



PRIMERGY RX2540 M2

System configurator and order-information guide

April 2017

Contents



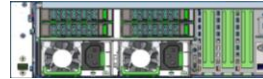
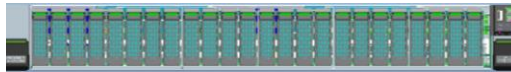
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PRIMERGY Server

Instructions

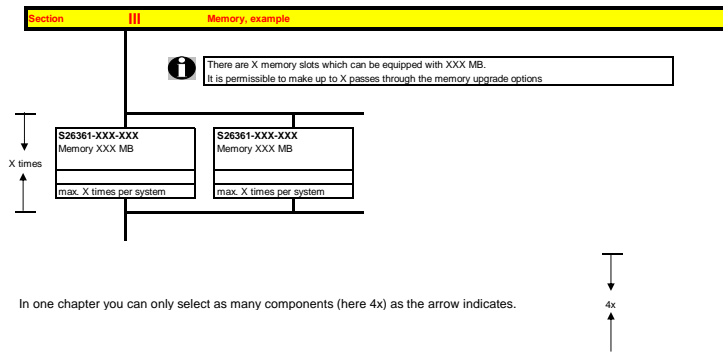
This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect.

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.



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



For further information see:

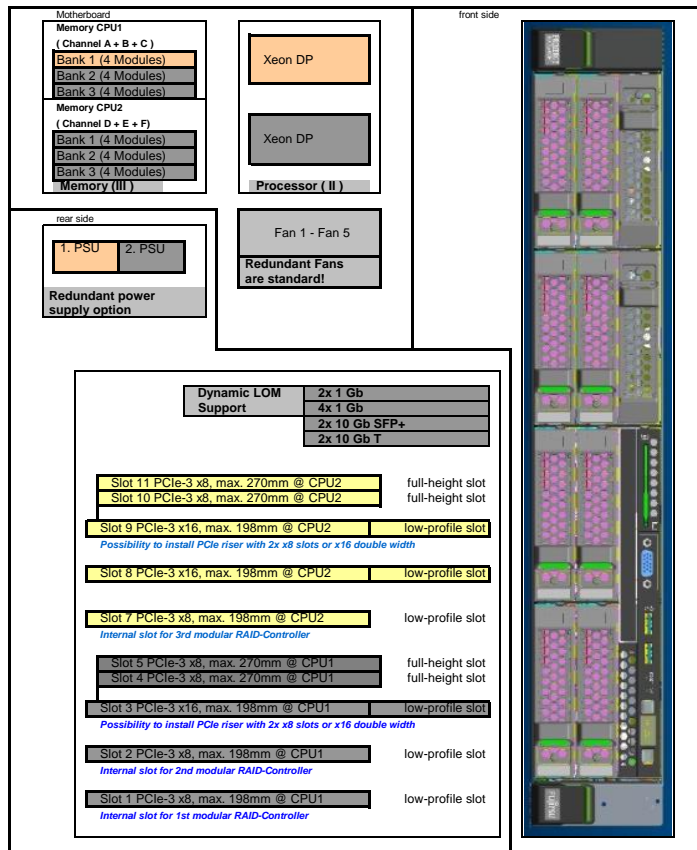
http://ts.fujitsu.com/products/standard_servers/inx (internet)

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

Configuration diagram PRIMERGY RX2540 M2 LFF

System unit (1)

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



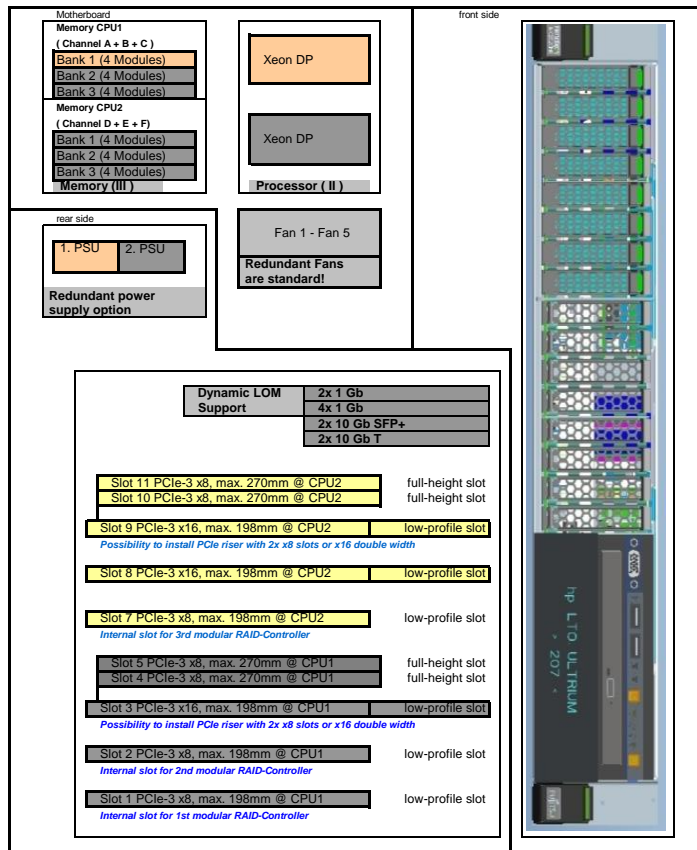
Key:

- 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 M2 SFF

System unit (1)

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

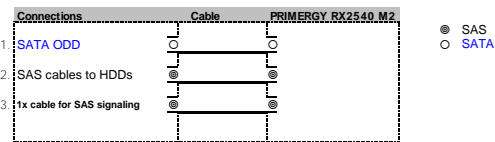


Key:

- 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 M2	
Section	Basic unit
A	<p>i System unit consisting of:</p> <ul style="list-style-type: none"> * 2U Housing without power supply modules * Basic units with: <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <p>Systemboard D3289 with:</p> <ul style="list-style-type: none"> * 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: <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> 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) <p>Interfaces at the rear:</p> <ul style="list-style-type: none"> * 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 <p>Interfaces on the front:</p> <ul style="list-style-type: none"> * 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) <p>Interfaces internal:</p> <ul style="list-style-type: none"> * 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 <p>Software:</p> <ul style="list-style-type: none"> * ServerView Suite Software package incl. ServerStart, ServerBooks, Management Software and Updates * Documentation engl. (multilingual on CD)

Cables included in basic unit



Note: Rack Mounting kit and Power Cord for RX2540 M2 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 12x 3.5" HDD bays	S26361-K1566-V101 S26361-K1566-V112
Basic unit with 2.5" HDD bays expandable 24x 2.5" HDD bays	S26361-K1566-V401 S26361-K1566-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-F624-E10** 800W 48V DC PSU mod. platinum 1st or 2nd PSU for redundancy 94% efficiency (platinum) 48V DC input, special cable** uses hot plug PSU slot min. 1 / max. 2x per system
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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
One 800W 48V DC power supply module platinum no power cable included!!!	S26113-F624-L10*

Please order appropriate power cord additionally:
Powercord for rack, 4m, grey, IEC320 C13->C14 connector
Power Cord USA / Canada, 1.8m, grey

T26139-Y1968-L10
T26139-Y1742-L10

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

****Power cord option for Rack Server, 4m, black (1x per 48V DC PSU)**
T26139-Y4024-E110 Power Cord -48V DC, 4m, black

S26361-F3552-E6 TPM 1.2 Module Trusted Platform Module on Motherboard Use according to import restrictions max. 1x per system
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S26361-F3552-E10 TPM 2.0 Module Trusted Platform Module on Motherboard Use according to import restrictions max. 1x per system

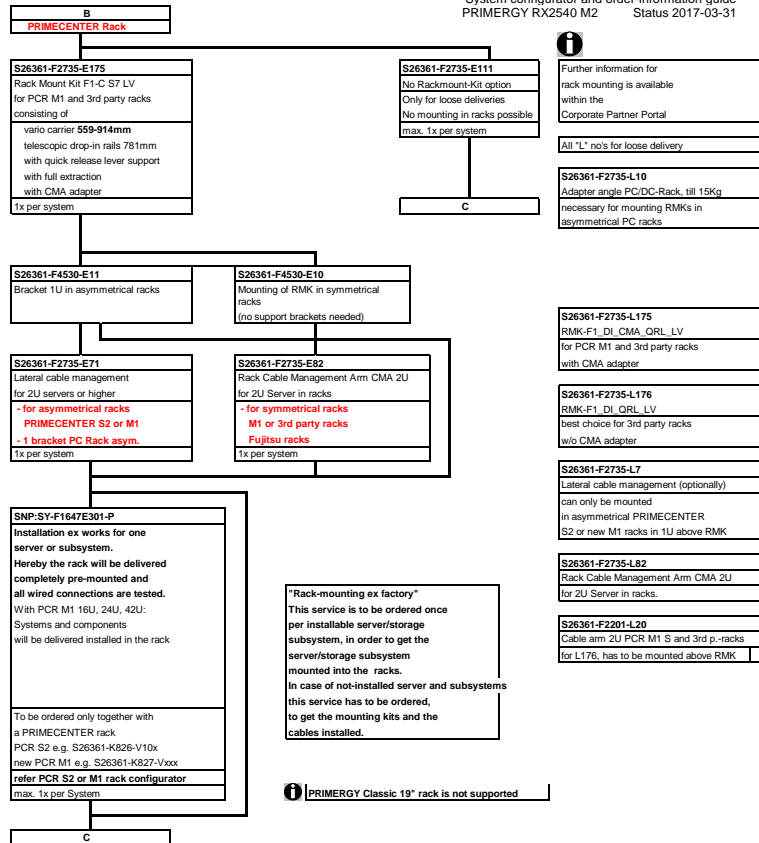
S26361-F3552-L23 TPM 1.2 Module add-on kit for later integration (loose delivery) Trusted Platform Module on Motherboard Use according to import restrictions max. 1x per system
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Be aware of import restrictions!
Loose delivery for later integration possible for customer.

S26361-F3552-L6 TPM 1.2 Module add-on kit for later integration (loose delivery) Trusted Platform Module on Motherboard Use according to import restrictions max. 1x per system

S26361-F3552-L10 TPM 2.0 Module add-on kit for later integration (loose delivery) Trusted Platform Module on Motherboard Use according to import restrictions max. 1x per system
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PRIMERGY RX2540 M2 Status 2017-03-31



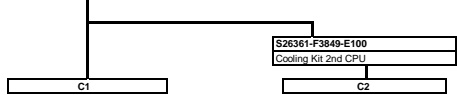
Section II Processor

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

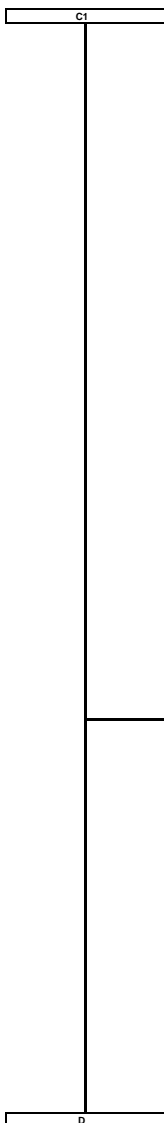
Max. two CPU's can be selected per basic unit
One of following CPU's can be selected once (only as first CPU)
for an orderable basic unit
Optional second CPU has to be the same type like the first CPU

Xeon E5-2600v4 (R) Basic	
- 1x 64-bit Intel Xeon (15MB Smart Cache); 1866 MHz DDR4 Bus; 6.4 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2603v4 6C/8T 1.70GHz 15MB 6.4GT/s 1866MHz 85W	S26361-F3933-E103
Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W	S26361-F3933-E109
Xeon E5-2600v4 (R) Standard	
- 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 8.0 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W	S26361-F3933-E120
Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W	S26361-F3933-E130
Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W	S26361-F3933-E140
Xeon E5-2600v4 (R) Advanced	
- 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W	S26361-F3933-E150
Xeon E5-2660v4 14C/28T 2.00GHz 35MB 9.6GT/s 2400MHz 105W	S26361-F3933-E160
Xeon E5-2680v4 14C/28T 2.40GHz 35MB 9.6GT/s 2400MHz 120W	S26361-F3933-E180
Xeon E5-2690v4 14C/28T 2.60GHz 35MB 9.6GT/s 2400MHz 135W	S26361-F3933-E190
Xeon E5-2600v4 (R) Frequency Optimized	
- 1x 64-bit Intel Xeon (10-20MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 8.0 & 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 85W	S26361-F3933-E123
Xeon E5-2637v4 4C/8T 3.50GHz 15MB 9.6GT/s 2400MHz 135W	S26361-F3933-E137
Xeon E5-2643v4 6C/12T 3.40GHz 20MB 9.6GT/s 2400MHz 135W	S26361-F3933-E143
Xeon E5-2667v4 8C/16T 3.20GHz 25MB 9.6GT/s 2400MHz 135W	S26361-F3933-E167
Xeon E5-2600v4 (R) High Core Count	
- 1x 64-bit Intel Xeon (35-40MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2683v4 16C/32T 2.10GHz 40MB 9.6GT/s 2400MHz 120W	S26361-F3933-E183
Xeon E5-2695v4 18C/36T 2.10GHz 45MB 9.6GT/s 2400MHz 120W	S26361-F3933-E195
Xeon E5-2697v4 18C/36T 2.30GHz 45MB 9.6GT/s 2400MHz 145W	S26361-F3933-E197
Xeon E5-2697Av4 16C/32T 2.60GHz 40MB 9.6GT/s 2400MHz 145W	S26361-F3933-E191
Xeon E5-2698v4 20C/40T 2.20GHz 50MB 9.6GT/s 2400MHz 135W	S26361-F3933-E198
Xeon E5-2699v4 22C/44T 2.20GHz 55MB 9.6GT/s 2400MHz 145W	S26361-F3933-E199
Xeon E5-2699Av4 22C/44T 2.40GHz 55MB 9.6GT/s 2400MHz 145W	S26361-F3933-E192
Xeon E5-2600v4 (R) Low Power	
- 1x 64-bit Intel Xeon (20/30MB Smart Cache); Hyper-Threading (HT); 2133/2400 MHz DDR4 Bus; 8.0/9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2630Lv4 10C/20T 1.80GHz 25MB 8.0GT/s 2133MHz 55W	S26361-F3933-E131
Xeon E5-2650Lv4 14C/28T 1.70GHz 35MB 9.6GT/s 2400MHz 65W	S26361-F3933-E151

i 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



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System configurator and order-information guide PRIMERGY RX2540 M2 Status 2017-03-31	
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 E5-2600v4 (R) Basic	
- 1x 64-bit Intel Xeon (15MB Smart Cache) - 1866 MHz DDR4 Bus; 6.4 GT/s QPI Bus - occupies socket for one CPU	
Xeon E5-2603v4 6C/6T 1.70GHz 15MB 6.4GT/s 1866MHz 85W	S26361-F3933-E103
Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W	S26361-F3933-E109
Xeon E5-2600v4 (R) Standard	
- 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); - 2133 MHz DDR4 Bus; 8.0 GT/s QPI Bus - occupies socket for one CPU	
Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W	S26361-F3933-E120
Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W	S26361-F3933-E130
Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W	S26361-F3933-E140
Xeon E5-2600v4 (R) Advanced	
- 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); - 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus - occupies socket for one CPU	
Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W	S26361-F3933-E150
Xeon E5-2660v4 14C/28T 2.00GHz 35MB 9.6GT/s 2400MHz 105W	S26361-F3933-E160
Xeon E5-2680v4 14C/28T 2.40GHz 35MB 9.6GT/s 2400MHz 120W	S26361-F3933-E180
Xeon E5-2690v4 14C/28T 2.60GHz 35MB 9.6GT/s 2400MHz 135W	S26361-F3933-E190
Xeon E5-2600v4 (R) Frequency Optimized	
- 1x 64-bit Intel Xeon (10-20MB Smart Cache); Hyper-Threading (HT); - 2400 MHz DDR4 Bus; 8.0 & 9.6 GT/s QPI Bus - occupies socket for one CPU	
Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 85W	S26361-F3933-E123
Xeon E5-2637v4 4C/8T 3.50GHz 15MB 9.6GT/s 2400MHz 135W	S26361-F3933-E137
Xeon E5-2643v4 6C/12T 3.40GHz 20MB 9.6GT/s 2400MHz 135W	S26361-F3933-E143
Xeon E5-2667v4 8C/16T 3.20GHz 25MB 9.6GT/s 2400MHz 135W	S26361-F3933-E167
Xeon E5-2600v4 (R) High Core Count	
- 1x 64-bit Intel Xeon (35-40MB Smart Cache); Hyper-Threading (HT); - 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus - occupies socket for one CPU	
Xeon E5-2683v4 16C/32T 2.10GHz 40MB 9.6GT/s 2400MHz 120W	S26361-F3933-E183
Xeon E5-2695v4 18C/36T 2.10GHz 45MB 9.6GT/s 2400MHz 120W	S26361-F3933-E195
Xeon E5-2697v4 18C/36T 2.30GHz 45MB 9.6GT/s 2400MHz 145W	S26361-F3933-E197
Xeon E5-2697Av4 16C/32T 2.60GHz 40MB 9.6GT/s 2400MHz 145W	S26361-F3933-E191
Xeon E5-2698v4 20C/40T 2.20GHz 50MB 9.6GT/s 2400MHz 135W	S26361-F3933-E198
Xeon E5-2699v4 22C/44T 2.20GHz 55MB 9.6GT/s 2400MHz 145W	S26361-F3933-E199
Xeon E5-2699Av4 22C/44T 2.40GHz 55MB 9.6GT/s 2400MHz 145W	S26361-F3933-E192
Xeon E5-2600v4 (R) Low Power	
- 1x 64-bit Intel Xeon (20/30MB Smart Cache); Hyper-Threading (HT); - 2133/2400 MHz DDR4 Bus; 8.0/9.6 GT/s QPI Bus - occupies socket for one CPU	
Xeon E5-2630Lv4 10C/20T 1.80GHz 25MB 8.0GT/s 2133MHz 55W	S26361-F3933-E131
Xeon E5-2650Lv4 14C/28T 1.70GHz 35MB 9.6GT/s 2400MHz 65W	S26361-F3933-E151

Separate orderable CPU upgrade kits	
S26361-F3933-L403	Xeon E5-2603v4 6C/6T 1.70GHz 15MB 6.4GT/s 1866MHz 85W
S26361-F3933-L409	Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W
S26361-F3933-L420	Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W
S26361-F3933-L423	Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 85W
S26361-F3933-L430	Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W
S26361-F3933-L431	Xeon E5-2630Lv4 10C/20T 1.80GHz 25MB 8.0GT/s 2133MHz 55W
S26361-F3933-L437	Xeon E5-2637v4 4C/8T 3.50GHz 15MB 9.6GT/s 2400MHz 135W
S26361-F3933-L440	Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W
S26361-F3933-L443	Xeon E5-2643v4 6C/12T 3.40GHz 20MB 9.6GT/s 2400MHz 135W
S26361-F3933-L450	Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W
S26361-F3933-L451	Xeon E5-2650Lv4 14C/28T 1.70GHz 35MB 9.6GT/s 2400MHz 65W
S26361-F3933-L460	Xeon E5-2660v4 14C/28T 2.00GHz 35MB 9.6GT/s 2400MHz 105W
S26361-F3933-L467	Xeon E5-2667v4 8C/16T 3.20GHz 25MB 9.6GT/s 2400MHz 135W
S26361-F3933-L480	Xeon E5-2680v4 14C/28T 2.40GHz 35MB 9.6GT/s 2400MHz 120W
S26361-F3933-L483	Xeon E5-2683v4 16C/32T 2.10GHz 40MB 9.6GT/s 2400MHz 120W
S26361-F3933-L490	Xeon E5-2690v4 14C/28T 2.60GHz 35MB 9.6GT/s 2400MHz 135W
S26361-F3933-L491	Xeon E5-2697Av4 16C/32T 2.60GHz 40MB 9.6GT/s 2400MHz 145W
S26361-F3933-L492	Xeon E5-2699Av4 22C/44T 2.40GHz 55MB 9.6GT/s 2400MHz 145W
S26361-F3933-L495	Xeon E5-2695v4 18C/36T 2.10GHz 45MB 9.6GT/s 2400MHz 120W
S26361-F3933-L497	Xeon E5-2697v4 18C/36T 2.30GHz 45MB 9.6GT/s 2400MHz 145W
S26361-F3933-L498	Xeon E5-2698v4 20C/40T 2.20GHz 50MB 9.6GT/s 2400MHz 135W
S26361-F3933-L499	Xeon E5-2699v4 22C/44T 2.20GHz 55MB 9.6GT/s 2400MHz 145W

D	
Section	Memory
E	<div style="border: 1px solid black; padding: 5px;"> <p>i - 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 => max. 3.072GB for two CPUs, using upcoming 8Rx4 LRDIMM technology with 128GB per module</p> <p>- 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</p> <p>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 2400MHz will be supported This is also valid for a dual LRDIMM configurations (2400MHz) In a dual RDIMM configuration 2400MHz will be supported All 3DPC configurations support 1866MHz SDDC (Chipkill) is supported for registered and load reduced x4 organized memory modules</p> <p>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.</p> <p>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</p> <p>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</p> <p>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</p> </div>

E

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	64GB 4R	64GB 4R	128GB 8R
1DPC				48GB	48GB	112GB
2DPC	8GB	24GB	48GB	112GB	112GB	240GB
3DPC	16GB	40GB	80GB	176GB	176GB	368GB

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

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 DDR4-2400 R ECC	S26361-F3934-E511
16GB (1x16GB) 2Rx4 DDR4-2400 R ECC	S26361-F3934-E512
32GB (1x32GB) 2Rx4 DDR4-2400 R ECC	S26361-F3934-E515

Registered Memory (RDIMM 3DS) with SDDC (chipkill) support
- one DDR4 registered 3DS ECC memory Module, 1.2V
Choose up to 12 order codes per CPU

64GB (1x64GB) 4Rx4 DDR4-2400 3DS ECC	S26361-F3934-E517
--------------------------------------	-------------------

Registered Memory (RDIMM) without SDDC (chipkill) support
- one DDR4 registered ECC memory Module, 1.2V
Choose up to 12 order codes per CPU

8GB (1x8GB) 2Rx8 DDR4-2400 R ECC	S26361-F3934-E514
16GB (1x16GB) 2Rx8 DDR4-2400 R ECC	S26361-F3934-E513

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 DDR4-2400 LR ECC	S26361-F3935-E515
64GB (1x64GB) 4Rx4 DDR4-2400 LR ECC	S26361-F3935-E516
128GB (1x128GB) 8Rx4 DDR4-2400 LR ECC	S26361-F3935-E517

F

1x per CPU

12x per CPU, max. 3 modules per channel

available from Q4/2017

on special release only

late availability expected

Memory Configuration PRIMERGY RX2540 M2

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	Application
		x8	x4	
SDDC (chipkill) support	any	no	yes	detect multi-bit errors
Independent 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	1x64GB	with one CPU
Max. Memory per CPU	12 Modules / CPU	12x64GB	12x128GB	with one CPU
Max. Memory per System	24 Modules / System	1.536GB	3.072GB	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	RDIMM 2400MHz			LRDIMM 2400MHz		
	1	2	3	1	2	3
	DPC	DPC	DPC	DPC	DPC	DPC
CPU with 2400MHz DDR4 Bus	2400	2400	1866	2400	2400	2133
CPU with 2133MHz DDR4 Bus	2133	2133	1866	2133	2133	2133
CPU with 1866MHz DDR4 Bus	1866	1866	1866	1866	1866	1866

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:

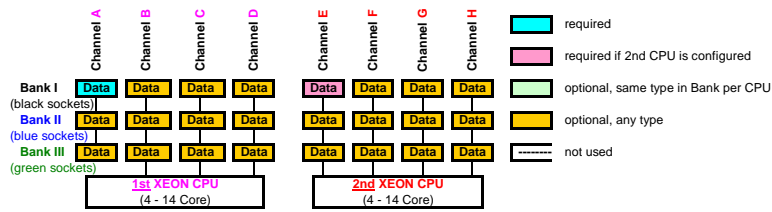
- Bank I** black sockets
- Bank II** blue sockets
- Bank III** green sockets

- A so called Bank consists 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

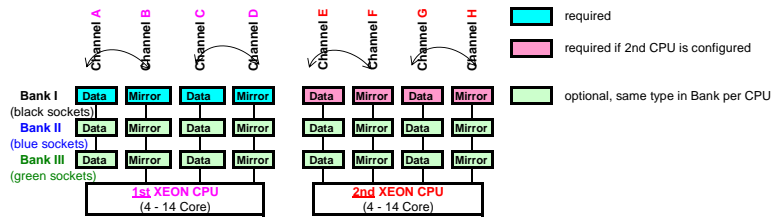
- See below and next page for a detailed descriptions of the memory configuration supported.

1. Independent Channel Mode



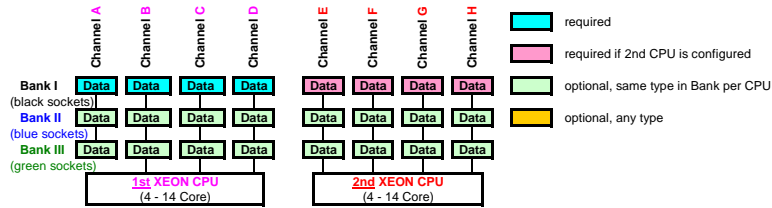
Independent Channel Mode allows all channels to be populated in any order
Can run with differently rated DIMMs and use the settings of the slowest DIMM installed in the system

2. Mirrored Channel Mode



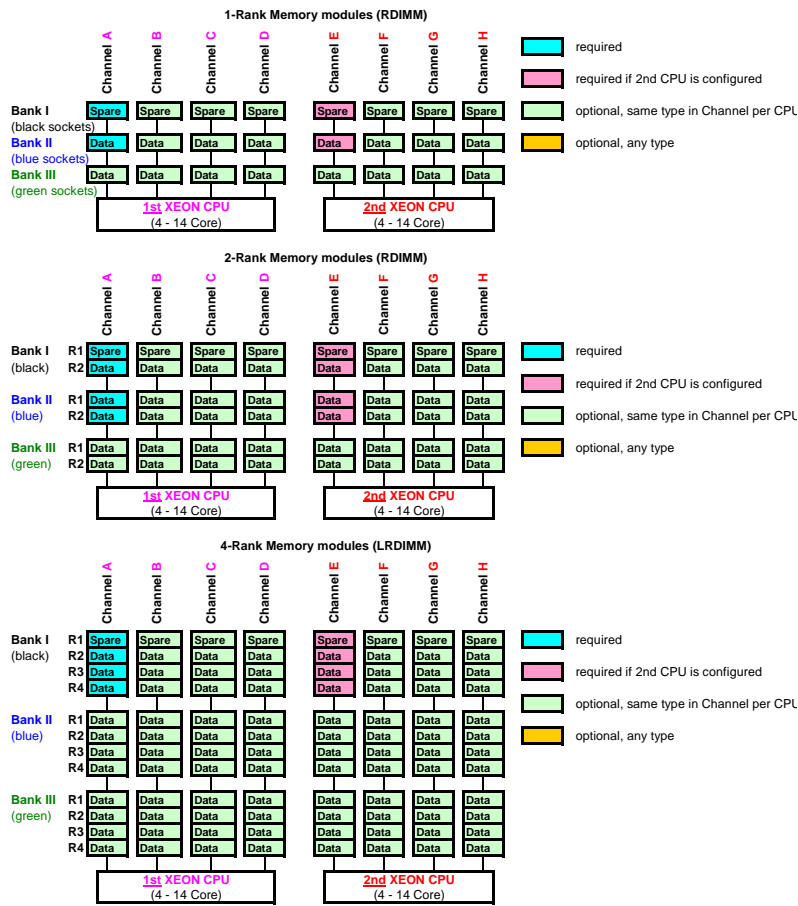
Mirrored Channel Mode requires identical modules on channel A,B, C, D (1st CPU) or channel E, F, G and H (2nd CPU)
50% of the capacity is used for the mirror => the available memory for applications is only half of the installed memory
If this mode is used, a multiple of 4 identical modules has to be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

3. Performance Channel Mode

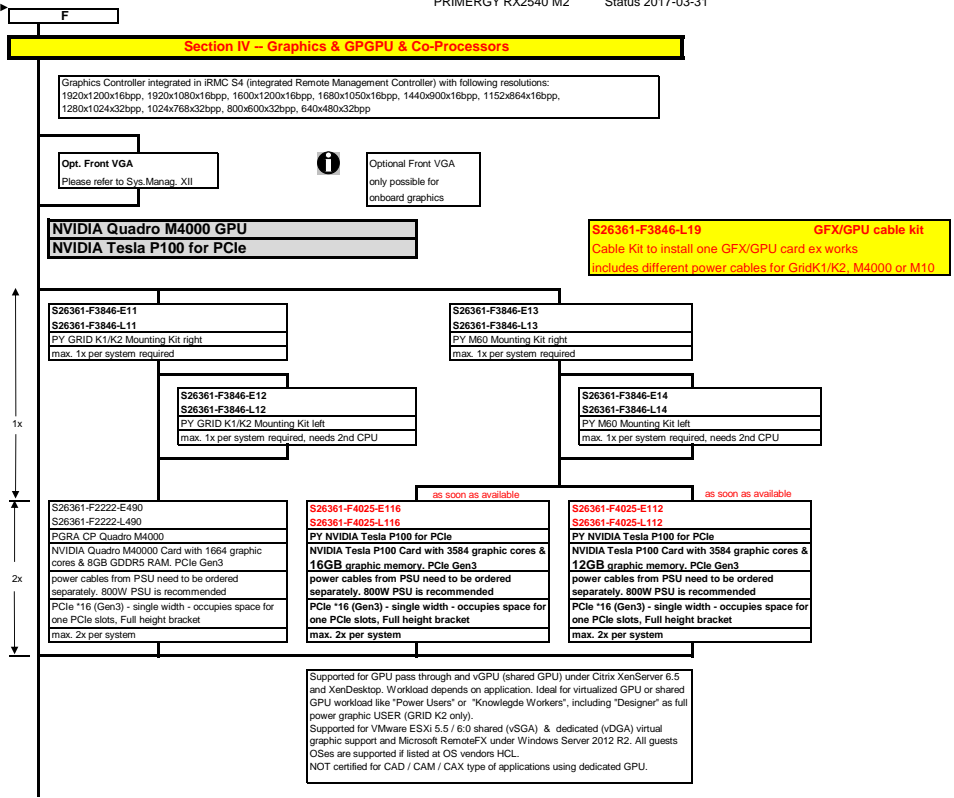


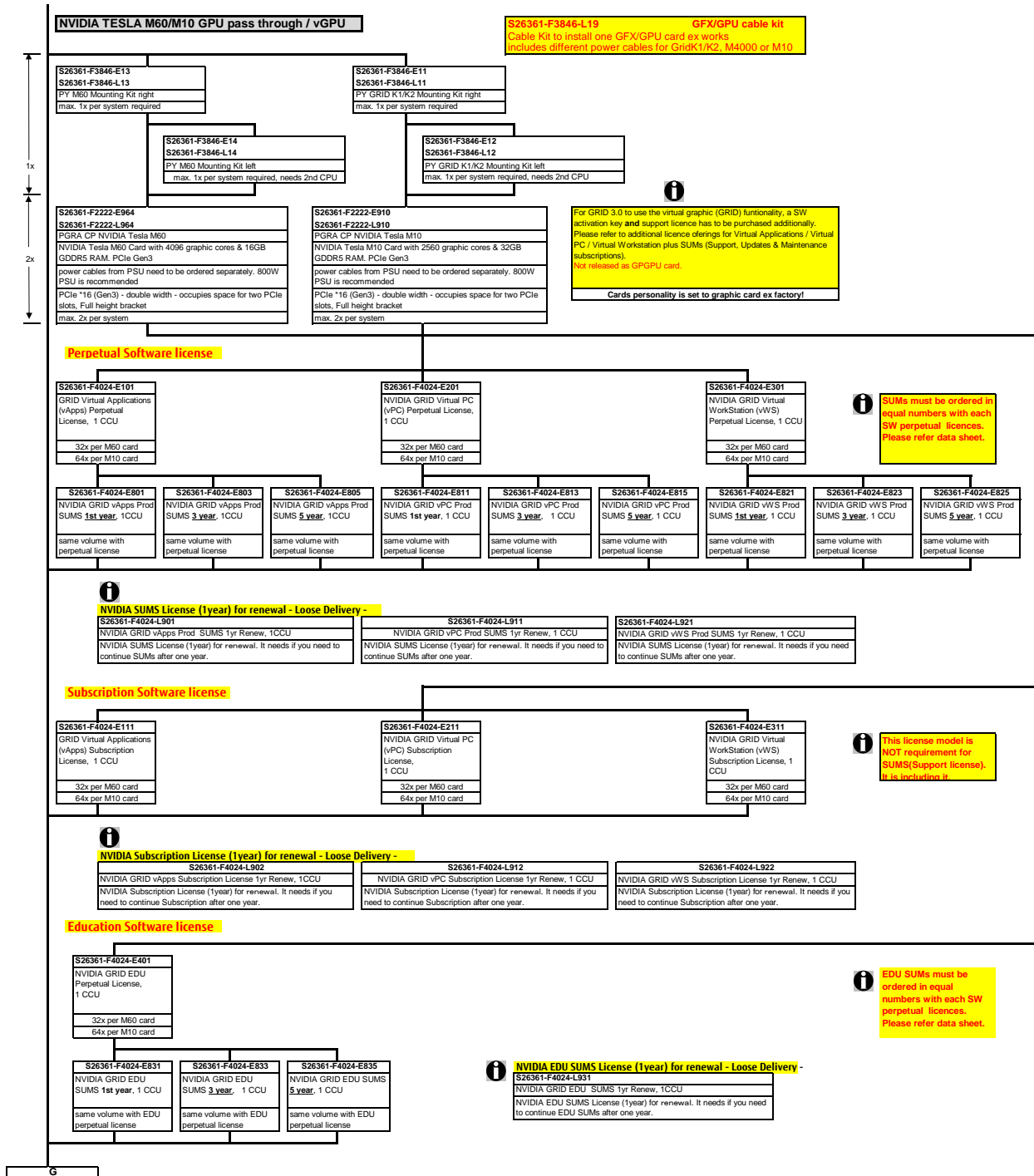
Performance Channel Mode requires identical modules on all channels of each Bank per CPU.
If this mode is used, a multiple of 4 identical modules has to be ordered.

4. Rank Sparing Mode








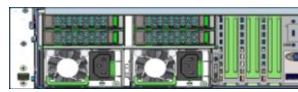


Rank Sparing Mode requires identical modules (same capacity and technology) within the same channel.
 The available memory for applications will vary depending on configuration. Please refer to the spreadsheet above
 "Effective Memory capacity with active Rank Sparing Mode". Population rule for Rank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

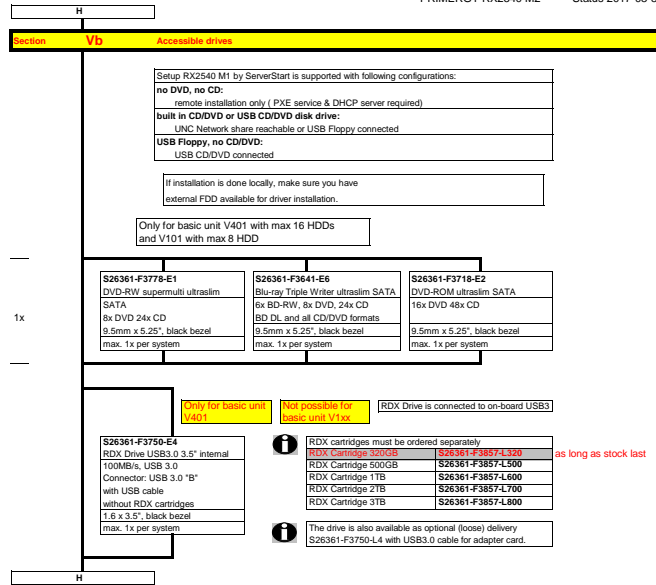


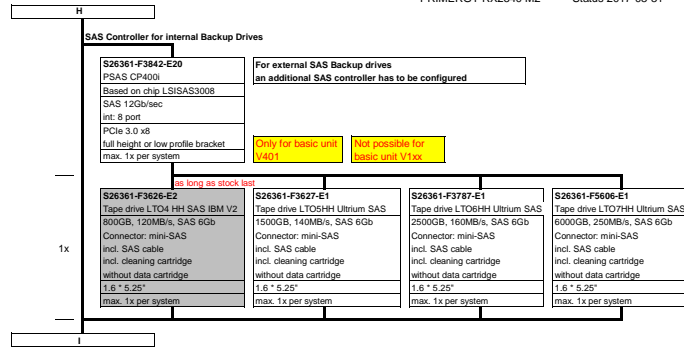


Section G Possible configuration options for basic units

<p>4 HDDs in Config 1 with ultraslim ODD</p> 	<p>Config 1, 2 or 3: Up to 4x, 8x or 12x 3.5" HDD (LFF) Basic unit S26361-K1566-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</p>
<p>8 HDDs in Config 2 with ultraslim ODD</p> 	<p>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!</p>
<p>12x HDDs for -V112, no ODD possible</p> 	<p>Basic unit S26361-K1566-V112 with 12x 3.5" HDDs included Available Upgrade kits for this configuration option: None</p>
<p>8 HDDs in Config 4 with ODD and LTO</p> 	<p>Basic unit S26361-K1566-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</p>
<p>16 HDDs in Config 5/6 with ODD and LTO</p> 	<p>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</p>
<p>add 4/8 PCIe SSD SFF in Config 7/8/9 with ODD/LTO</p> 	<p>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</p>
<p>24 HDDs in Config 24, no ODD/LTO possible</p> 	<p>Config 8: 8x 2.5" + 4x PCIe-SSD SFF S26361-F2495-E480 Config 9: 8x PCIe-SSD SFF on special release Basic unit S26361-K1566-V424 with 24x 2.5" HDDs included 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</p>
<p>rear 2.5" SAS/SATA HDD/SSD SFF rear 2.5" PCIe-SSD SFF</p> 	<p>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: Requires SAS Controller or PCIe switch installed 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</p>

Section H





Section VI Hard disk 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 SASEG compatible
Hard Disk Sector Format Information:
512n HDD: 512 byte sectors on the drive media.
512e (=emulation) HDD: 4K physical sectors on the drive media with 512 byte logical configuration.
512e HDD Disk Drives: VMware 6.0 or earlier is not supported.
When using SSDs with VMware ESXi, select the SSDs that meet the endurance requirement described in KB2145210 below.
<https://kb.vmware.com/kb/2145210>
SED (Self Encrypting Drives) require either a RAID controller with @SafeStore (SED) support or an HBA and in addition a software instance, supporting SED Key Management. It is strongly recommended to order SafeStore (SED) RAID controller with SED HDD or SSD devices for SafeStore (SED) functionality.
HDD classes:
Business-Critical (BC) -SATA-Nearline SATA Enterprise Drives / 7.2Krpm, SATA 6G.
Business-Critical (BC) -SAS-Nearline SAS Enterprise Drives / 7.2Krpm, SAS 6G or SAS 12G.
Mission-Critical (MC)-SAS 10K and SAS 15K Enterprise Drives with max. performance and reliability.
Warranty:
SSD and SATA DOM (except for SLC) have a built-in Wear-Out Indicator. In this case the warranty for such a component, as an exception to the system warranty, is restricted to the time period until the indicator reaches the exhaust level.
DWPD (5y): drive writes per day over 5 years.

SATA Disk Drive 3.5" 8/10TB HDDs not released with PSAS (P400) (S26361-F3842-E2)

HDD SATA 6Gb/s 3.5" with hot plug/hot replace tray	
1TB 7200rpm, <9.0ms, 84MB Cache, 512n	S26361-F3950-E100
2TB 7200rpm, 64MB Cache, 512n	S26361-F3815-E200
4TB 7200rpm, 64MB Cache, 512n	S26361-F3815-E400
4TB 7200rpm, 128MB Cache, 512e	S26361-F3904-E400
6TB 7200rpm, 128MB Cache, 512e	S26361-F3904-E600
8TB 7200rpm, 256MB Cache, 512e	S26361-F3904-E800
10TB 7200rpm, 256MB Cache, 512e	S26361-F3904-E100

max. 4x, 8x or 12x per System

SAS Disk Drive 3.5" 8/10TB HDDs not released with PSAS (P400) (S26361-F3842-E2)

HDD SAS 12Gb/s 2.5" HDD within 3.5" hot plug/hot replace tray	
300GB 15000rpm, 128MB Cache, 512n	S26361-F5532-E530
450GB 15000rpm, 128MB Cache, 512n	S26361-F5532-E545
600GB 15000rpm, 128MB Cache, 512n	S26361-F5532-E560
HDD SAS 12Gb/s 3.5" with hot plug/hot replace tray	
2TB 7200rpm, 128MB Cache, 512e	S26361-F5571-E200
4TB 7200rpm, 128MB Cache, 512e	S26361-F5571-E400
6TB 7200rpm, 128MB Cache, 512e	S26361-F5571-E600
8TB 7200rpm, 256MB Cache, 512e	S26361-F5571-E800
10TB 7200rpm, 256MB Cache, 512e	S26361-F5571-E100
6TB 7200rpm, 128MB Cache, 512e, SED	S26361-F5584-E600
10TB 7200rpm, 256MB Cache, 512e, SED	S26361-F5624-E100
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
4TB 7200rpm, <9.0ms, 32MB Cache, 512n	S26361-F3820-E400

max. 4x, 8x or 12x per System

Solid State Disk, 3.5"

SSD SATA 6Gb/s, 2.5" SSD within 3.5" hot plug/hot replace tray (H-P)	
120GB, Enterprise (EP), 0.3DWPD (5y)	S26361-F5530-E120
800GB, Enterprise (EP), 0.3DWPD (5y)	S26361-F5530-E800
240GB, Enterprise (EP), 1DWPD (5y)	S26361-F5630-E240
480GB, Enterprise (EP), 1DWPD (5y)	S26361-F5630-E480
800GB, Enterprise (EP), 1DWPD (5y)	S26361-F5630-E800
960GB, Enterprise (EP), 1DWPD (5y)	S26361-F5630-E960
1.2TB, Enterprise (EP), 1DWPD (5y)	S26361-F5630-E120
1.6TB, Enterprise (EP), 1DWPD (5y)	S26361-F5630-E160
240GB, Enterprise (EP), 3DWPD (5y)	S26361-E5589-E240
480GB, Enterprise (EP), 3DWPD (5y)	S26361-E5589-E480
240GB, Enterprise (EP), 3.6DWPD (5y)	S26361-F5673-E240
480GB, Enterprise (EP), 3.6DWPD (5y)	S26361-F5673-E480
960GB, Enterprise (EP), 3DWPD (5y)	S26361-E5589-E960
1.92TB, Enterprise (EP), 3DWPD (5y)	S26361-E5589-E192
SSD SAS 12Gb/s, 2.5" SSD within 3.5" hot plug/hot replace tray (H-P)	
400GB, Enterprise (EP), 10DWPD (5y)	S26361-F5607-E400
800GB, Enterprise (EP), 10DWPD (5y)	S26361-F5607-E800
1.6TB, Enterprise (EP), 10DWPD (5y)	S26361-F5607-E160
480GB, Enterprise (EP), 3DWPD (5y)	S26361-F5612-E480
960GB, Enterprise (EP), 3DWPD (5y)	S26361-F5612-E960
1.92TB, Enterprise (EP), 3DWPD (5y)	S26361-F5612-E192
3.84TB, Enterprise (EP), 3DWPD (5y)	S26361-F5612-E384
400GB, Enterprise (EP), 3DWPD (5y)	S26361-F5662-E400
800GB, Enterprise (EP), 3DWPD (5y)	S26361-F5662-E800
1.6TB, Enterprise (EP), 3DWPD (5y)	S26361-F5662-E160
3.2TB, Enterprise (EP), 2.3DWPD (5y)	S26361-F5662-E320
480GB, Enterprise (EP), 1DWPD (5y)	S26361-F5615-E480
960GB, Enterprise (EP), 1DWPD (5y)	S26361-F5615-E960
1.92TB, Enterprise (EP), 1DWPD (5y)	S26361-F5615-E192
3.84TB, Enterprise (EP), 1DWPD (5y)	S26361-F5615-E384
480GB, Enterprise (EP), 1DWPD (5y)	S26361-F5668-E480
960GB, Enterprise (EP), 1DWPD (5y)	S26361-F5668-E960
1.92TB, Enterprise (EP), 1DWPD (5y)	S26361-F5668-E192
3.84TB, Enterprise (EP), 1DWPD (5y)	S26361-F5668-E384

max. 4x, 8x or 12x per System

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

Please order additionally either/or:
Config 1: Max 4x 3.5" HDD V101
Config 2: Up to 8x 3.5" HDD V112
Config 3: Up to 12x 3.5" HDD V112

not released for Japan/APAC

as soon as available

J		
		Solid State Disk, Boot Drive, SATA DOM (SATADOM Port, AHCI)
		SSD SATA 6Gb/s DOM, Boot Device, non "hot plug/hot replace"
		840GB, SATA DOM, 0.14 DWPD (5y) S26361-F3618-E84
		120GB, SATA DOM, 0.13 DWPD (5y) S26361-F5518-E120
		SATADOM is designed for use as a boot drive with the Endurance Spec. above.
		VMware is not supported.
		max. 1x per system
1x		Solid State Disk, Boot Drive, SATA DOM SLC (SATADOM Port, AHCI)
		SSD SATA 6Gb/s DOM SLC, Boot Device, non "hot plug/hot replace"
		64GB, SATA DOM SLC S26361-F5620-E84
		SATADOM SLC is designed for use as a Virtual SAN boot drive.
		VMware ESXi 6.0 U2 or later is supported.
		max. 1x per system
		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** (0.3DWPD/5y) S26361-F5525-E120
		800GB, Enterprise (EP), Read-Intensive** (0.3DWPD/5y) S26361-F5525-E800
		max. 8/16/24x per system
		SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray (H-P)
		240GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E240
		480GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E480
		960GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E960
		1.92TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E192
		3.84TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E384
		7.68TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E768
		15.36TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E1536
		max. 8/16/24x per system
		Solid State Disk 2.5", SATA 6G Mixed-Use (read/write)
		SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray (H-P)
		240GB, Enterprise (EP), 3DWPD (5y) S26361-F5588-E240
		480GB, Enterprise (EP), 3DWPD (5y) S26361-F5588-E480
		240GB, Enterprise (EP), 3.6DWPD (5y) S26361-F5675-E240
		480GB, Enterprise (EP), 3.6DWPD (5y) S26361-F5675-E480
		960GB, Enterprise (EP), 3DWPD (5y) S26361-F5588-E960
		1.92TB, Enterprise (EP), 3DWPD (5y) S26361-F5588-E192
		max. 8/16/24x per system
		Solid State Disk 2.5", SAS 12G Read-Intensive
		SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray (H-P)
		480GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5617-E480
		960GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5617-E960
		1.92TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5617-E192
		3.84TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5617-E384
		7.68TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5617-E768
		15.36TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5617-E1536
		max. 8/16/24x per system
		Solid State Disk 2.5", SAS 12G Mixed-Use (read/write)
		SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray (H-P)
		480GB, Enterprise (EP), 3DWPD (5y) S26361-F5614-E480
		960GB, Enterprise (EP), 3DWPD (5y) S26361-F5614-E960
		1.92TB, Enterprise (EP), 3DWPD (5y) S26361-F5614-E192
		3.84TB, Enterprise (EP), 3DWPD (5y) S26361-F5614-E384
		7.68TB, Enterprise (EP), 3DWPD (5y) S26361-F5614-E768
		15.36TB, Enterprise (EP), 3DWPD (5y) S26361-F5614-E1536
		max. 8/16/24x per system
		Solid State Disk 2.5", SAS 12G Mainstream (mainly write)
		SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray (H-P)
		400GB, Enterprise (EP), 10DWPD (5y) S26361-F5608-E400
		800GB, Enterprise (EP), 10DWPD (5y) S26361-F5608-E800
		1.6TB, Enterprise (EP), 10DWPD (5y) S26361-F5608-E160
		400GB, Enterprise (EP), 10DWPD (5y), SED S26361-F5611-E400
		800GB, Enterprise (EP), 10DWPD (5y), SED S26361-F5611-E800
		1.6TB, Enterprise (EP), 10DWPD (5y), SED S26361-F5611-E160
		max. 8/16/24x per system
		SAS Disk Drive 2.5"
		HDD SAS 6Gb/s 2.5" with hot plug/hot replace tray
		1TB 7,200rpm, 64MB Cache, 512n S26361-F3817-E100
		max. 8/16/24x per system
		HDD SAS 12Gb/s 2.5" with hot plug/hot replace tray
		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, 10krpm, 128MB Cache, 512n, SED S26361-F5581-E130
		600GB, 10krpm, 128MB Cache, 512n, SED S26361-F5581-E160
		1.2TB, 10krpm, 128MB Cache, 512n, SED S26361-F5581-E112
		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
		1.8TB, 10krpm, 128MB Cache, 512e, SED S26361-F5582-E118
		300GB, 15,000rpm, 128MB Cache, 512n S26361-F5531-E530
		450GB, 15,000rpm, 128MB Cache, 512n S26361-F5531-E545
		600GB, 15,000rpm, 128MB Cache, 512n S26361-F5531-E560
		1TB 7,200rpm, 128MB Cache, 512n S26361-F5600-E100
		2TB 7,200rpm, 128MB Cache, 512n S26361-F5600-E200
		1TB 7,200rpm, 128MB Cache, 512e S26361-F5573-E100
		2TB 7,200rpm, 128MB Cache, 512e S26361-F5573-E200
		max. 8/16/24x per system
		SATA Disk Drive 2.5"
		HDD SATA 6Gb/s 2.5" with hot plug/hot replace tray
		1TB 7,200rpm, <5.5ms, 64MB Cache, 512n S26361-F3816-E100
		2TB 7,200rpm, 128MB Cache, 512n S26361-F3956-E200
		1TB 7,200rpm, 128MB Cache, 512e S26361-F3907-E100
		2TB 7,200rpm, 128MB Cache, 512e S26361-F3907-E200
		max. 8/16/24x per system
K		

max 8/16/24x for V40xx

HDD 512e
512e drives are not supported with VMware 6.0 or earlier

Section VII Modular RAID 0/1, Raids for SAS or SATA HDD'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 xP4x0.

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 chosen, the TFM Module is needed once per FBU.

S26361-F3863-E10 Option REAR SAS/SATA HDD/SSD
This option needs a separate (additional) PRAID xP400i or EP420i controller in slot 7 which requires a 2nd CPU

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

******S26361-F5243-E206, L506**
PRAID EP440i TFM for SafeStore supports HDD Encryption

S26361-F3842-E1 *)
PRAID CP400i
Based on chip LSI/SAS3008
no Cache
RAID 0, 1, 1E, 10, 5, 50
8 ports 3, 6 & 12Gb/s
SAS/SATA HDD/SSD
PCIe 3.0 x8
Low profile ex factory
max. 2x per system

S26361-F5243-E1
PRAID EP400i
Based on chip LSI/SAS3108
1GB Cache, opt. TFM, FBU
RAID 0, 1, 1E, 10, 5, 50, 6, 60
8 ports 3, 6 & 12Gb/s
SAS/SATA HDD/SSD
PCIe 3.0 x8
Low profile ex factory
max. 2x per system

S26361-F5243-E2
PRAID EP420i
Based on chip LSI/SAS3108
2GB Cache, opt. TFM, FBU
RAID 0, 1, 1E, 10, 5, 50, 6, 60
8 ports 3, 6 & 12Gb/s
SAS/SATA HDD/SSD
PCIe 3.0 x8
Low profile ex factory
max. 2x per system

S26361-F5243-E205(LP)**-L505 (FH+LP)**
PRAID EP440i TFM
Based on chip LSI/SAS3108
4GB Cache, incl. TFM, opt. FBU
RAID 0, 1, 1E, 10, 5, 50, 6, 60
8 ports 3, 6 & 12Gb/s
SAS/SATA HDD/SSD
PCIe 3.0 x8
Low profile ex factory
max. 1x per system

S26361-F5243-E100 for EP400i
TFM Module for FBU option (flash and FBU control logic)
max. 1x per Controller

S26361-F5243-E20 for EP420i/440i
TFM Module for FBU option (flash and FBU control logic)
max. 1x per Controller

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

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

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

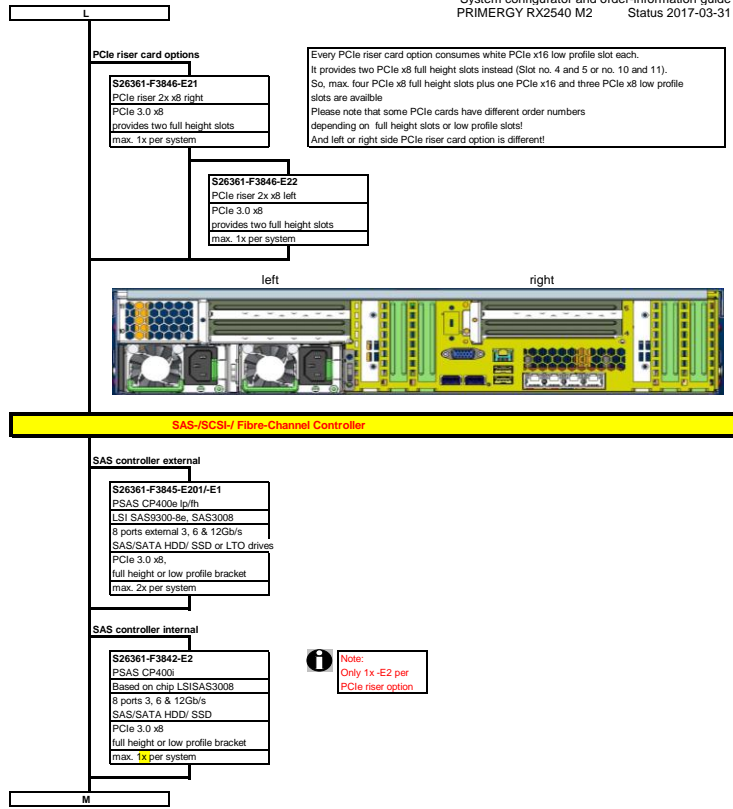
RAID Advanced Software test license available: PRIMERGY-PW
Flash is free of charge

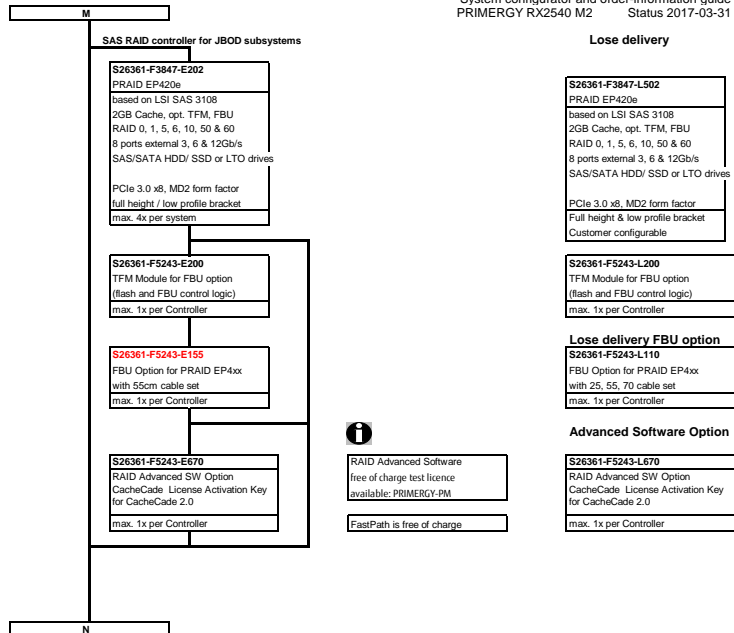
Note: Only 2 FBU per system!

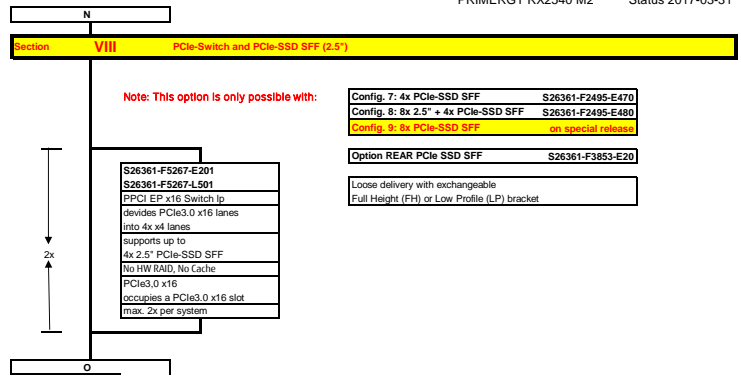
***) In V112: only together with S26361-F3853-E10 (Option REAR 2.5" SAS/SATA HDD/SSD)**

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
SAS 3.0 cable upgrade kit for RX2540 2.5"
This kit contains the following cables for RX2540 2.5":
T26139-Y4040-Y8, 470mm
T26139-Y4040-Y9, 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
Availability: End April 2017
PRAID EP40 and EP40 for SafeStore L-Parts require a Cable Upgrade Kit: S26361-F5243-L740
This is required, because this controllers support different position of SAS cables.







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 EMEA	2x RJ45 plug for 10GbASE-T	S26361-F5302-E210	S26361-F5302-L210	
PLAN EM 2x10Gb T interface card v2 APC, JP	2x RJ45 plug for 10GbASE-T	S26361-F5302-E220	S26361-F5302-L220	
PLAN EM 2x10Gb SFP interface card	2x SFP+ plugs for twinax or modules <i>for SFP modules and cables see link</i>	S26361-F5302-E211	S26361-F5302-L211	
required 1x per system				
1Gb Ethernet network components				
1Gb Ethernet controller with RJ45 interface (1000BASE-T)				
PLAN CP 2x1Gb Cu Intel I350-T2	4x	2 port, Intel	S26361-F4610-E2	S26361-F4610-L502
PLAN CP 2x1Gb Cu Intel I350-T2 LP	4x	2 port, Intel	S26361-F4610-E202	S26361-F4610-L502
PLAN CP 4x1Gb Cu Intel I350-T4	4x	4 port, Intel	S26361-F4610-E4	S26361-F4610-L504
PLAN CP 4x1Gb 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 2x10GbBase-T PCIe x8 X540-T2	4x	2 port NIC, Intel	S26361-F3752-E2	S26361-F3752-L502
Eth Ctrl 2x10GbBase-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 X550-T2 2x10GbASE-T LP	4x	2 port NIC, Intel	S26361-F3948-E202	S26361-F3948-L502
PLAN EP OCe14102 2x 10GbBase-T	4x	2 port NIC with RDMA, Emulex	S26361-F5557-E1	S26361-F5557-L501
PLAN EP OCe14102 2x 10GbBase-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 2x10Gb PCIe x8 D2755 SFP+	4x	2 port NIC, Intel 82599 based	S26361-F3629-E2	S26361-F3629-L502
Eth Ctrl 2x10Gb PCIe x8 D2755 SFP+	4x	2 port NIC, Intel 82599 based	S26361-F3629-E202	S26361-F3629-L502
Eth Ctrl 2x10Gb PCIe x8 X710-DA2 SFP+	4x	2 port NIC, Intel	S26361-F3640-E2	S26361-F3640-L522
Eth Ctrl 2x10Gb PCIe x8 X710-DA2 SFP+ LP	4x	2 port NIC, Intel	S26361-F3640-E202	S26361-F3640-L522
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	S26361-F3989-E600	see table at the bottom of this page
SFP+ active Twinax Cable Brocade	2x	(best fitting cable length is defined during rack installation at the factory)	S26361-F3873-E500	
SFP+ passive Twinax Cable Cisco	2x		S26361-F4571-E500	
<i>max. 2x SFP+ or Twinax Cable per controller</i>				
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 FCiE & RDMA, Emulex	S26361-F5250-E1	S26361-F5250-L501
PCNA EP OCe14102 2x 10Gb LP	4x	2 port CNA with FCiE & RDMA, Emulex	S26361-F5250-E201	S26361-F5250-L501
optional 10Gb SFP+ module with LC connector for Emulex controller				
PCNA SFP+ MMF Modul Océ14102	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	S26361-F3989-E600	see table at the bottom of this page
SFP+ active Twinax Cable Brocade	2x	(best fitting cable length is defined during rack installation at the factory)	S26361-F3873-E500	
SFP+ passive Twinax Cable Cisco	2x		S26361-F4571-E500	
<i>max. 2x SFP+ or Twinax Cable per controller</i>				
max. 4 Controller per system				
25/10Gb Ethernet network components				
25/10Gb Ethernet controller with 2x SFP28 cages (for twinax cables or optical transceiver SFP+ modules)				
Dual speed support, auto-sense - supports 25Gbps and 10Gbps line rate per-port				
PLAN EP QLA5212 2x25Gb	2x	Dual Port NIC, RoCE RDMA, WS2016, Qlogic	S26361-F5622-E2	S26361-F5622-L502
PLAN EP QLA5212 2x25Gb LP	2x	Dual Port NIC, RoCE RDMA, WS2016, Qlogic	S26361-F5622-E202	S26361-F5622-L502
optional 25Gb SFP28 module with LC connector for Fujitsu / Intel / Qlogic based controller				
Twinax Anschlussplatz Primergy	2x	virtual connector for twinax cables	V:TWX CONNECTOR-PY	
SFP28 Twinax Cable Fujitsu	2x	customized cable length	future	future
SFP28 Twinax Cable Brocade	2x	(best fitting cable length is defined during rack installation at the factory)	future	future
<i>max. 2x SFP28 Twinax Cable per controller</i>				
optional 10Gb SFP+ module with LC connector for Fujitsu / Intel / Qlogic based controller				
SFP+ Transceiver Module MMF 10GbE LC	2x	MMF / SR SFP+ module, up to 400m	S26361-F3986-E3	S26361-F3986-L3
SFP+ Transceiver 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	S26361-F3989-E600	see table at the bottom of this page
SFP+ active Twinax Cable Brocade	2x	(best fitting cable length is defined during rack installation at the factory)	S26361-F3873-E500	
<i>max. 2x SFP+ or Twinax Cable per controller</i>				
max. 2 Controller per system				
40/10Gb Ethernet network components				
40Gb Ethernet controller with QSFP+ interface (for QSFP+ modules or twinax cables, Emulex)				
PCNA EP OCe14401 1x40Gb LP	1x	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	S26361-F3986-E400	see table at the bottom of this page
QSFP+ aktives Twinax Kabel Brocade	1x	(best fitting cable length is defined during rack installation at the factory)	S26361-F5317-E40	
<i>max. 1x QSFP+ or Twinax Cable per controller</i>				
max. 1 Controller per system				

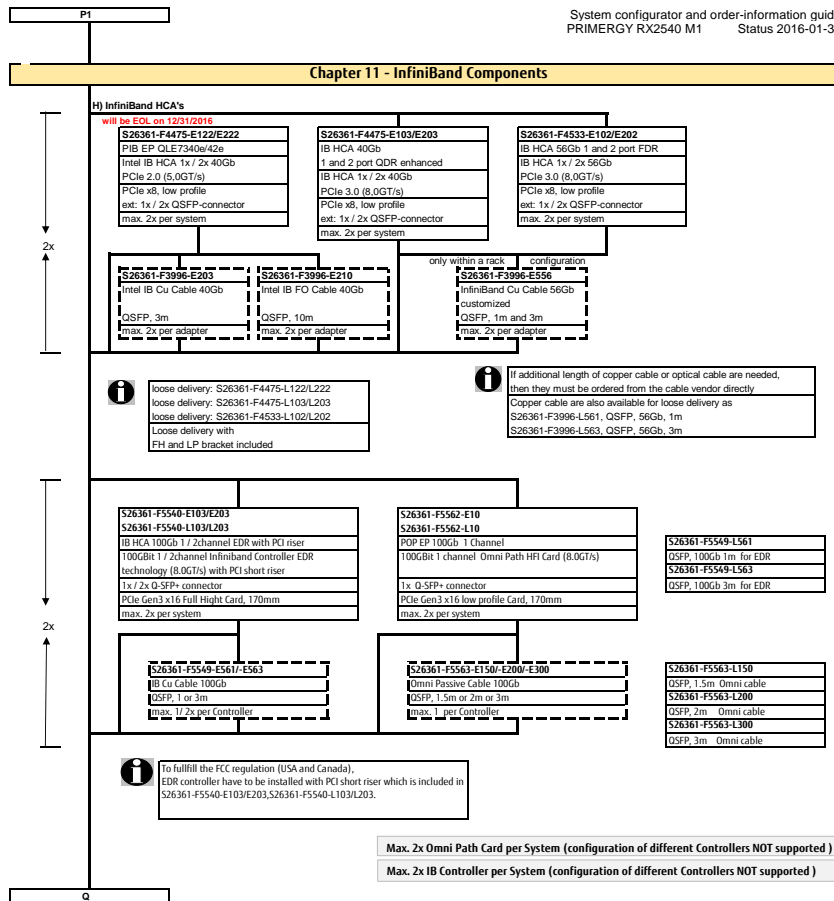
Network cables for later upgrade			
Fujitsu active SFP+ / Twinax 10Gb cable			
SFP+ active Twinax Cable Fujitsu 2m	S26361-F3989-L102		
SFP+ active Twinax Cable Fujitsu 5m	S26361-F3989-L105		
SFP+ active Twinax Cable Fujitsu 10m	S26361-F3989-L110		
Brocade active SFP+ / Twinax 10Gb cable			
SFP+ active 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		
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, 1-pack	D-05FP-QSFP-ADC10L		
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-05FP-4SFP-ADC10L		

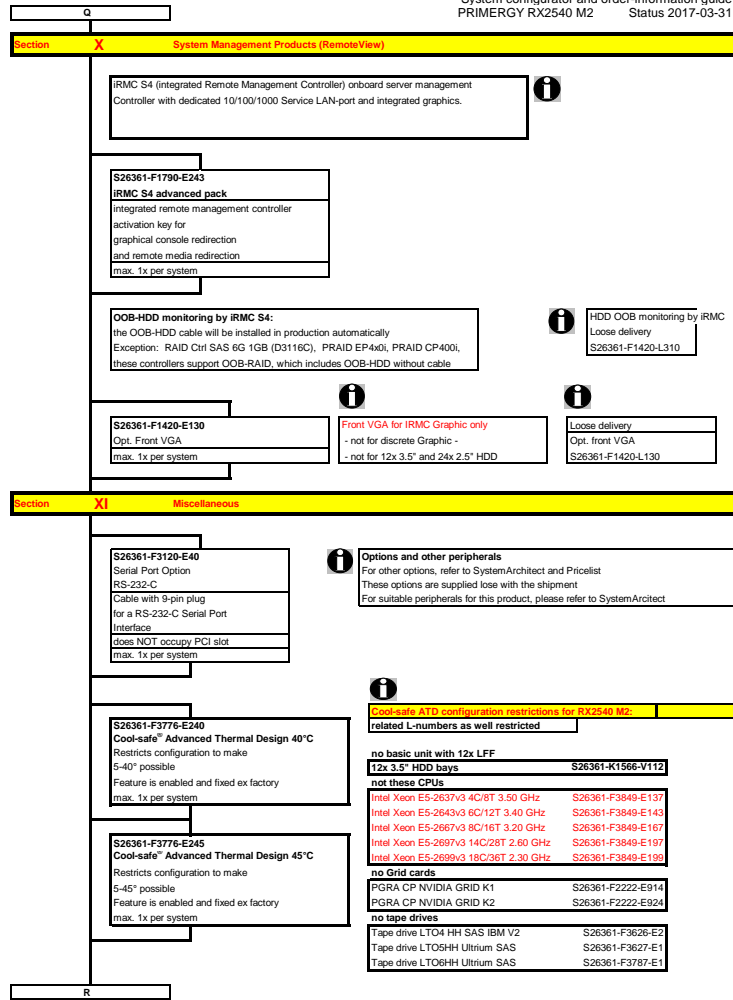
Chapter 10 - Fibre Channel Components

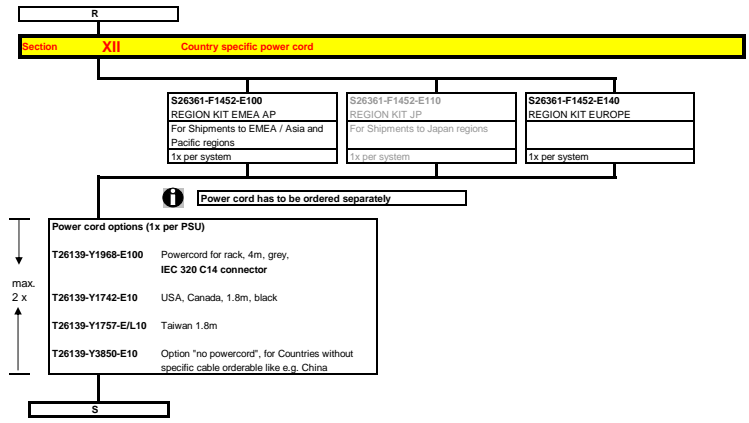
as soon as available, GA planned Q1/2017

32Gb Fibre Channel controller generation 6 with LC interface for 50µm optical cables (OM3 or OM4)			
Triple speed support - supports 32Gb, 16Gb, and 8Gb			
PFC EP LPe32000 1x 32Gb	4x	1 port, full height, Broadcom/Emulex	S26361-F4044-E1 S26361-F4044-L501
PFC EP LPe32000 1x 32Gb LP	4x	1 port, low profile, Broadcom/Emulex	S26361-F4044-E201 S26361-F4044-L501
PFC EP LPe32002 2x 32Gb	4x	2 port, full height, Broadcom/Emulex	S26361-F4044-E2 S26361-F4044-L502
PFC EP LPe32002 2x 32Gb LP	4x	2 port, low profile, Broadcom/Emulex	S26361-F4044-E202 S26361-F4044-L502
16Gb Fibre Channel controller generation 6 with LC interface for 50µm optical cables (OM3 or OM4)			
Dual speed support - supports 16Gb and 8Gb			
PFC EP LPe31000 1x 16Gb Emulex	6x	1 port, full height, Emulex	S26361-F5596-E1 S26361-F5596-L501
PFC EP LPe31000 1x 16Gb Emulex LP	6x	1 port, low profile, Emulex	S26361-F5596-E201 S26361-F5596-L501
PFC EP LPe31002 2x 16Gb Emulex	6x	2 port, full height, Emulex	S26361-F5596-E2 S26361-F5596-L502
PFC EP LPe31002 2x 16Gb Emulex LP	6x	2 port, low profile, Emulex	S26361-F5596-E202 S26361-F5596-L502
PFC EP QLE2690 1x 16Gb	6x	1 port, full height, Qlogic	S26361-F5580-E1 S26361-F5580-L501
PFC EP QLE2690 1x 16Gb LP	6x	1 port, low profile, Qlogic	S26361-F5580-E201 S26361-F5580-L501
PFC EP QLE2692 2x 16Gb	6x	2 port, full height, Qlogic	S26361-F5580-E2 S26361-F5580-L502
PFC EP QLE2692 2x 16Gb LP	6x	2 port, low profile, Qlogic	S26361-F5580-E202 S26361-F5580-L502
16Gb Fibre Channel controller generation 5 with LC interface for 50µm optical cables (OM3 or OM4)			
Predecessor - Dual speed support - supports 16Gb and 8Gb			
PFC EP LPe16000 1x 16Gb	6x	1 port, full height, Emulex	S26361-F4994-E1 S26361-F4994-L501
PFC EP LPe16000 1x 16Gb LP	6x	1 port, low profile, Emulex	S26361-F4994-E201 S26361-F4994-L501
PFC EP LPe16002 2x 16Gb	6x	2 port, full height, Emulex	S26361-F4994-E2 S26361-F4994-L502
PFC EP LPe16002 2x 16Gb LP	6x	2 port, low profile, Emulex	S26361-F4994-E202 S26361-F4994-L502
PFC EP QLE2670 1x 16Gb	6x	1 port, full height, Qlogic	S26361-F5313-E1 S26361-F5313-L501
PFC EP QLE2670 1x 16Gb LP	6x	1 port, low profile, Qlogic	S26361-F5313-E201 S26361-F5313-L501
PFC EP QLE2672 2x 16Gb	6x	2 port, full height, Qlogic	S26361-F5313-E2 S26361-F5313-L502
PFC EP QLE2672 2x 16Gb LP	6x	2 port, low profile, Qlogic	S26361-F5313-E202 S26361-F5313-L502
8Gb Fibre Channel controller generation 4 with LC interface for 50µm optical cables (OM3 or OM4)			
Dual speed support - supports 8Gb and 4Gb			
FC Ctrl 8Gb/s 1 Kanal LPe1250 MMF LC	6x	1 port, full height, Emulex	S26361-F3961-E1 S26361-F3961-L1
FC Ctrl 8Gb/s 1 Kanal LPe1250 MMF LC LP	6x	1 port, low profile, Emulex	S26361-F3961-E201 S26361-F3961-L201
FC Ctrl 8Gb/s 2 Kanal LPe12002 MMF LC	6x	2 port, full height, Emulex	S26361-F3961-E2 S26361-F3961-L2
FC Ctrl 8Gb/s 2 Kanal LPe12002 MMF LC LP	6x	2 port, low profile, Emulex	S26361-F3961-E202 S26361-F3961-L202
FC Ctrl 8Gb/s 1 Kanal QLE2560 MMF LC	6x	1 port, full height, Qlogic	S26361-F3631-E1 S26361-F3631-L1
FC Ctrl 8Gb/s 1 Kanal QLE2560 MMF LC LP	6x	1 port, low profile, Qlogic	S26361-F3631-E201 S26361-F3631-L201
FC Ctrl 8Gb/s 2 Kanal QLE2562 MMF LC	6x	2 port, full height, Qlogic	S26361-F3631-E2 S26361-F3631-L2
FC Ctrl 8Gb/s 2 Kanal QLE2562 MMF LC LP	6x	2 port, low profile, Qlogic	S26361-F3631-E202 S26361-F3631-L202
max. 6 Controller per system. (mixed configurations are supported)			


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







Accessories	
\$	http://www.fujitsu.com/its/products/computing/peripheral/accessories/index-facts.html
USB sticks (FOR PROJECTS ONLY) - no standard release	
ADATA USB 3.0 Flash Stick UE700 - 32GB	S26391-F6048-L332
ADATA USB 3.0 Flash Stick UE700 - 64GB	S26391-F6048-L364
USB Optical Disc Drive	
External Ultra Slim Portable DVD Writer (Hitachi-LG)	S26341-F103-L142
End PRIMERGY RX2540 M2	



System configurator and order-information guide
PRIMERGY RX2540 M2 Status 2017-03-31

Group	Description	order code	Status LLC
	TBD		

