

PRIMERGY RX600 S6

System configurator and order-information guide

September 2014

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PRIMERGY Server

Instructions

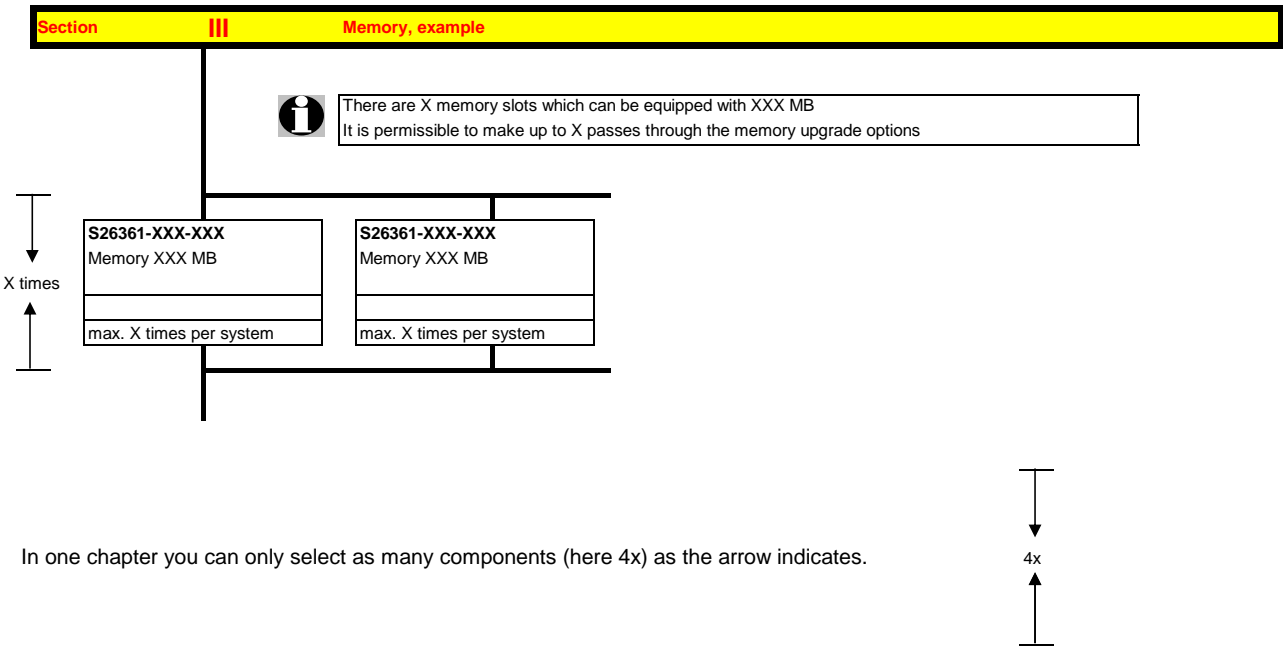
This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect

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

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

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

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



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.



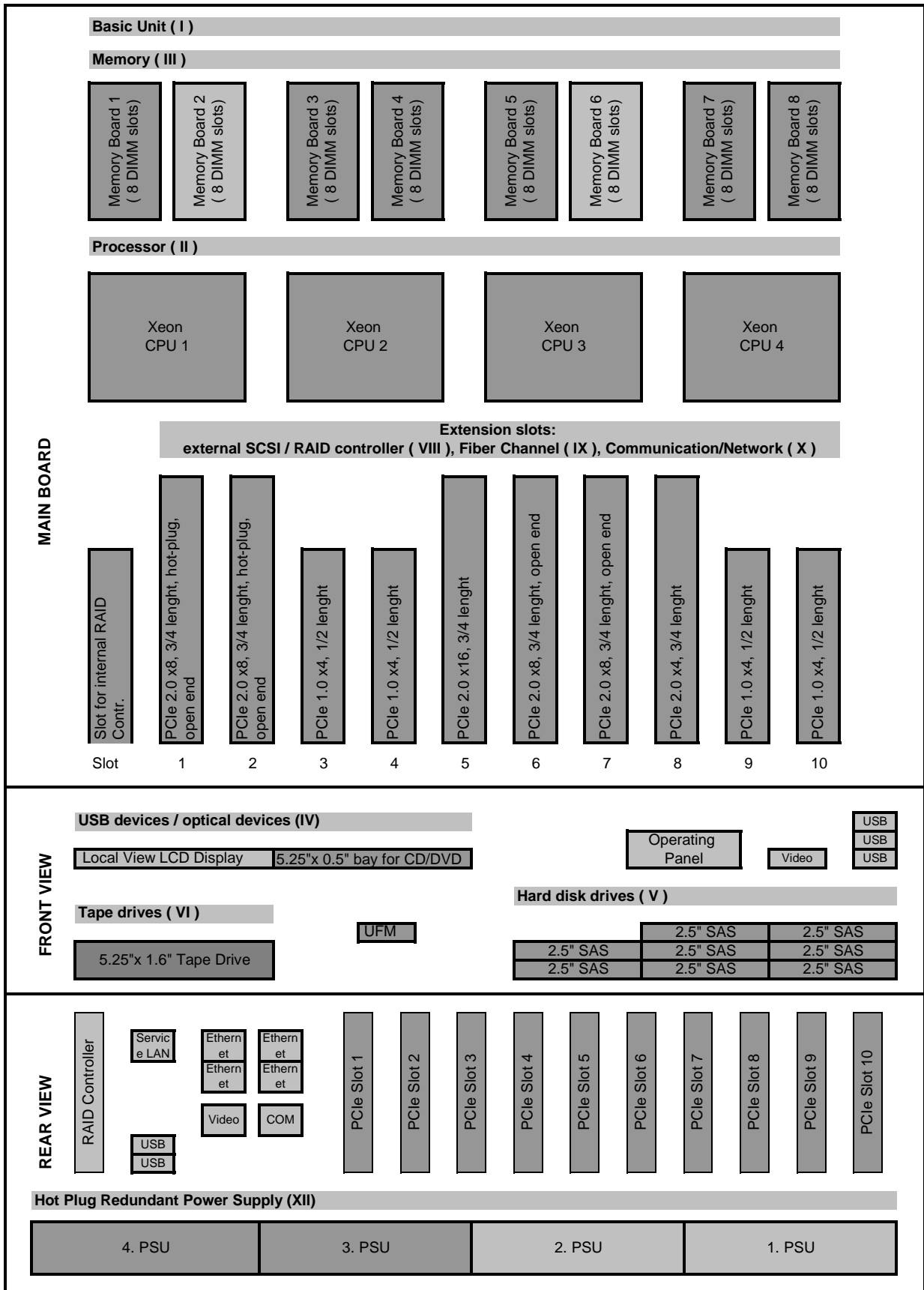
Further information in the internet see:

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

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

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

Configuration diagram PRIMERGY RX600 S6



Key: Included in basic unit
 Option

Start PRIMERGY RX600 S6

Section | Basic unit

PRIMERGY RX600 S6

Rack unit 4U with

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

Base unit **Standard** with

- 8x Fan (redundant)

S26361-K1402-V400

Systemboard with

- Intel 7500 chipset with serial QPI links (Quick Path Interconnect)
- 10 PCI-Express Slots
 - 2x PCIe 1.0 x4 (2x half length)
 - 3x PCIe 2.0 x4 (1x half length, 2x 3/4 length)
 - 4x PCIe 2.0 x8 (4x 3/4 length; 2x hot plug)
 - 1x PCIe 2.0 x16 (1x 3/4 length)
- 4x socket for Xeon E7-28xx /-48xx processor
- SATA controller on-board (for ODD)
- iRMC S2 (integrated Remote Management Controller) with graphics controller and 10/100Mbit Service LAN-port
- 2x Dual-Port GBit LAN Controller on-board (4 ports, WOL-capable)
- SAS RAID controller as option
- ServerView Suite Software package incl. ServerStart, ServerBooks, Management Software and Updates

Interfaces:

Front side

- 3x USB 2.0
- 1x VGA (15 pin)

Rear Side

- 2x USB 2.0
- 1x VGA (15 pin)
- 1x RS-232-C (serial, 9 pin)
- 4x on board LAN RJ45, 1x Service LAN RJ45

Internal

- 1x internal USB Interfaces for backup device
- 1x internal port for uSSD Module (Embedded vSphere ESXi 4.0)

S26361-F2735-E111

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

S26361-F2735-E285
Rack Mount Kit F2-C S7 LV

telescopic rails, full extraction, toolless mounting for RMK and CMA consisting of

- 1 pair of drop-in rails with CMA Adapter
- length variable (559mm- max. 860mm for RX600)

1x per system

S26361-F4530-E13

Bracket 3U in asymmetrical racks

S26361-F4530-E10

Mounting of RMK in symmetrical racks (no support brackets needed)

S26361-F2735-E71

Cable management lateral f. PRIMECENTER Racks

- for asymmetrical FJ racks or PRIMECENTER racks
- not for 3rd party racks

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

PRIMECENTER M1 Racks

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.

PCR M1 16U, 24U, 42U: Systems and components will be delivered installed in the rack

To be ordered only together with a PRIMECENTER M1 rack S26361-K827-Vxxx

refer PCR M1 rack configurator

max. 1x per System

Rack Mount Kit F2-C S7 LV
length variable (559mm- 860mm)

for loose delivery with CMA adapter

S26361-F2735-L285
without CMA adapter

S26361-F2735-L286

S26361-F2735-L7

Sideways cable management arm for mounting in asymmetrical FJ racks. Has to be mounted above the RMK.

S26361-F2735-L82

Cable management arm 2U for asymmetrical and symmetrical racks

S26361-F2201-L20

Cable arm for asymmetrical and symmetrical racks. Has to be mounted above the RMK.

S26361-F2735-L31

For mounting in asymmetrical PC racks: Support bracket 3U S26361-F2735-L31 has to be ordered for loose delivery

"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 the 46U PCR S2 this service has to be ordered, to get the mounting kits and the cables installed.

A

A

Section II Processor



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

2x - 4x

Following CPU's can be configured max. 4x per system
As minimum two CPU's must be configured

Quad-Socket CPU's

- 1x Intel Xeon processor E7-4800 / E7-8800 series incl. passive heat sink occupies socket for one CPU	
Xeon E7-4807 6C/12T 1.86GHz 18MB 4.80GT/s 95W	S26361-F3999-E480
Xeon E7-4820 8C/16T 2.00GHz 18MB 5.86GT/s 105W	S26361-F3999-E482
Xeon E7-4830 8C/16T 2.13GHz 24MB 6.40GT/s 105W	S26361-F3999-E483
Xeon E7-4850 10C/20T 2.00GHz 24MB 6.40GT/s 130W	S26361-F3999-E485
Xeon E7-4860 10C/20T 2.26GHz 24MB 6.40GT/s 130W	S26361-F3999-E486
Xeon E7-4870 10C/20T 2.40GHz 30MB 6.40GT/s 130W	S26361-F3999-E487
Xeon E7-8837 8C/8T 2.67GHz 24MB 6.40GT/s 130W	S26361-F3999-E837

extended lead time
extended lead time

2x

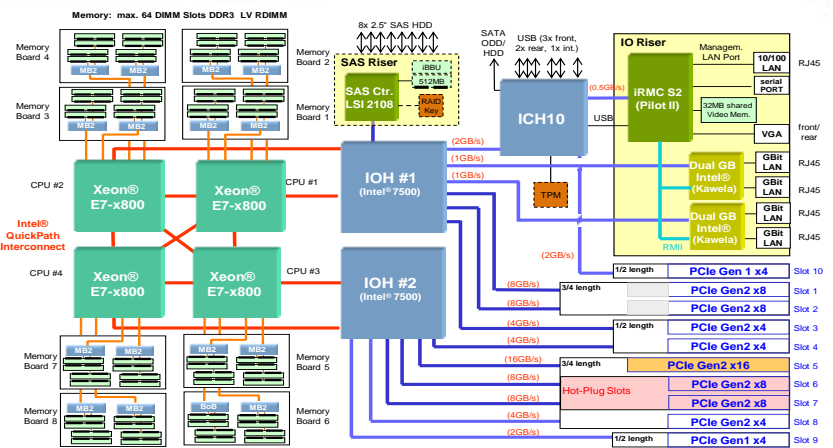
Following CPU's can only be configured 2x per system
Two CPU's must be configured

Dual socket CPUs

- 1x Intel Xeon processor E7-2800 series incl. passive heat sink occupies socket for one CPU	
Xeon E7-2803 6C/12T 1.73GHz 18MB 4.80GT/s 105W	S26361-F3999-E280
Xeon E7-2850 10C/20T 2.00GHz 24MB 6.40GT/s 130W	S26361-F3999-E285

extended lead time

RX600 S6 Architecture



INTERNAL USE ONLY

7

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B

B

Section III Memory

Memory configuration modes

There are four different configuration modes:

- Independend mode (no special order code)
- Spare mode (S26361-F4003-E1)
- Interleaving mode (S26361-F4003-E2)
- Mirroring mode (S26361-F4003-E3)

-Spare mode (S26361-F4003-E1)

In spare mode, one pair of DIMMs will be spare for the other pairs. The spare DIMMs must have the same capacity or higher than the other DIMMs. DIMM sparing only relates to BOBs.

There is no sparing over memory boards or CPUs.

Spare Mode requires at least 2 identical set of DIMM's (with 4 Modules each).

-Interleaving Mode (S26361-F4003-E2)

In Interleaving mode the cache lines will be distributed over different memory boards for better performance.

All DIMMS must be identical (same capacity and technology)!

Three types of interleaving are available:

2-way interleaving (also called "Intra Socket Interleaving")

The data are distributed over the memory controller of **each** CPU.

This type is possible with 2, 3 or 4 CPUs

and at least 2 memory boards on two CPU.

Each CPU requires 1, 2, 3 or 4 set of DIMM's (with 4 Modules each).

4-way interleaving mode (also called "Inter Socket Interleaving")

The data are distributed over the memory controller of **two** CPUs.

This type is possible with 2 or 4 CPUs and 2 memory boards per CPU.

Each CPU requires 1, 2 or 4 set of DIMM's (with 4 Modules each).

8-way interleaving mode (also called "Inter Socket Interleaving")

The data are distributed over the memory controller of **four** CPUs.

This type is only possible with 4 CPUs and 8 memory boards

and requires 4, 8, 12 or 16 set of DIMMs (with 4 Modules each).

According to the amount of installed Memory Boards and DIMMs system will be set automatically to highest possible Interleaving Mode.

-Mirroring mode (S26361-F4003-E3)

In mirroring mode, all data are copied within the main memory.

Therefore only 50 % of the total memory is available for the operating system.

Mirroring mode requires 2 memory boards per CPU.

All DIMMS must be identical (same capacity and technology)!

Two types of mirroring modes are available:

Intrasocket Mirroring

Memory will be mirrored from one memory controller to the other memory controller within the same CPU.

Intrasocket Mirroring is possible for all CPU configurations (2, 3 or 4).

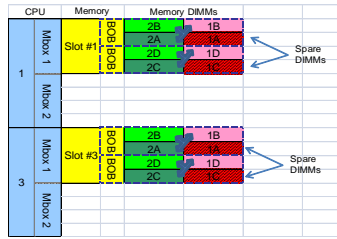
Intersocket Mirroring

Memory will be mirrored from one memory controller to an memory controller on another CPU (home agent to mirror agent).

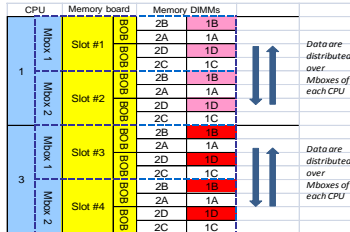
Intersocket mirroring is only possible with 4 CPUs (not with 2 or 3 CPUs).

C

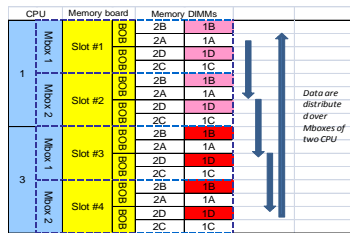
Spare Mode



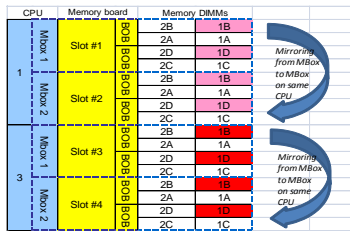
2-way interleaving



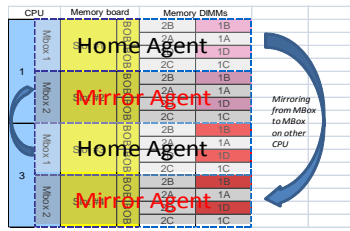
4-way interleaving



Intra Socket Mirroring



Inter Socket Mirroring



C



Max. Capacity / Features
 The system can be equipped with up to 64 DIMMs (distributed on 8 memory boards)
 Each DIMM slot can optionally be equipped with 4GB, 8GB, 16GB or 32GB DDR3 LV DIMM modules,
 so the maximal memory size is 2048 GB with 32GB modules.
 ECC with SDDC (Chipkill) is standard for RX600 S6.
 Max. Memory Speed depends on CPU QPI Speed, but is limited to 1066 MHz.

S26361-F4003-E1 Spare Mode Installation BIOS setup for Spare mode Preinstallation ex factory max. 1x per system	S26361-F4003-E2 Interleaving Mode Installation BIOS setup for Interleaving mode Preinstallation ex factory max. 1x per system	S26361-F4003-E3 Mirrored Mode Installation BIOS setup for Mirrored mode Preinstallation ex factory max. 1x per system
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	on special	release	as long as	available	as soon as	available
S26361-F4523-E642 Memory 16GB LV RDIMM (single rank) consisting of 4x 4GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E643 Memory 32GB LV RDIMM (dual rank) consisting of 4x 8GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E644 Memory 32GB LV RDIMM (quad rank) consisting of 4x 8GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E645 Memory 64GB LV RDIMM (quad rank) consisting of 4x 16GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E646 Memory 128GB LV RDIMM (quad rank) consisting of 4x 32GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E647 Memory 64GB LV RDIMM (dual rank) consisting of 4x 16GB modules (4Gb) occupies 4 memory slots max. 16x per system	

up to 3x
memory
upgrades
in base unit

	on special	release	as long as	available	as soon as	available
S26361-F4523-E642 Memory 16GB LV RDIMM (single rank) consisting of 4x 4GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E643 Memory 32GB LV RDIMM (dual rank) consisting of 4x 8GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E644 Memory 32GB LV RDIMM (quad rank) consisting of 4x 8GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E645 Memory 64GB LV RDIMM (quad rank) consisting of 4x 16GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E646 Memory 128GB LV RDIMM (quad rank) consisting of 4x 32GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E647 Memory 64GB LV RDIMM (dual rank) consisting of 4x 16GB modules (4Gb) occupies 4 memory slots max. 16x per system	

up to 6
additional
memory boards

S26361-F3990-E600 Memory Board RX600 S6 for 8 DIMM modules max. 6x per system



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

with
up to 12x
memory
upgrades

	on special	release	as long as	available	as soon as	as available
S26361-F4523-E642 Memory 16GB LV RDIMM (single rank) consisting of 4x 4GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E643 Memory 32GB LV RDIMM (dual rank) consisting of 4x 8GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E644 Memory 32GB LV RDIMM (quad rank) consisting of 4x 8GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E645 Memory 64GB LV RDIMM (quad rank) consisting of 4x 16GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E646 Memory 128GB LV RDIMM (quad rank) consisting of 4x 32GB modules occupies 4 memory slots max. 16x per system	S26361-F4523-E647 Memory 64GB LV RDIMM (dual rank) consisting of 4x 16GB modules (4Gb) occupies 4 memory slots max. 16x per system	

D

D

Section IV USB devices / optical devices / UFM



Setup RX600 S6 by SV Installation Manager is supported with following configurations:
built in CD/DVD or USB CD/DVD, no Floppy disk drive:
 UNC Network share reachable

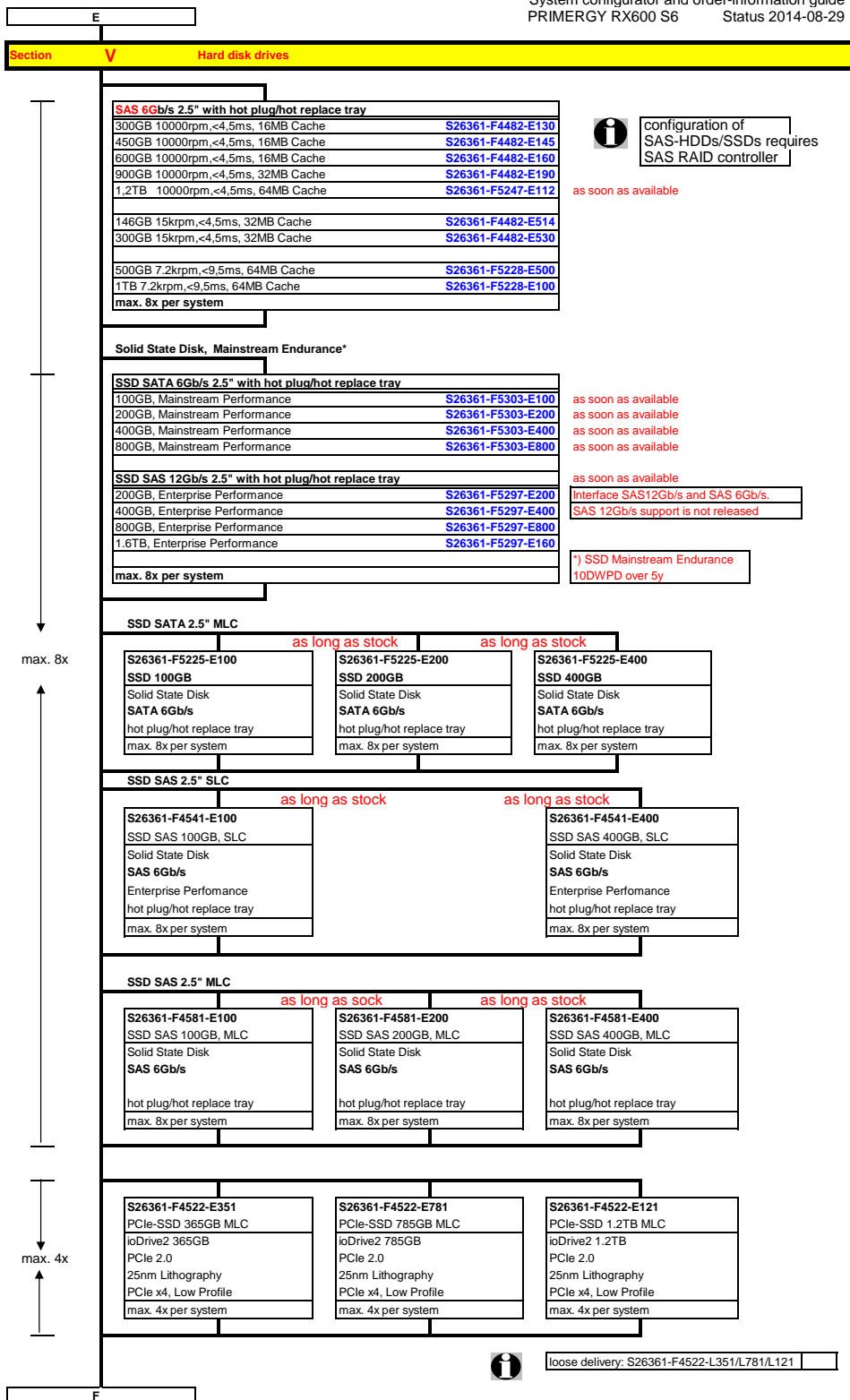
If installation is done locally, make sure you have USB stick available for driver installation.

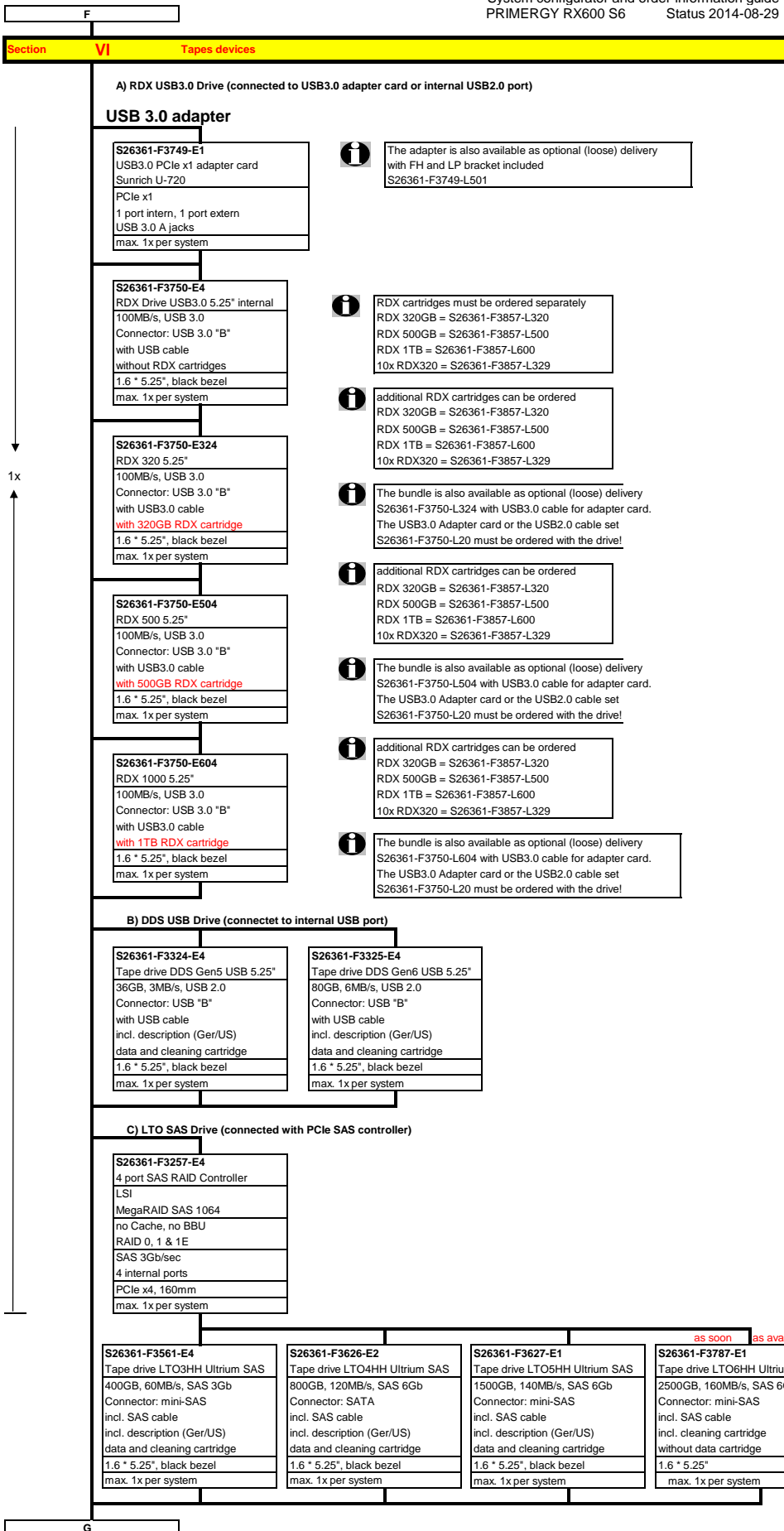
One UFM (USB Flash Module) can be configured
 The UFM is bundled with VMWare offering:
 VMware vSphere Embedded UFM Device S26361-F2341-E431

1x

S26361-F3269-E2 DVD-RW supermulti slim SATA all formats, DUAL/DL, DVD-RAM only W2K, W3K and Linux 0.5 x 5.25", black bezel max. 1x per system	S26361-F3641-E2 Blu-ray Triple Writer slim SATA 6x BD-RW, 8x DVD, 24x CD BD DL and all CD/DVD formats 0.5 x 5.25" max. 1x per system
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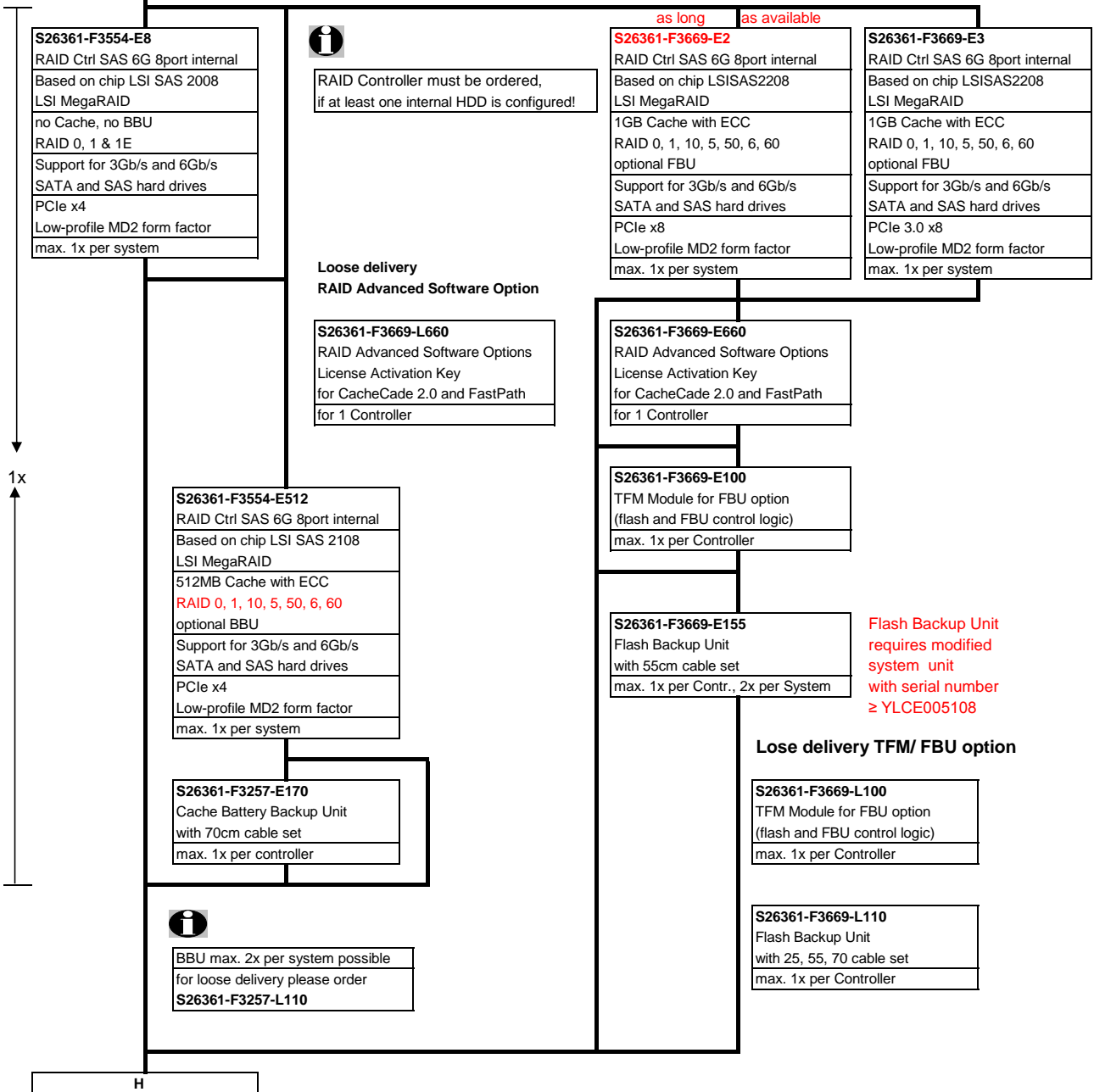
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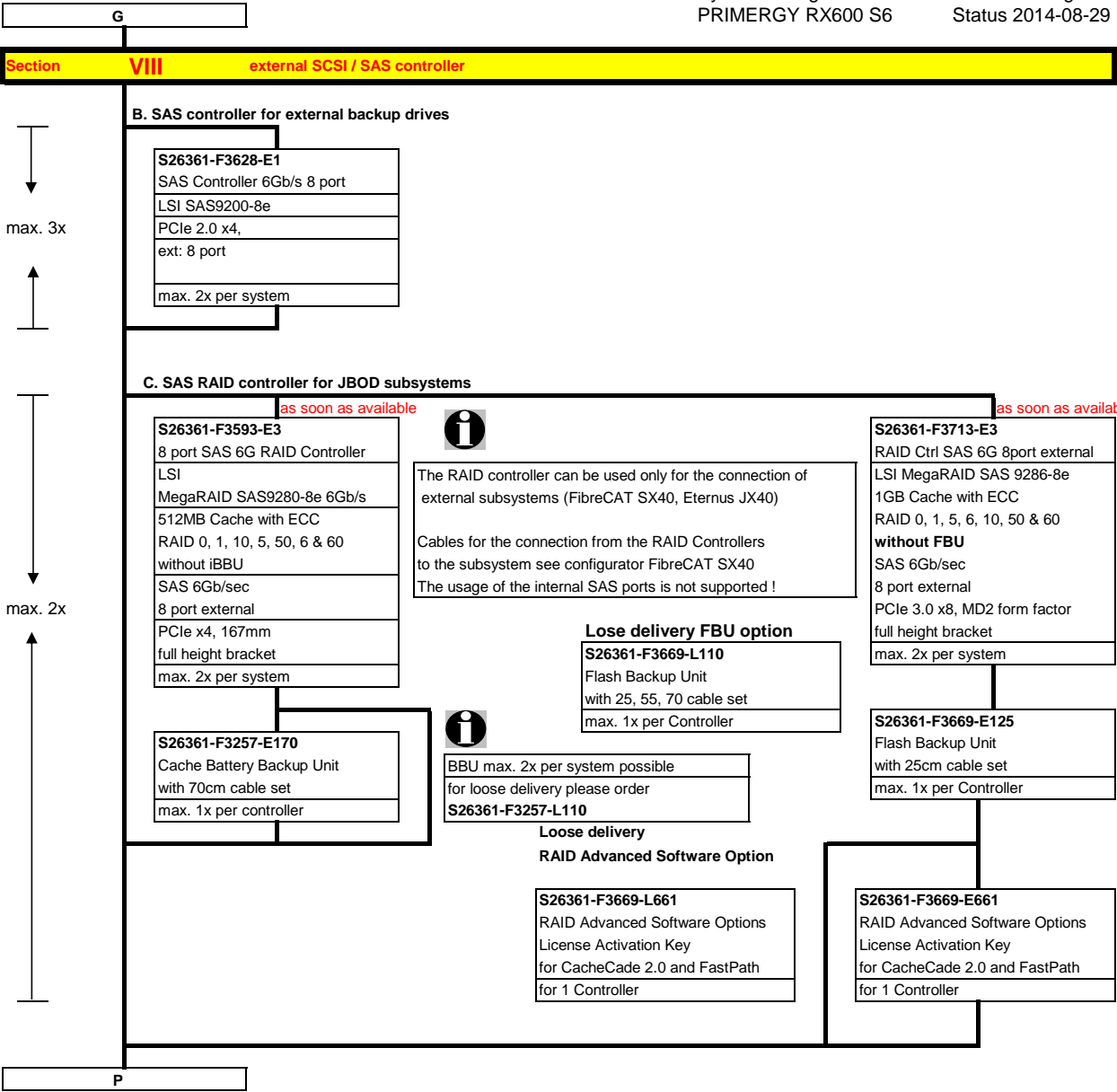




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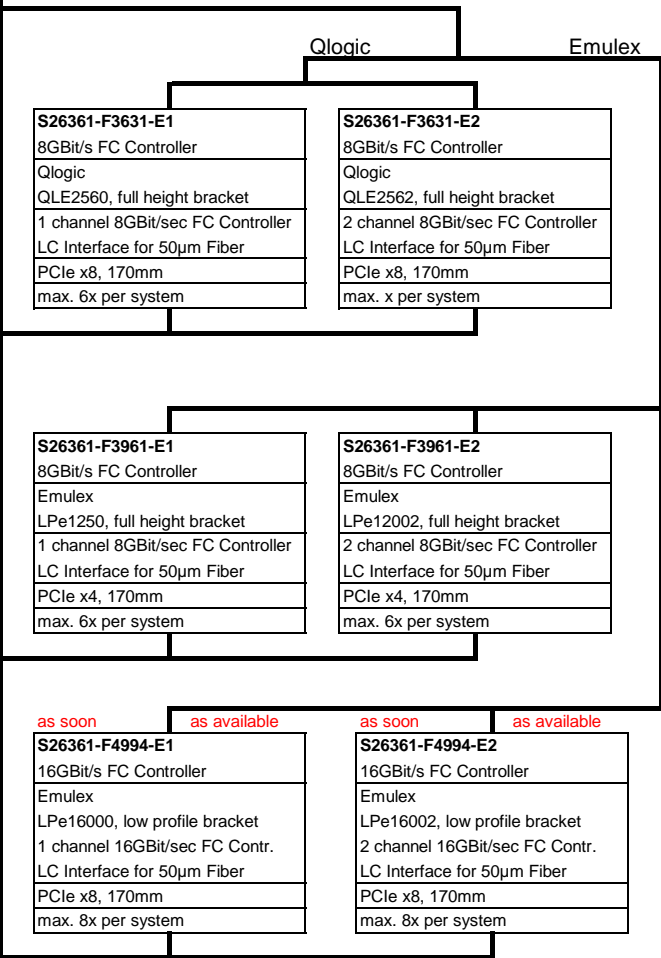
Section VII internal SAS RAID 0/1 and RAID5 Controller for HDD's





P

Section IX Fibre Channel



No mix of different vendors for FC or FCoE controllers.

loose delivery:
 Single channel S26361-F3631-L1
 Dual Channel S26361-F3631-L2
 with mounted LP bracket
 FH bracket is not included

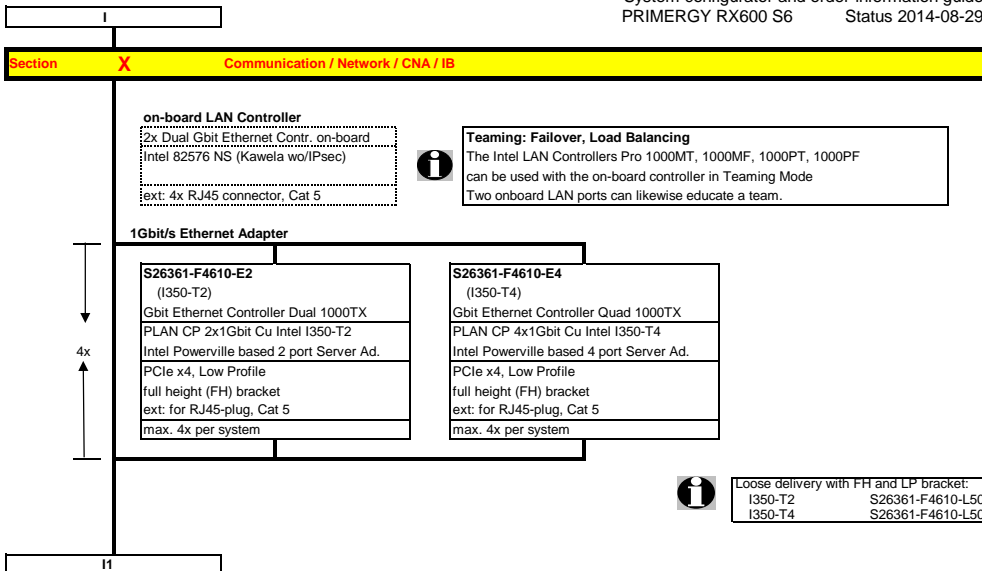
loose delivery:
 Single channel S26361-F3961-L1
 Dual Channel S26361-F3961-L2
 with mounted LP bracket
 FH bracket is not included

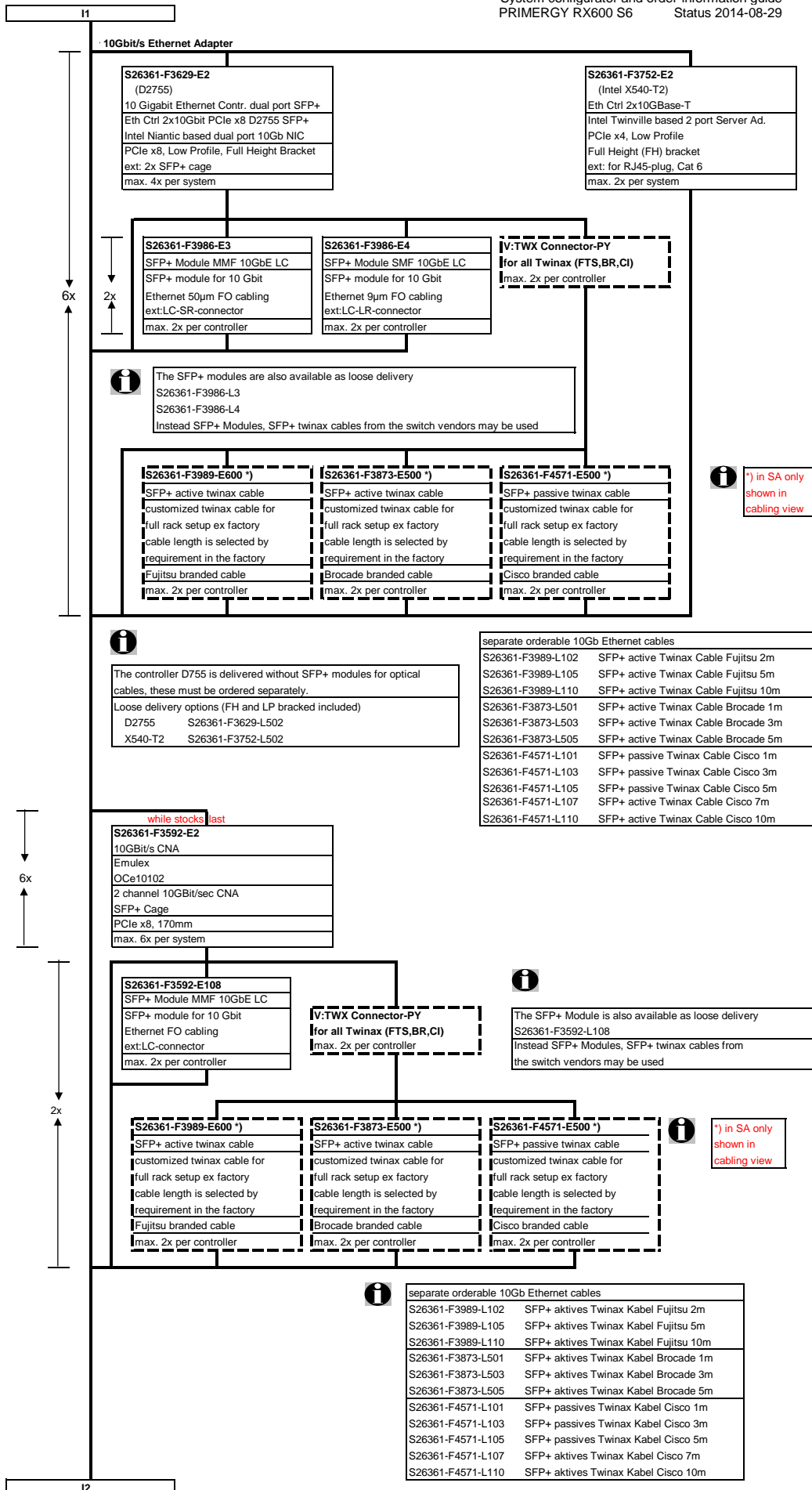
loose delivery:
 Single channel S26361-F4994-L501
 Dual Channel S26361-F4994-L502
 contains LP and FH brackets.

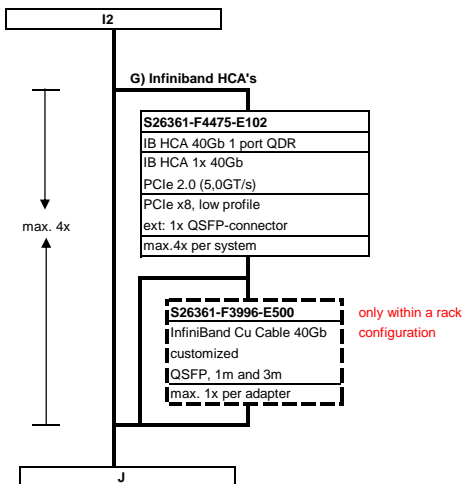
All controllers for the connection of external storage systems are delivered without cables. For the configuration of external cabling see the configurator for external storage systems.

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

Q







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

i 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

J

Section XI System Management Products (RemoteView)

S26361-F1790-E241
iRMC S2 advanced pack
 integrated remote management controller
 activation key for
 graphical console redirection
 and remote media redirection
 max. 1x per system

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

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

S26361-F3552-L1
 TPM Module add-on kit
 for later integration (loose delivery)
 Trusted Platform Module on Motherboard
 Use according to import restrictions
 max. 1x per system

Section XII Optional PSU / Power cords / Region kit

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

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

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

S26113-F561-E20
 3rd / 4rd power supply module
 850W, hot plug
 for max. configuration
 w/o 1x power cord ICE320 C14->C13
 max. 2x per system

i **For later upgrade the following kit is available:**
S26113-F561-L20
 3rd / 4rd power supply module
 850W, hot plug
 for max. configuration
 w/o 1x power cord ICE320 C14->C13
 max. 2x per system

S26361-F3301-E123
 Certification for India

i For shipments to India mandatory!

Hint: No country specific powercord configurable with Certification for India

Power cord options (1x per PSU)

max. 4 x

T26139-Y1968-E100 Powercord for rack, 4m, grey,
 IEC 320 C14->C13 connector

T26139-Y1742-E10 USA, Canada, 1.8m, grey

T26139-Y3850-E10 Option "no powercord", for Countries without
 specific cable orderable like e.g. China

i Power cord has to be ordered separately

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

End PRIMERGY RX600 S6

Change Report

Date	Order number	Changes
2014-07-30	S26361-F2735-E82	defined as „can“-position to RMK
2014-06-30	S26361-F3301-E123	Added certification for India
2014-06-16	S26361-F3592-E2	phase out OCe10102
EOL D3035	S26361-F3739-xxx	EOL D3035
2014-06-16	S26361-F3740-xxx	EOL D3045
2014-06-16	S26361-F3242-xxx	EOL Sheepshead Bay
2014-04-11	S26361-F3531-E2	deleted
2014-03-17	S26361-F3739-E201	phase out
2014-03-17	S26361-F3740-E201	phase out
2014-03-17	S26361-F3610-E202	EOL
2014-01-31	S26361-F5247-E112	New 1.2TB 2.5" SAS 10K HDD added.
2014-01-31	S26361-F5303-*	New SATA SSDs added.
2014-01-31	S26361-F5297-*	New SAS SSDs added.
2013-10-18	Optional USB Comps	no longer available
2013-10-16	S26361-F4610-E2 / -E4	added new 1Gb NICs from Intel
2013-08-05	S26361-F4482-E*	HDD Cache updated.
2013-05-28	S26361-F3787-E1	LTO6 added
		8x as max. total number of FC controller removed
2013-04-05	S26361-F3669-E125	FBU option of S26361-F3713-E3 changed from -E170 to -E125 (25cm FBU cable)
2013-03-25	S26361-F3669-E3	RAID Ctrl SAS 6G 1GB (D3116C) added
2013-03-14	S26361-F3750-E324/504/E604	RDX & Cartridge bundles added
2013-01-23	S26361-F3669-E660/L660	RAID Advanced Software Options: Bypass for E660; L660 added
2013-01-23	S26361-F3669-E661/L661	RAID Advanced Software Options for RAID Ctrl SAS 6G 8port external added
2013-01-23	S26361-F3593-E1	Changed to S26361-F3593-E3 and set as soon as available
2013-01-23	S26361-F3271-E1	SAS Controller 3Gb/s 8 port is EOL => removed
2013-01-23	S26361-F3270-E1	SCSI U320 extern is EOL => removed
2013-01-08	S26361-F5228-E***	New 2.5" BC SAS 7.2K HDD
2012-11-22	F3749-E4 and F3750-E4	"as soon as available" removed
2012-11-22	S26361-F3857-E4	"as long as available" added
2012-11-14	S26361-F3669-E2	Order number for 6G RAID Controller changed from -E3 to -E2
2012-10-18	S26361-F5423-E647	Added 64 GB Memory
2012-10-08	S26361-F3749-Ex	Added USB 3.0 Adapter
2012-10-08	S26361-F3750-Ex	Added RDX Drive
2012-10-01	S26361-F3986-E4	New SFP+ Module SMF 10GbE LC
2012-09-28	S26361-F4541-E200	EOL: 200GB SSD SAS SLC
2012-09-24	/-L285 /-L286	added new Rackmount Kit with vario carrier 559-860mm, rails with and without CMA adapter
2012-09-21	S26361-F3739-E1	added new LAN Controller (D3035 / D3045)
2012-09-11	S26361-F2735-E285	Change to new RMK
2012-08-31	S26361-F3669-E3	Order number for Cougar3 changed to -E3
2012-08-16	S26361-F4523-E646	Add 128GB / 4x 32GB Memory Module
2012-07-25	S26361-F4581-Exxx	Add SSD SAS MLC
2012-07-16	S26361-F3857-L160/L169	RDX Cartridge 160GB is EOL => removed
2012-06-29	S26361-F4522-xxx	PCIe-SSD 781GB / 1,2TB MLC added
2012-06-14	S26361-F5225-E*00	New order for SATA SSD's
2012-04-23	S26361-F3669-E1	new int. SAS RAID Controller added
2012-04-23	S26361-F3713-E1	new ext. SAS RAID Controller added
2012-01-30	S26361-F3641-E2	new Blue-ray Triple Writer added
2011-12-21	S26361-F4482-E114	SAS HD 6G 144GB - no longer available
2011-10-30	S26361-F4541-Ex00	new SAS SSD with 100, 200, 400 GB added - as soon as available
2011-10-01	S26361-F3298-E64	64 GB SSD - no longer available
2011-06-28		Mismatch between Emulex FC controllers and FCoE Controller now possible
2011-05-30	S26361-F3601-Exxx	BC-SATA HDD removed
2011-05-30	S26361-F2735-E245	Cable Management Arm changed
2011-05-06		PSUs changed, Power cables added, Region Kit added
2011-04-26	S26361-F3986-E3	SFP modules for 10GbE adapter changed
2011-03-18	S26361-F4522-Exxx	PCIe SSD added
2011-03-18	S26361-F4475-Ex02	max. Number of Infiniband HCA's increased to 4x each / 4 x total
2011-02-22	S26361-F3626-E2	order number LTO4 changed
2011-02-15		Blu-ray Triple Writer slim SATA and DVD-ROM slim SATA added
2011-02-11		LTO2 removed
2011-01-26		Update: RMK, Memory Order codes / 10Gb Controller ...
2011-01-24		CPU SKUs updated
2010-06-01		First draft