraslim SATA
SATA 8x DVD 24x CD	6x BD-RW, 8x DVD, 24x CD BD DL and all CD/DVD formats	16x DVD 48x CD
9.5mm x 5.25", black bezel	9.5mm x 5.25", black bezel	9.5mm x 5.25", black bezel
max. 1x per system	max. 1x per system	max. 1x per system

Only for basic unit V401
as soon as available

RDX Drive is connected to on-board USB3

S26361-F3750-E4
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

Not possible for basic unit V1xx

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!

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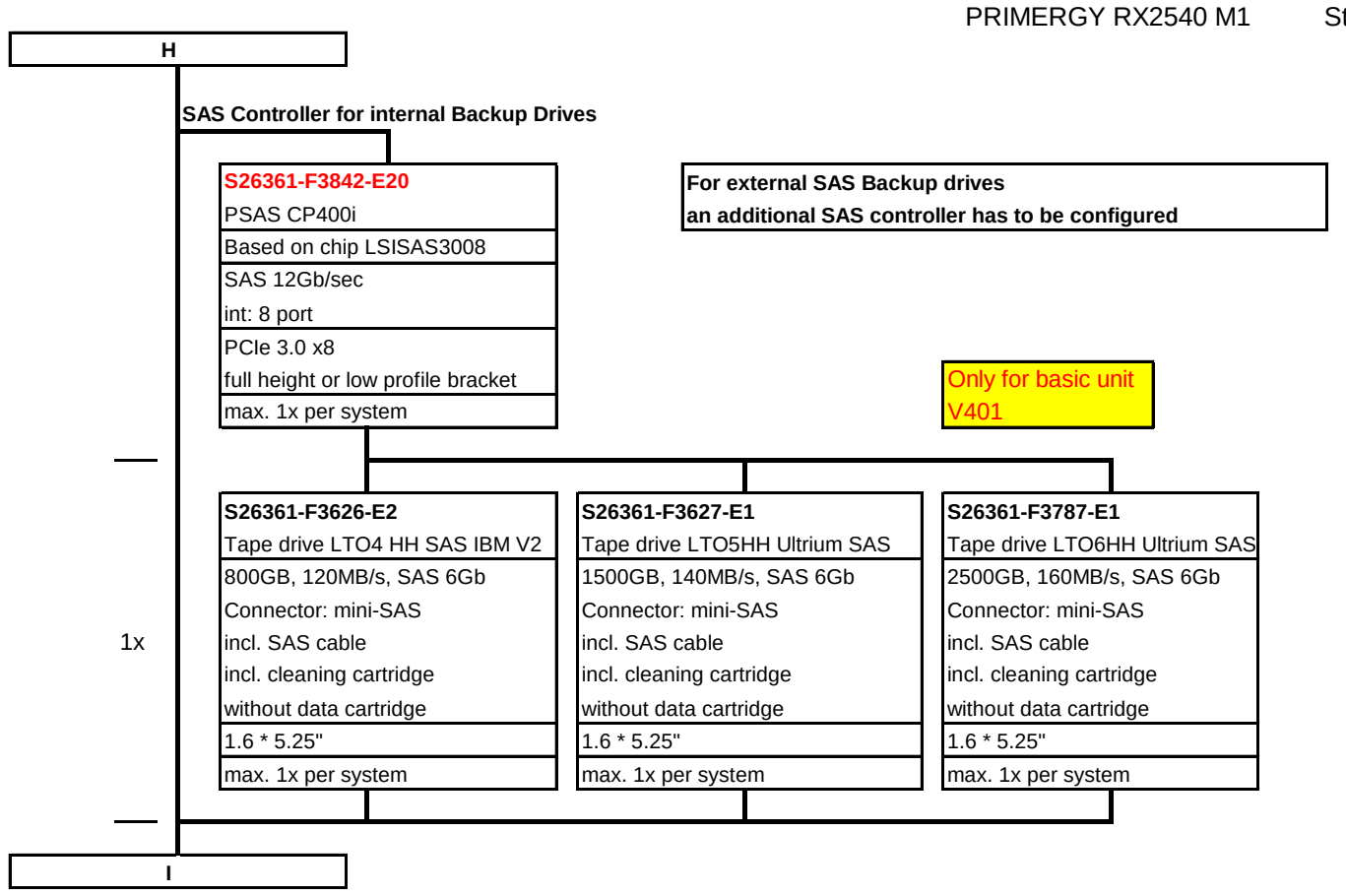
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SAS Controller for internal Backup Drives
S26361-F3842-E20
PSAS CP400i
Based on chip LSISAS3008
SAS 12Gb/sec
int: 8 port
PCIe 3.0 x8
full height or low profile bracket
max. 1x per system
For external SAS Backup drives
an additional SAS controller has to be configured
Only for basic unit
V401
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
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Section VI Hard disks drives

Modular Raid controller is connected to internal HDDs
For basic unit V112 up to 12 SAS 3.5" hard disks can be configured also in mixed configuration.
The option "Tape drive" is not possible for 3.5" Version (V1xx)
SAS and SATA drives can be mixed, but not used in one logical RAID volume
SAS drives requires SAS Controller
Support of SAS12G requires SAS12G Controller
SAS12G drives are SAS6G compatible
Hard Disk Sector Format
512n HDD: 512 byte sectors on the drive media.
512e (e=emulation) HDD: 4K physical sectors on the drive media with 512 byte logical configuration.
512e HDD Disk Drives: VMware is not supported.
***) SSD Mainstream Endurance 10DWPD over 5y**
****) SSD Read-Intesive Endurance 0.3DWPD over 5y**

SATA Disk Drive 3.5" 8/10TB HDDs not released with PSAS CP400i (S26361-F3842-E2)

Please order additionally either/or:

Config 1: Max. 4x 3.5” HDD	V101
Config 2: Up to 8x 3.5” HDD	
Config 3: Up to 12x 3.5” HDD	V112

4x, 8x or 12x with SAS expander for basic unit V1xx

HDD SATA 6Gb/s 3.5" with hot plug/hot replace tray	
500GB 7200rpm,<9,0ms, 64MB Cache, 512n	**S26361-F3815-E500**
1TB 7200rpm,<9,0ms, 64MB Cache, 512n	**S26361-F3815-E100**
2TB 7200rpm,<9,0ms, 64MB Cache, 512n	**S26361-F3815-E200**
3TB 7200rpm,<9,0ms, 64MB Cache, 512n	**S26361-F3815-E300**
4TB 7200rpm,<9,0ms, 64MB Cache, 512n	**S26361-F3815-E400**
6TB 7200rpm,<9,0ms, 128MB Cache, 512e	**S26361-F3904-E600**
8TB 7200rpm, 256MB Cache, 512e	**S26361-F3904-E800** as soon as available
10TB 7200rpm, 256MB Cache, 512e	**S26361-F3904-E100** as soon as available
max. 4x, 8x or 12x per System	

SAS Disk Drive 3.5"

HDD SAS 12Gb/s, 2.5" HDD within 3.5" hot plug/hot replace tray	
300GB 15000rpm, <=3.1ms, 128MB Cache, 512n	**S26361-F5532-E530**
450GB 15000rpm, <=3.1ms, 128MB Cache, 512n	**S26361-F5532-E545**
600GB 15000rpm, <=3.1ms, 128MB Cache, 512n	**S26361-F5532-E560**
HDD SAS 6Gb/s 3.5" with hot plug/hot replace tray	
1TB 7200rpm,<9,0ms, 32MB Cache, 512n	**S26361-F3820-E100**
2TB 7200rpm,<9,0ms, 32MB Cache, 512n	**S26361-F3820-E200**
3TB 7200rpm,<9,0ms, 32MB Cache, 512n	**S26361-F3820-E300**
4TB 7200rpm,<9,0ms, 32MB Cache, 512n	**S26361-F3820-E400**
HDD SAS 12Gb/s 2.5" HDD with 3.5" hot plug/hot replace tray	
300GB 10000rpm 128MB Cache, 512n	**S26361-F5568-E130**
600GB 10000rpm 128MB Cache, 512n	**S26361-F5568-E160**
1.2TB 10000rpm 128MB Cache, 512n	**S26361-F5568-E112**
1.8TB 10000rpm 128MB Cache, 512e	**S26361-F5569-E118**
HDD SAS 6Gb/s 3.5" hot plug/hot replace tray	
300GB 15000rpm 16MB Cache, 512n	**S26361-F3819-E530**
max. 4x, 8x or 12x per System	

Solide State Disk, 3.5"

SSD SATA 6Gb/s, 2.5" SSD within 3.5" hot plug/hot replace tray (H-P)	
120GB, Enterprise (EP), Read-Intensive**	**S26361-F5530-E120**
240GB, Enterprise (EP), Read-Intensive**	**S26361-F5530-E240**
480GB, Enterprise (EP), Read-Intensive**	**S26361-F5530-E480**
800GB, Enterprise (EP), Read-Intensive**	**S26361-F5530-E800**
100GB, Enterprise (EP), Mainstream Endurance (ME)*	**S26361-F5289-E100**
200GB, Enterprise (EP), Mainstream Endurance (ME)*	**S26361-F5289-E200**
400GB, Enterprise (EP), Mainstream Endurance (ME)*	**S26361-F5289-E400**
800GB, Enterprise (EP), Mainstream Endurance (ME)*	**S26361-F5289-E800**
SSD SAS 12Gb/s, 2.5" SSD within 3.5" hot plug/hot replace tray (H-P)	
200GB, Enterprise (EP), Mainstream Endurance (ME)*	**S26361-F5320-E200**
400GB, Enterprise (EP), Mainstream Endurance (ME)*	**S26361-F5320-E400**
800GB, Enterprise (EP), Mainstream Endurance (ME)*	**S26361-F5320-E800**
1.6TB, Enterprise (EP), Mainstream Endurance (ME)*	**S26361-F5320-E160**
800GB, Enterprise (EP), Write-Intensive (WI) *)	**S26361-F5607-E800**
max. 4x, 8x or 12x per System	

*) Only for basic unit V402

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Solid State Disk, Boot Drive, SATA DOM (SATADOM Port, AHCI)

SSD SATA 6Gb/s DOM, Boot Device, non "hot plug/hot replace"	
32GB, SATA DOM, 86 TBW (Seq. write)	S26361-F5522-E32
64GB, SATA DOM, 172 TBW (Seq. write)	S26361-F5522-E64
128GB, SATA DOM, 345 TBW (Seq. write)	S26361-F5522-E128
SATADOM is designed for use as a boot drive with the Endurance Spec. above.	
Vmware is not supported.	
max. 1x per system	

Note:
Currently not possible with
on-board SATA RAID Controller

Solid State Disk 2.5", SATA 6G Read-Intensive**

SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray (H-P)	
120GB, Enterprise (EP), Read-Intensive**	S26361-F5525-E120
240GB, Enterprise (EP), Read-Intensive**	S26361-F5525-E240
480GB, Enterprise (EP), Read-Intensive**	S26361-F5525-E480
800GB, Enterprise (EP), Read-Intensive**	S26361-F5525-E800
max. 8/16/24x per system	

Solid State Disk 2.5", SATA 6G Mainstream*

SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray (H-P)	
100GB, Enterprise (EP), Mainstream Endurance (ME)*	S26361-F3821-E100
200GB, Enterprise (EP), Mainstream Endurance (ME)*	S26361-F3821-E200
400GB, Enterprise (EP), Mainstream Endurance (ME)*	S26361-F3821-E400
800GB, Enterprise (EP), Mainstream Endurance (ME)*	S26361-F3821-E800
max. 8/16/24x per system	

Solid State Disk 2.5", SAS 12G Mainstream*

SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray (H-P)	
200GB, Enterprise (EP), Mainstream Endurance (ME)*	S26361-F5298-E200
400GB, Enterprise (EP), Mainstream Endurance (ME)*	S26361-F5298-E400
800GB, Enterprise (EP), Mainstream Endurance (ME)*	S26361-F5298-E800
1.6TB, Enterprise (EP), Mainstream Endurance (ME)*	S26361-F5298-E160
400GB, Enterprise (EP), Write-Intensive (WI) *)	S26361-F5608-E400
800GB, Enterprise (EP), Write-Intensive (WI) *)	S26361-F5608-E800
max. 8/16/24x per system	

*) Only for basic unit V402

SAS Disk Drive 2.5"

HDD SAS 6Gb/s 2.5" with hot plug/hot replace tray	
500GB 7.200rpm,<9,5ms, 64MB Cache	S26361-F3817-E500
1TB 7.200rpm,<9,5ms, 64MB Cache	S26361-F3817-E100
300GB 10000rpm,<4,5ms, 32MB Cache, 512n	S26361-F3818-E130
600GB 10000rpm,<4,5ms, 32MB Cache, 512n	S26361-F3818-E160
900GB 10000rpm,<4,5ms, 32MB Cache, 512n	S26361-F3818-E190
1.2TB 10000rpm,<4,6ms, 64MB Cache, 512n	S26361-F3818-E112
max. 8/16/24x per system	
HDD SAS 12Gb/s 2.5" with hot plug/hot replace tray	
450GB, 10krpm, 128MB Cache, 512e	S26361-F5543-E145
600GB, 10krpm, 128MB Cache, 512e	S26361-F5543-E160
900GB, 10krpm, 128MB Cache, 512e	S26361-F5543-E190
1.2TB, 10krpm, 128MB Cache, 512e	S26361-F5543-E112
1.8TB, 10krpm, 128MB Cache, 512e	S26361-F5543-E118
300GB, 10krpm, 128MB Cache, 512n	S26361-F5550-E130
600GB, 10krpm, 128MB Cache, 512n	S26361-F5550-E160
900GB, 10krpm, 128MB Cache, 512n	S26361-F5550-E190
1.2TB, 10krpm, 128MB Cache, 512n	S26361-F5550-E112
300GB 15000rpm, <=3.1ms, 128MB Cache, 512n	S26361-F5531-E530
450GB 15000rpm, <=3.1ms, 128MB Cache, 512n	S26361-F5531-E545
600GB 15000rpm, <=3.1ms, 128MB Cache, 512n	S26361-F5531-E560
max. 8/16/24x per system	

max 8/16/24x
for V4xx

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 7.200rpm,<9,5ms, 64MB Cache, 512n	S26361-F3816-E250
500GB 7.200rpm,<9,5ms, 64MB Cache, 512n	S26361-F3816-E500
1TB 7.200rpm,<9,5ms, 64MB Cache, 512n	S26361-F3816-E100
max. 8/16/24x per system	

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Section VII Modular Raid 0/1, Raid5 for SAS or SATA HD`s. On-board Controller for max. 8x SATA HD`s

On board SATA Controller (Wellsburg) with 6 Gb/sec can be used for up to 8x 3.5" or 8x 2.5" SATA HDD configurations without PRAID xP4x0i

For every configuration with SAS hard disks or SSDs 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. 24 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-F3853-E10 Option REAR SAS/SATA HDD/SSD
This option needs a separate (additional) PRAID xP4x0i controller in slot 9 which requires a 2nd CPU!

S26361-F3842-E1 *)
PRAID CP400i
Based on chip LSISAS3008
no Cache RAID 0, 1, 1E, 10, 5, 50
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/ SSD
requires 1x FH PCIe 3.0 x8 Low profile ex factory
max. 2x per system

S26361-F5243-E1
PRAID EP400i
Based on chip LSISAS3108
1GB Cache, opt. TFM, FBU RAID 0, 1, 1E, 10, 5, 50, 6, 60
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/ SSD
requires 1x FH PCIe 3.0 x8 Low profile ex factory
max. 2x per system

S26361-F5243-E2*
PRAID EP420i
Based on chip LSISAS3108
2GB Cache, opt. TFM, FBU RAID 0, 1, 1E, 10, 5, 50, 6, 60
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/ SSD
requires 1x FH PCIe 3.0 x8 Low profile ex factory
max. 2x per system

S26361-F5243-E4/L4*
PRAID EP420i for SafeStore supports HDD Encryption

**It is strongly recommended to order SafeStore (SED) RAID controller with SED HDD or SSD devices for SafeStore (SED) functionality

2x

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

Note:
Only 2 FBU per system!

S26361-F5243-E125
FBU Option for PRAID EP4xx with 25cm cable set
max. 1x per Controller

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.

always use -E100 for -E1, E200 for -E2

Lose delivery FBU option

S26361-F5243-L100 / L200
TFM Module for FBU option (flash and FBU control logic)
max. 1x per Controller

S26361-F5243-L110
Flash Backup Unit with 25cm, 55cm, 70cm cable set
max. 1x per Controller

Advanced Software Option

S26361-F5243-E670
RAID Advanced SW Option CacheCade
License Activation Key for CacheCade 2.0
for 1 Controller

S26361-F5243-L670
RAID Advanced SW Option CacheCade
License Activation Key for CacheCade 2.0
for 1 Controller

RAID Advanced Software free of charge test licence available: PRIMERGY-PM

FastPath is free of charge

*) In V112: only together with S26361-F3853-E10 (Option REAR 2.5" SAS/SATA HDD/SSD)

As soon as available

! The SAS 3.0 cable kit is only required for later upgrades and just if the onboard SATA 6G RAID Controller (which has a SAS2.0 connector) was originally selected. ! Orders ex factory always come with the right cable
S26361-F3120-L100
SAS3.0 cable upgrade kit for RX2540 2.5"
This kit contains the following cables for RX2540 2.5": T26139-Y4040-V8, 470mm T26139-Y4040-V9, 540mm and connects the 2.5" backplane with the SAS 3.0 RAID controller mounted in slot 1
required for later upgrade from onboard SATA 6G controller to dedicated SAS 3.0 Controller

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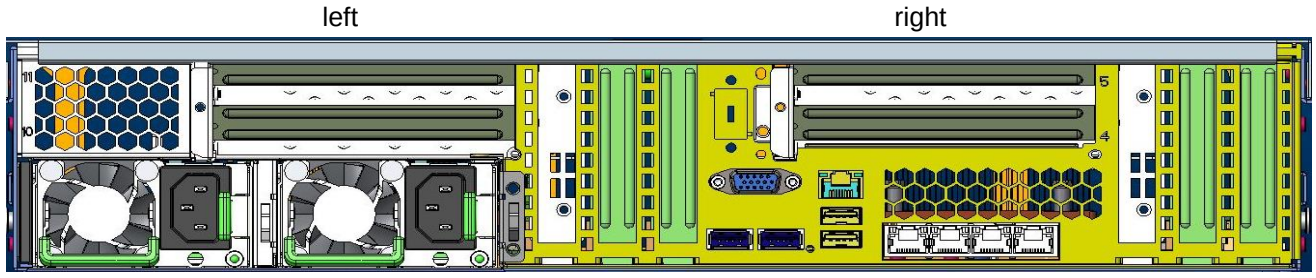
PCIe riser card options

S26361-F3846-E21
PCIe riser 2x x8 right
PCIe 3.0 x8 provides two full height slots
max. 1x per system

S26361-F3846-E22
PCIe riser 2x x8 left
PCIe 3.0 x8 provides two full height slots
max. 1x per system

Every PCIe riser card option consumes white PCIe x16 low profile slot each.
It provides two PCIe x8 full height slots instead (Slot no. 4 and 5 or no. 10 and 11).
So, max. four PCIe x8 full height slots plus one PCIe x16 and three PCIe x8 low profile slots are availble
Please note that some PCIe cards have different order numbers depending on full height slots or low profile slots!
And left or right side PCIe riser card option is different!

left right



SAS-/SCSI-/ Fibre-Channel Controller

SAS controller external

S26361-F3845-E201/-E1
PSAS CP400e lp/fh
LSI SAS9300-8e
8 ports external 3, 6 & 12Gb/s SAS/SATA HDD/ SSD or LTO drives
requires 1x FH PCIe 3.0 x8 full height or low profile bracket
max. 2x per system

SAS controller internal

S26361-F3842-E2
PSAS CP400i
Based on chip LSISAS3008
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/ SSD
requires 1x FH PCIe 3.0 x8 full height or low profile bracket
max. 1x per system

Note:
Only 1x -E2 per PCIe riser option

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Please note that this PCIe cards have different order numbers:
-Ex for full height slots or -E20x for low profile slots!

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/E1	**S26361-F3631-E202/E2**
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/L1
Dual Channel S26361-F3631-L202/L2
with mounted LP bracket
FH bracket is not included

S26361-F5313-E201/E1	**S26361-F5313-E202/E2**
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.

S26361-F3961-E201/E1	**S26361-F3961-E202/E2**
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/L1
Dual Channel S26361-F3961-L202/L2
with mounted LP bracket
FH bracket is not included

6x

as soon as available

S26361-F4994-E201/E1	**S26361-F4994-E202/E2**
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.

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SAS RAID controller for JBOD subsystems

S26361-F3847-E202
PRAID EP420e
based on LSI SAS 3108
2GB Cache, opt. TFM, FBU
RAID 0, 1, 5, 6, 10, 50 & 60
8 ports external 3, 6 & 12Gb/s
SAS/SATA HDD/ SSD or LTO drives
PCIe 3.0 x8, MD2 form factor
full height / low profile bracket
max. 4x per system

S26361-F5243-E200
TFM Module for FBU option
(flash and FBU control logic)
max. 1x per Controller

S26361-F5243-E155
FBU Option for PRAID EP4xx
with 55cm cable set
max. 1x per Controller

S26361-F5243-E670
RAID Advanced SW Option
CacheCade License Activation Key
for CacheCade 2.0
max. 1x per Controller

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Lose delivery

S26361-F3847-L502
PRAID EP420e
based on LSI SAS 3108
2GB Cache, opt. TFM, FBU
RAID 0, 1, 5, 6, 10, 50 & 60
8 ports external 3, 6 & 12Gb/s
SAS/SATA HDD/ SSD or LTO drives
PCIe 3.0 x8, MD2 form factor
Full height & low profile bracket
Customer configurable

S26361-F5243-L200
TFM Module for FBU option
(flash and FBU control logic)
max. 1x per Controller

Lose delivery FBU option

S26361-F5243-L110
FBU Option for PRAID EP4xx
with 25, 55, 70 cable set
max. 1x per Controller

Advanced Software Option

RAID Advanced Software
free of charge test licence
available: PRIMERGY-PM

FastPath is free of charge

S26361-F5243-L670
RAID Advanced SW Option
CacheCade License Activation Key
for CacheCade 2.0
max. 1x per Controller

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Section VIII PCIe-Switch and PCIe-SSD SFF (2.5")

Note: This option is only possible with:

Config. 7: 4x PCIe-SSD SFF	**S26361-F2495-E470**
Config. 8: 8x 2.5" + 4x PCIe-SSD SFF	**S26361-F2495-E480**
Config. 9: 8x PCIe-SSD SFF	**on special release**

Option REAR PCIe SSD SFF	**S26361-F3853-E20**

Loose delivery with exchangeable
Full Height (FH) or Low Profile (LP) bracket

2x

S26361-F5267-E201 **S26361-F5267-L501**
PPCI EP x16 Switch lp
devides PCIe3.0 x16 lanes into 4x x4 lanes
supports up to 4x 2.5" PCIe-SSD SFF
No HW RAID, No Cache
PCIe3,0 x16 occupies a PCIe3.0 x16 slot
max. 2x per system

max. 8x

PCIe-SSD 2.5" (SFF) with hot plug/hot replace tray

capacity	*Formfactor*	*PCIe*	*Endurance*	*dwpd*	*order code E-part*	*order code L-part*
800GB	2.5" (SFF)	Gen 3 x4	mainstream	10	**S26361- F5534-E800**	**S26361- F5534-L800**
1.6TB	2.5" (SFF)	Gen 3 x4	mainstream	10	**S26361- F5534-E161**	**S26361- F5534-L161**
2.0TB	2.5" (SFF)	Gen 3 x4	mainstream	10	**S26361- F5534-E201**	**S26361- F5534-L201**
max. 4/8x per system						

PCIe-SSD (occupies one PCIe slot)

max. 2 / 4x

S26361-F5546-E131 **S26361-F5546-L131**	**S26361-F5546-E261** **S26361-F5546-L261**	**S26361-F5546-E521** **S26361-F5546-L521**
PACC EP PX600 1.3TB	PACC EP PX600 2.6TB	PACC EP PX600 5.2TB
Fusion ioMemory series PCIe 2.0 25nm Lithography PCIe x8, Low Profile	Fusion ioMemory series PCIe 2.0 25nm Lithography PCIe x8, Low Profile	Fusion ioMemory series PCIe 2.0 25nm Lithography PCIe x8, Full Hight
max. 4x per system	max. 4x per system	max. 2x per system

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Chapter 9 - LAN Components

Dynamic LoM interface cards

one DynamicLoM order code is mandatory

Interface card to provide the external connectors for on-board LAN			
PLAN EM blind panel	Blind panel if no DynamicLoM	S26361-F5302-E100	n/a
PLAN EM 2x1Gb T interface card	2x RJ45 plug for 1000BASE-T	S26361-F5302-E201	S26361-F5302-L201
PLAN EM 4x1Gb T interface card	4x RJ45 plug for 1000BASE-T	S26361-F5302-E401	S26361-F5302-L401
PLAN EM 2x10Gb T interface card	2x RJ45 plug for 10GBASE-T	S26361-F5302-E210	S26361-F5302-L210
PLAN EM 2x10Gb SFP interface card	s for SFP modules and cables see link	S26361-F5302-E211	S26361-F5302-L211
required 1x per system			

1Gb Ethernet network components

1Gb Ethernet controller with RJ45 interface (1000BASE-T)				
PLAN CP 2x1Gbit Cu Intel I350-T2	4x	2 port, Intel	S26361-F4610-E2	S26361-F4610-L502
PLAN CP 2x1Gbit Cu Intel I350-T2 LP	4x	2 port, Intel	S26361-F4610-E202	S26361-F4610-L502
PLAN CP 4x1Gbit Cu Intel I350-T4	4x	4 port, Intel	S26361-F4610-E4	S26361-F4610-L504
PLAN CP 4x1Gbit Cu Intel I350-T4 LP	4x	4 port, Intel	S26361-F4610-E204	S26361-F4610-L504
max. 4 Controller per system				

10Gb Ethernet network components

10Gb Ethernet controller with RJ45 interface (10GBASE-T)				
Eth Ctrl 2x10GBase-T PCIe x8 X540-T2	4x	2 port NIC, Intel	S26361-F3752-E2	S26361-F3752-L502
Eth Ctrl 2x10GBase-T PCIe x8 X540-T2 LP	4x	2 port NIC, Intel	S26361-F3752-E202	S26361-F3752-L502
PLAN EP X550-T2 2x10GBASE-T	4x	2 port NIC, Intel	S26361-F3948-E2	S26361-F3948-L502
PLAN EP OCe14102 2x 10GBase-T LP	4x	2 port NIC, Intel	S26361-F3948-E202	S26361-F3948-L502
PLAN EP OCe14102 2x 10GBase-T	4x	2 port NIC with RDMA, Emulex	S26361-F5557-E1	S26361-F5557-L501
PLAN EP OCe14102 2x 10GBase-T LP	4x	2 port NIC with RDMA, Emulex	S26361-F5557-E201	S26361-F5557-L501
10Gb Ethernet controller with SFP+ interface (for SFP+ modules or twinax cables, Fujitsu / Intel based)				
Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+	4x	2 port NIC, Intel 82599 based	S26361-F3629-E2	S26361-F3629-L502
Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+ LP	4x	2 port NIC, Intel 82599 based	S26361-F3629-E202	S26361-F3629-L502
optional 10Gb SFP+ module with LC connector for Fujitsu / Intel based controller				
SFP+ Module MMF 10GbE LC	2x	MMF / SR SFP+ module, up to 400m	S26361-F3986-E3	S26361-F3986-L3
SFP+ Module SMF 10GbE LC	2x	SMF / LR SFP+ module, up to 10km	S26361-F3986-E4	S26361-F3986-L4
Twinax Anschlussplatz Primergy	2x	virtual connector for twinax cables	V:TWX CONNECTOR-PY	
SFP+ active Twinax Cable Fujitsu	2x	customized cable length (best fitting cable length is defined during rack installation at the factory)	S26361-F3989-E600	see table at the botton of this page
SFP+ active Twinax Cable Brocade	2x		S26361-F3873-E500	
SFP+ passive Twinax Cable Cisco	2x		S26361-F4571-E500	
max. 2x SFP+ or Twinax Cable per controller				
10Gb Ethernet controller with SFP+ interface (for SFP+ modules or twinax cables, Emulex)				
PLAN EP OCe14102 2x10Gb	4x	2 port NIC with RDMA, Emulex	S26361-F5536-E2	S26361-F5536-L502
PLAN EP OCe14102 2x10Gb LP	4x	2 port NIC with RDMA, Emulex	S26361-F5536-E202	S26361-F5536-L502
PCNA EP OCe14102 2x 10Gb	4x	2 port CNA with FCoE & RDMA, Emulex	S26361-F5250-E1	S26361-F5250-L501
PCNA EP OCe14102 2x 10Gb LP	4x	2 port CNA with FCoE & RDMA, Emulex	S26361-F5250-E201	S26361-F5250-L501
optional 10Gb SFP+ module with LC connector for Emulex controller				
PCNA SFP+ MMF Modul OCe14102	2x	MMF / SR SFP+ module, up to 400m	S26361-F5250-E110	S26361-F5250-E110
Twinax Anschlussplatz Primergy	2x	virtual connector for twinax cables	V:TWX CONNECTOR-PY	
SFP+ active Twinax Cable Fujitsu	2x	customized cable length (best fitting cable length is defined during rack installation at the factory)	S26361-F3989-E600	see table at the botton of this page
SFP+ active Twinax Cable Brocade	2x		S26361-F3873-E500	
SFP+ passive Twinax Cable Cisco	2x		S26361-F4571-E500	
max. 2x SFP+ or Twinax Cable per controller				
max. 4 Controller per system				

as soon as available

40Gb Ethernet controller with QSFP+ interface (for QSFP+ modules or twinax cables, Emulex)				
PCNA EP OCe14401 1x 40Gb	2x	1x QSFP+ plugs for twinax or modules	S26361-F5539-E1	S26361-F5539-L501
PCNA EP OCe14401 1x 40Gb LP	2x	1x QSFP+ plugs for twinax or modules	S26361-F5539-E201	S26361-F5539-L501
optional 40Gb QSFP+ module with MTO connector for Emulex controller				
SFP+ Module MMF 10GbE LC	1x	MMF / SR SFP+ module, up to 400m	S26361-F5539-E140	S26361-F5539-L140
Twinax Anschlussplatz Primergy	1x	virtual connector for twinax cables	V:TWX CONNECTOR-40	
QSFP+ active Twinax Cable	1x	customized cable length (best fitting cable length is defined during rack installation at the factory)	S26361-F3986-E400	see table at the botton of this page
QSFP+ aktives Twinax Kabel Brocade	1x		S26361-F5317-E40	
rmax. 1x QSFP+ or Twinax Cable per controller				
max. 2 Controller per system				

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Network cables for later upgrade

Fujitsu active SFP+ Twinax 10Gb cable	
SFP+ active Twinax Cable Fujitsu 2m	**S26361-F3989-L102**
SFP+ active Twinax Cable Fujitsu 5m	**S26361-F3989-L105**
SFP+ active Twinax Cable Fujitsu 10m	**S26361-F3989-L110**

Brocade active SFP+ Twinax 10Gb cable	
SFP+ active Twinax Cable Brocade 1m	**S26361-F3873-L501**
SFP+ active Twinax Cable Brocade 3m	**S26361-F3873-L503**
SFP+ active Twinax Cable Brocade 5m	**S26361-F3873-L505**

Cisco passive SFP+ Twinax 10Gb Ethernet	
SFP+ passive Twinax Cable Cisco 1m	**S26361-F4571-L101**
SFP+ passive Twinax Cable Cisco 3m	**S26361-F4571-L103**
SFP+ passive Twinax Cable Cisco 5m	**S26361-F4571-L105**
SFP+ active Twinax Cable Cisco 7m	**S26361-F4571-L107**
SFP+ active Twinax Cable Cisco 10m	**S26361-F4571-L110**

Fujitsu QSFP+ / QSFP+ Twinax 40Gb cable	
QSFP+ passive Twinax Cable Fujitsu 2m	**S26361-F3986-L402**
QSFP+ passive Twinax Cable Fujitsu 5m	**S26361-F3986-L405**
QSFP+ active Twinax Cable Fujitsu 10m	**S26361-F3986-L410**

Brocade active QSFP+ / QSFP+ Twinax 40Gb cable	
QSFP+ active Twinax Cable Brocade 1m	**S26361-F5317-L41**
QSFP+ active Twinax Cable Brocade 3m	**S26361-F5317-L43**
QSFP+ active Twinax Cable Brocade 5m	**S26361-F5317-L45**
40GE Direct Attached QSFP-QSFP,10m,1pack	**D:QSFP-QSFP-AOC10L**
Brocade active QSFP+ / 4xSFP+ Twinax 40Gb cable	
QSFP+/4xSFP+ Breakout Cable Brocade 1m	**S26361-F5317-L401**
QSFP+/4xSFP+ Breakout Cable Brocade 3m	**S26361-F5317-L403**
QSFP+/4xSFP+ Breakout Cable Brocade 5m	**S26361-F5317-L405**
4x10GE Direct QSFP-4SFP Cable,10m,1-pack	**D:QSFP-4SFP-AOC10L**

Chapter 10 - InfiniBand Components

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

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

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Section X 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

OOB-HDD monitoring by iRMC S4:
the OOB-HDD cable will be installed in production automatically
Exception: RAID Ctrl SAS 6G 1GB (D3116C), PRAID EP4x0i, PRAID CP400i,
these controllers support OOB-RAID, which includes OOB-HDD without cable

HDD OOB monitoring by iRMC
Loose delivery
S26361-F1420-L310

S26361-F1420-E130
Opt. Front VGA
max. 1x per system

Front VGA for IRMC Graphic only
- not for discrete Graphic -
- not for 12x 3.5" and 24x 2.5" HDD

Loose delivery
Opt. front VGA
S26361-F1420-L130

Section XI Miscellaneous

S26361-F3120-E40
Serial Port Option
RS-232-C
Cable with 9-pin plug
for a RS-232-C Serial Port
Interface
does NOT occupy PCI slot
max. 1x per system

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 RX2540 M1:
related L-numbers as well restricted

no basic unit with 12x LFF or 24x SFF

12x 3.5" HDD bays	**S26361-K1495-V112**
24x 2.5" HDD bays	**S26361-K1495-V424**

not these CPUs

Intel Xeon E5-2637v3 4C/8T 3.50 GHz	S26361-F3849-E137
Intel Xeon E5-2643v3 6C/12T 3.40 GHz	S26361-F3849-E143
Intel Xeon E5-2667v3 8C/16T 3.20 GHz	S26361-F3849-E167
Intel Xeon E5-2697v3 14C/28T 2.60 GHz	S26361-F3849-E197
Intel Xeon E5-2699v3 18C/36T 2.30 GHz	S26361-F3849-E199

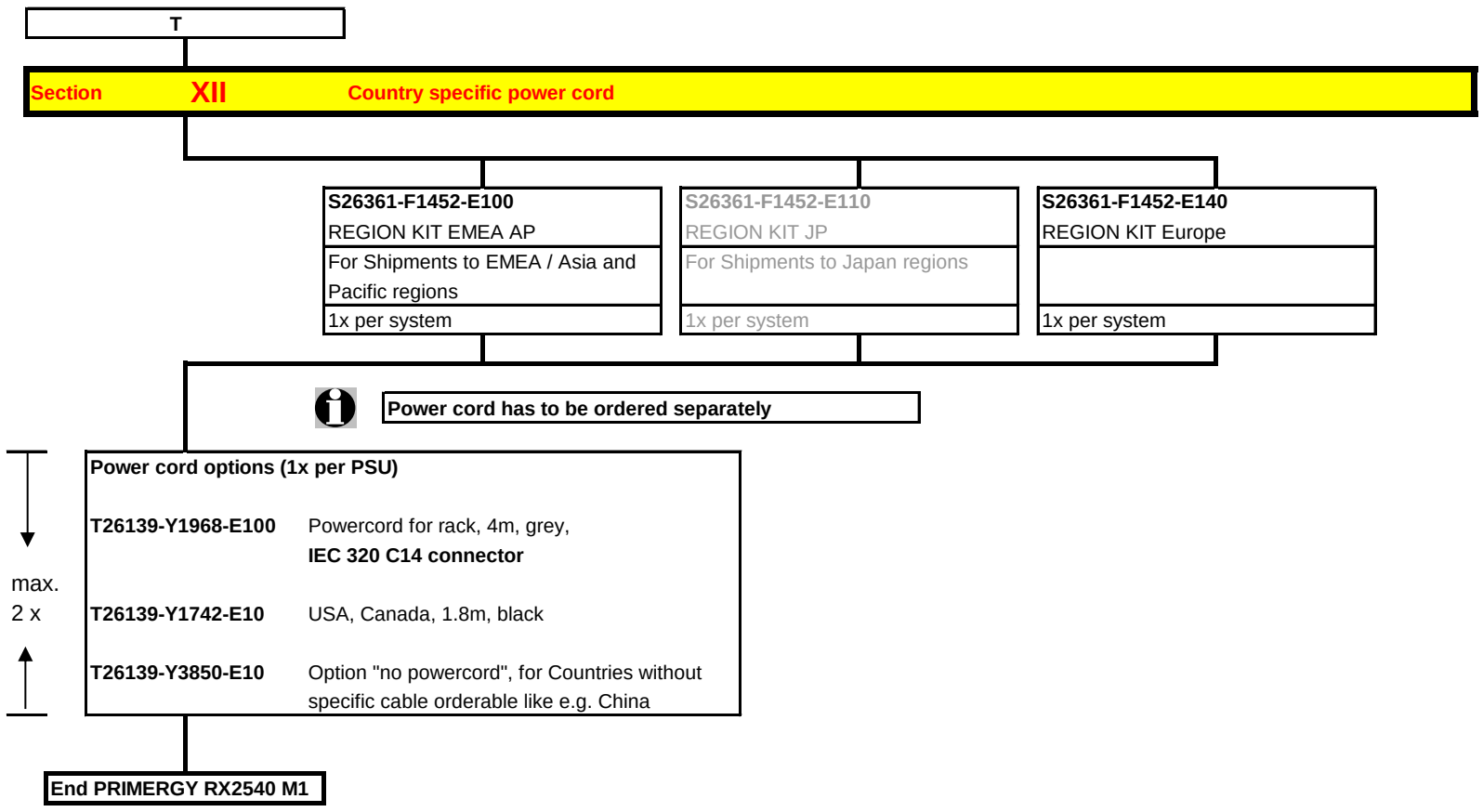
no Grid cards

PGRA CP NVIDIA GRID K1	S26361-F2222-E914
PGRA CP NVIDIA GRID K2	S26361-F2222-E924

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

T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Section XII Country specific power cord
S26361-F1452-E100
REGION KIT EMEA AP
For Shipments to EMEA / Asia and Pacific regions
1x per system
S26361-F1452-E110
REGION KIT JP
For Shipments to Japan regions
1x per system
S26361-F1452-E140
REGION KIT Europe
1x per system
Power cord has to be ordered separately
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, black
T26139-Y3850-E10 Option "no powercord", for Countries without specific cable orderable like e.g. China
End PRIMERGY RX2540 M1

System configurator and order-information guide
PRIMERGY RX2540 M1 Status 2017-06-30

Group	Description	order code	Status LLC
Base unit	2.5" HDD bays **exp long lifecycle**	S26361-K1495-V402	agreed
Base unit	3.5" HDD bays **exp long lifecycle**	S26361-K1495-V102	planned
Base unit	12x 3.5" HDD bays	S26361-K1495-V112	NO
Base unit	2.5" HDD bays **expandable**	S26361-K1495-V401	NO
Base unit	24x 2.5" HDD bays	S26361-K1495-V424	NO
Configs	Config. 4: 8x 2.5" HDD bays	S26361-F1495-E440	agreed
Configs	Config. 5: 16x 2.5" HDD bays	S26361-F2495-E450	agreed
Configs	Config. 6: 16x 2.5" HDD @ Dual RAID	S26361-F2495-E452	agreed
Configs	Riserkarte PCIe 2x x8 rechts	S26361-F3846-E21	agreed
CPU	Intel Xeon E5-2603v3 6C/6T 1.60 GHz	S26361-F3849-E103	NO
CPU	Intel Xeon E5-2609v3 6C/6T 1.90 GHz	S26361-F3849-E109	agreed
CPU	Intel Xeon E5-2620v3 6C/12T 2.40 GHz	S26361-F3849-E120	agreed
CPU	Intel Xeon E5-2640v3 8C/16T 2.60 GHz	S26361-F3849-E140	agreed
CPU	Intel Xeon E5-2660v3 10C/20T 2.60 GHz	S26361-F3849-E160	NO
CPU	Intel Xeon E5-2667v3 8C/16T 3.20 GHz	S26361-F3849-E167	NO
CPU	Intel Xeon E5-2670v3 12C/24T 2.30 GHz	S26361-F3849-E170	NO
CPU	Intel Xeon E5-2680v3 12C/24T 2.50 GHz	S26361-F3849-E180	agreed
CPU	Intel Xeon E5-2695v3 14C/28T 2.30 GHz	S26361-F3849-E195	agreed
CPU	Intel Xeon E5-2697v3 14C/28T 2.60 GHz	S26361-F3849-E197	NO
CPU	Intel Xeon E5-2637v3 4C/8T 3.50 GHz	S26361-F3849-E137	NO
CPU	Intel Xeon E5-2698v3 16C/32T 2.30 GHz	S26361-F3849-E198	NO
CPU	Kühllösung für 2te CPU	S26361-F3849-E100	agreed
RAM	4 GB (1x4 GB) DDR4-2133 R ECC		NO
RAM	8GB (1x8GB) 1Rx4 DDR4-2133 R ECC	S26361-F3843-E514	NO
RAM	16GB (1x16GB) 2Rx4 DDR4-2133 R ECC	S26361-F3843-E516	agreed
RAM	16GB (1x16GB) 2Rx4 DDR4-2133 R ECC	S26361-F3843-E516	agreed
RAM	32GB (1x32GB) 4Rx4 DDR4-2133 LR ECC	S26361-F3844-E517	agreed
RAM	Independent Mode Installation	S26361-F3694-E10	agreed
RAM	Performance Mode Installation	S26361-F3694-E2	agreed
FC	FC Ctrl 8Gb/s 2 Kanal LPe12002 MMF LC LP	S26361-F3961-E202	agreed
FC	PFC EP LPe16002 LP	S26361-F4994-E202	agreed
GFX	Front VGA	S26361-F1420-E130	agreed
HDD	HD SAS 12G 600GB 15K HOT PL 3.5' EP	S26361-F5532-E560	NO
HDD	4TB 7200rpm,<9,0ms, 64MB Cache, **512e**	S26361-F3904-E400	planned
HDD	HD SAS 12G 1.2TB 10K HOT PL 2.5" EP	S26361-F5543-E112	agreed
HDD	HD SAS 12G 300GB 15K HOT PL 2.5' EP	S26361-F5531-E530	agreed
HDD	HD SAS 12G 600GB 15K HOT PL 2.5' EP	S26361-F5531-E560	NO
HDD	HD SAS 12G 900GB 10K HOT PL 2.5" EP	S26361-F5543-E190	agreed
HDD	HD SAS 12G 900GB 15K HOT PL 2.5" EP		NO
HDD	SSD SATA 6G 120GB ReadIntensive 3.5' H-P	S26361-F5530-E120	NO
HDD	SSD SAS 12G 400GB High Endurance 2.5" H-P EP		agreed
HDD	SSD SAS 12G 400GB Main 2.5" H-P EP	S26361-F5298-E400	agreed
HDD	SSD SAS 12G 800GB High endurance 2.5" H-P EP		NO
HDD	SSD SAS 12G 800GB Main 2.5" H-P EP	S26361-F5298-E800	agreed

RAID	PRAID CP400i	S26361-F3842-E1	agreed
RAID	PRAID EP400i	S26361-F5243-E1	agreed
RAID	PRAID EP420i	S26361-F5243-E2	agreed
RAID	RAID Ctrl FBU Option mit 25cm Kabel	S26361-F5243-E125	agreed
RAID	RAID Ctrl FBU Option mit 70cm Kabel	S26361-F5243-E170	agreed
RAID	TFM Modul für FBU auf PRAID EP400i	S26361-F5243-E100	agreed
RAID	TFM Modul für FBU auf PRAID EP420i	S26361-F5243-E200	agreed
LAN	Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+ lp	S26361-F3629-E202	agreed
LAN	LAN Dummy	S26361-F5302-E100	agreed
LAN	PCNA EP OCe14102 2x 10Gb LP	S26361-F5250-E201	agreed
LAN	PLAN CP 2x1Gbit Cu Intel I350-T2 LP	S26361-F4610-E202	agreed
LAN	PLAN CP 2x1Gbit Cu Intel I350-T24 LP	S26361-F4610-E204	agreed
LAN	PLAN EM 2x10Gb SFP interface card	S26361-F5302-E211	agreed
LAN	PLAN EM 2x1Gb T OCI14000-LOM interface	S26361-F5302-E201	agreed
LAN	PLAN CP 4x1Gbit Cu Intel I350-T4	S26361-F4610-E4	agreed
LAN	SFP+ Module Multi Mode Fiber 10GbE LC	S26361-F3986-E3	added
ODD	DVD-RW supermulti ultraslim SATA	S26361-F3778-E1	agreed
ODD	DVD ROM Ulltraslim	S26361-F3718-E2	agreed
others	Cool-safe® Advanced Thermal Design	S26361-F3776-E101	agreed
PSU	Leitung Netzanschluss Rack, 4m, grau	T26139-Y1968-E100	agreed
PSU	Modular PSU 450W platinum hp	S26113-F575-E13	agreed
PSU	Modulare SV 800W platinum hp	S26113-F574-E13	agreed
PSU	Power cable Rack, 4m, grey	T26139-Y1968-E100	agreed
PSU	Stromversorgung Blende	S26113-F574-E99	agreed
Rack	Rack Mount Kit F1 CMA QRL LV	S26361-F2735-E175	agreed
Rack	Tragewinkel 1HE in asymmetrische Racks	S26361-F4530-E11	agreed
Rack	Kabelmgmt. seitl. für asym. PC Racks M1	S26361-F2735-E71	agreed
Rack	Einbau in symmetrische Racks	S26361-F4530-E10	agreed
Region	Region-Kit APAC/EMEA/Indien	S26361-F1452-E100	agreed
TPM	TPM Module	S26361-F3552-E6	agreed
SMM	iRMC S4 advanced pack	S26361-F1790-E243	freeze in 2018
PCIe switch	PPCI EP x16 Switch	S26361-F5267-E201	NO
PCIe SSD	2.5" PCIe-SSD 1.6TB, MLC	S26361-F5534-E161	NO
PCIe SSD	2.5" PCIe-SSD 2TB, MLC	S26361-F5534-E201	NO

Change Report

Date	Order number	Changes
2017-06-13	RAID page	descriptions of FBU options changed
2017-03-30	S26361-F5243-E4/L4	added
2017-01-17	8/10TB HDDs	Info-Text added
2017-01-11	S26361-F3849-L490	added
2016-12-21	S26361-F3904-E800/E100	added
2016-09-27	S26361-F2735-L10	corrected from 50kg to 15kg
2016-08-15	S26361-F2222-E964	Delete Tesla M60 card & SW / SUMs license codes for viurtual graphic
2016-08-02	S26361-F3849-L460	added
2016-07-15	S26361-F5607-*/F5608-*	added
2016-06-17	S26361-F3640-E2, -E202, -L502	Deleted. Intel X710 NIC "when available" --> not planned for this system
2016-06-03	S26361-F3849-L437 / -L467	added
2016-04-28	S26361-F3849-L499	added separate orderable CPU
2016-03-21	S26361-F1452-E140	added region kit Europe
2016-03-14	T26139-Y1742-E10	changed color to black
2016-03-04	S26361-F5539-xxx	up to 2 controller (FH and LP) released
2016-03-01	S26361-F5539-E201	adapted to Prokat database
2016-02-16	S26361-F5539-E1	deleted, not EMI tested
2016-01-06	S26361-F2222-E964	Tesla M60 card added & SW / SUMs license codes for viurtual graphic
2015-10-27	S26361-F3847-E202	changed from 1x to 4x PRAID EP420e
2015-10-14	S26361-F3819-E530	added 3.5" SAS 6G 15K 300GB HDD.
2015-10-02	S26361-F3849-L498	Added another loose component CPU
2ß15-10-01	S26361-F5243-E660	changed comment for FastPath and CacheCade
2015-08-26	S26361-F556*-*	added 3.5" SAS 10K HDDs.
2015-08-26	S26361-F5539-E1 / -E201	added Single Port 40Gb Emulex CNA
2015-08-26	S26361-F5557-E1 / -E201	added Dual Port 10GBASE-T Emulex NIC
2015-08-11	S26361-F3120-L100	added SAS3.0 Cable Kit for RX2540 2,5" (as soon as available)
2015-08-05	S26361-F2748-E638	NVS315 order code changed to LP card
2015-07-21		RAID controller updated
2015-07-16	S26361-F5550-E*/L*	Added 2.5" SAS 12G 10K 512n HDD
2015-07-16	S26361-F5531-E530	LLC options updated
2015-06-24		LLC options updated
2015-06-15		CPU configuration possibilites updated
2017-03-30	S26361-F3842-E1	updated raid levels of PRAID CP400i
2017-02-19	S26361-F3904-E600	Added 3.5" BC SATA 6TB 512e HDD
2015-02-17	S26361-F3849-L480	S26361-F3849-L480 on special release only
2015-02-05		LLC page updated
2015-02-03	S26113-F616-E10	add comment for 1200W PSU: <110V: 900W
2015-02-03	e.g. S26361-F3843-E516	2 DPC @ 2.133 MT/s on RDIMM and 32GB module now available
2015-02-03		LLC page updated (CPUs)
2015-01-27		PCIe SSD SFF max 8x only!
2015-01-27		LSD option deleted
2014-12-22		Explanation Text for GRID cards changed / reworked
2014-12-22	S26361-F2748-E538	PGRA CP NVS 1GB VGA PCIe x16 added and deleted former NVS300
2014-12-19	S26361-K1495-V402	Added basic unit 2.5" HDD bays **exp long lifecycle**
2014-11-28	S26361-F5543-E*	HDD 2.5" SAS 12G 10Krpm 512e up to 1.8TB added
2014-11-28	S26361-F3818-E*	HDD 2.5" SAS 6G 10Krpm 512n up to 1.2TB added
2014-11-28	S26361-F5302-E100	added blind dazzle for Dynamic LoM
2014-11-21	S26361-F3776-E101	Cool-safe® Advanced Thermal Design and other components released
2014-11-11	S26361-F5267-E201	PPCI EP x16 Switch up to 3x possible
2014-11-11		On board SATA Controller for up to 4x 3.5" SATA HDD configurations released
2014-09-29		2DPC RDIMM configuration @ 2.133MHz available in 11/2014 (remark added)
2014-09-25	FC Controller 16000/16002	release later
2014-09-12		GRID Cards, Mixed configurations of GRID K1 & K2 supported as well
2014-09-08	S26361-F5522-E*	SATADOM order number corrected from *F5222* to *F5522*
2014-09-08	S26361-F5531-E*	Added 2.5" SAS 12G 15Krpm 300GB, 450GB, 600GB HDD
2014-09-08	S26361-F3816-E250	Added 2.5" BC-SATA 250GB HDD
2014-09-05		HDD/SSD configurations without RAID controller are possible on special release only
2014-09-05	S26361-F3718-E2	DVD-ROM ultraslim SATA added
2014-09-05	S26361-F3641-E6	Blu-ray Triple Writer ultraslim SATA added
2014-09-02	S26361-F5536-E202/E2	added Emulex OCe14102-N 10Gb LAN
2014-09-02	S26361-F3516-E201/E1	deleted Gigabit Ethernet Controller 1000TX LP
2014-09-01		First Release