

PRIMERGY TX300 S7

PRIMERGY RX350 S7

System configurator and order-information guide

February 2014

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Change report

PRIMERGY Server

Instructions

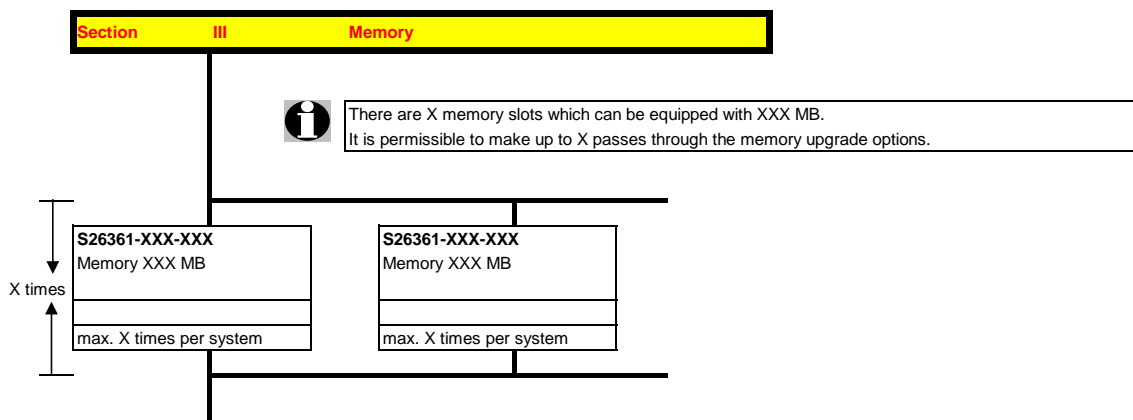
This document contains basic product and configuration information that will enable you to configure your system via PC-/SystemArchitect.

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

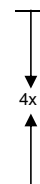
You can configure your individual PRIMERGY server in order to adjust your specific requirements.

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/index.html (internet)

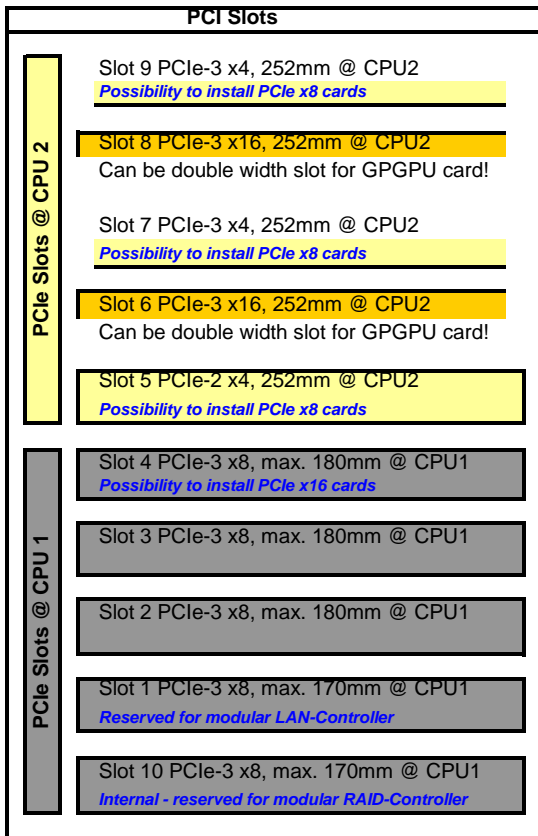
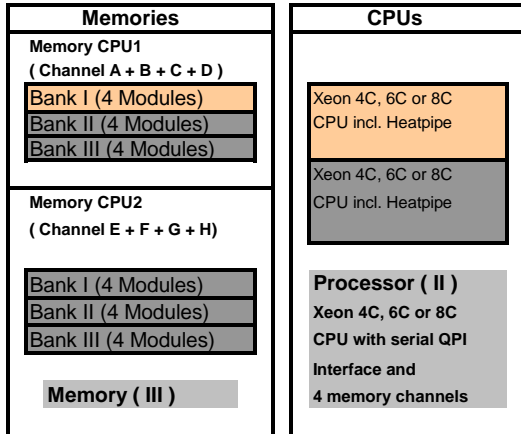
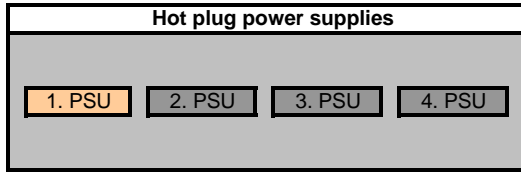
https://partners.ts.fujitsu.com/com/order-supply/configurators/primergy_config/current/Pages/default.aspx (extranet)

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

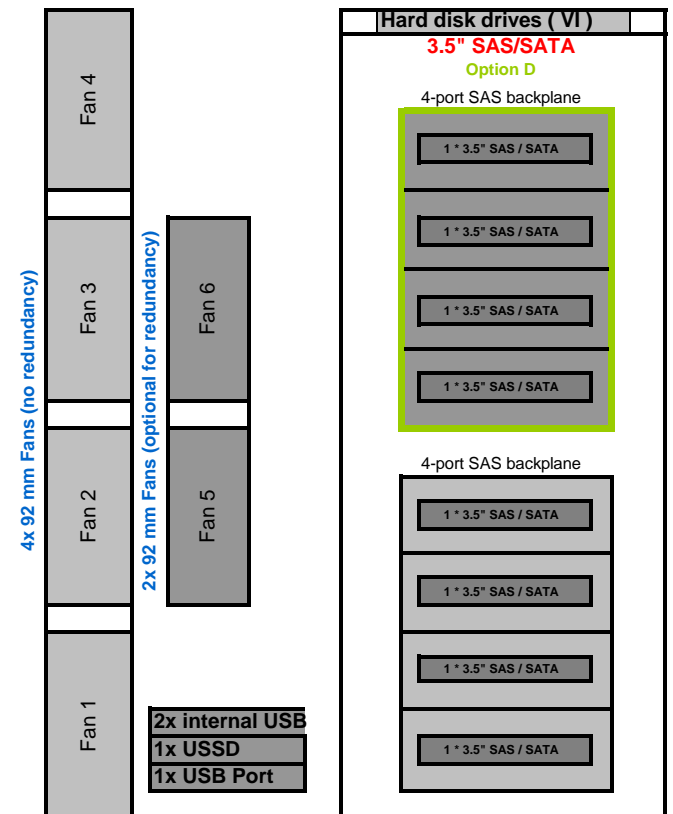
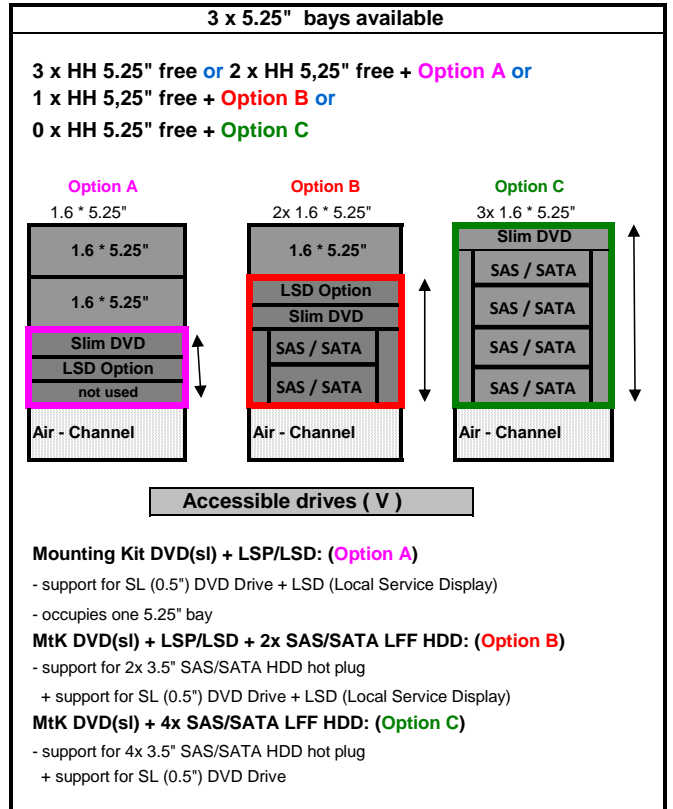
Configuration diagram PRIMERGY

System unit (3.5" HDDs)

SIDE VIEW



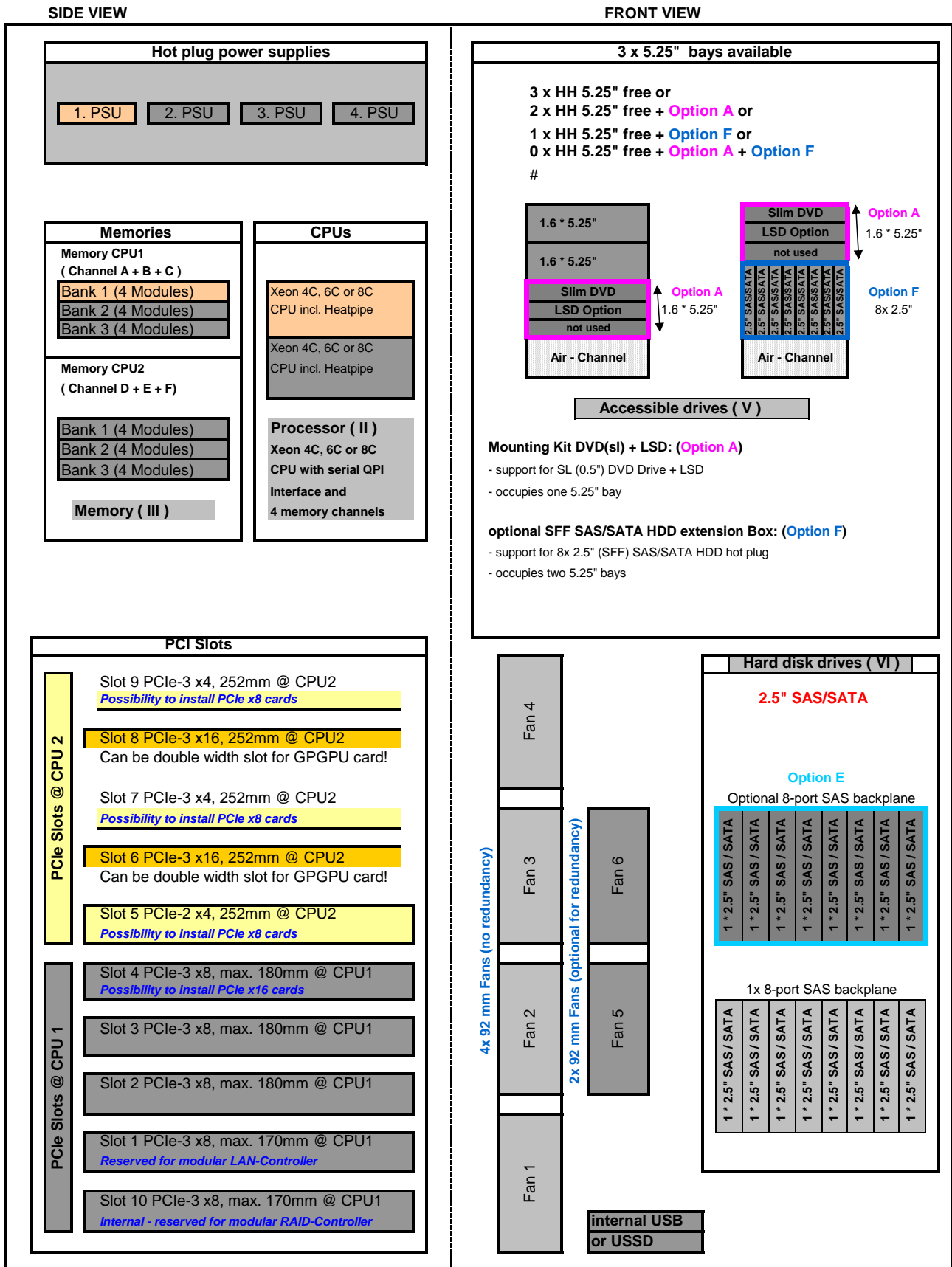
FRONT VIEW



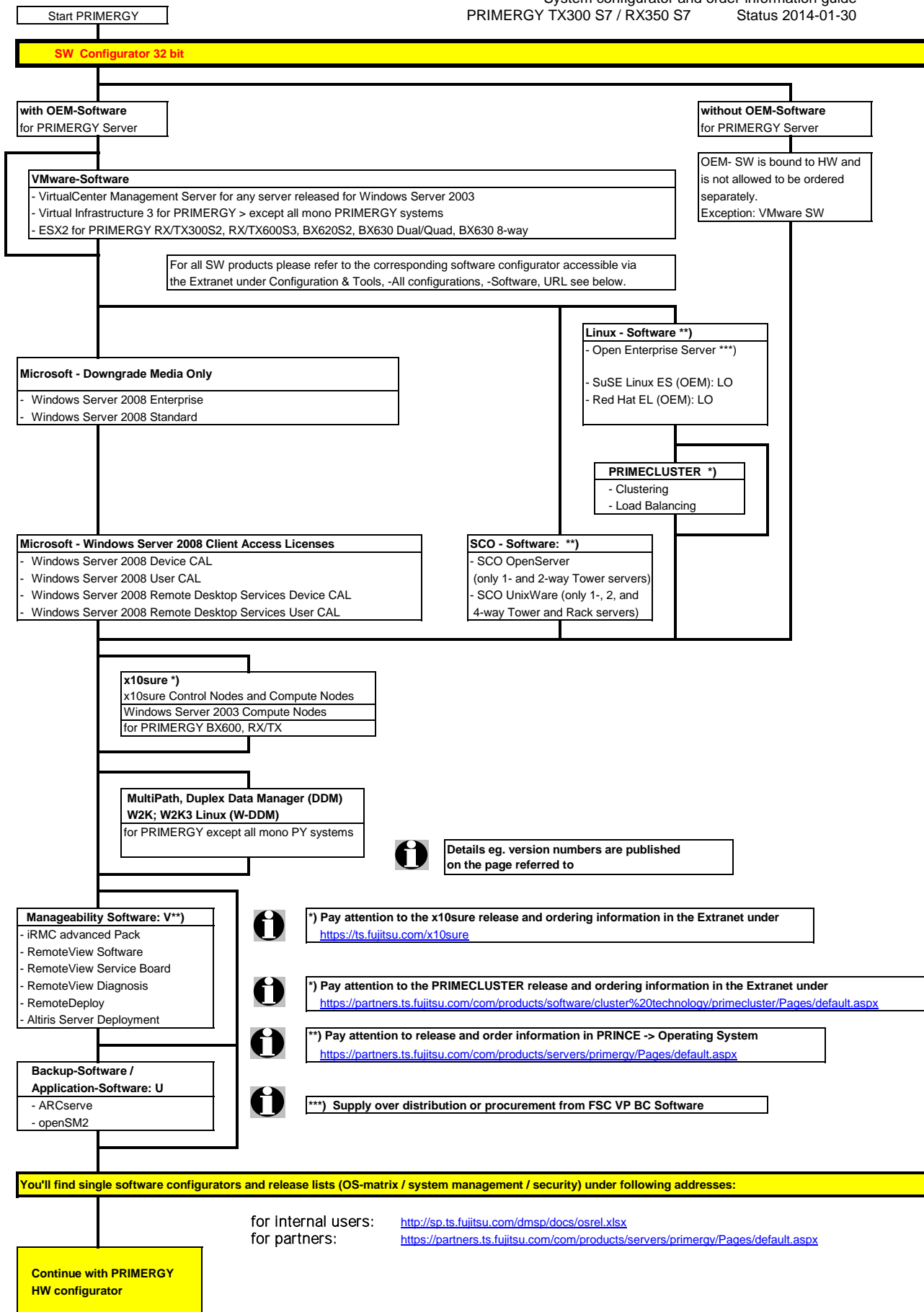
Key: Included in basic unit Option (LP ready = Slots for low profile boards)
 One CPU, one memory per CPU and one PSU has to be selected for an orderable basic unit.

Configuration diagram PRIMERGY

System unit (2.5" HDDs)



Key: Included in basic unit Option (LP ready = Slots for low profile boards)
 One CPU, one memory per CPU and one PSU has to be selected for an orderable basic unit.



Start PRIMERGY

SW Configurator 32 bit

with OEM-Software for PRIMERGY Server

without OEM-Software for PRIMERGY Server

VMware-Software
 - VirtualCenter Management Server for any server released for Windows Server 2003
 - Virtual Infrastructure 3 for PRIMERGY > except all mono PRIMERGY systems
 - ESX2 for PRIMERGY RX/TX300S2, RX/TX600S3, BX620S2, BX630 Dual/Quad, BX630 8-way

OEM- SW is bound to HW and is not allowed to be ordered separately.
 Exception: VMware SW

For all SW products please refer to the corresponding software configurator accessible via the Extranet under Configuration & Tools, -All configurations, -Software, URL see below.

Microsoft - Downgrade Media Only
 - Windows Server 2008 Enterprise
 - Windows Server 2008 Standard

Linux - Software **)
 - Open Enterprise Server ***)
 - SuSE Linux ES (OEM): LO
 - Red Hat EL (OEM): LO

PRIMECLUSTER *)
 - Clustering
 - Load Balancing

Microsoft - Windows Server 2008 Client Access Licenses
 - Windows Server 2008 Device CAL
 - Windows Server 2008 User CAL
 - Windows Server 2008 Remote Desktop Services Device CAL
 - Windows Server 2008 Remote Desktop Services User CAL

SCO - Software: **)
 - SCO OpenServer
 (only 1- and 2-way Tower servers)
 - SCO UnixWare (only 1-, 2, and 4-way Tower and Rack servers)

x10sure *)
 x10sure Control Nodes and Compute Nodes
 Windows Server 2003 Compute Nodes
 for PRIMERGY BX600, RX/TX

MultiPath, Duplex Data Manager (DDM) W2K; W2K3 Linux (W-DDM)
 for PRIMERGY except all mono PY systems

i Details eg. version numbers are published on the page referred to

Manageability Software: V)**
 - iRMC advanced Pack
 - RemoteView Software
 - RemoteView Service Board
 - RemoteView Diagnosis
 - RemoteDeploy
 - Altiris Server Deployment

i *) Pay attention to the x10sure release and ordering information in the Extranet under <https://ts.fujitsu.com/x10sure>

i *) Pay attention to the PRIMECLUSTER release and ordering information in the Extranet under <https://partners.ts.fujitsu.com/com/products/software/cluster%20technology/primecluster/Pages/default.aspx>

i **) Pay attention to release and order information in PRINCE -> Operating System <https://partners.ts.fujitsu.com/com/products/servers/primerqy/Pages/default.aspx>

Backup-Software / Application-Software: U
 - ARCserve
 - openSM2

i ***) Supply over distribution or procurement from FSC VP BC Software

You'll find single software configurators and release lists (OS-matrix / system management / security) under following addresses:

for internal users: <http://sp.ts.fujitsu.com/dmsp/docs/osrel.xlsx>
 for partners: <https://partners.ts.fujitsu.com/com/products/servers/primerqy/Pages/default.aspx>

Continue with PRIMERGY HW configurator

Start PRIMERGY TX300 S7

SW Configurator 64 bit (EM64T / IA64)

with OEM-Software for PRIMERGY Server

without OEM-Software for PRIMERGY Server

i For all SW products please refer to the corresponding software configurator accessible via the Extranet under "Configuration & Tools, -All configurations, -Software, URL see below.

OEM- SW is bound to HW and is not allowed to be ordered separately.
 Exceptions: VMware SW, Citrix XenServer

VMware-Software
 - VirtualCenter Management Server for any server released for Windows Server 2003
 - Virtual Infrastructure 3 for PRIMERGY > except all mono PRIMERGY systems
 - ESX2 for PRIMERGY RX/TX300S2, RX/TX600S3, BX620S2, BX630 Dual/Quad, BX630 8-way

Citrix XenServer / Essentials for XenServer
 - XenCenter Management Server for any server released for Windows 2000/XP/Vista and Server 2003/2008
 - XenServer and Essentials for XenServer released for RX200S5, RX300S4/S5, RX600S4, BX620S4/S5, BX920S1

Microsoft Hyper-V Server and System Center for SME
 - Microsoft System Center Virtual Machine Manager Workgroup Edition for any server released for Windows Server 2008 R2
 - Microsoft System Center Essentials 2010 for any server released for Windows Server 2008 R2
 - Microsoft Hyper-V Server 2008 R2 - Free Microsoft Web Download (not necessary for Windows Server 2008 R2 customers)

Microsoft - Windows Server 2008 R2 Server Licenses
 - Windows HPC Server 2008 R2 Suite
 - Windows Server 2008 R2 Datacenter
 - Windows Server 2008 R2 Enterprise
 - Windows Server 2008 R2 Standard
 - Windows Web Server 2008 R2

Microsoft - Windows Small Business Server 2011
 - Windows Small Business Server Standard 2011
 - Windows Small Business Server 2011 Premium Add-on

Microsoft - Downgrade Media Only
 - Windows Server 2008 Enterprise
 - Windows Server 2008 Standard

Microsoft Windows Small Business Server 2011 Client Access
 - Windows Small Business Server 2011 Standard I Premium Device CAL
 - Windows Small Business Server 2011 Standard I Premium User CAL
 - Windows Server 2008 Remote Desktop Services Device CAL
 - Windows Server 2008 Remote Desktop Services User CAL

Microsoft - Windows Server 2008 Client Access Licenses
 - Windows Server 2008 Device CAL
 - Windows Server 2008 User CAL
 - Windows Server 2008 Remote Desktop Services Device CAL
 - Windows Server 2008 Remote Desktop Services User CAL

Linux - Software *) **)
 # Open Enterprise Server ***)
 - SuSE Linux ES (OEM): LO
 - Red Hat EL (OEM): LO

PRIMECLUSTER *)
 - Clustering
 - Load Balancing

QuickTransit (QT)
 only EM64T Transition Solaris Apps. to x86-64 PY with Linux

only EM64T **MultiPath, Duplex Data Manager (DDM)**
 Windows, Linux (W-DDM)

i Details eg. version numbers are published on the page referred to

only EM64T **Manageability Software: V**)**
 - iRMC advanced Pack
 - RemoteView Software
 - RemoteView Service Board
 - RemoteView Diagnosis
 - RemoteDeploy

i *) Pay attention to the PRIMECLUSTER release and ordering information in the Extranet under <https://partners.ts.fujitsu.com/com/products/software/cluster%20technology/primecluster/Pages/default.aspx>

i **) Pay attention to release and order information in PRINCE -> Operating System <https://partners.ts.fujitsu.com/com/products/servers/primerqy/Pages/default.aspx>

i ***) Supply over distribution or procurement from FSC VP BC Software

You'll find single software configurators and release lists (OS-matrix / system management / security) under following addresses:

Continue with PRIMERGY HW configurator

for internal users: <http://sp.ts.fujitsu.com/dmsp/docs/osrel.xlsx>
 for partners: <https://partners.ts.fujitsu.com/com/products/servers/primerqy/Pages/default.aspx>

Start PRIMERGY TX300 S7

Section | Basic units



SAS - System unit, Rack and Floorstand including:

- * By a key lockable front bezel in floorstand version
- * Basic units with:
 - 4 Hot-Plug Power Supply Slots
 - 4 Standard Fans (92mm; no redundancy)
 - 12 memory DIMMs per CPU (max 384GB) => Total 24 DIMMs (max 768GB) for two CPU's
 - SAS/ SATA backplane with hot plug bays for 4x 3.5" HDD's or 8x 2.5" HDD's & SSD's
- * 3 drive bays 5,25" for accessible drives free available.
- * Integrated ServerView Diagnostics Technology with an modul for indication of failed components via LED's.
 Simultaneously components are marked which can be replaced by the customer.
 This LEDs can be dispalyed during service even without mains connection.

Options:

- * Up to 4 hot plug power supply modules with 450W & 800W
- * 4x 3.5" or 8x 2.5" HD backplane kits
- * - Optional modular RAID 0/1 controllers with IME (Integrated Mirroring Enhanced) support based on LSI 1064 or LSI SAS2008 chipset or as alternative
 - optional modular RAID 5 controller based on LSI SAS2108 chipset
- * One 0,5" bay can be configured with an optional LC- display for LocalView in a drawer

Systemboard D2649 with:

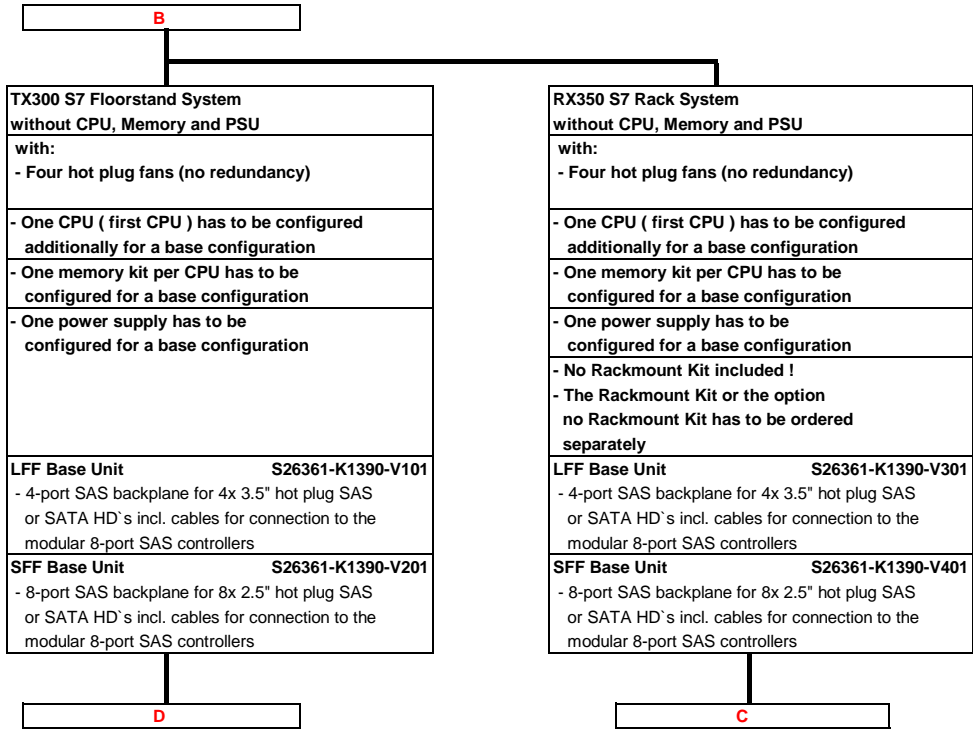
- * Up to two Xeon 4C, 6C & 8C CPU's (Socket-R)
 with 2 serial QPI links (Quick Path Interconnect) and four memory channels per CPU
 First CPU has to be selected for an orderable basic unit,
- * Chipset Intel® C600 Series (codenamed Patsburg)
- * 10 PCI slots:
 - @ first CPU - 4x PCIe-3 x8 (one notched to install x16 cards)
 - @ first CPU - 1x PCIe-3 x8 (for internal modular RAID controller only)
 - @ second CPU - 2x PCIe-3 x16
 - @ second CPU - 2x PCIe-3 x4
 - @ second CPU - 1x PCIe-2 x4
- * 24 memory slots for max. 768GB RAM DDR3 available
 - Memory is divided into 12 DIMMs per CPU (4 channels with 3 slots per channel)
 Possible max. configurations are:
 24x 32GB LRDIMM (quad rank modules) = 768GB
 24x 16GB RDIMM (dual rank modules) = 384GB
 16x 8GB UDIMM (dual rank modules) = 128GB
 First Memory (one module) has to be selected for an orderable basic unit per CPU
 - Memory upgrade is possible module wise
 - Memory mirroring is supported with 2 identical modules in channel A+B CPU 1 or D+E CPU 2
 - Rank sparing mode is supported with min. 2x 1R/2R or 1x 4R modules for RDIMM or LRDIMM
 - SDDC (Chipkill) is supported for memory modules,
- * Dual Port 10/100/1000 x4 PCI Express* Gigabit Ethernet Intel LAN controller Powerville on-board
- * iRMC S3 (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 S3 (integrated Remote Management Controller):
 Supported graphical resolutions are:
 1920x1200x16bpp, 1920x1080x16bpp, 1600x1200x16bpp, 1680x1050x16bpp, 1440x900x16bpp,
 1280x1024x32bpp, 1152x864x16bpp, 1024x768x32bpp, 800x600x32bpp, 640x480x32bpp

A

A

Interfaces at the rear: <ul style="list-style-type: none">* 1x RS-232-C (serial, 9 pins) (usable for BMC or OS or shared)* 1x RS-232-C (serial, 9 pins)* 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: <ul style="list-style-type: none">* 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: <ul style="list-style-type: none">* 2x released internal USB Interfaces for backup devices,* 1x USB 2.0 (UHCI) with 480MBit/s for dongle functionality, no USB wakeup* 1x USSD
Cables: <ul style="list-style-type: none">* SATA cable for DVD.* 2x SAS cables for connection of 4 SAS-ports each incl. signaling
<ul style="list-style-type: none">* ServerView Suite Software package incl. ServerStart, ServerBooks, Management Software and Updates* Documentation engl. (multilingual on CD)

B



C
PRIMECENTER Rack

S26361-F2735-E285
 RMK-F2_DI_CMA_QRL_LV
 telescopic drop-in rail, full extr.
 1-hand-mounting
 RMK - 1 pair consisting of
 - vario carrier length variable
 with quick release lever support
 - telescopic drop-in rails
 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



S26361-F2735-L285
 RMK-F2_DI_CMA_QRL_LV
 for loose delivery
S26361-F2735-L31
 Adapter angle PC/DC-Rack, till 200Kg
 necessary for mounting RMKs in
 asymmetrical racks
S26361-F2735-L7
 Lateral cable management
 can only be mounted
 in asymmetrical PRIMECENTER
 S2 or new M1 racks in 1U above RMK

D

S26361-F4530-E12
**Mounting systems higher 2U in
 asymmetrical racks**
 with 2U support bracket

S26361-F4530-E10
**Mounting in
 symmetrical racks**
 (no support bracket 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
 2U cable management arm (CMA)
 for 2U server or higher
 - for symmetrical racks
M1 or 3rd party racks
Fujitsu racks
 1x per system



Cable Management Arm (CMA) can
 only be used for FTS RMKs with
 CMA adapter



S26361-F2735-L82
 Cable management arm for 2U Server
 or higher for loose delivery
 can only be mounted at RMK with
 CMA adapter
 for loose delivery

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 S2 12U, 24U, 38U and
 PRC M1 16U, 24U, 42U:
 Systems and components
 will be delivered installed in the rack
 With PCR S2 racks 46U:
 Systems and components
 will be delivered separately
 To be ordered only together with
 a PRIMECENTER rack
 PCR S2 e.g. S26361-K826-V10x
 new PCR M1 e.g. S26361-K827-Vxxx
refer PCR S2 or M1 rack configurator
 max. 1x per System



"Rack-mounting ex factory"
 This service is to be ordered once
 per installable server/storage
 subsystem, in order to get the
 server/storage subsystem
 mounted into the racks.
In case of the 46 U PCR S2
this service has to be ordered,
to get the mounting kits and the
cables installed.



PRIMERGY Classic 19" rack is not supported



For later conversion the following kits are available:	
1.) Conversion kit 2 Floor -> Rack Conversion PRIMERGY TX300 S7 base unit floorstand into base unit rack. Only conversion, no mounting kit. Mounting kit has to be ordered separately.	S26361-F1729-L260

D

D

For min. configuration one power supply has to be selected
 For basic redundancy at least 2 PSUs of the same type have to be configured
 There is only one PSU type (450W or 800W) allowed

4x

S26113-F575-E10 Power supply 450W (hot plug)
occupies one bay for hot plug power supply
max. 4x per system

S26113-F574-E10 Power supply 800W (hot plug)
occupies one bay for hot plug power supply
max. 4x per system

S26113-F574-E99 * Power Supply Dummy
occupies one bay for hot plug power supply
max. 3x per system

i
***For order completeness only**
 Will be added automatically with System Architect Version ≥ V9.3

For later upgrades the following kits are available:	
1 power supply module 450W hot plug: Supplementary module	S26113-F575-L10
1 power supply module 800W hot plug: Supplementary module	S26113-F574-L10
Attention: There is no power cable included!	

i If CPU's with a TDP >= 130W are used (e.g. E5-E2643, E5-2667, E5-2680, E5-2690), the hot plug redundant fan kit (S26361-F3667-E1) is required.

S26361-F3667-E1 Hot Plug Redundant Fan Upgrade Kit
max. 1x per system

for later upgrade with redundant fan upgrade kit	
Hot Plug Redundant Fan Upgrade Kit: For upgrade of standard into redundant fans Constit of two fan boxes with 92mm fan each	S26361-F3667-L1

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

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

i Be aware of import restrictions!
 Only 1 TPM per system.
 Loose delivery for later integration possible for customer.

E

E

Section II Processor



There are 2 processor sockets available.
 The first socket is always 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**
Two processors with different type are not possible
If CPU's with a TDP >= 130W are used (e.g. E5-E2643, E5-2667, E5-2680, E5-2690), the hot plug redundant fan kit (S26361-F3667-E1) is required.
 A multi-processor operating system is required for a dual-processor system.

Max. two CPU's can be selected per basic unit	
One of following CPU's has to be selected as first CPU for an orderable basic unit	
Optional second CPU has to be the same type like the first CPU	
Basic 4C CPU's	
- 1x 64-bit Intel Xeon (10MB Smart Cache) 1066 MHz DDR3 Bus; 6,40 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2603 4C/4T 1.80GHz 10MB 6.40GT/s 1066MHz 80W	S26361-F3685-E180
Xeon E5-2609 4C/4T 2.40GHz 10MB 6.40GT/s 1066MHz 80W	S26361-F3685-E240
Standard Turbo 6C CPU's	
- 1x 64-bit Intel Xeon (15MB Smart Cache); Hyper-Threading (HT); 1333 MHz DDR3 Bus; 7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2620 6C/12T 2.00GHz 15MB 7.20GT/s 1333MHz 95W	S26361-F3676-E200
Xeon E5-2630 6C/12T 2.30GHz 15MB 7.20GT/s 1333MHz 95W	S26361-F3676-E230
Xeon E5-2640 6C/12T 2.50GHz 15MB 7.20GT/s 1333MHz 95W	S26361-F3676-E250
Advanced Turbo+ 8C CPU's	
- 1x 64-bit Intel Xeon (20MB Smart Cache); Hyper-Threading (HT); 1600 MHz DDR3 Bus; 8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2650 8C/16T 2.00GHz 20MB 8.00GT/s 1600MHz 95W	S26361-F3686-E200
Xeon E5-2660 8C/16T 2.20GHz 20MB 8.00GT/s 1600MHz 95W	S26361-F3686-E220
Xeon E5-2665 8C/16T 2.40GHz 20MB 8.00GT/s 1600MHz 115W	S26361-F3686-E240
Xeon E5-2670 8C/16T 2.60GHz 20MB 8.00GT/s 1600MHz 115W	S26361-F3686-E260
Xeon E5-2680 8C/16T 2.70GHz 20MB 8.00GT/s 1600MHz 130W	S26361-F3686-E270
Xeon E5-2690 8C/16T 2.90GHz 20MB 8.00GT/s 1600MHz 135W	S26361-F3686-E290
Frequency Optimized Turbo 2C, 4C & 6C CPU's	
- 1x 64-bit Intel Xeon (5/10/15MB Smart Cache); Hyper-Threading (HT); 1600 MHz DDR3 Bus; 6,40/7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2637 2C/4T 3.00GHz 5MB 6.40GT/s 1600MHz 80W	S26361-F3687-E300
Xeon E5-2643 4C/8T 3.3GHz 10MB 6.40GT/s 1600MHz 130W	S26361-F3687-E330
Xeon E5-2667 6C/12T 2.90GHz 15MB 7.20GT/s 1600MHz 130W	S26361-F3687-E290
Low Power 4C/6C/8C CPU's	
- 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 1333/1600 MHz DDR3 Bus; 7,20/8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
Xeon E5-2630L 6C/12T 2.00GHz 15MB 7.20GT/s 1333MHz 60W	S26361-F3688-E200
Xeon E5-2650L 8C/16T 1.80GHz 20MB 8.00GT/s 1600MHz 70W	S26361-F3688-E180

Note: Max. DDR3 Bus Speed depends on:
 - max. DDR3 Bus Speed from the CPU and
 - max. DDR3 Memory Speed and
 - max. memory modules on one memory channel

On special release only

F

F

Section **III** Memory



- There are 12 memory slots per CPU for max.
 384GB LRDIMM (12x 32GB 4R)
 192GB RDIMM (12x 16GB 2R)
 32GB UDIMM (8x 4GB)
=> max. 768GB for two CPU's (384GB per CPU), using LRDIMM

- The memory area is divided into 4 channels per CPU with 3 slots per channel
 - Slot 1 of each channel belongs to memory bank 1, the slot 2 belongs to memory bank 2, slot 3 belongs to memory bank 3

Registered, LR DIMMs and unbuffered memory modules can be selected
No mix of registered, load reduced and unbuffered modules allowed.
 Memory can be operated at 1.5V or 1.35V, even if the modules are of low voltage type.
 Memory operating voltage can be set within BIOS (**1.5V is default** setting for max. speed).
 In a 2 DIMMs per channel configuration, following frequencies are supported:
 - 1.5V - 1600MHz max (depending on CPU, special memory modules)
 - 1.35V - 1333MHz max (depending on CPU)
 In a 3 DIMMs per channel configuration, memory will operate at 1.5V only.
SDDC (Chipkill) is supported for registered / load reduced x4 organized memory modules only

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

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

3.) "Performance Mode" configuration
 - In this configuration, the memory module population ex factory is spread across all channels.
 The BIOS is set to the max. performance for memory.
Minimum configuration is: 4x identical modules

4.) In the "Mirrored Channel Mode" is following configuration possible
 - Each memory bank can optionally be equipped with 4x registered or load reduced or unbuffered DDR3 modules
In each memory bank channel A and B / C and D of CPU 1 or channel E and F / G and H of CPU 2 have to be equipped with identical modules for mirrored channel mode.
 In channel B / D is always the mirrored memory of channel A / B of CPU 1
 In channel F / H is always the mirrored memory of channel E / G of CPU 2
Minimum configuration is: 4x identical modules
This mode is not supported by unbuffered memory modules

F1

F1

1x per CPU

<p>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</p>
<p>S26361-F3694-E1 Rank Sparing Mode Installation BIOS Setup factory preinstalled to this mode. One Rank is spare of other ranks on the same channel. Spare Rank is not shown in System Memory. For effective capacity within a channel, please have a look below. Supported for RDIMM / LRDIMM only. Requires min 2x 1R/2R or 1x 4R modules per CPU</p>
<p>S26361-F3694-E2 Performance Mode Installation BIOS Setup factory preinstalled for max. Performance, LV memory might be set to 1.5V operation. Four identical memory modules will be equipped in one memory bank to achieve highest memory performance. All four modules are active and full capacity can be used. Multiple of 4 identical modules to be configured per CPU</p>
<p>S26361-F3694-E3 Mirrored Channel Mode Installation BIOS Setup factory preinstalled to this mode. Four identical memory modules are always equipped in one memory bank to use the Mirrored channel Mode. Only two modules contain active data, the remain two modules contain mirrored data Supported for RDIMM / LRDIMM only. Multiple of 4 identical modules to be configured per CPU</p>



	Effective Memory capacity / Rank Sparing Mode, 1 Channel populated							
	UDIMM		RDIMM			LRDIMM		
	2GB 1R	2GB 2R	4GB 1R	8GB 2R	16GB 2R	16GB 4R	32GB 4R	
1DPC	na	na	na	na	na	12GB	24GB	
2DPC	na	na	4GB	12GB	24GB	28GB	56GB	
3DPC	na	na	8GB	20GB	40GB	40GB	80GB	



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

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

<p>Unbuffered Memory (UDIMM) no SDDC (chipkill) support - one DDR3 unbuffered ECC mem. Module, 1.35V Choose up to 8 order codes per CPU 2GB (1x2GB) 1Rx8 L DDR3-1600 U ECC S26361-F3694-E513 4GB (1x4GB) 2Rx8 L DDR3-1600 U ECC S26361-F3694-E514</p>
<p>Registered Memory (RDIMM) no SDDC (chipkill) support - one DDR3 registered ECC mem. Module, 1.35V No mix with any other types of memory modules possible Choose up to 12x for 1R/2R or 8x for 4R per CPU For performance reasons, we do not recommend to configure more than 8 DIMMs per CPU 4GB (1x4GB) 2Rx8 L DDR3-1600 R ECC S26361-F3695-E514</p>
<p>Registered Memory (RDIMM) with SDDC (chipkill) support - one DDR3 registered ECC mem. Module, 1.35V 1333MHz supported with up to 2DPC (8 modules/CPU) Choose up to 12 order codes per CPU 4GB (1x4GB) 1Rx4 L DDR3-1333 R ECC S26361-F3696-E514 8GB (1x8GB) 2Rx4 L DDR3-1333 R ECC S26361-F3696-E515</p>
<p>Registered Memory (RDIMM) with SDDC (chipkill) support - one DDR3 registered ECC mem. Module, 1.35V 1600MHz supported with up to 2DPC (8 modules/CPU) at 1.5V Choose up to 12 order codes per CPU 4GB (1x4GB) 1Rx4 L DDR3-1600 R ECC S26361-F3697-E514 8GB (1x8GB) 2Rx4 L DDR3-1600 R ECC S26361-F3697-E515 16GB (1x16GB) 2Rx4 L DDR3-1600 R ECC S26361-F3697-E516</p>
<p>Load Reduced Memory (LRDIMM) with SDDC (chipkill) support - one DDR3 load reduced ECC mem. Module, 1.35V Choose up to 12 order codes per CPU 16GB (1x16GB) 4Rx4 L DDR3-1333 LR ECC S26361-F3698-E516 32GB (1x32GB) 4Rx4 L DDR3-1333 LR ECC S26361-F3698-E517</p>

Note 1.)

Max. DDR3 memory speed depends on the memory configuration (No of mem modules per channe) 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



Mix of memory modules is only possible within the same group

new due to supply
new due to supply

as soon as available
as soon as available

G

Memory Configuration PRIMERGY TX300 S7 / RX350 S7

Each CPU offers 12 **Slots** for DDR3 Memory Modules organised in **3 Banks and 4 Channels**.

If you need more than 12 Slots you have to configure the 2nd CPU.

Depending on the amount of memory configured you can decide between 4 basic modes of operation (see explanation below).

There are 3 different kinds of DDR3 Memory Modules available: UDIMM / RDIMM and LRDIMM

UDIMM / RDIMM / LRDIMM offer different functionality. Mix of UDIMM / RDIMM / LRDIMM is not allowed.

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

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

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

Capacity	Configuration	UDIMM	RDIMM	LRDIMM	Notes
Min. Memory per CPU	1 Module / CPU	1x2GB	1x4GB	1x 16GB	with one CPU
Max. Memory per CPU	8/12 Modules / CPU	8x4GB	12x16GB	12x 32GB	with one CPU
Max. Memory per System	16/24 Modules / System	64GB	384GB	768GB	if second CPU is configured

Memory-Speed:

Max. DDR3 memory speed depends on the memory configuration on one memory channel and the speed of the CPU

The memory channel with the lowest speed defines the speed of all CPU channels in the system

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

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

on special release
 as soon as available

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:

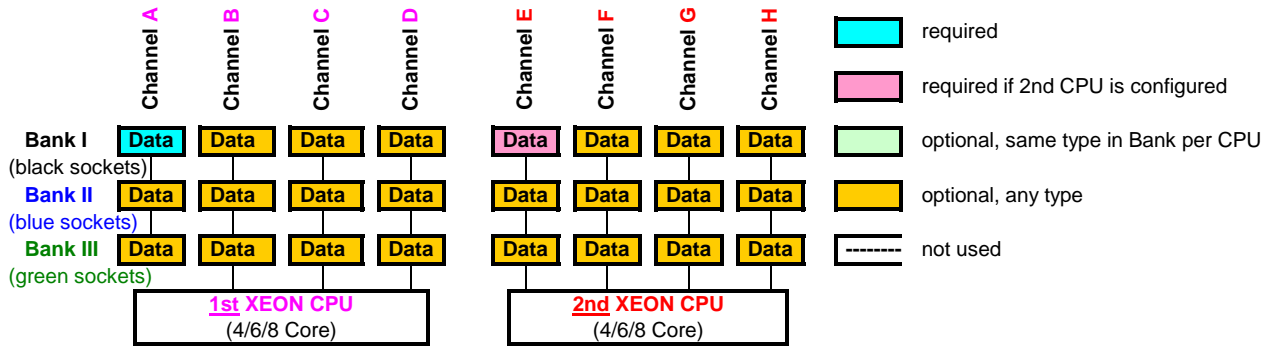
Bank I black sockets
Bank II blue sockets
Bank III green sockets

- 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 - E on the 1st/2nd CPU
Bank III on CPU 1/2 up to 4 memory modules connected to Channel A - E on the 1st/2nd CPU
 (can not be populated by UDIMM or 4R RDIMM memory modules)

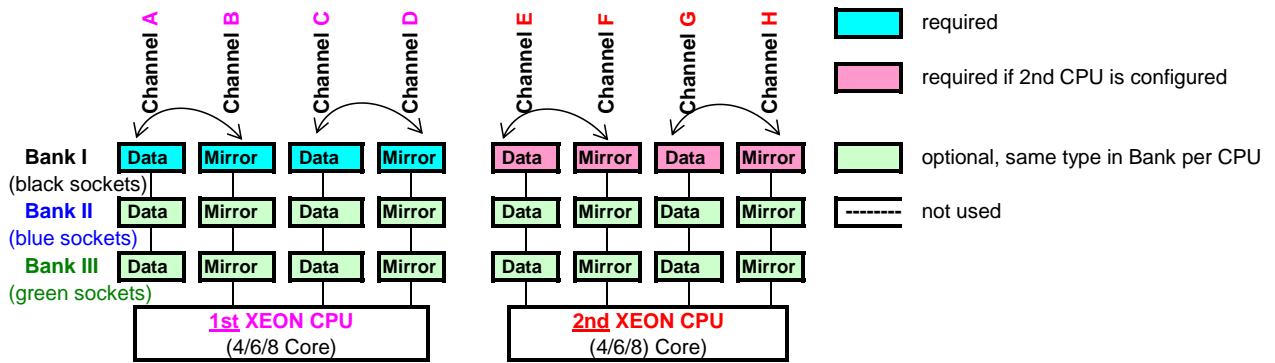
- See below and next page for a detailed descriptions of the memory configuration supported.

1. Independent Channel Mode



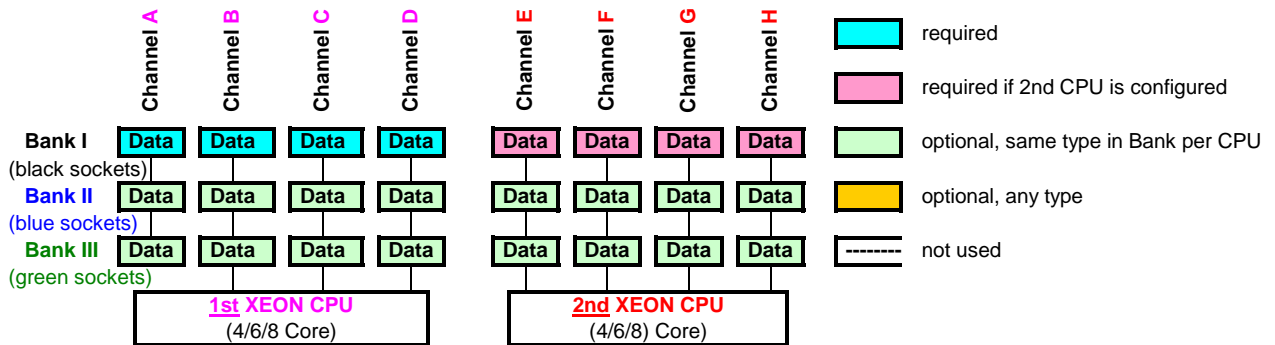
Independent Channel Mode allows all channels to be populated in any order
 Can run with differently rated DIMMs and use the settings of the slowest DIMM installed in the system

2. Mirrored Channel Mode



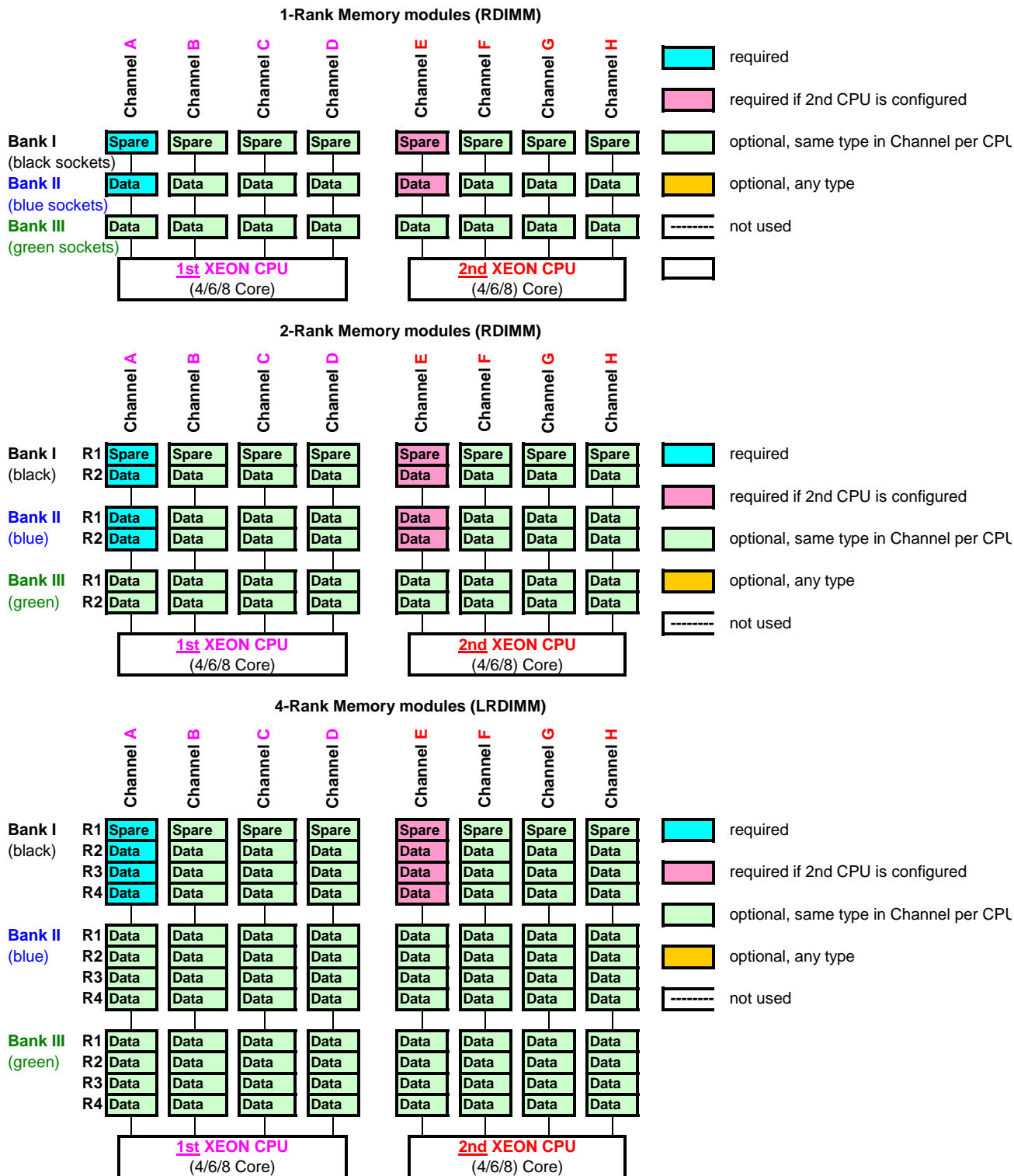
Mirrored Channel Mode requires identical modules on channel A,B, C, D (1st CPU) or channel E, F, G and H (2nd CPU)
 50% of the capacity is used for the mirror => the available memory for applications is only half of the installed memory
 If this mode is used, a multiple of 4 identical modules has to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

3. Performance Channel Mode



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

4. Rank Sparring Mode



Rank Sparring 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 Sparring Mode". Population rule for Rank sparring mode is to achieve max. available memory, e.g. 6 DIMMs will be spread across two channels, each with 3DPC

H

Section IV Graphics & GPGPU & Co-Processors

Graphics Controller integrated in iRMC S3 (integrated Remote Management Controller) with following resolutions:
 1920x1200x16bpp, 1920x1080x16bpp, 1600x1200x16bpp, 1680x1050x16bpp, 1440x900x16bpp,
 1280x1024x32bpp, 1152x864x16bpp, 1024x768x32bpp, 800x600x32bpp, 640x480x32bpp

S26361-F2571-E26
 Optional Front-VGA
 for Onboard Controller only
 consists of internal cable and
 front VGA connector
 max. 1x per system

S26361-F2748-E537
 PY VGA card 512MB PCI-e x1
 NVIDIA NVS300
 512 MB PCIe-x1
 Connectors: 1x LFH 59
 cable kit for 2x DVI or 2x VGA
 cable kits included
 Dual head + professional 2-D + 3-D
 supported for Windows OS
 native driver support for Linux OS
 full height bracket
 max. 1x per system



S26361-F2748-L537
 PY VGA card 512MB PCI-e x1
 for loose delivery



The high end optional NVIDIA NVS300 graphic card offers dual head operation and fully 3D video support. The cables for either two times DVI-I or VGA (cable kit) connections are part of the delivery.
Remote Video direction via iRMC must be disabled.
 This PCIe-x1 card can also be installed in any PCIe-x4, x8 or x16 slot.
 Only one card per server is allowed.

NVIDIA Tesla GPGPU

One or two GPGPU (General Purpose Graphical Processor Unit) can be ordered as option.
 The Power Cable kit has to be ordered separately and will be installed if ordered ex factory together with the GPGPU card. **New cards requires the suitable Air Duct and bracket kit!**
No mix between different types of GPGPU or Co-Processor cards allowed

S26361-F3736-E1
 PY GPGPU Cable Kit
 consists of 2 power cables and
 an universal PCI card holder
 max. 1x per system



S26361-F3736-L1
 PY GPGPU Cable Kit
 consists of 2 power cables and
 an universal PCI card holder
 for loose delivery

as long as stock last

2x

S26361-F2856-E997
 PY NVIDIA Tesla C2075 Computing-Processor
 NVIDIA Tesla C2075
 6 GB Memory
 PCIe Gen2-x16
 for GPGPU purpose only
 800W PSU is recommended
 occupied space for two PCI slots
 full height bracket
 max. 2x per system

PY NVIDIA Tesla C2075 Computing-Processor
800W PSU is recommended



S26361-F2856-L997
 PY GPU card 6GB PCIe2 x16
 for loose delivery



This mounting kits contain an airduct that uses 2 bays 1.6" x 5.25".
 If these are ordered this 2 bays cannot contain ODD or backup devices.

S26361-F3736-L2
 PY K20 / K20X Mounting Kit
 consists of 2 power cables, an
 PCI card holder + Airduct
 for loose delivery

S26361-F3736-E2
 PY K20 / K20X Mounting Kit
 consists of 2 power cables, an
 PCI card holder + Airduct
 max. 1x per system

Note the mountingkit is needed
 only one timer per System
 The GPGPU cards can be ordered twice



PY NVIDIA Tesla K20 / K20X
 Computing-Processor **800W PSU is recommended**
 With 2x PY NVIDIA Tesla K20X
 ambient temperature should not exceed 30°C

1x

2x

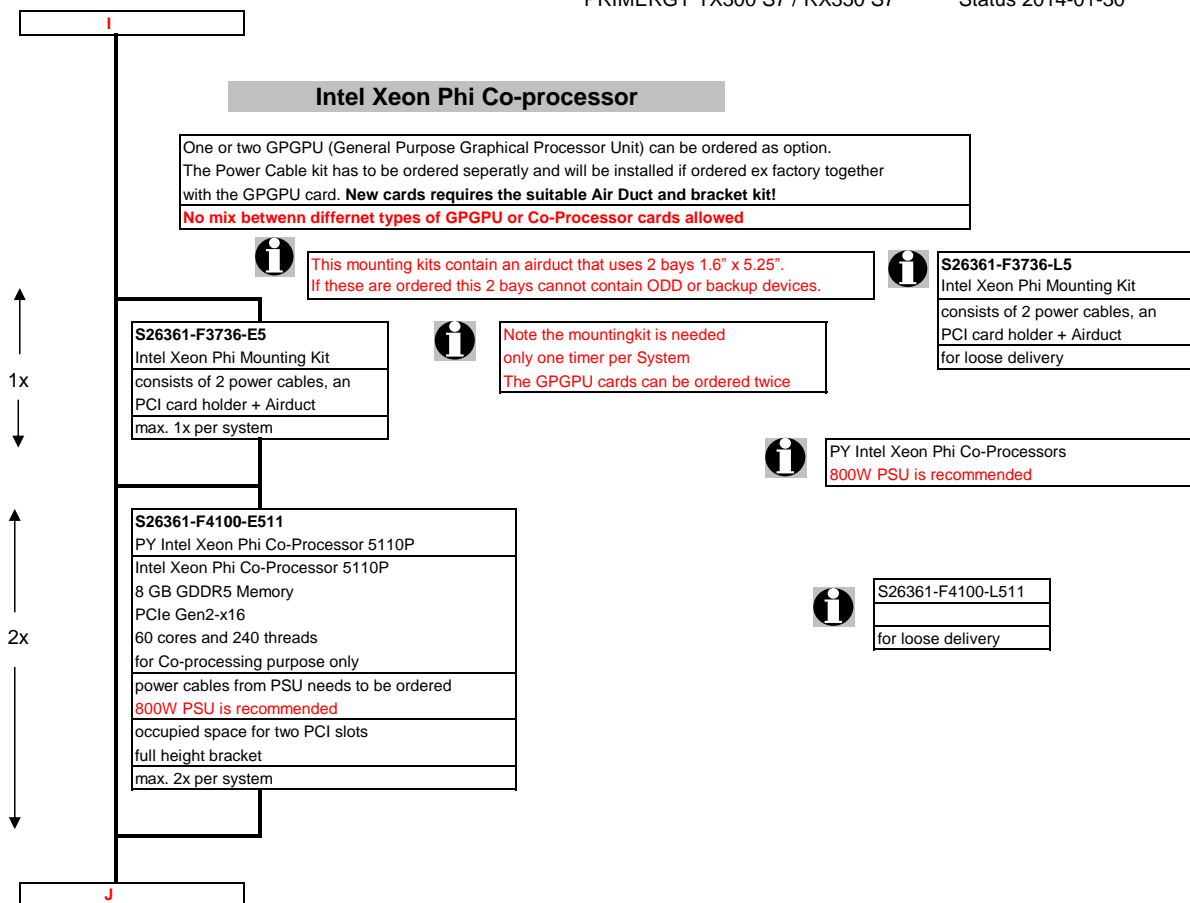
S26361-F2222-E22
 PY NVIDIA Tesla K20 Computing-Processor
 NVIDIA Tesla K20
 5 GB Memory
 PCIe Gen2-x16
 2496 cores
 for GPGPU purpose only
 power cables from PSU needs to be ordered
 800W PSU is recommended
 occupied space for two PCI slots
 full height bracket
 max. 2x per system

S26361-F2222-E24
 PY NVIDIA Tesla K20X Computing-Processor
 NVIDIA Tesla K20X
 6 GB Memory
 PCIe Gen3-x16 technical via card BIOS GEN2
 2688 cores
 for GPGPU purpose only
 power cables from PSU needs to be ordered
 800W PSU is recommended
 occupied space for two PCI slots
 full height bracket
 max. 2x per system



S26361-F2222-L22
S26361-F2222-L24
 for loose delivery

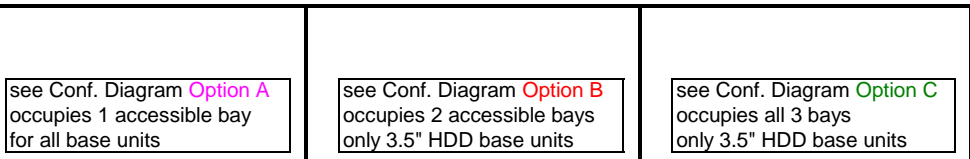
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J

Section V Accessible drives and 3.5" SAS / SATA HDD extension box

There are 3 bays (1.6" x 5.25") for accessible drives.



S26361-F2826-E205
 Mounting Kit DVD(s) + LSD
 Occupies **one 5.25" x 1.6"** bay in the accessible bay area
 Offers bays for:
 - 1x **LSD** option
 - 1x 0.5" x 5.25" **SATA DVD**
 max. 1x per system

S26361-F2826-E105
Mounting Kit DVD(s) + LSP/LSD + SAS LFF HDD
 Occ. **two 5.25" x 1.6"** bays in the accessible bay area
 Offers bays for:
 - 1x **LSD/LSP** option
 - 1x 0.5" x 5.25" **SATA DVD**
 - 2x 3.5" **SAS/SATA HDD's**
 One 0.5" x 3.5" satin black bezel for LSD/LSP bay
 One 0.5" x 5.25" satin black bezel for 0.5" x 5.25" DVD bay
 Two 1" x 3,25" satin black bezels for SAS HDD bays
 max. 1 per system

S26361-F2826-E435
Mounting Kit DVD(s) + SAS LFF HDD
 Occupies **all 5.25" x 1.6"** bays in the accessible bay area
 Offers bays for:
 - 1x 0.5" x 5.25" **SATA DVD**
 - 4x 3.5" **SAS/SATA HDD's**
 Two 1" x 3,25" satin black bezels for SAS HDD bays
 max. 1x per system

S26361-F3668-E1
 24x SAS Expander
 required for HDDs within accessible drives area
 Raid Controller required
 max. 1x per system

S26361-F3668-E1
 24x SAS Expander
 required for HDDs within accessible drives area
 Raid Controller required
 max. 1x per system

S26361-F2557-E105
 Local Service Display incl. Adapter
 Customer Self Service
 LSD module incl. adapter
 0.5" x 5.25"
 max. 1x per System

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

S26361-F3269-E2
 DVD-RW supermulti slim SATA
 all formats, DUAL/DL, DVD-RAM
 only W2K, W3K and Linux
 0.5 x 5.25", black bezel
 max. 1x per system

S26361-F3641-E2
 Blu-ray Triple Writer slim SATA
 6x BD-RW, 8x DVD, 24x CD
 BD DL and all CD/DVD formats
 0.5 x 5.25"
 max. 1x per system

S26361-F3266-E2
 DVD-ROM HH SATA
 16x DVD 48x CD
 1.6 x 5.25", black bezel
 max. 1x per system

S26361-F3267-E2
 DVD-RW supermulti HH SATA
 all formats, DUAL/DL, DVD-RAM
 only W2K, W3K and Linux
 1.6 x 5.25", black bezel
 max. 1x per system

K

K

2x

S26361-F3325-E4
 Tape drive DDS Gen6 USB 5.25"
 80GB, 6MB/s, USB 2.0
 Connector: USB "B"
 with USB cable
 incl. cleaning cartridge
 without data cartridge
 1.6 * 5.25", black bezel
 max. 1x per system

data cartridges must be ordered separately

USB 3.0 adapter and RDX USB3.0 drive

S26361-F3749-E1
 USB3.0 PCIe x1 adapter card
 Sunrich U-720
 PCIe x1
 1 port intern, 1 port extern
 USB 3.0 A jacks
 max. 1x per system

The adapter is also available as optional (loose) delivery with FH and LP bracket included
 S26361-F3749-L501

S26361-F3750-E4
 RDX Drive USB3.0 5.25" internal
 100MB/s, USB 3.0
 Connector: USB 3.0 "B"
 with USB cable
 without RDX cartridges
 1.6 * 5.25", black bezel
 max. 1x per system

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

S26361-F3750-E324
 RDX 320 5.25"
 100MB/s, USB 3.0
 Connector: USB 3.0 "B"
 with USB3.0 cable
 with 320GB RDX cartridge
 1.6 * 5.25", black bezel
 max. 1x per system

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

The bundle is also available as optional (loose) delivery
 S26361-F3750-L324 with USB3.0 cable for adapter card.
 The USB3.0 Adapter card or the USB2.0 cable set
 S26361-F3750-L20 must be ordered with the drive!

S26361-F3750-E504
 RDX 500 5.25"
 100MB/s, USB 3.0
 Connector: USB 3.0 "B"
 with USB3.0 cable
 with 500GB RDX cartridge
 1.6 * 5.25", black bezel
 max. 1x per system

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

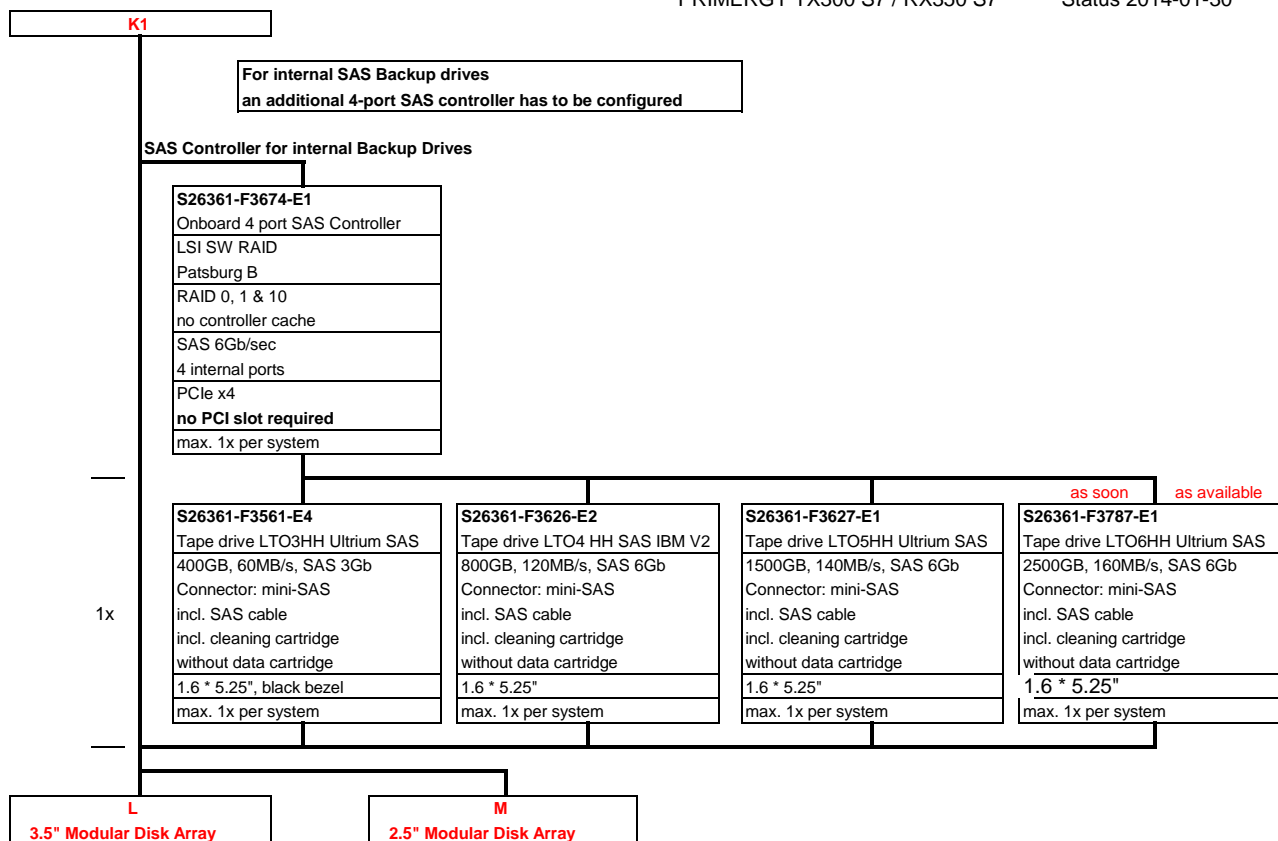
The bundle is also available as optional (loose) delivery
 S26361-F3750-L504 with USB3.0 cable for adapter card.
 The USB3.0 Adapter card or the USB2.0 cable set
 S26361-F3750-L20 must be ordered with the drive!

S26361-F3750-E604
 RDX 1000 5.25"
 100MB/s, USB 3.0
 Connector: USB 3.0 "B"
 with USB3.0 cable
 with 1TB RDX cartridge
 1.6 * 5.25", black bezel
 max. 1x per system

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

The bundle is also available as optional (loose) delivery
 S26361-F3750-L604 with USB3.0 cable for adapter card.
 The USB3.0 Adapter card or the USB2.0 cable set
 S26361-F3750-L20 must be ordered with the drive!

K1

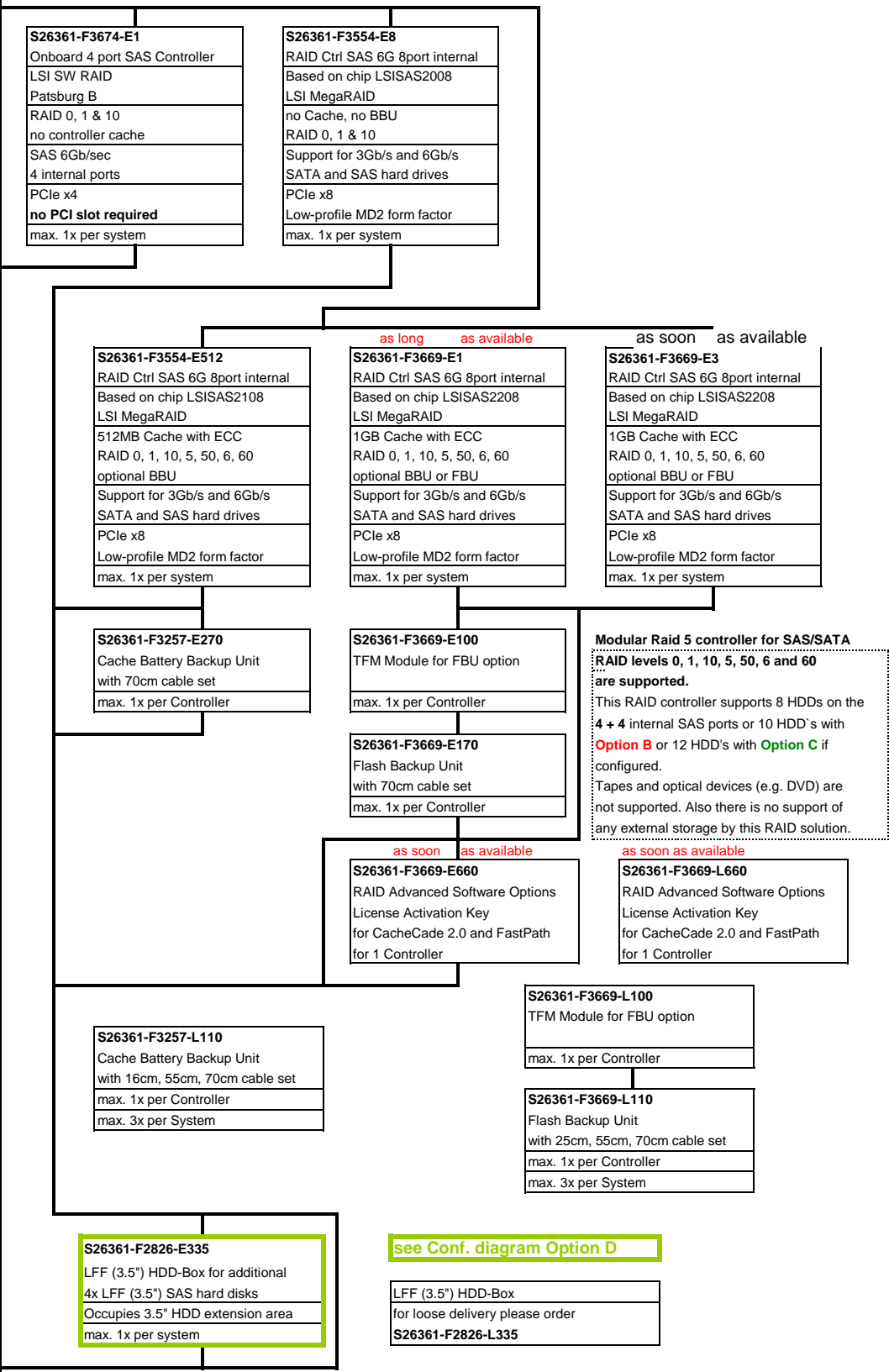


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Section VI Modular Raid Controller for 3.5" Hard Disks

On board SATA Controller can be used with up to 4x 3.5" SATA HDDs (no additional controller required)
 For up to 4x 3.5" SAS HDDs with RAID 0/1 functionality a Patsburg Upgrade Kit is required (no SAS tape option)
This functionality is not available at launch!
 For all other HDD configurations a modular RAID-controllers is required

Modular Raid 0/1 controller with IME support for SAS/SATA
 This RAID controller supports 8 HDDs on the 4 + 4 internal SAS ports

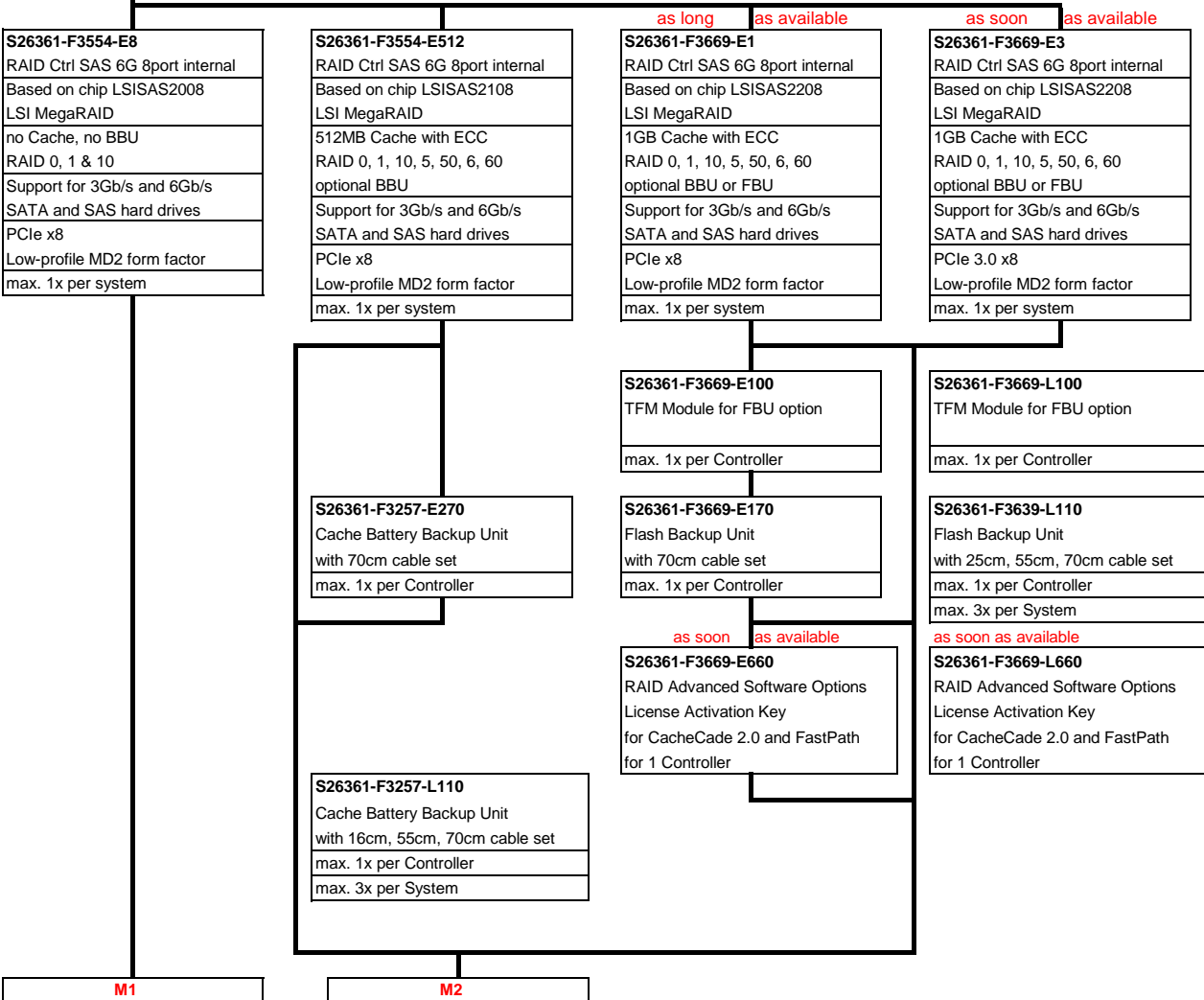


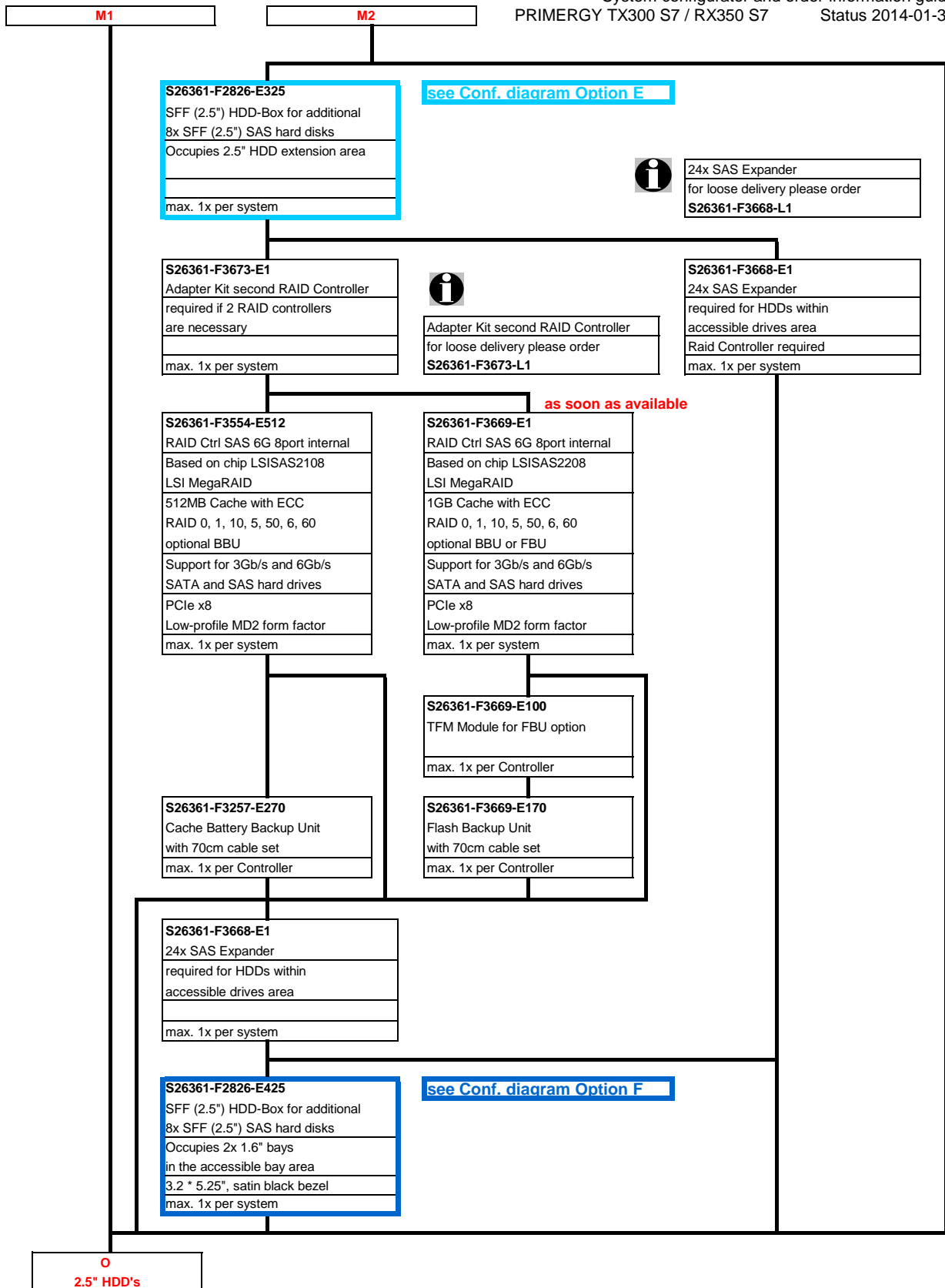
N
 3.5" HDD's

M

Section VII Modular RAID Controller for 2.5" Hard Disks

For internal 2.5" hard disks one of the following modular RAID-controllers is required





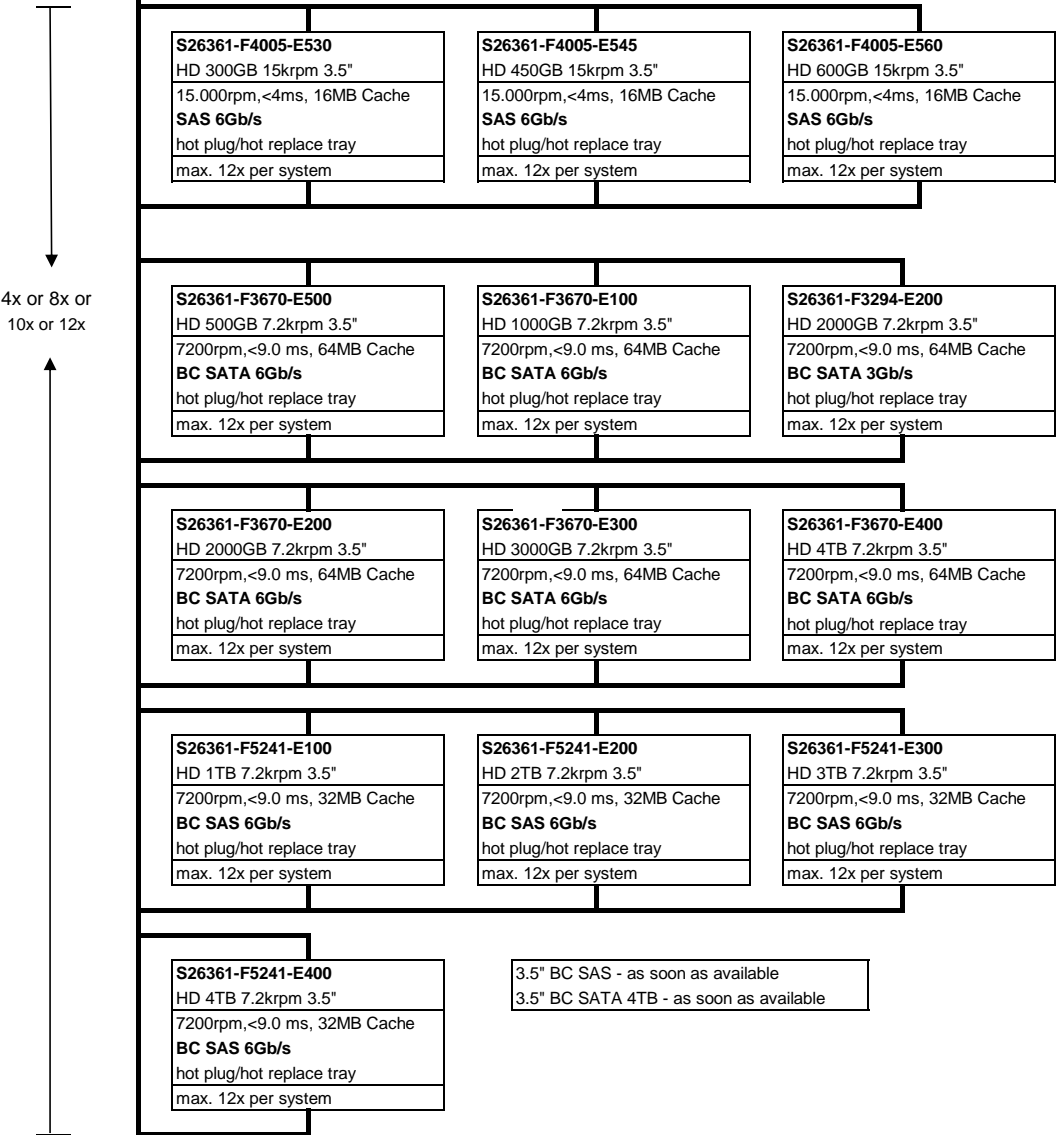
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Section VIII 3.5" SAS / SATA Hard disk drives

i In a basic unit **4x** 3.5" HDDs can be configured. With **Option D** additional **4x** 3.5" HDDs are possible. If **Option D** is installed it is possible to add **Option B** with another **2x** 3.5" HDDs or **Option C** with up to **4x** 3.5" HDDs.

This leads to:
Option D up to **8x** 3.5" HDDs
Option D + Option B up to **10x** 3.5" HDDs
Option D + Option C up to **12x** 3.5" HDDs

i Up to **12x** 3.5" SAS or SATA hard disks can be configured.
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



P

Section IX 2.5" SAS / SATA Hard disk drives

Up to 24x 2.5" SAS/SATA hard disks can be configured.

8x Base Unit
 +
 8x Extension
 +
 8x Ext. Box

S26361-F4541-E100 SSD SAS 100GB, SLC Solid State Disk, SAS 6Gb/s Enterprise Performance High Endurance **) hot plug/hot replace tray max. 24x per system

S26361-F4541-E400 SSD SAS 400GB, SLC Solid State Disk, SAS 6Gb/s Enterprise Performance High Endurance **) hot plug/hot replace tray max. 24x per system

i **) High Endurance
 100GB: max 9PB***,
 random write
 400GB: max 35PB***,
 random write

S26361-F4581-E100 SSD SAS 100GB, MLC Solid State Disk, SAS 6Gb/s Enterprise Performance Mainstream Endurance * hot plug/hot replace tray max. 24x per system

S26361-FF4581-E200 SSD SAS 200GB, MLC Solid State Disk, SAS 6Gb/s Enterprise Performance Mainstream Endurance * hot plug/hot replace tray max. 24x per system
--

S26361-FF4581-E400 SSD SAS 400GB, MLC Solid State Disk, SAS 6Gb/s Enterprise Performance Mainstream Endurance * hot plug/hot replace tray max. 24x per system
--

i *) Mainstream
 Endurance
 10DWPD over 5y
 Managed Life
 Model

S26361-F5225-E100 SSD SATA 100GB, MLC Solid State Disk, SATA 6G Mainstream Performance Mainstream Endurance * hot plug/hot replace tray max. 24x per system
--

S26361-F5225-E200 SSD SATA 200GB, MLC Solid State Disk, SATA 6G Mainstream Performance Mainstream Endurance * hot plug/hot replace tray max. 24x per system
--

S26361-F5225-E400 SSD SATA 400GB, MLC Solid State Disk, SATA 6G Mainstream Performance Mainstream Endurance * hot plug/hot replace tray max. 24x per system
--

S26361-F4482-E514 HD 146GB 15krpm 2.5" 15000rpm,<4,5ms, 32MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F4482-E530 HD 300GB 15krpm 2.5" 15000rpm,<4,5ms, 32MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F3708-E250 HD 250GB 7.2krpm 2.5" 7200rpm,<9,5ms, 64MB Cache BC SATA 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F3708-E500 HD 500GB 7.2krpm 2.5" 7200rpm,<9,5ms, 64MB Cache BC SATA 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F3708-E100 HD 1000GB 7.2krpm 2.5" 7200rpm,<9,5ms, 64MB Cache BC SATA 6Gb/s hot plug/hot replace tray max. 24x per system
--

S26361-F5228-E500 HD 500GB 7.2krpm 2.5" 7200rpm,<9,5ms, 64MB Cache BC SAS 6Gb/s hot plug/hot replace tray max. 24x per system
--

S26361-F5228-E100 HD 1000GB 7.2krpm 2.5" 7200rpm,<9,5ms, 64MB Cache BC SAS 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F5247-E130 HD 300GB 10krpm 2.5" 10000rpm,<4,5ms, 32MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F5247-E145 HD 450GB 10krpm 2.5" 10000rpm,<4,5ms, 32MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F5247-E160 HD 600GB 10krpm 2.5" 10000rpm,<4,5ms, 32MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F4482-E190 HD 900GB 10krpm 2.5" 10000rpm,<4,5ms, 32MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system

S26361-F5247-E190 HD 900GB 10krpm 2.5" 10000rpm,<4,5ms, 32MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system

i No mix of
 2.5" BC-SATA/BC-SAS HDD and
 2.5" 10K SAS HDD (S26361-
 F4482-E130, S26361-F4482-
 145, S26361-F4482-E160)
 no longer available

S26361-F4482-E130 HD 300GB 10krpm 2.5" 10000rpm,<4,5ms, 16MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system
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S26361-F4482-E145 HD 450GB 10krpm 2.5" 10000rpm,<4,5ms, 16MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system
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S26361-F4482-E160 HD 600GB 10krpm 2.5" 10000rpm,<4,5ms, 16MB Cache SAS 6Gb/s hot plug/hot replace tray max. 24x per system
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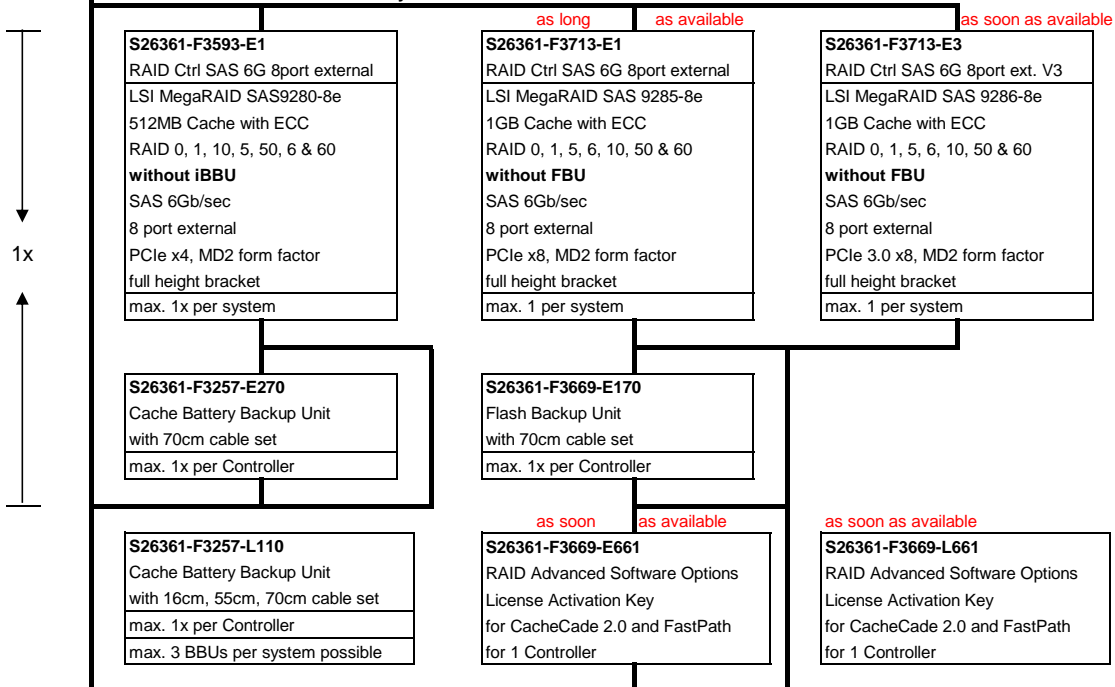
***) 1GB is equal to one billion bytes when referring to SSD capacity. 1TB equals 1,000GB, and 1PB equals 1,000TB.
 Accessible capacity will vary depending on the operating environment and formatting.



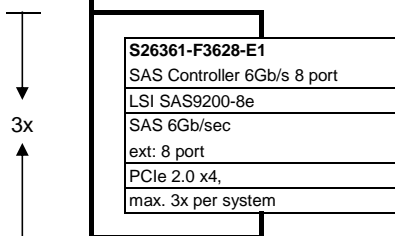
P

Section X External SAS Disk Array & Backup drives

SAS RAID controller for JBOD subsystems



SAS-controller for external backup drives



Q

Q

Section XI Fibre Channel Controller for external storage systems



Only a single vendor for FC and FCoE controller is supported.



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



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

8x

S26361-F3631-E1 8GBit/s FC Controller Qlogic QLE2560, full height bracket 1 channel 8Gb/sec FC Controller LC Interface for 50µm Fiber PCIe x8, 170mm max. 8x per system	S26361-F3631-E2 8GBit/s FC Controller Qlogic QLE2562, full height bracket 2 channel 8Gb/sec FC Controller LC Interface for 50µm Fiber PCIe x8, 170mm max. 8x per system
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S26361-F3961-E1 8GBit/s FC Controller Emulex LPe1250, full height bracket 1 channel 8Gb/sec FC Controller LC Interface for 50µm Fiber PCIe x4, 170mm max. 8x per system	S26361-F3961-E2 8GBit/s FC Controller Emulex LPe12002, full height bracket 2 channel 8Gb/sec FC Controller LC Interface for 50µm Fiber PCIe x4, 170mm max. 8x per system	S26361-F4994-E1 16GBit/s FC Controller Emulex LPe16000, full height bracket 1 channel 16Gb/sec FC Contr. LC Interface for 50µm Fiber PCIe x8, 170mm max. 8x per system	S26361-F4994-E2 16GBit/s FC Controller Emulex LPe16002, full height bracket 2 channel 16Gb/sec FC Contr. LC Interface for 50µm Fiber PCIe x8, 170mm max. 8x per system
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loose delivery:
 Single channel S26361-F3961-L1
 Dual Channel S26361-F3961-L2
 with mounted FH bracket
 LP bracket is not included



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

R

Section XII Communication / Network

2x Gigabit (Dualport) Ethernet Contr. on-board
 Intel LAN I350 (Powerville)
 ext: 2x RJ 45 connector



Modular On-Board LAN is a flexible extension of a cost-optimized Motherboard with basic 2x Gbit LAN on-board.
 5 different Upgrade-Kits are offered, which occupies a dedicated PCIe slot and can be ordered once per system.
If a modular LAN Controller is installed, max. 3 additional LAN controllers are possible!

Modular On-Board LAN Adapter

<p>S26361-F4610-E702 Upgrade-Kit to 4x 1Gb LAN on-board LP PLAN CP 2x1Gbit Cu Intel I350-T2 LP Intel Powerville based 2 port Server Ad. PCIe x4, Low Profile ext: for RJ45-plug, Cat 5 max. 1x per system</p>	<p>S26361-F4610-E704 Upgrade-Kit to 6x 1Gb LAN on-board LP PLAN CP 4x1Gbit Cu Intel I350-T4 LP Intel Powerville based 4 port Server Ad. PCIe x4, Low Profile ext: for RJ45-plug, Cat 5 max. 1x per system</p>	<p>S26361-F3629-E702 Upgrade-Kit to 2xGbit+2x10Gbit LOM Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+ Intel Niantic based dual port 10Gb NIC PCIe x8, Low Profile, Low Profile Bracket ext: 2x SFP+ cage max. 1x per system</p>
<p>S26361-F3740-E701 Upgrade-Kit to 4x Gbit LAN on-board Eth Ctrl 2x1Gbit PCIe x4 D3035 Cu Intel Powerville based 2 port Server Ad. PCIe x4, Low Profile ext: for RJ45-plug, Cat 5 max. 1x per system</p>	<p>S26361-F3739-E701 Upgrade-Kit to 6x Gbit LAN on-board Eth Ctrl 4x1Gbit PCIe x4 D3045 Cu Intel Powerville based 4 port Server Ad. PCIe x4, Low Profile ext: for RJ45-plug, Cat 5 max. 1x per system</p>	
<p>S26361-F3610-E702 Upgrade-Kit to 4x Gbit LAN on-board Eth Ctrl 2x1Gbit PCIe x4 D2735-2 Cu Intel Kawela based 2 port Server Adap. PCIe x4, Low Profile ext: for RJ45-plug, Cat 5 max. 1x per system</p>		<p>S26361-F3986-E3 SFP+ Module MMF 10GbE LC SFP+ module for 10 Gbit Ethernet 50µm FO cabling ext:LC-connector max. 2x per adapter</p>
<p>S26361-F3986-E4 SFP+ Module SMF 10GbE LC SFP+ module for 10 Gbit Ethernet 9µm FO cabling ext:LC-connector max. 2x per adapter</p>		<p>S26361-F3629-E750 Shared 10Gb Management LAN Install and configure Management LAN on 10Gb Shared LAN port max. 1x per 10Gb upgrade kit</p>

while stocks last

Information:
 The 10Gb upgrade kit is delivered without SFP+ modules for optical cables, these must be ordered separately. Without SFP+ modules copper twinax cables are supported.
 The SFP+ Module is also available as loose delivery S26361-F3986-L3 / L4
 Instead SFP+ Modules, SFP+ twinax cables from the switch vendors may be used. For cabling of D2755 please refer to chapter 10GbE 2-Port SFP+ for MMF Module
 This is an option if Shared Management LAN over the 10Gb port is required instead Management LAN over 1Gb

A) 1-Port Copper PCIe Adapter 1000TX

<p>S26361-F3516-E1 (Shelter Island) Gigabit Ethernet Controller 1000TX Eth Ctrl 1x1Gbit PCI-e Gigabit CT DT Cu Intel® Gigabit CT Desktop Adapter PCIe x1 ext: for RJ45-connector, Cat 5 max. 4x per system</p>	<p>Information: Loose delivery with: S26361-F3516-L1</p>
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B) 1-Port MMF PCIe Adapter 1000SX

<p>S26361-F3242-E1 (Sheepshead Bay) Gigabit Ethernet Contr. 1000SX Eth Ctrl 1x1Gbit PCIe Pro/1000PF LC Intel PRO/1000 PF Server Adapter PCIe x4 ext:LC-connector max. 4x per system</p>	<p>Information: Loose delivery with: S26361-F3242-L1</p>
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Information: If a 1Gb modular LAN Controller is installed, max. 3 additional of the following 1Gb LAN controllers are possible!
 S26361-F3740-E1, S26361-F3610-E2, S26361-F3739-E1, S26361-F4610-E2, S26361-F4610-E4

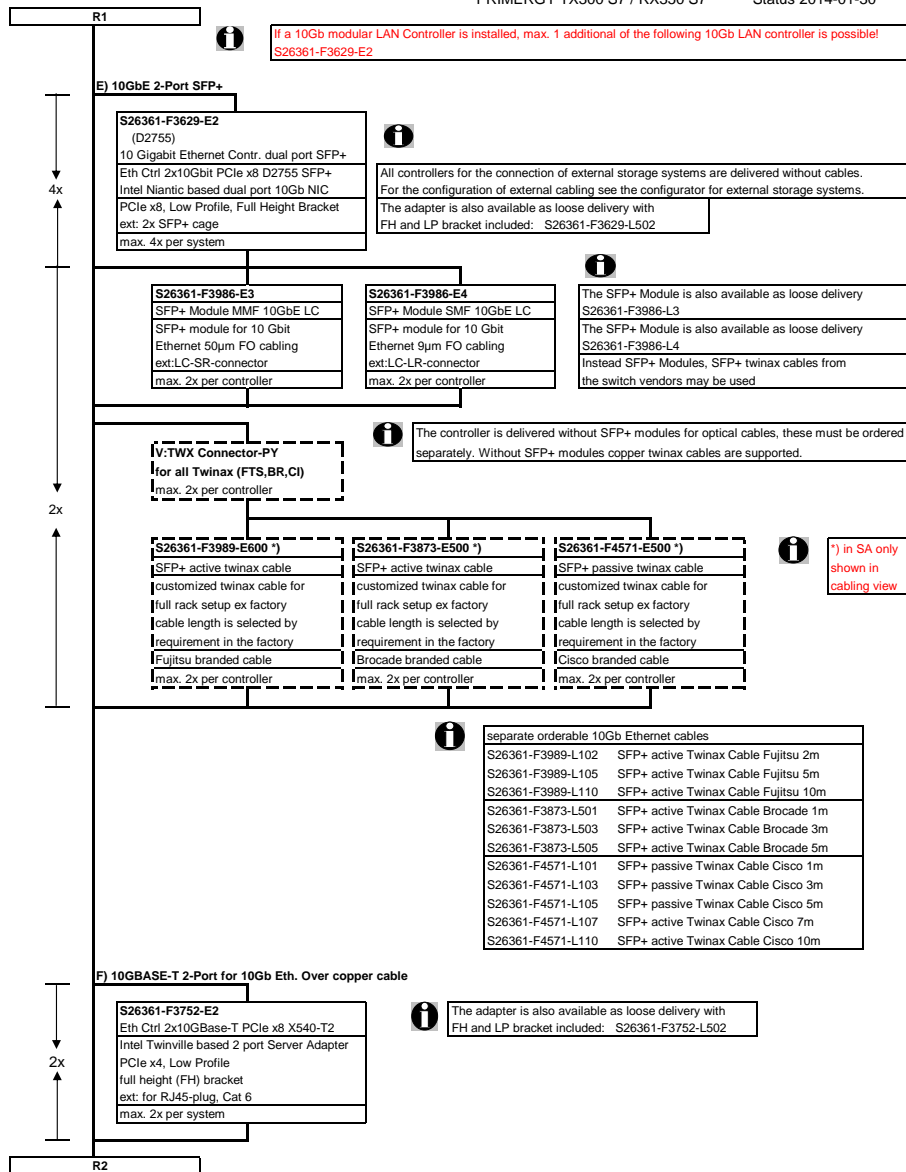
C) 2-Port Copper PCIe Adapter 1000TX

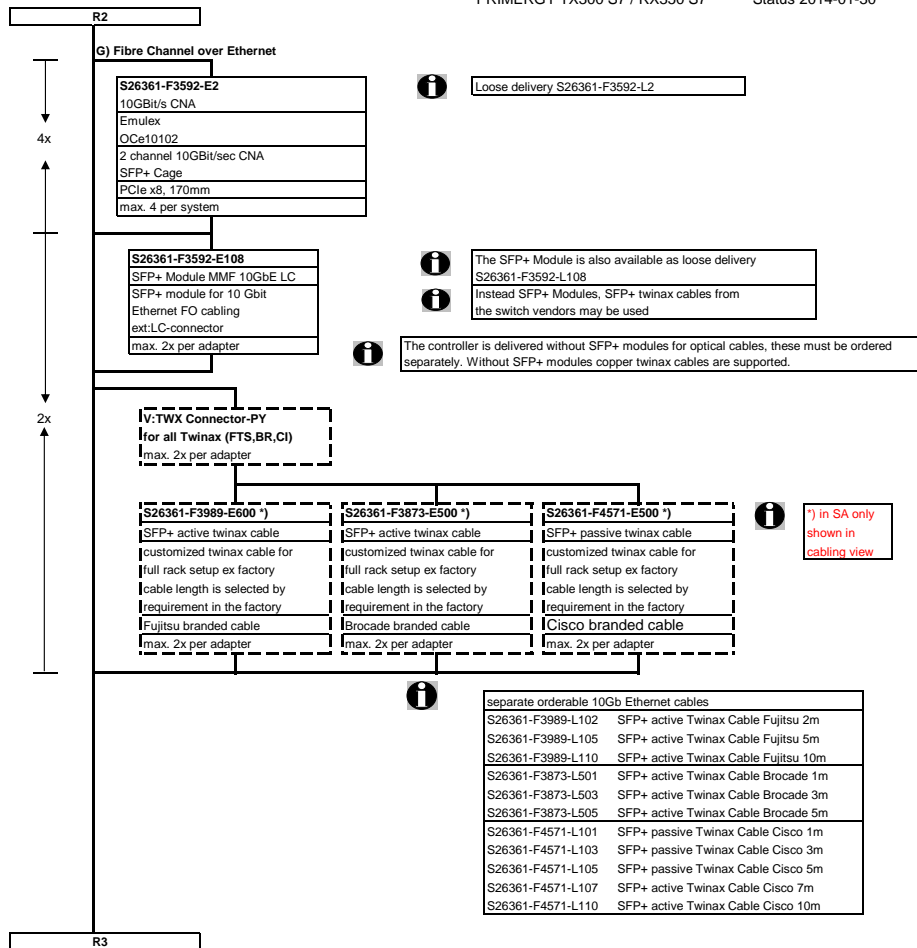
<p>S26361-F4610-E2 (I350-T2) Gigabit Ethernet Controller Dual 1000TX PLAN CP 2x1Gbit Cu Intel I350-T2 Intel Powerville based 2 port Server Adapter PCIe x4, Low Profile full height (FH) bracket ext: for RJ45-plug, Cat 5 max. 4x per system</p>	<p>S26361-F3740-E1 (D3035) Gigabit Ethernet Controller Dual 1000TX Eth Ctrl 2x1Gbit Cu PCIe x4 D3035 Intel Powerville based 2 port Server Adapter PCIe x4, Low Profile full height (FH) bracket ext: for RJ45-plug, Cat 5 max. 4x per system</p>	<p>S26361-F3610-E2 (D2735-2) Gigabit Ethernet Controller Dual 1000TX Eth Ctrl 2x1Gbit PCIe x4 D2735-2 Cu Intel Kawela based 2 port Server Adapter PCIe x4, Low Profile full height (FH) bracket ext: for RJ45-plug, Cat 5 max. 4x per system</p>
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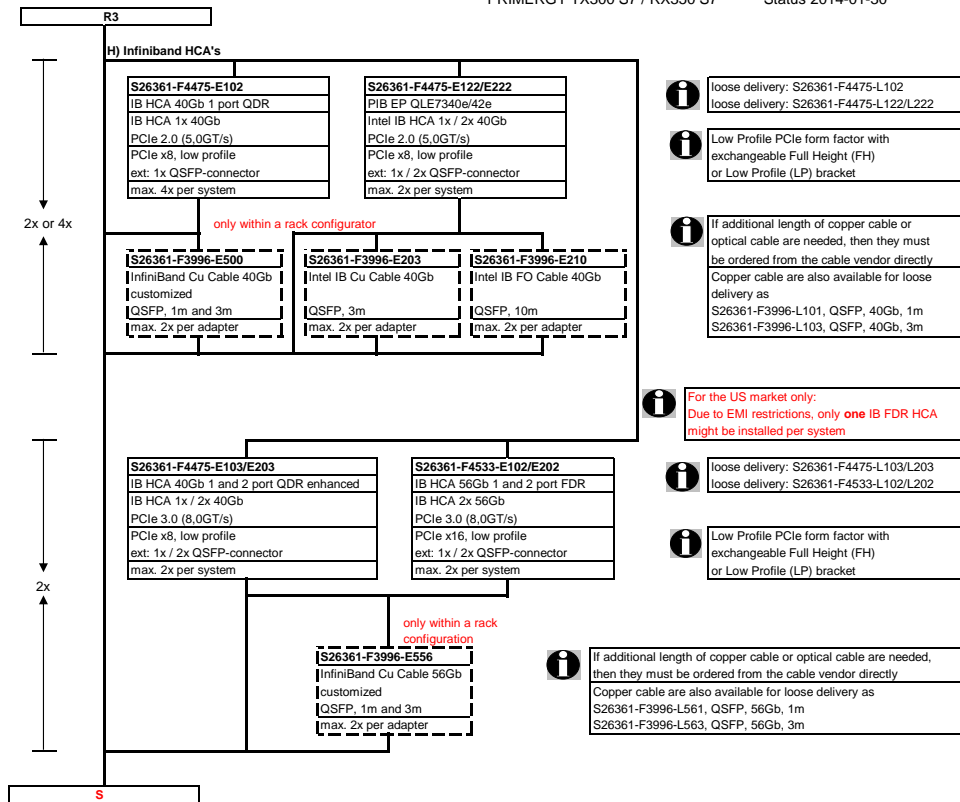
while stocks last

D) 4-Port Copper PCIe Adapter 1000TX

<p>S26361-F4610-E4 (I350-T4) Gigabit Ethernet Controller Quad 1000TX PLAN CP 4x1Gbit Cu Intel I350-T4 Intel Powerville based 4 port Server Adapter PCIe x4, Low Profile full height (FH) bracket ext: for RJ45-plug, Cat 5 max. 4x per system</p>	<p>S26361-F3739-E1 (D3045) Gigabit Ethernet Controller Quad 1000TX Eth Ctrl 4x1Gbit Cu PCIe x4 D3045 Intel Powerville based 4 port Server Adapter PCIe x4, Low Profile full height (FH) bracket ext: for RJ45-plug, Cat 5 max. 4x per system</p>	<p>Information: Loose delivery with FH and LP bracket: I350-T2 S26361-F4610-L502 I350-T4 S26361-F4610-L504 D3035 S26361-F3739-L501 D3045 S26361-F3740-L501 D2735-2 S26361-F3610-L502</p>
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S


Section XIII System Management Products (RemoteView)

iRMC S3 (integrated Remote Management Controller) onboard server management Controller with dedicated 10/100/1000 Service LAN-port and integrated graphics. Optional 10/100 Service LAN-port on front panel. The Service LAN-port can be switched alternatively on standard Gbit LAN port


S26361-F1790-E242
iRMC S3 advanced pack
 integrated remote management controller
 activation key for
 graphical console redirection
 and remote media redirection
 max. 1x per system

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

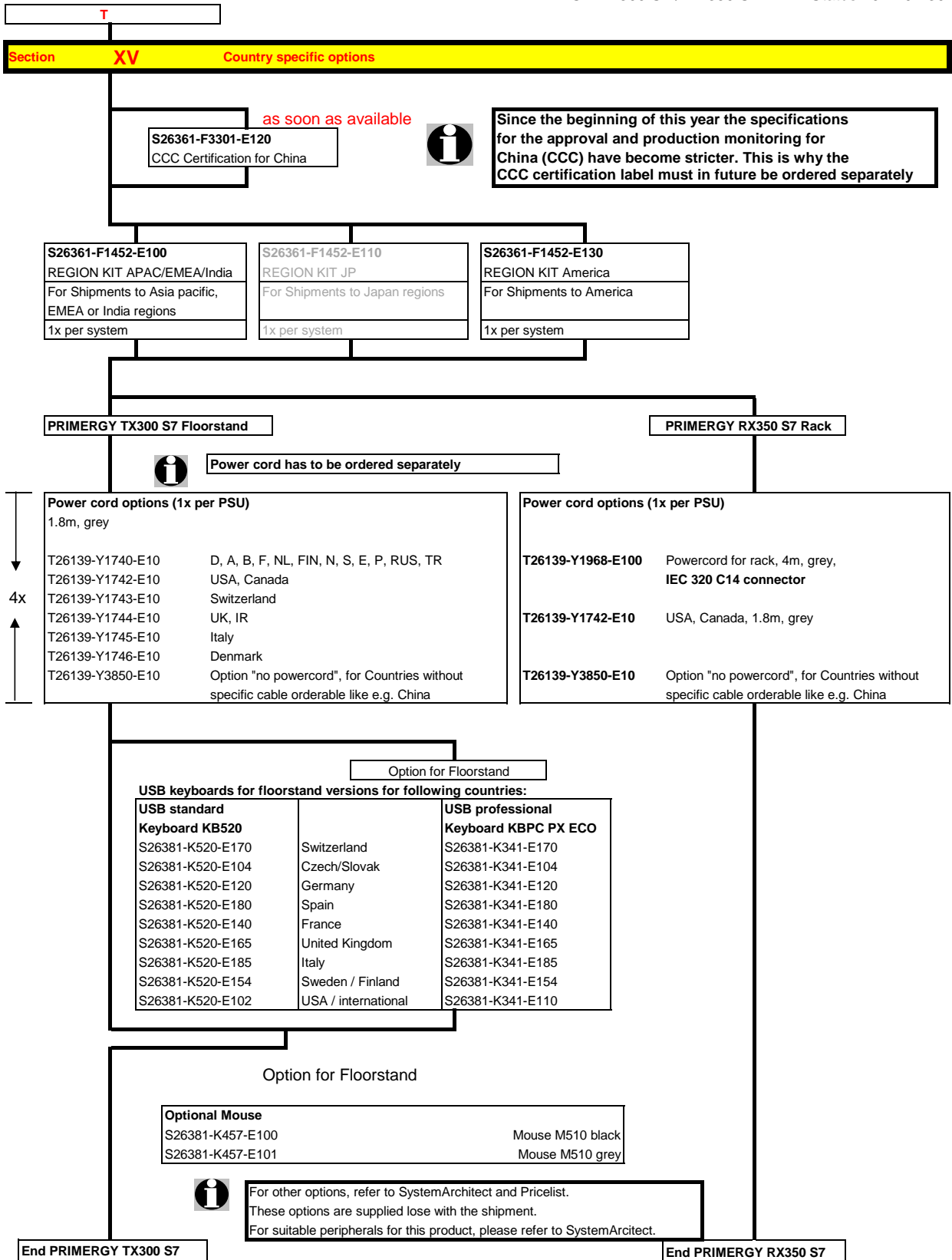
Section XIV Miscellaneous

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

S26361-F3776-E3
ENABLING LOW NOISE MODE TX300
 Restricts configuration to make
 LNM possible
 LNM is enabled ex factory
 max. 1x per system

 **Configuration restrictions in LNM for TX300:**
 Max 4x 3.5" or 8x 2.5" HDDs are allowed!
 Max 2x PSUs are allowed!
 No GPGPU cards are allowed!
 LNM can be enabled later, as long as the configuration restrictions are fulfilled
 When adding not compatible components later, LNM will be switched off automatically

T



Change Report

Date	Order number	Changes
2013-10-18	PCIe lenght	corrected
2013-10-18	Optional USB Comps	no longer available
2013-10-16	S26361-F4610-E2 / -E4	added new 1Gb NICs from Intel
2013-10-16	DDSS	removed from configurator due to EoL
2013-07-25		as long as stock last added for NVIDIA Tesla C2075
2013-05-28	S26361-F3787-E1	LTO6 added
2013-05-23	S26361-F3713-E3	RAID Ctrl SAS 6G 8Port ex 1GB LSI V3
2013-05-16	S26361-F4581-E100/E200/E400	New 2.5" SSD SAS 6G MLC added
2013-05-16	S26361-F3670-E400	New 3.5" BC-SATA 7.2K HDD 4TB
2013-05-16	S26361-F5241-E*	New 3.5" BC-SAS 7.2K HDD 1/2/3/4TB
2013-05-13		HDD & SSD description text updated
2013-05-13	S26361-F4482-E130/145/160	SAS HDD - no longer available
2013-05-07		GPGPU & Xeon Phi pages adjusted to "comp in sys" statements
2013-03-26	S26361-F3669-E660/L660	RAID advanced SW option added - for RAID Ctrl SAS 6G 1GB (D3116C)
2013-03-26	S26361-F3669-E3	RAID Ctrl SAS 6G 1GB (D3116C) added
2013-03-26	S26361-F3669-E661/L661	RAID advanced SW options added - for RAID Ctrl SAS 6G 8port external
2013-03-14	S26361-F3750-E324/504/E604	RDX & Cartridge bundles added
2013-02-14	Config. Diagram	Slot lenght corrected
2013-01-08	S26361-F5228-E***	New 2.5" BC-SAS 7.2K HDD
2013-01-08	S26361-F5247-E***	New 2.5" SAS 10K HDD (mix with BC-SATA supported, successor for *F5227*)
2012-12-13	S26361-F3585-E2	BD writer HH removed (EOL)
2012-12-13	S26361-F3641-E2	BD writer slim: "as soon as available" removed
2012-12-10	S26361-F3694-E3	"as soon as available" removed
2012-12-07	S26361-F2826-E105	HDD Box does not require LSD component any more
2012-12-07	S26381-K520-E170	new keyboard numbers introduced
2012-12-07	S26381-K457-E100	new mouse numbers introduced
2012-12-07	S26361-F3776-E3	ENABLING LOW NOISE MODE TX300 added
2012-12-06		added NVIDIA Tesla K20 & K20X and Intel Xeon Phi 5110P
2012-11-22	F3749-E4 and F3750-E4	"as soon as available" removed
2012-11-22	S26361-F3857-E4	"as long as available" added
2012-10-08	S26361-F3749-Ex	Added USB3.0 Adapter
2012-10-08	S26361-F3750-Ex	Added RDX Drive
2012-10-01	S26361-F3986-E4	
2012-10-01	S26361-F3740-E1/E701	New 4-port Intel LAN controller and upgrade kit - as soon as available
2012-10-01	S26361-F3739-E1/E701	New 2-port Intel LAN controller and upgrade kit - as soon as available
2012-09-28	S26361-F4541-E200	EOL: 200GB SSD SAS SLC
2012-09-11	S26361-F4522-Exxx	PCIe SSD (occupies PCIe slot) as soon as available deleted
2012-07-25	S26361-F4581-Exxx	Add SSD SAS MLC
2012-07-16	S26361-F3857-L160/L169	RDX Cartridge 160GB is EOL => removed
2012-07-13	S26361-F5227-E1*	New order for 2.5" 10K SAS HDD supporting mix with 2.5" BC-SATA HDD
2012-07-13	S26361-F3857-L160/L169	RDX Cartridge 160GB is EOL => removed
2012-06-12	S26361-F5225-E*00	New order for SATA SSD's
2012-05-08	S26361-F3753-E1	"Mounting Kit for 5,25" USB backup drives" added
2012-04-20		Memory voltage / frequency spreadsheet, 3DPC at 1.5V only
2012-03-30	S26361-F2735-L7	added, loose delivery of lateral cable management (GH)
2012-03-19	S26361-F3257-E270	change Cache Battery Backup -E170 to -E270
2012-03-09	S26361-F3700-E250/500	deleate 3,5" SATA 6Gb/s Economy HDs
2012-02-29		First release