

# PRIMERGY RX2520 M1

## *System configurator and order-information guide*

November 2016

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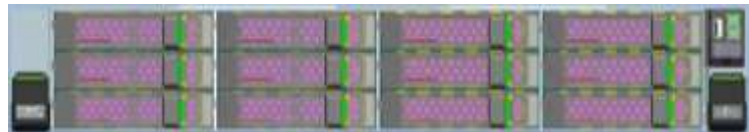
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**PRIMERGY Server**

# Instructions

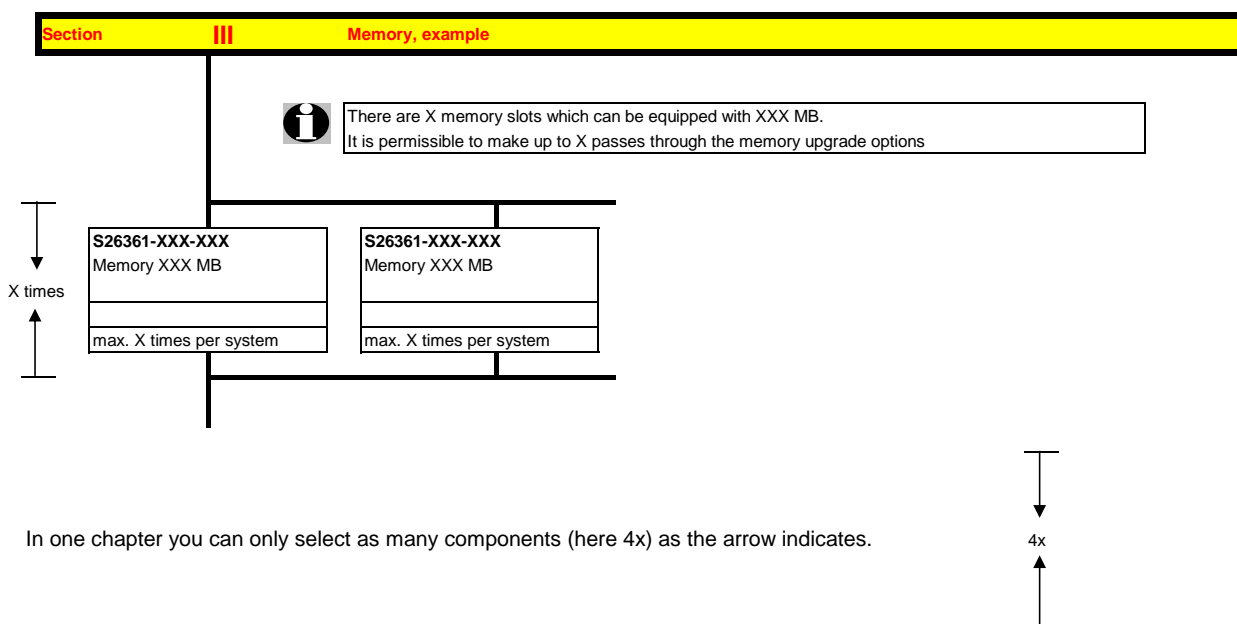
This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect.

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-/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:

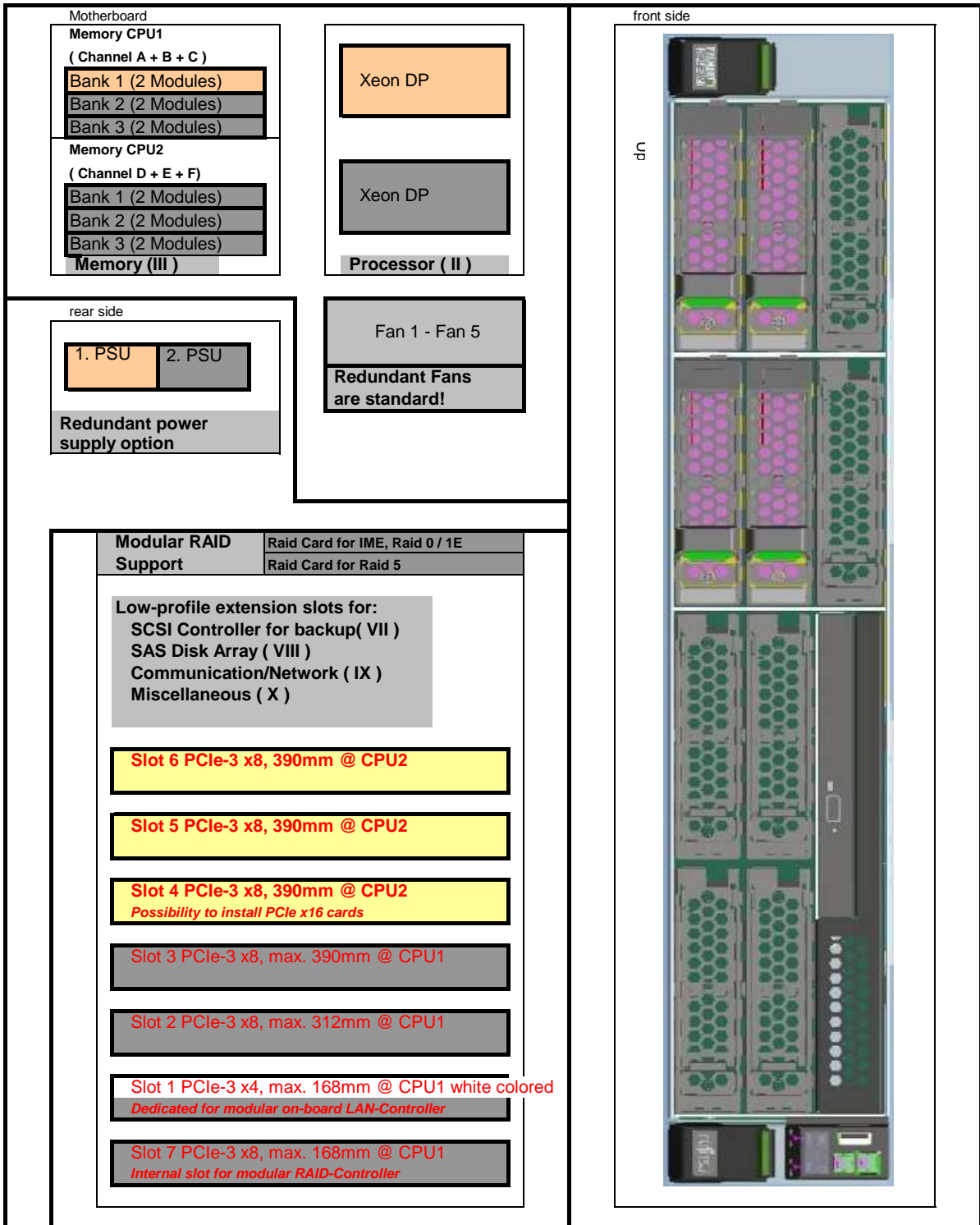
[http://ts.fujitsu.com/products/standard\\_servers/inc](http://ts.fujitsu.com/products/standard_servers/inc) (internet)

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

## Configuration diagram PRIMERGY RX2520 M1

### System unit ( I )

with up to 8x or 12x 3.5" Hard disk drives



Key:

 Included in basic unit

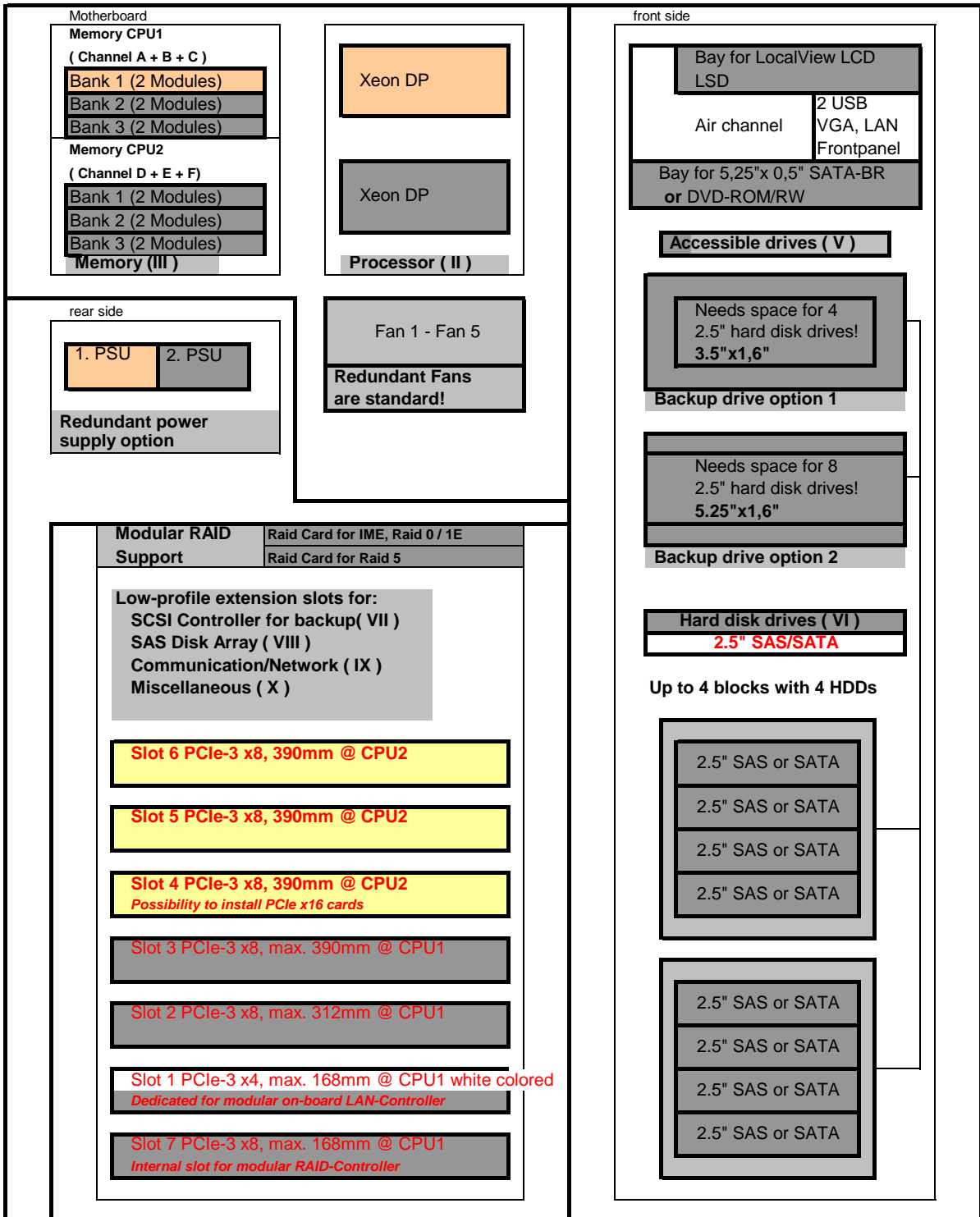
 Option

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

## Configuration diagram PRIMERGY RX2520 M1

### System unit ( I )

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



Key:

 Included in basic unit

 Option

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

## Section | Basic unit

**System unit consisting of:**

- \* 2U Housing without power supply modules
- \* Basic units with:
  - 2 Hot-Plug Power Supply Bays
  - 4 Bays for fans: 2 + 1 fans (redundancy option), 2nd CPU requires additional fan!  
*note: 12x 3.5" HD basic unit contains allways 5 fans!*
  - 6 memory DIMMs per CPU => Total 12 DIMMs for two CPU's
- \* SAS Backplane for 12x 3.5" HD, SAS Backplanes for 4, 8, 12 or 16x 2.5" HD or PCIe Backplanes for with cable connection to on-board, modular RAID Controller
- \* Drives/Bays
  - 8 or 12 bays 1" for hot plug 3.5" HD (1" high) or 4, 8, 12 or 16 bays for hot plug 2.5" HD
  - 1 bay for 3.5" and 1.6" high Backup device, not possible for 3.5" HD basic units  
or for basic unit with 12 or 16 x 2,5" HD
  - 1 bay for 5.25" and 1.6" high Backup device, not possible for basic units 3.5" HD  
or for basic unit with 12 or 16 x 2,5" HD
  - 1 bay SATA-CD- or DVD-ROM 0,5" height (option), not possible for 12x 3.5" HD basic unit
  - 1 bay for opt. LocalView LC-Display, not possible for 3.5" HD basic units
- \* Integrated ServerView Diagnostics Technology ( Diagnosis LED's ) for indication of internal failed components

**Systemboard D3169 with:**

- \* Up to two Xeon DP CPU's (Socket-B2)  
with 1 serial QPI link ( Quick Path Interconnect ) and three memory channels per CPU  
First CPU has to be selected for an orderable basic unit,
- \* Chipset Intel® C600 Series (codenamed Patsburg)
- \* 7 PCI slots:
  - 3x PCIe-3 x8 (Slots are connected to CPU 2, useable with configured 2nd CPU only!)
  - all Gen 3    - 2x PCIe-3 x8
  - 1x PCIe-3 x4 Gen 2 only
  - 1x PCIe-3 x8 (for internal modular RAID controller only)
- \* 12 memory slots for max. 192 GB RAM DDR3 available
  - Memory is divided into 6 DIMMs per CPU ( 3 channels with 2 slots per channel )
  - Possible max. configurations are:
    - 12x 16GB RDIMM (dual rank modules) = 192 GB
    - 12x 32GB LRDIMM (quad rank modules) = 384 GB                    on project release only
    - 12x 64GB LRDIMM (quad rank modules) = 768GB                    on project release only
  - First Memory ( one module ) has to be selected for an orderable basic unit per CPU
  - Memory upgrade is possible module wise
- \* Dual Port 10/100/1000 x4 PCI Express\* Gigabit Ethernet Intel LAN controller Powerville on-board
- \* iRMC S4 (integrated Remote Management Controller) on-board server management controller with dedicated 10/100/1000 Service LAN-port and integrated graphics controller.  
The Service LAN-port can be switched alternatively on standard Gbit LAN port 1
- \* Graphics Controller integrated in iRMC S4 (integrated Remote Management Controller):  
1600x1200x16bpp 60Hz, 1280x1024x16bpp 60Hz, 1024x768x32bpp 75Hz, 800x600x32bpp 85Hz,  
640x480x32bpp 85Hz  
(1280x1024x24bpp 60Hz only possible if local monitor or remote video redirection is off)

**Interfaces at the rear:**

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

**Interfaces on the front:**

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

**Interfaces internal:**

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

**Software:**

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

A

A

**Cables included in basic unit**

Connections	Cable	PRIMERGY RX2520 M1	
1. SATA DVD			SAS SATA
2. SAS cables to HDDs			
3. 1x cable for SAS signaling			

**Note: Rack Mounting kit and Power Cord for RX2520 M1 is not included in the basic unit and has to be configured separately**

Rack version for 19" racks with <b>No PSU included in Base Unit</b>	
Basic unit is without CPU and Memory <b>For an orderable basic unit one CPU = first CPU and one memory = first memory has to be selected</b>	
Basic unit with <b>8x 3.5" HDD bays</b>	<b>S26361-K1480-V101</b>
<b>12x 3.5" HDD bays</b>	<b>S26361-K1480-V112</b>
Basic unit with <b>2.5" HDD bays expandable</b>	<b>S26361-K1480-V401</b>

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

Full redundancy cannot be guaranteed for a max. config. with e.g. two 95W CPUs with 450W PSUs  
 In this case SysArch will generate a warning and Power Safeguard will throttle CPUs in case of a PSU failure.  
 So, power consumption will be limited to 450W.

<b>on project release</b>			
<b>S26113-F575-E12</b> 450W PSU module platinum 1st or 2nd PSU for redundancy 94% efficiency (platinum) uses hot plug PSU slot min. 1 / max. 2x per system	<b>S26113-F574-E12</b> 800W PSU module platinum 1st or 2nd PSU for redundancy 94% efficiency (platinum) uses hot plug PSU slot min. 1 / max. 2x per system	<b>S26113-F609-E10</b> 800W PSU module -48V DC gold 1st or 2nd PSU for redundancy 92% efficiency (gold) uses hot plug PSU slot min. 1 / max. 2x per system	<b>S26113-F615-E10</b> 800W PSU module titanium 1st or 2nd PSU for redundancy 96% efficiency (titanium) 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 <b>no power cable included!!!</b>	<b>S26113-F575-L12</b>
One 800W power supply module hot plug <b>no power cable included!!!</b>	<b>S26113-F574-L12</b>
One 800W -48V DC PSU hot plug <b>no power cable included!!!</b>	<b>S26113-F609-L10</b>
One 800W power supply module titanium <b>no power cable included!!!</b>	<b>S26113-F615-L10</b>

Please order appropriate power cord additionally:

Powercord for rack, 4m, grey, IEC320 C13->C14 connector	<b>T26139-Y1968-L10</b>
Power Cord USA / Canada, 1.8m, grey	<b>T26139-Y1742-L10</b>
Power Cord -48V DC, 4m, black	<b>T26139-Y4024-L10</b>

**on project release**

**as soon as available**

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

**S26361-F3667-E10**  
 Redundant fan upgrade kit  
 2 + 1 fans (redundancy option)  
 2nd CPU requires additional fan (comes automatically)  
 max. 1x per system

**Not possible for 12x 3.5" HD basic unit**  
**It contains always 5 fans!**

**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



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**  
 Cable mgmt. arm for 2U server  
 - for PCR M1 or 3rd party racks  
 - for direct mounting at  
 Rack Mount Kit w/ CMAAdapter  
 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  
 can only be used for RMKs  
 with CMA adapter

**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  
**refer PCR S2 or M1 rack configurator**  
 max. 1x per System



**"Rack-mounting ex factory"**  
 This service is to be ordered once  
 per installable server/storage  
 subsystem, in order to get the  
 server/storage subsystem  
 mounted into the racks. In case of  
 not-installed server and subsystems  
 this service has to be ordered,  
 to get the mounting kits and the  
 cables installed.

**C**

C

**Section Processor**

**i** There are 2 processor sockets available.  
 The first socket must always be equipped with the **first CPU** which can be selected via configurator  
 It is also possible to upgrade a dual-processor system later on with a **second CPU**  
**2nd CPU requires additional fan which comes automatically when ordering 2nd CPU!**  
**Two processors with different clock frequencies are not possible**

C1

C2

**i** **8x3,5" HDD Base Unit**  
**S26361-K1480-V101**      **2,5" HDD Base Unit(s)**  
**S26361-K1480-V401**

**i** **12x3,5" HDD Base Unit**  
**S26361-K1480-V112**

<b>Max. two CPU's can be selected per basic unit</b>	
<b>One of following CPU's has to be selected as first CPU for an orderable basic unit</b>	
<b>Optional second CPU has to be the same type like the first CPU</b>	
<b>Basic 4C CPUs</b>	
- 1x 64-bit Intel Xeon (10MB shared TLC = Third Level Cache ) 1333 MHz DDR3 Bus, 6,40 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
<b>Xeon E5-2403v2 4C/4T 1.80GHz 10MB 6.40GT/s 1333MHz 80W</b>	<b>S26361-F3832-E180</b>
<b>Xeon E5-2407v2 4C/4T 2.40GHz 10MB 6.40GT/s 1333MHz 80W</b>	<b>S26361-F3832-E240</b>
<b>Standard Turbo 6/8C CPUs</b>	
- 1x 64-bit Intel Xeon (15/20MB shared TLC = Third Level Cache ); Hyper-Threading (HT); 1600 MHz DDR3 Bus, 7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
<b>Xeon E5-2420v2 6C/12T 2.20GHz 15MB 7.20GT/s 1600MHz 80W</b>	<b>S26361-F3833-E220</b>
<b>Xeon E5-2430v2 6C/12T 2.50GHz 15MB 7.20GT/s 1600MHz 80W</b>	<b>S26361-F3833-E250</b>
<b>Xeon E5-2440v2 8C/16T 1.90GHz 20MB 7.20GT/s 1600MHz 95W</b>	<b>S26361-F3833-E190</b>
<b>Advanced Turbo+ 8C/10C CPU</b>	
- 1x 64-bit Intel Xeon (20MB shared TLC = Third Level Cache ); Hyper-Threading (HT); 1600 MHz DDR3 Bus, 8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
<b>Xeon E5-2450v2 8C/16T 2.50GHz 20MB 8.00GT/s 1600MHz 95W</b>	<b>S26361-F3834-E250</b>
<b>Xeon E5-2470v2 10C/20T 2.40GHz 25MB 8.00GT/s 1600MHz 95W</b>	<b>S26361-F3834-E240</b>
<b>Low Power 6C CPU</b>	
- 1x 64-bit Intel Xeon (15MB shared TLC = Third Level Cache ); Hyper-Threading (HT); 1333 MHz DDR3 Bus, 7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
<b>Xeon E5-2430Lv2 6C/12T 2.40GHz 15MB 7.20GT/s 1600MHz 60W</b>	<b>S26361-F3835-E240</b>
<b>Xeon E5-2450Lv2 10C/20T 1.70GHz 25MB 8.00GT/s 1600MHz 60W</b>	<b>S26361-F3835-E170</b>

D



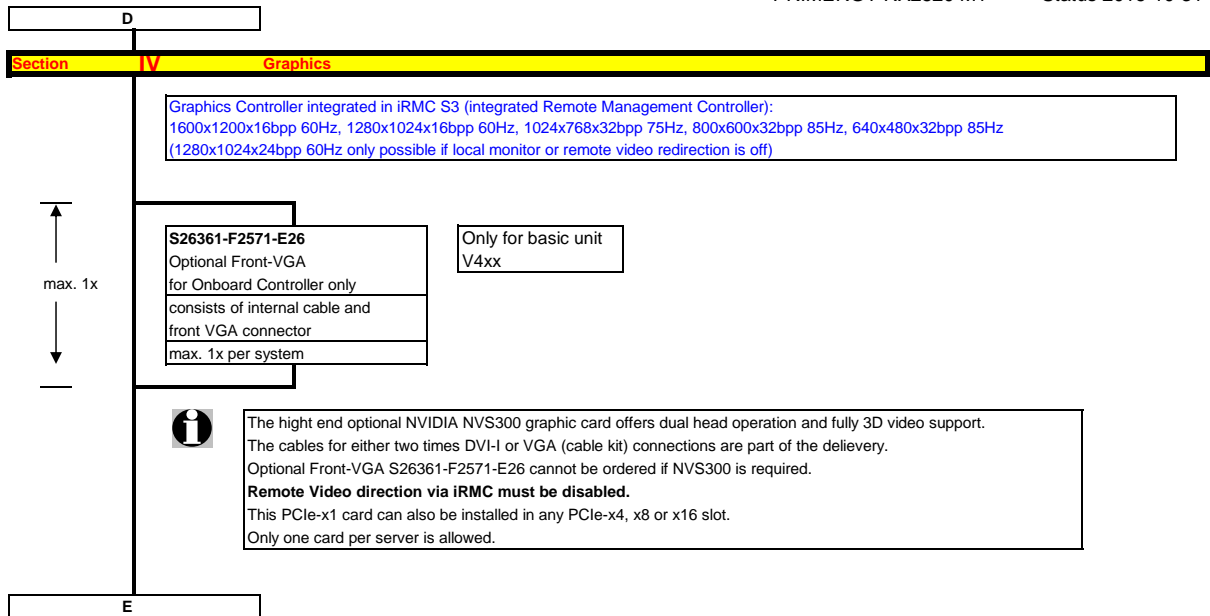
C2

**12x3.5" HDD Base Unit  
 S26361-K1480-V112**

as soon as available

<b>Max. two CPU's can be selected per basic unit</b>	
<b>One of following CPU's has to be selected as first CPU for an orderable basic unit</b>	
<b>Optional second CPU has to be the same type like the first CPU</b>	
<b>Basic 4C CPUs</b>	
- 1x 64-bit Intel Xeon (10MB shared TLC = Third Level Cache ) 1333 MHz DDR3 Bus, 6,40 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
<b>Xeon E5-2403v2 4C/4T 1.80GHz 10MB 6.40GT/s 1333MHz 80W</b>	<b>S26361-F3832-E181</b>
<b>Xeon E5-2407v2 4C/4T 2.40GHz 10MB 6.40GT/s 1333MHz 80W</b>	<b>S26361-F3832-E241</b>
<b>Standard Turbo 6/8C CPUs</b>	
- 1x 64-bit Intel Xeon (15/20MB shared TLC = Third Level Cache ); Hyper-Threading (HT); 1600 MHz DDR3 Bus, 7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
<b>Xeon E5-2420v2 6C/12T 2.20GHz 15MB 7.20GT/s 1600MHz 80W</b>	<b>S26361-F3833-E221</b>
<b>Xeon E5-2430v2 6C/12T 2.50GHz 15MB 7.20GT/s 1600MHz 80W</b>	<b>S26361-F3833-E251</b>
<b>Xeon E5-2440v2 8C/16T 1.90GHz 20MB 7.20GT/s 1600MHz 95W</b>	<b>S26361-F3833-E191</b>
<b>Advanced Turbo+ 8C/10C CPU</b>	
- 1x 64-bit Intel Xeon (20MB shared TLC = Third Level Cache ); Hyper-Threading (HT); 1600 MHz DDR3 Bus, 8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
<b>Xeon E5-2450v2 8C/16T 2.50GHz 20MB 8.00GT/s 1600MHz 95W</b>	<b>S26361-F3834-E251</b>
<b>Xeon E5-2470v2 10C/20T 2.40GHz 25MB 8.00GT/s 1600MHz 95W</b>	<b>S26361-F3834-E241</b>
<b>Low Power 6C CPU</b>	
- 1x 64-bit Intel Xeon (15MB shared TLC = Third Level Cache ); Hyper-Threading (HT); 1333 MHz DDR3 Bus, 7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
<b>Xeon E5-2430Lv2 6C/12T 2.40GHz 15MB 7.20GT/s 1600MHz 60W</b>	<b>S26361-F3835-E241</b>
<b>Xeon E5-2450Lv2 10C/20T 1.70GHz 25MB 8.00GT/s 1600MHz 60W</b>	<b>S26361-F3835-E171</b>

D



E

**Section III Memory**



- **There are 6 memory slots per CPU for max. 96GB RDIMM (6x 16GB 2R) currently up to 192GB for two CPUs ( 96GB per CPU ), using RDIMM**

- The memory area is divided into 3 channels per CPU with 2 slots per channel

- Slot 1 of each channel belongs to memory bank 1, the slot 2 belongs to memory bank 2.

---

Memory can be operated at 1.5V or 1.35V, even if the modules are of low voltage type.  
Memory operating voltage can be set within BIOS (**1.5V is default** setting for max. speed).  
In a 2 DIMMs per channel configuration the max memory speed is 1600 MHz (depending on CPU)  
@ 1.35V the max memory speed is 1333MHz max

**SDDC (Chipkill) is supported for registered x4 organized memory modules only**

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

---

**2.) "Performance Mode" configuration**  
- In this configuration, the memory module population ex factory is spread across all channels.  
The BIOS is set to the max. performance for memory.  
**Minimum configuration is: 3x identical modules**

F

F

1x per CPU

<p><b>S26361-F3695-E10 Independent Mode</b>                  Independent Channel Mode allows all channels to be populated in any order. No specific Memory RAS features are defined  <b>Requires min 1 memory Module per CPU</b></p>
<p><b>S26361-F3695-E2 Performance Mode Installation</b>                  BIOS Setup factory preinstalled for max. Performance, LV memory might be set to 1.5V operation. Four identical memory modules will be equipped in one memory bank to achieve highest memory performance. All four modules are active and full capacity can be used.  <b>Multiple of 3 identical modules to be configured per CPU</b></p>

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

6x per CPU  
 max. 2 mod.  
 per channel

<p><b>Registered Memory (RDIMM) with SDDC (chipkill) support</b>                  - one DDR3 registered ECC mem. Module, 1.35V                  1600MHz supported with up to 2DPC (8 modules/CPU) @ 1.5V  <b>Choose up to 6 order codes per CPU</b></p>	
4GB (1x4GB) 1Rx4 L DDR3-1600 R ECC	<b>S26361-F3781-E514</b>
8GB (1x8GB) 1Rx4 L DDR3-1600 R ECC	<b>S26361-F3781-E515</b>
16GB (1x16GB) 2Rx4 L DDR3-1600 R ECC	<b>S26361-F3781-E516</b>

Note 1.)  
 Max. DDR3 memory speed depends on the CPU type.

<p><b>Load Reduced Memory (LRDIMM) with SDDC (chipkill) support</b>                  - one DDR3 load reduced ECC mem. Module, 1.35V  <b>Choose up to 6 order codes per CPU</b></p>	
32GB (1x32GB) 4Rx4 L DDR3-1600 LR ECC	
64GB (1x64GB) 8Rx4 L DDR3-1333 LR ECC	

**on project release only**  
**on project release only**

G

## Memory Configuration PRIMERGY RX2520 M1

Each CPU offers 6 **Slots** for DDR3 Memory Modules organised in **2 Banks and 3 Channels**.

If you need more than 6 Slots you have to configure the 2nd CPU.

Depending on the amount of memory configured you can decide between 2 basic modes of operation (see explanation below).

Mode	Configuration	RDIMM	Application
		x4	
SDDC (chipkill) support	any	yes	detect multi-bit errors
Independant Channel Mode	1, 2 or 3 Modules per Bank	yes	offers max. flexibility, upgradeability, capacity use UDIMM modules for lowest cost
Performance Mode	3 identical Modules / Bank	yes	offers maximum performance and capacity

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

Capacity	Configuration	RDIMM	Notes
Min. Memory per CPU	1 Module / CPU	4GB	with one CPU
Max. Memory per CPU	6 Modules / CPU	96GB	with one CPU
Max. Memory per System	12 Modules / System	192GB	if second CPU is configured

### Memory-Speed:

**Max. DDR3 memory speed depends on the speed of the CPU**

Real maximum memory-bus speed depending on CPU type and voltage setting (BIOS; default is 1.5V)

Mem. Speed provided by CPU	RDIMM 1600MHz			
	1.5V		1.35V	
Voltage setting (BIOS)				
DIMM per Channel (DPC)	1	2	1	2
CPU with 1600MHz DDR3 Bus	1600	1600	1333	1333
CPU with 1333MHz DDR3 Bus	1333	1333	1333	1333

Configuration hints:

- The memory sockets on the systemboard offer a color coding:

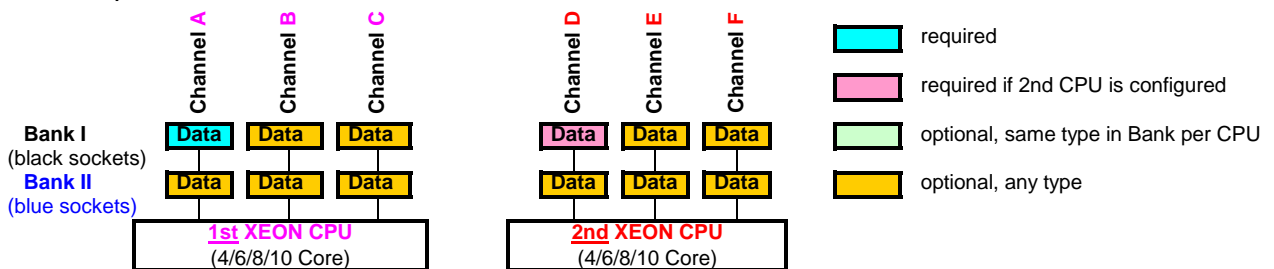
- Bank I**    black sockets
- Bank II**   blue sockets

- A so called Bank consists of 1 memory module on every Channel available on one CPU (examples see below)

- Bank I on CPU 1/2**    up to 3 memory modules connected to Channel A - F on the 1st/2nd CPU
- Bank II on CPU 1/2**    up to 3 memory modules connected to Channel A - F on the 1st/2nd CPU

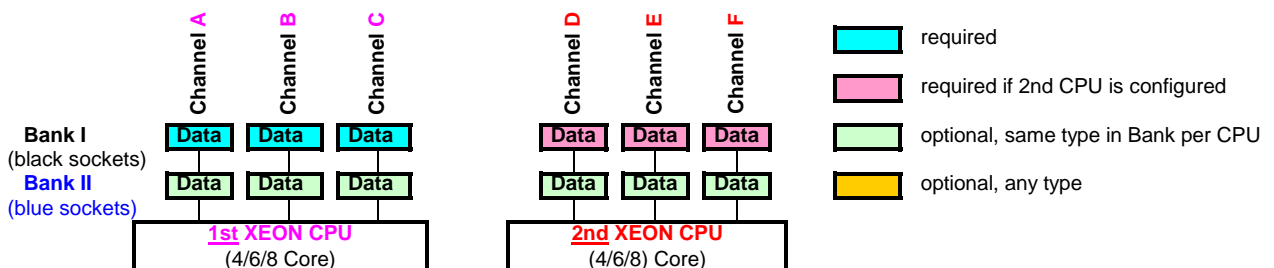
- See below and next page for a detailed descriptions of the memory configuration supported.

### 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

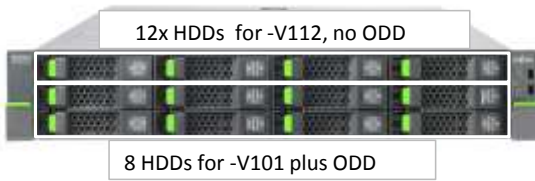
### 2. Performance Channel Mode



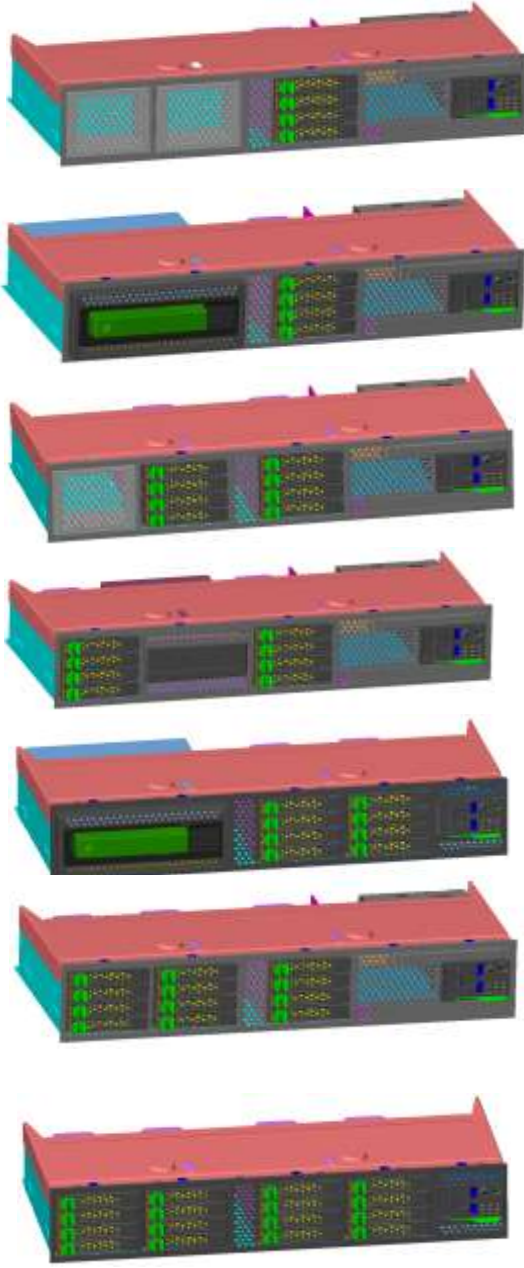
Performance Channel Mode requires identical modules on all channels of each Bank per CPU.  
 If this mode is used, a multiple of 3 identical modules has to be ordered.

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**Section Va Possible configuration options for basic units**



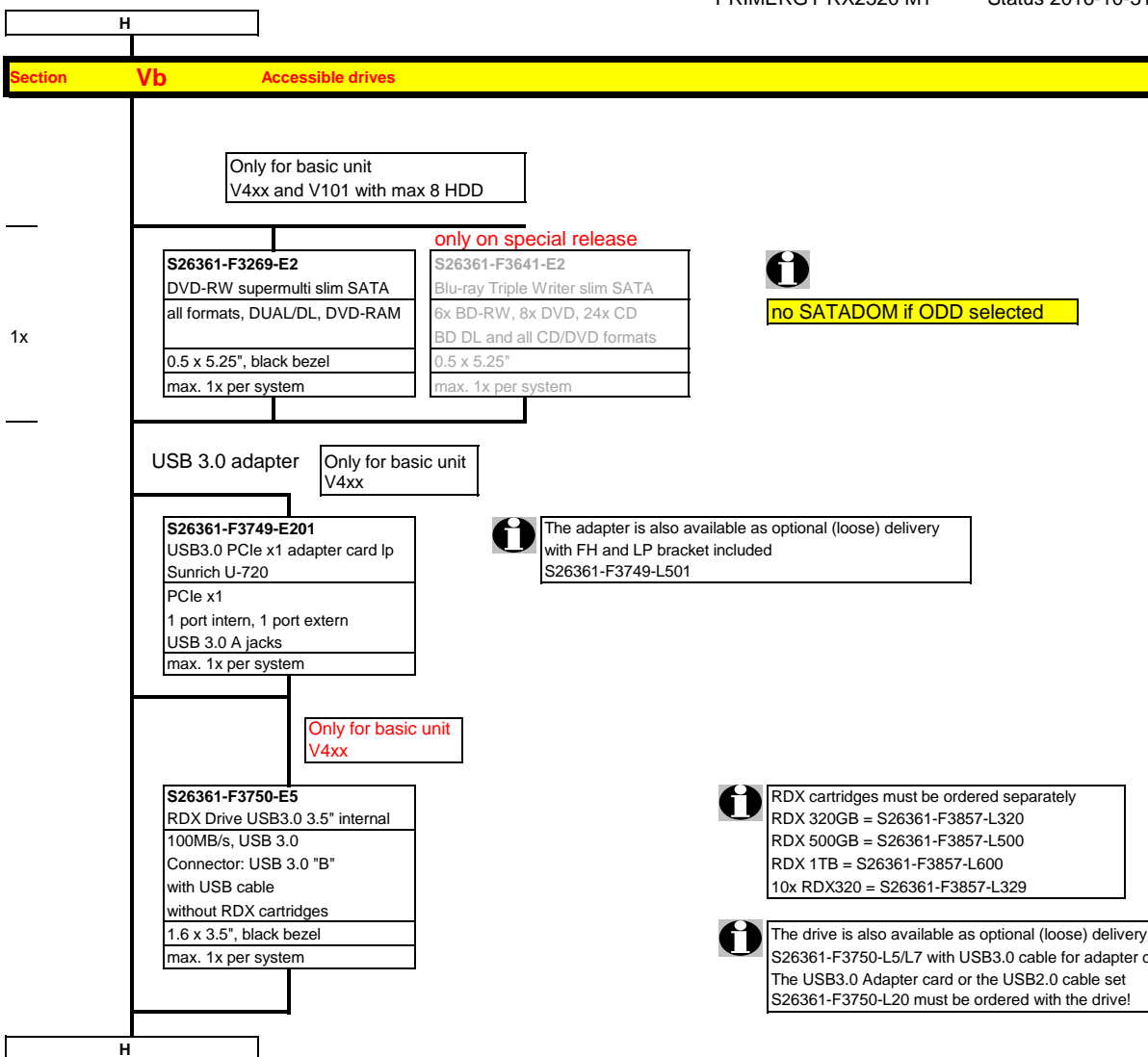
<b>Basic unit S26361-K1480-V101 with 8x 3.5" HDDs</b>	
<b>Basic unit S26361-K1480-V112 with 12x 3.5" HDDs</b>	
Available Upgrade kit for -V101:	
<b>Upgrade kit to 12x 3.5" HDD</b>	<b>S26361-F1480-L119</b>

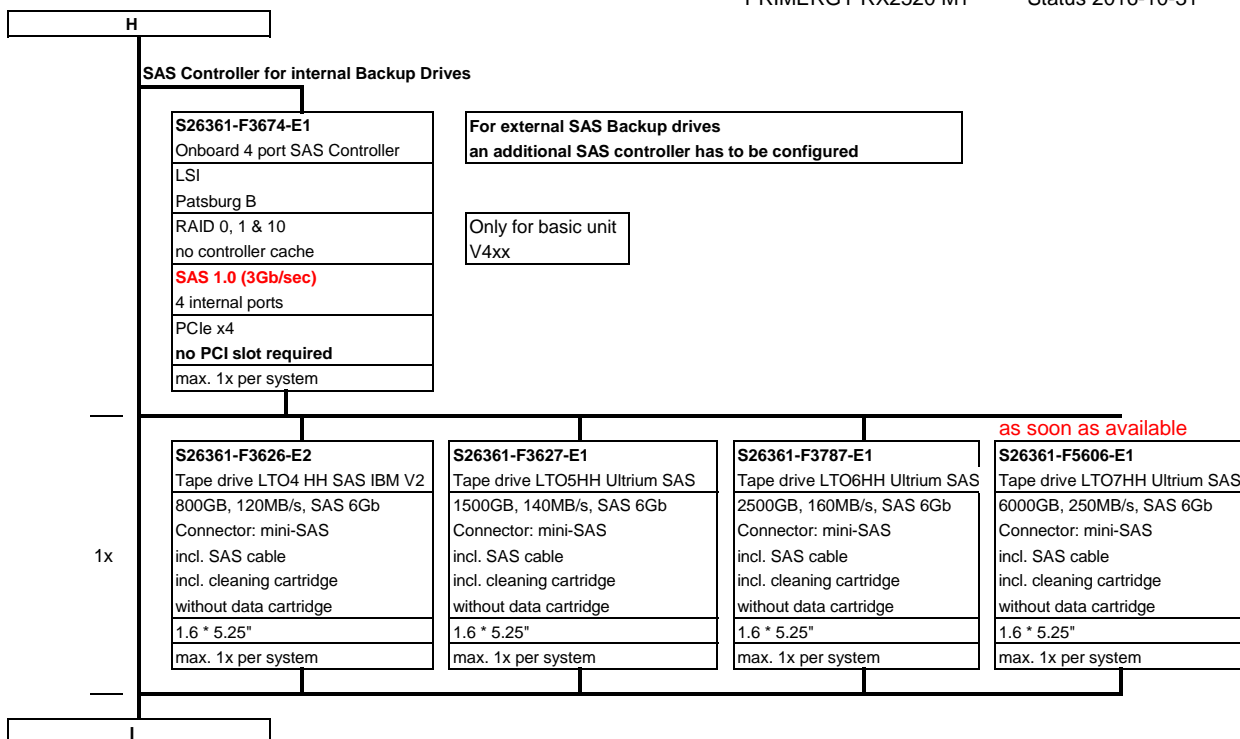


Basic unit S26361-K1480-V401 with <b>expandable</b>	
<b>Config 2: 4x 2.5" HDD</b>	<b>S26361-F1373-E420</b> *)
Available Upgrade kits for this configuration option:	
<b>Upgrade kit to 8x 2.5" HDD</b>	<b>S26361-F1373-L424</b>
<b>Upgrade kit to 12x 2.5" HDD</b>	<b>S26361-F1373-L427</b>
<b>Upgrade kit to 4x 2.5" HDD + LTO</b>	<b>S26361-F1373-L423</b>
Basic unit S26361-K1480-V401 with <b>expandable</b>	
<b>Config 3: 4x 2.5" HDD + LTO</b>	<b>S26361-F1373-E430</b>
Available Upgrade kits for this configuration option:	
<b>Upgrade kit to 8x 2.5" HDD</b>	<b>S26361-F1373-L436</b>
Basic unit S26361-K1480-V401 with <b>expandable</b>	
<b>Config 4: 8x 2,5" HDD bays</b>	<b>S26361-F1480-E440</b>
Available Upgrade kits for this fixed configuration:	
<b>Upgrade kit to 12x 2.5" HDD</b>	<b>S26361-F1373-L247</b>
<b>Upgrade kit to 16x 2.5" HDD</b>	<b>S26361-F1373-L248</b>
Basic unit S26361-K1480-V401 with	
<b>Config 5: 8x 2.5" HDD + 3.5" drive</b>	<b>S26361-F1373-E450</b>
No Upgrade kit available!	
Basic unit S26361-K1480-V401 with	
<b>Config 6: 8x 2.5" HDD + LTO</b>	<b>S26361-F1373-E460</b>
no ODD and LSD bay available!	
No Upgrade kit available!	
Basic unit S26361-K1480-V401 with <b>expandable</b>	
<b>Config 7: 12x 2,5" HDD bays</b>	<b>S26361-F1480-E470</b>
Available Upgrade kits for this configurations:	
<b>Upgrade kit to 16x 2.5" HDD</b>	<b>S26361-F1373-L378</b>
Basic unit S26361-K1480-V401 with	
<b>Config 8: 16x 2.5" HDD</b>	<b>S26361-F1373-E480</b>
no ODD and LSD bay available!	
No Upgrade kit available!	
Includes all necessary bezels, cages, backplanes and cables	

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

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**Section VI Hard disks drives**

**Modular Raid controller is connected to internal HDDs**  
 For basic unit V101 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)**  
**Mixed configurations with Eco SATA drives and SAS drives are not allowed**  
**3.5" SAS drives and 3.5" BC SATA drives can be mixed, but not used in one logical RAID volume**  
**Hard Disk Sector Format**  
**512n HDD or HDD without sector size information: 512 byte sectors on the drive media.**  
**512e (e=emulation) HDD: 4K physical sectors on the drive media with 512 byte logical configuration.**  
 512e drives are not supported with the current versions of vSphere and VSAN

**SATA Disk Drive 3.5"**

<b>HDD SATA 6Gb/s 3.5" with hot plug/hot replace tray</b>	
500GB 7200rpm,<9,0ms, 64MB Cache	<a href="#">S26361-F3815-E500</a>
1TB 7200rpm,<9,0ms, 64MB Cache	<a href="#">S26361-F3815-E100</a>
2TB 7200rpm,<9,0ms, 64MB Cache	<a href="#">S26361-F3815-E200</a>
3TB 7200rpm,<9,0ms, 64MB Cache	<a href="#">S26361-F3815-E300</a>
4TB 7200rpm,<9,0ms, 64MB Cache	<a href="#">S26361-F3815-E400</a>
6TB 7200rpm,<9,0ms, 128MB Cache, 512e	<a href="#">S26361-F3904-E600</a>
max. 8x or 12x per System	

Please order additionally either/or:  
 Config 1: Max. 8x 3.5" HDD [S26361-F1480-E101](#)  
 Config 9: Up to 12x 3.5" HDD [S26361-F1480-E109](#)

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

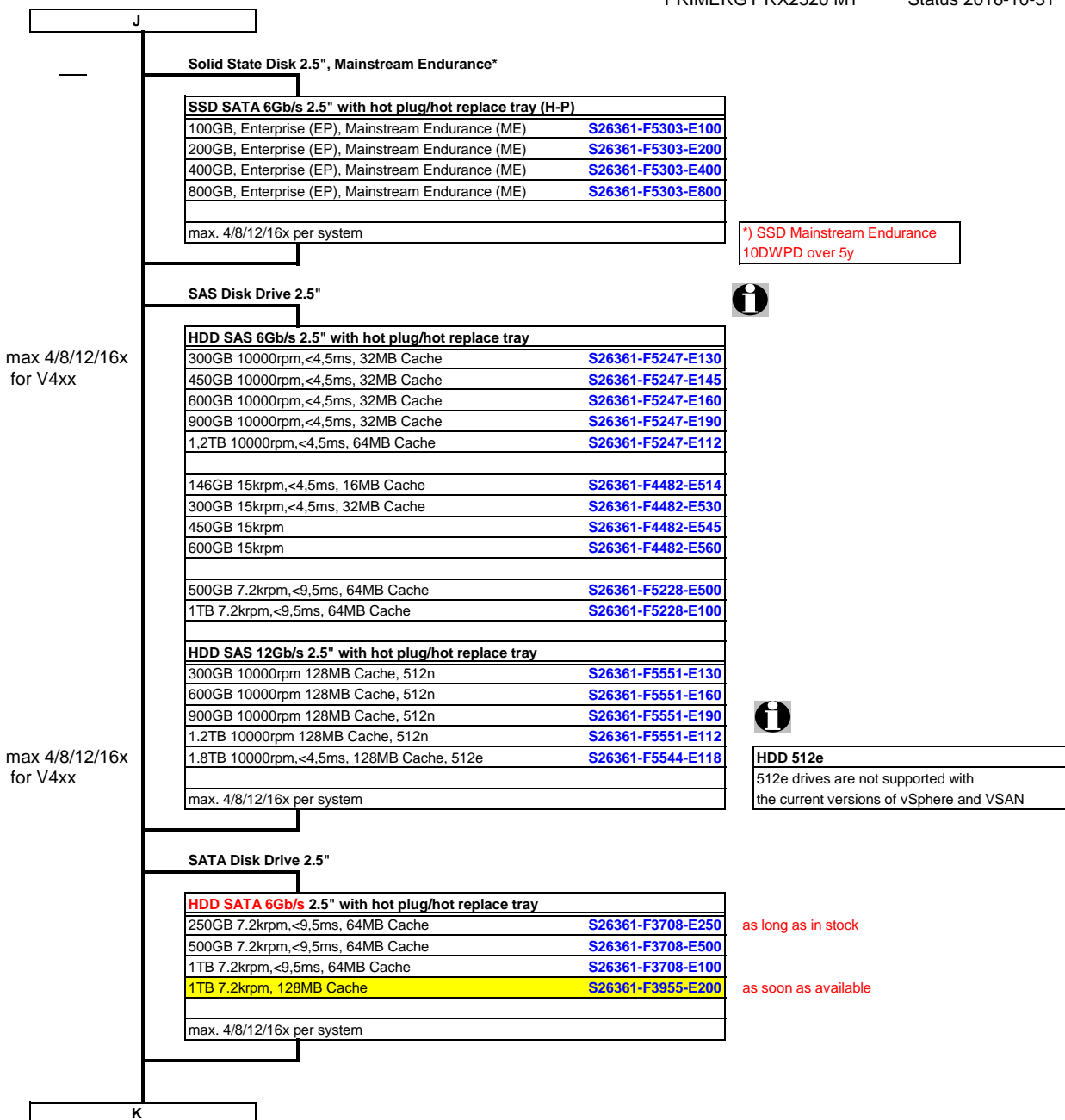
**SAS Disk Drive 3.5"**

<b>HDD SAS 6Gb/s 3.5" with hot plug/hot replace tray</b>	
300GB 15000rpm,<4,0ms, 16MB Cache	<a href="#">S26361-F3819-E530</a>
450GB 15000rpm,<4,0ms, 16MB Cache	<a href="#">S26361-F3819-E545</a>
600GB 15000rpm,<4,0ms, 16MB Cache	<a href="#">S26361-F3819-E560</a>
1TB 7200rpm,<9,0ms, 32MB Cache	<a href="#">S26361-F3820-E100</a>
2TB 7200rpm,<9,0ms, 32MB Cache	<a href="#">S26361-F3820-E200</a>
3TB 7200rpm,<9,0ms, 32MB Cache	<a href="#">S26361-F3820-E300</a>
4TB 7200rpm,<9,0ms, 32MB Cache	<a href="#">S26361-F3820-E400</a>
<b>SAS 6Gb/s 2.5" HDD with 3.5" hot plug/hot replace tray</b>	
300GB 15000rpm,<3ms, 64MB Cache,	<a href="#">S26361-F5521-E530</a>
450GB 15000rpm,<3ms, 64MB Cache	<a href="#">S26361-F5521-E545</a>
600GB 15000rpm,<3ms, 64MB Cache	<a href="#">S26361-F5521-E560</a>
<b>SAS 12Gb/s 2.5" HDD with 3.5" hot plug/hot replace tray</b>	
300GB 10000rpm 128MB Cache, 512n	<a href="#">S26361-F5568-E130</a>
600GB 10000rpm 128MB Cache, 512n	<a href="#">S26361-F5568-E160</a>
1.2TB 10000rpm 128MB Cache, 512n	<a href="#">S26361-F5568-E112</a>
1.8TB 10000rpm 128MB Cache, 512e	<a href="#">S26361-F5569-E118</a>
max. 8x or 12x per System	

**SATA SSDs**

<b>SSD SATA 6Gb/s, 2.5" SSD with 3.5" hot plug/hot replace tray (H-P)</b>	
100GB, Enterprise (EP), Mainstream Endurance (ME)*	<a href="#">S26361-F5289-E100</a>
200GB, Enterprise (EP), Mainstream Endurance (ME)*	<a href="#">S26361-F5289-E200</a>
400GB, Enterprise (EP), Mainstream Endurance (ME)*	<a href="#">S26361-F5289-E400</a>
800GB, Enterprise (EP), Mainstream Endurance (ME)*	<a href="#">S26361-F5289-E800</a>
max. 8x or 12x per System	

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

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

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

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

**Only for basic unit V4xx**

**Use PSAS CP400i for Software Defined Storage like Windows Storage Spaces (Part of Windows Server 2012) instead of HW-RAID Controllers below**

<b>S26361-F3842-E2</b>
PSAS CP400i
LSI SAS3008
8 ports 3, 6 & 12Gb/s
SAS/SATA HDD/ SSD
requires 1x FH PCIe 3.0 x8
RAID 0,1
No Cache
max. 1 per system

**loose delivery: S26361-F3842-L502**

**loose delivery for FJJ only (bulk 20 units): S26361-F3842-L902**

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

**Modular Raid 0/1/5 controller for SAS/SATA S26361-F3554-E8, S26361-F3842-E1**  
 This RAID controller supports max. 8 HDDs on internal SAS ports

**Modular Raid 5/50, 6/60 controller for SAS/SATA S26361-F3554-E512, S26361-F3669-E4**  
 RAID levels 0, 1, 10, 5, 50, 6 and 60 are supported.  
 This RAID controller supports max. 16 HDDs combined with internal SAS expander

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

<b>S26361-F3554-E8</b>
RAID Ctrl SAS 6G 8port internal
Based on chip LSI SAS2008
LSI MegaRAID
no Cache, no BBU
RAID 0, 1 & 10
Support for 3Gb/s and 6Gb/s
SATA and SAS hard drives
PCIe x8
Low-profile MD2 form factor
max. 1x per system

<b>S26361-F3842-E1</b>
PRAID CP400i 8port internal
Based on chip LSI SAS3008
no Cache
RAID 0, 1, 10, 1E, 5, 50
8 ports 3, 6 & 12Gb/s
SAS/SATA HDD/ SSD
PCIe 3.0 x8
Low / High profile ex factory
max. 1x per system

<b>S26361-F3554-E512</b>
RAID Ctrl SAS 6G 8port internal
Based on chip LSI SAS2108
LSI MegaRAID
512MB Cache with ECC
RAID 0, 1, 10, 5, 50, 6, 60
no BBU support
Support for 3Gb/s and 6Gb/s
SATA and SAS hard drives
PCIe x8
Low-profile MD2 form factor
max. 1x per system

<b>S26361-F3669-E4</b>
RAID Ctrl SAS 6G 8port internal
Based on chip LSI SAS2208
LSI MegaRAID
1GB Cache with ECC
RAID 0, 1, 10, 5, 50, 6, 60
optional FBU
Support for 3Gb/s and 6Gb/s
SATA and SAS hard drives
PCIe 3.0 x8
Low-profile MD2 form factor
max. 1x per system

fastpath is included in controller FW

<b>S26361-F3669-E670</b>
RAID Advanced SW Option
CacheCade int. License Activation Key for CacheCade 2.0
max. 1x per Controller

Lose delivery options

<b>S26361-F3669-L100</b>
TFM Module for FBU option
max. 1x per Controller

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

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

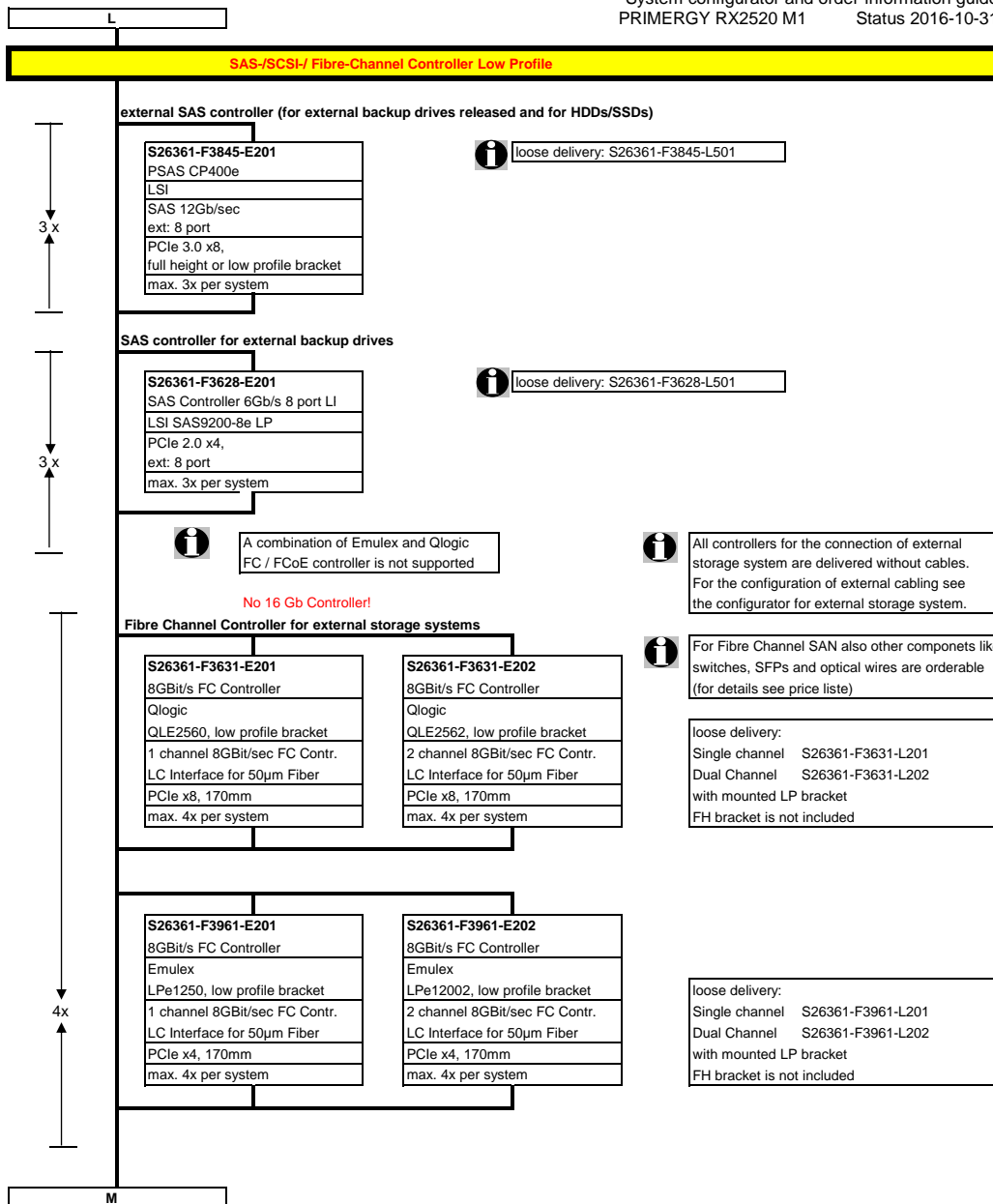
<b>S26361-F3669-E125</b>
Flash Backup Unit with 25cm cable set
max. 1x per Controller

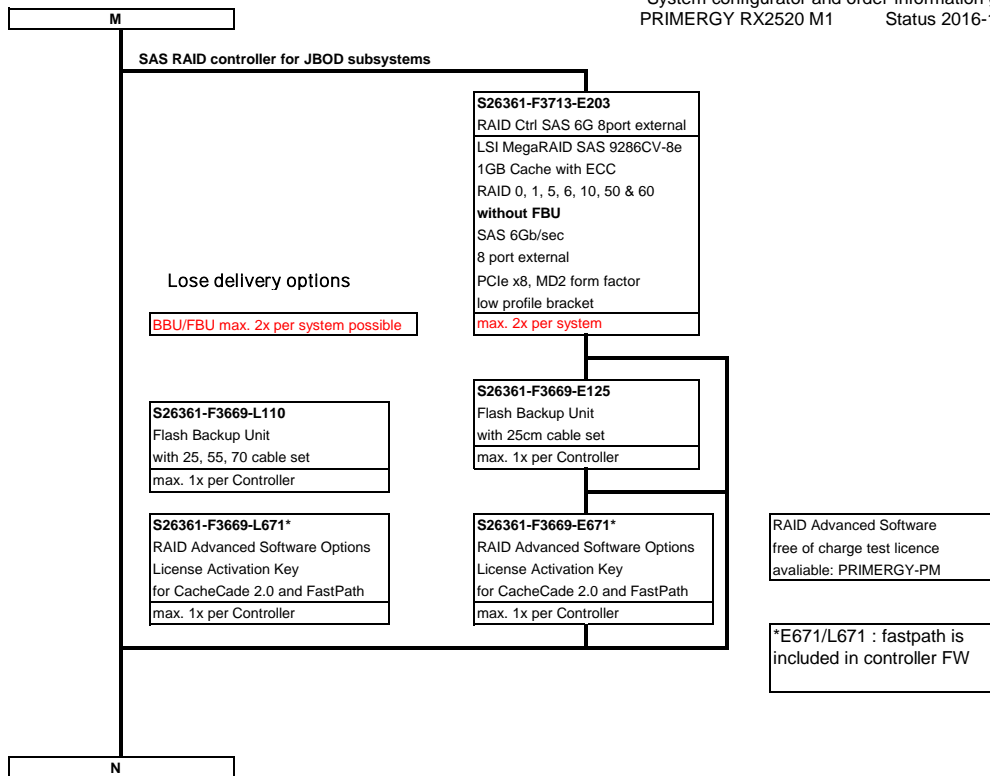
RAID Advanced Software free of charge test licence available: PRIMERGY-PM



1x

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**Section VIII Communication / Network**

2x Gigabit (Dualport) Ethernet Contr.  
 onboard  
 Intel LAN I210 (Springville)  
 ext: 2x RJ 45 connector

**1Gbit/s Ethernet Adapter**

max 5x

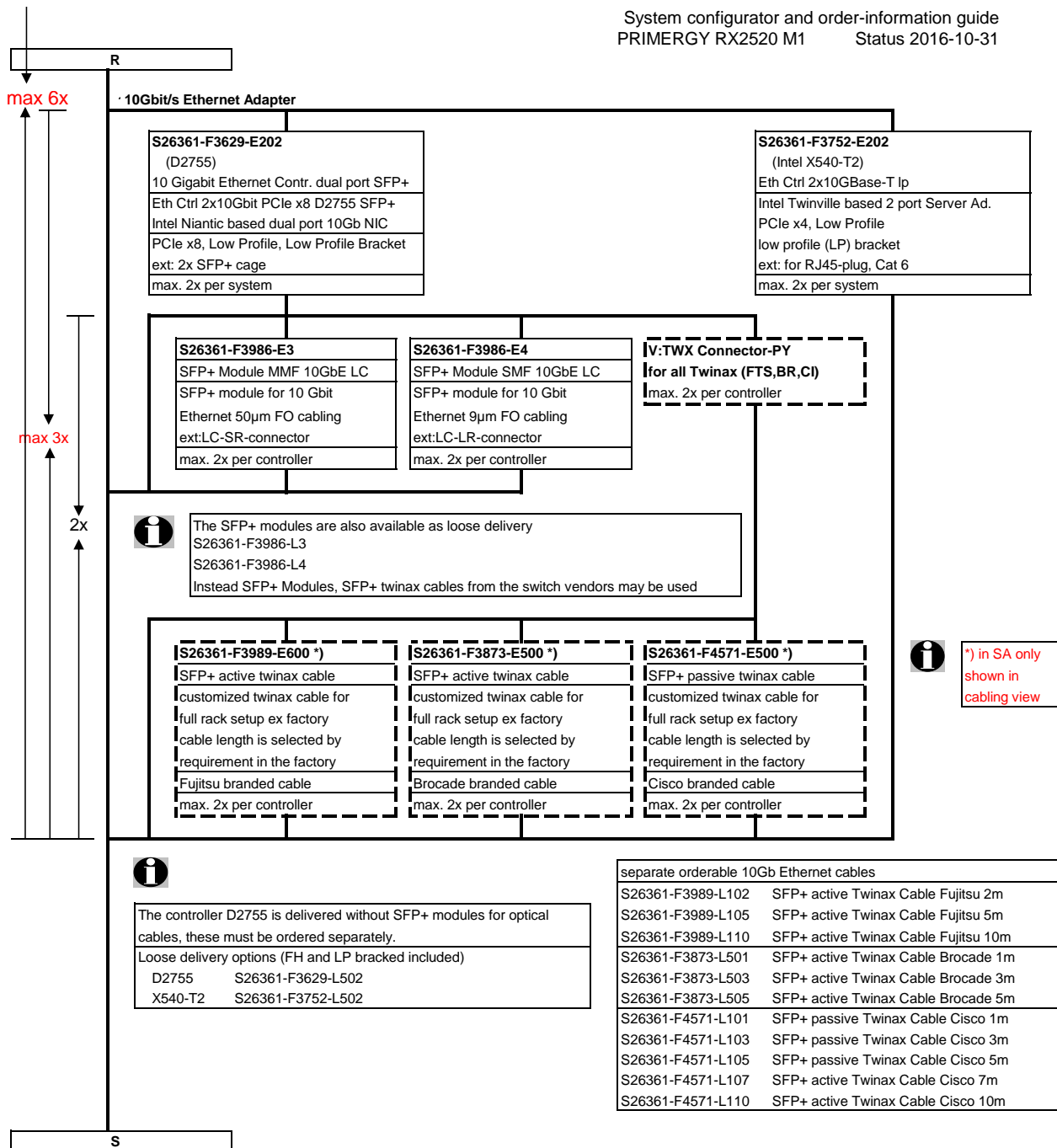
<b>S26361-F4610-E202</b> (I350-T2)
Gbit Ethernet Controller Dual 1000TX LP
PLAN CP 2x1Gbit Cu Intel I350-T2 LP
Intel Powerville based 2 port Server Ad.
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 5
max. 5x per system

<b>S26361-F4610-E204</b> (I350-T4)
Gbit Ethernet Controller Quad 1000TX LP
PLAN CP 4x1Gbit Cu Intel I350-T4 LP
Intel Powerville based 4 port Server Ad.
PCIe x4, Low Profile
low profile (LP) bracket
ext: for RJ45-plug, Cat 5
max. 5x per system



Loose delivery with FH and LP bracket:  
 I350-T2 S26361-F4610-L502  
 I350-T4 S26361-F4610-L504

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**Section XI System Management Products (RemoteView)**

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



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

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

Only for basic unit V4xx

**Section XII Miscellaneous**

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

**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 RX2520 M1**  
 related L-numbers as well restricted



**no tape drives**

Tape drive LTO4 HH SAS IBM V2	S26361-F3626-E2	Only for basic unit V4xx
Tape drive LTO5HH Ultrium SAS	S26361-F3627-E1	
Tape drive LTO6HH Ultrium SAS	S26361-F3787-E1	

**Section XIII 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**

**Power cord options (1x per PSU)**

<b>T26139-Y1968-E100</b>	Powercord for rack, 4m, grey, IEC 320 C14 connector
<b>T26139-Y1742-E10</b>	USA, Canada, 1.8m, grey
<b>T26139-Y4024-E10</b>	for -48V DC PSU only, 4m, black
<b>T26139-Y3850-E10</b>	Option "no powercord", for Countries without specific cable orderable like e.g. China

max. 2 x

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**Section XVI CCC exclusions**

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

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



800W PSU module titanium	S26113-F615-E10
Cable powercord rack, 4m, grey	T26139-Y1968-E100
Leitung Netzanschluss (USA), 1,8m, black	T26139-Y1742-E10
TPM Modul	S26361-F3552-E1

**End PRIMERGY RX2520 M1**

