

PRIMERGY TX120 S2

System configurator and order-information guide

June 2011

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Change report



PRIMERGY Server

Instructions

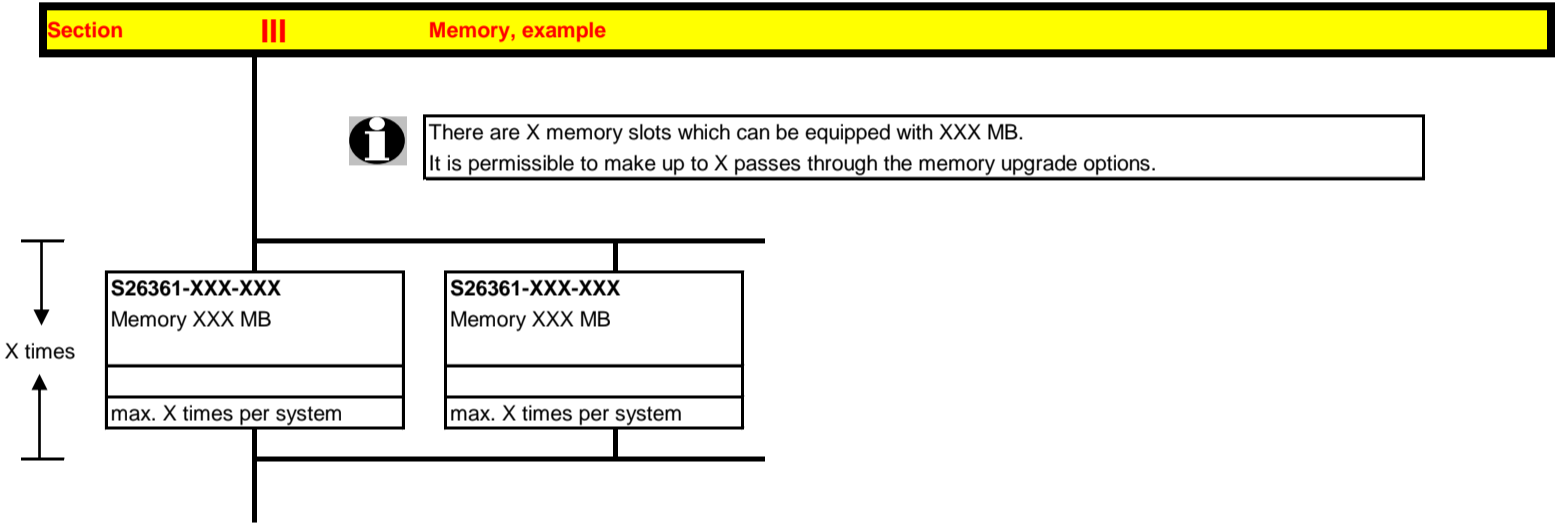
This document contains basic product and configuration information that will enable you to configure your system via PC-/ System-Architect.

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

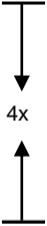
You can configure your individual PRIMERGY server in order to adjust your specific requirements.

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

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



In one chapter you can only select as many components (here 4x) as the arrow indicates.



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



For further information see:

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

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

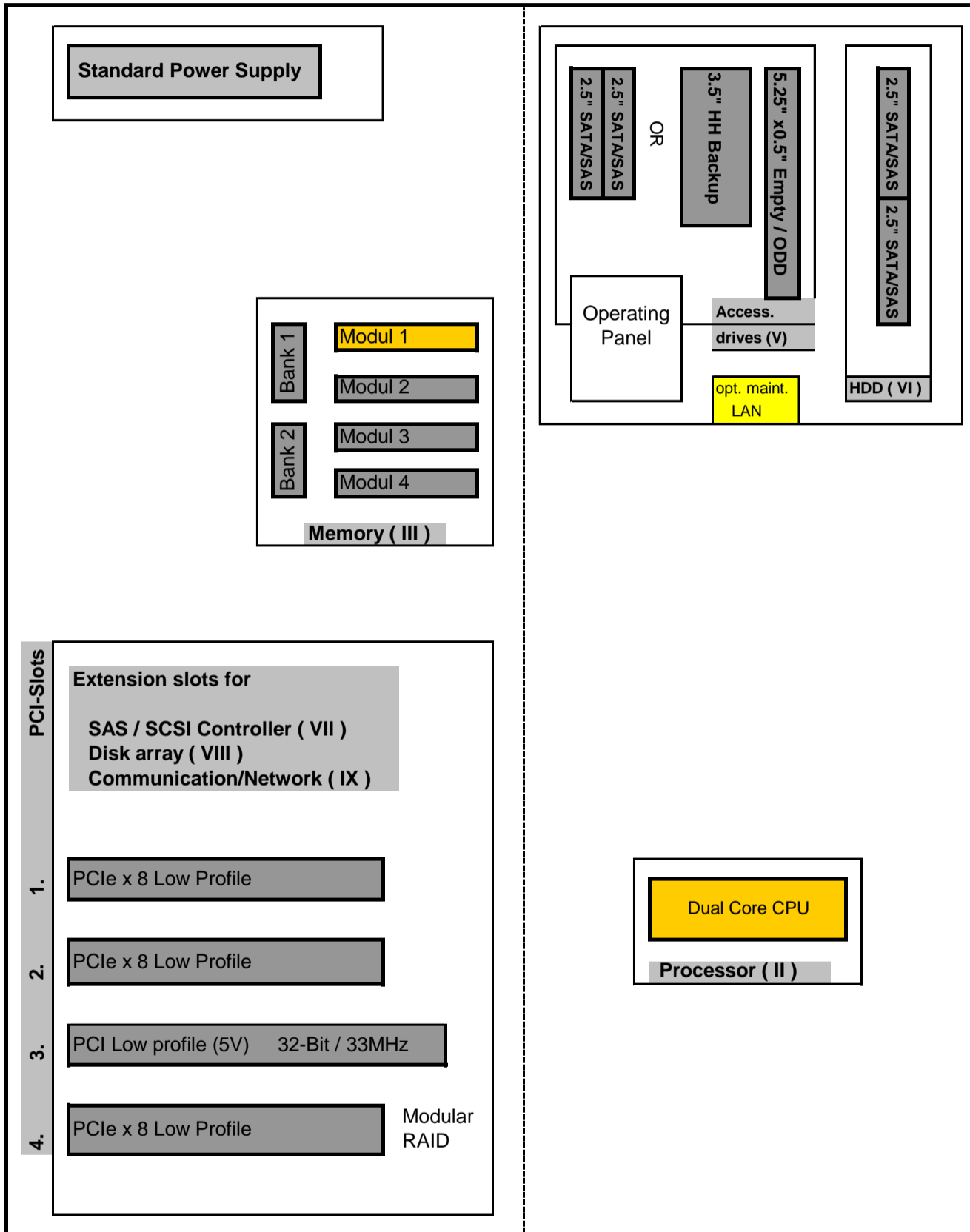
Prices and availability see price list and PC-/ System-Architect
Subject to change and errors excepted

Configuration diagram PRIMERGY TX120 S2

System unit (I)

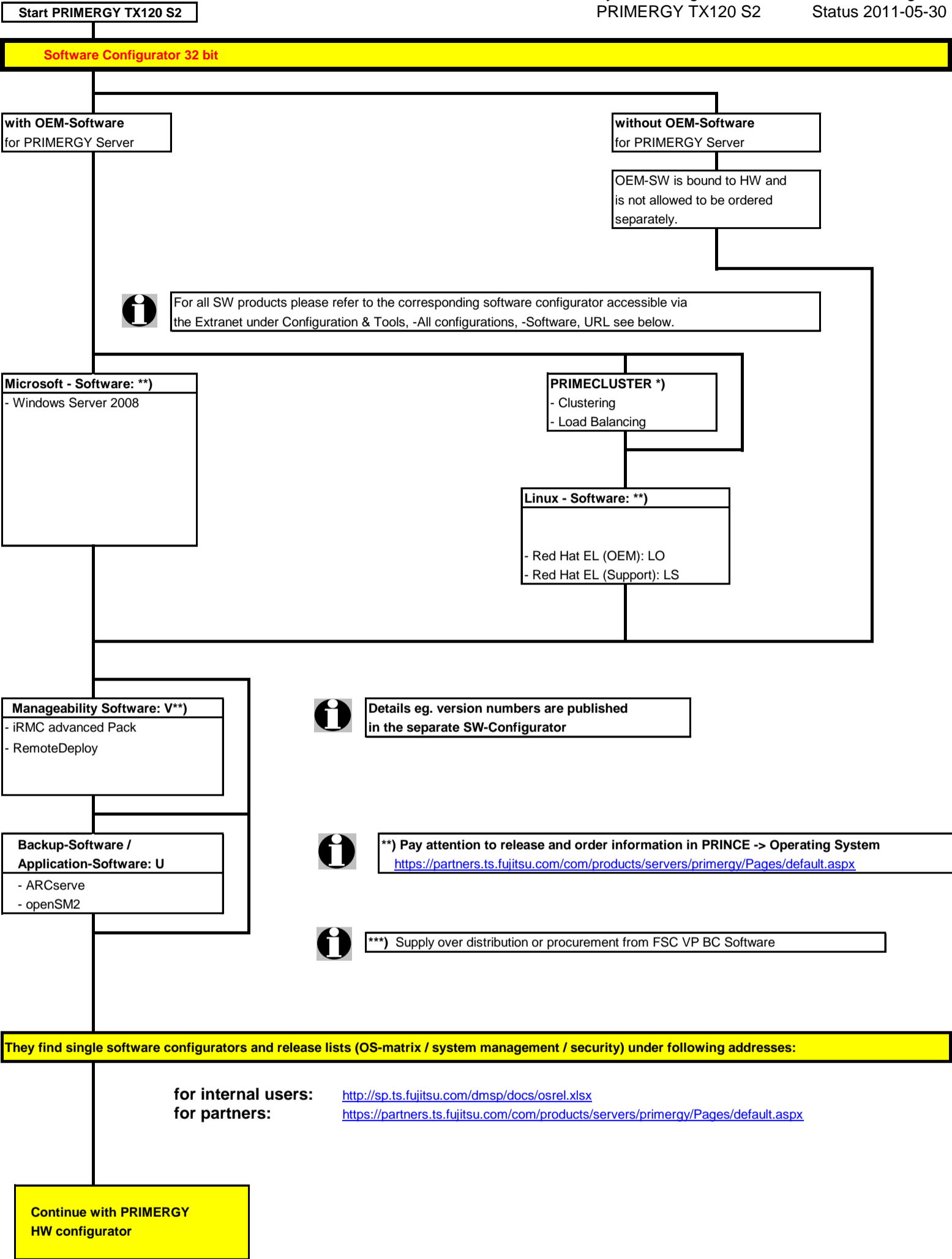
SIDE VIEW

FRONT VIEW



Key:

- Included in basic unit
- Option
- One CPU (first CPU) and one memory (first memory) has to be selected for an orderable basic unit.



Start PRIMERGY TX120 S2

Software Configurator 32 bit

with OEM-Software
for PRIMERGY Server

without OEM-Software
for PRIMERGY Server

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

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.

Microsoft - Software: **)
- Windows Server 2008

PRIMECLUSTER *)
- Clustering
- Load Balancing

Linux - Software: **)
- Red Hat EL (OEM): LO
- Red Hat EL (Support): LS

Manageability Software: V)**
- iRMC advanced Pack
- RemoteDeploy

i Details eg. version numbers are published
in the separate SW-Configurator

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

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

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

They 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/primergy/Pages/default.aspx>

Continue with PRIMERGY
HW configurator


Start PRIMERGY TX120 S2

Software Configurator 64 bit

with OEM-Software
for PRIMERGY Server

without OEM-Software
for PRIMERGY Server


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

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


only EM64T
Microsoft - Software: W
 - Windows Server 2008

only EM64T
Linux - Software *) **)
 - Red Hat EL (OEM): LO
 - Red Hat EL (Support): LS

Manageability Software: V)**
 - iRMC advanced Pack
 - RemoteDeploy

 Details eg. version numbers are published in the separate SW-Configurator

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Continue with PRIMERGY
HW configurator

Section

Basic unit

**System unit consisting of:**

- * Housing including standard power supply (no redundancy)
- * Lockable front Cover
Door for hot plug HDD bays and accessible drives, operating panel
- * System fan (non hot-plug, no redundancy)

Options

- * HDD Extension Box for two additional 2x 2.5" HDDs (no Backup drive configurable)
- * For SAS HDD's usage of SAS RAID Controller is mandatory. Following options are available:
 - Modular RAID 0/1/1e controller with IME (Integrated Mirroring Enhanced) support
 - Modular RAID 5 controller

Systemboard with:

- * 4 PCI slots:
 - 3x PCIe x 8 (one for internal use of modular RAID only)
 - 1x PCI Low Profile 32Bit / 33MHz (5V)
- * 4 memory slots for up to 16GB (PC2-5300) registered DDR2 RAM (ECC), max. 4GB modul per slot
- * 2 bays for accessible drives: 1x 3.5" + 1x 5.25" (occupied by optical drive)
- * 2 (4) bays 1" for hot-plug SATA/SAS HDD
- * Intel Boazman 82567-LM4 10/100/1000 Mb/s on-board
- * 6-port SATA controller on-board included in Intel Southbridge ICH9R
 - 4 ports are used for up to 4x SATA HDD's with Raid0/1
 - 1 port for DVD
- * iRMC S2 (integrated Remote Management Controller) on-board server management and graphics controller
Resolution: 1280 x 1024 at 8bpp or 1024 x 768 at 16 bpp
- * iRMC S2 (integrated Remote Management Controller) on-board server management controller with dedicated 10/100 Service LAN-port and integrated graphics controller.
- * Graphics Controller integrated in iRMC S2 (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)

USB mouse**ServerView Suite Software package incl. ServerStart, ServerBooks, Management Software and Updates****Interfaces:**

- 1x RS-232-C (serial, 9 pins)
- 8x USB 2.0 (5x external at the rear, 2x external at the frontside,
1x internal USB Interface with connector type B for backup devices - cable is delivered with Backup device)
- 1x LAN RJ45 + 1 x Service LAN + 1 x optional maintenance LAN on Front Panel

Cables:

1. SATA cable for ODD
2. SATA/SAS cables for up to 4 HDDs
3. Power cable

Software:

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

A
Basic unit without CPU and Memory
- One CPU (first CPU) has to be configured additionally for a base configuration
- One memory kit has to be configured for a base configuration
- USB Mouse
SFF (2.5") Floorstand-version with:
- 2-port SATA/SAS backplane (upgrad. to 4-port) for 2/4 hot plug SFF (2.5") SATA/SAS HDDs for connection to the onboard SATA controller or plug-in SAS controller
- Base Unit
S26361-K1239-V101

Section II Processor

Note:** The CPU is not included in the base unit and has to be configured separately.

** see note above

One of following CPU's has to be selected for an orderable basic unit	
Dual-Core CPU's	
- 1x 64-bit Intel CPU and heat pipe occupies socket for one CPU	
Core2 Duo P8400 (2.26GHz/3M/1066) / 25W	S26361-F3282-E840
Core2 Duo T9400 (2.53GHz/6M/1066) / 35W	S26361-F3282-E940

S26361-F3301-E5
Energy Star 5.0 compliance
Limits configuration in accordance with Energy Star requirements
max. 1x per system



Be aware of configuration Limits for Energy Star Configuration

SAS Configuration:
 max P8400, 1GB RAM, 2x SAS HDD, only IRMC graphics

SATA Configuration:
 max. T9400, 8GB RAM, 2x SATA HDD + 2 SATA/Backup, 2x LAN, only IRMC graphics

Energy Star configuration only possible for Countries with 230V

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



Be aware of import restrictions!

Only 1 TPM per system.
 Loose delivery for later integration possible for customer.

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

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Section III Memory

i There are 2 memory banks with 2 DIMM slots each.
Single channel memory configuration allow maximum flexibility:
 Additional memory can be configured as single memory modules.
Dual channel memory configurations for maximum performance:
 For optimum performance memory has to be configured in pairs of memory modules with identical size.
Note:** Memory is not included in the base unit and has to be configured separately, min 1x.

**** see note above**

4x

S26361-F3283-E514
 Main memory 1GB
 DDR2 667/PC2-5300 reg. ECC
 consisting of one module
 occupies one slot
 max. 4x per system

S26361-F3283-E515
 Main memory 2GB
 DDR2 667/PC2-5300 reg. ECC
 consisting of one module
 occupies one slot
 max. 4x per system

S26361-F3283-E516
 Main memory 4GB
 DDR2 667/PC2-5300 reg. ECC
 consisting of one module
 occupies one slot
 max. 4x per system

Section IV Graphics

i Graphics Controller integrated in iRMC with 32 MB attached Memory with following resolution:
 - 16 bit color with maximum resolution of 1600 x 1200
 - 24 bit color with maximum resolution of 1280 x 1024
 - 32 bit color with maximum resolution of 1152 x 864
 This resolution is also available via iRMC advance video redirection.
NOTE: Only VESA-compliant graphics modes are supported

S26361-F2748-E633
 PY VGA LP card 256MB PCI-e x1
 NVIDIA NVS290
 256 MB PCIe-x1
 2x DVI or 2x VGA or
 1x DVI plus 1x VGA
 cables adapters included
 Dual head + fully 3-D
 supported for Windows OS
 only native driver support for Linux OS
 low profile bracket
 max. 1x per system

i The high end optional NVIDIA NVS290 graphic card offers dual head operation and fully 3D video support.
 The cables for either two times DVI or VGA 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.

PY VGA card must be installed in slot 1

S26361-F2748-L633
 PY VGA LP card 256MB PCI-e x1
 for loose delivery

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Section V Accessible drives

i There are 2x 5.25" bays for accessible drives:
 - 1x 5.25" bay is occupied by a 0.5" DVD respectively a DVD-RW drive
 - 1 x 3.5" bay remaining, can be occupied by 1x 1.6" backup drive or 2x 2.5" HDD

i Setup of PRIMERGY TX120 S2 by ServerStart is supported with following configurations:
no DVD:
 remote installation only (PXE service & DHCP server required)
built in DVD:
 UNC Network share reachable or USB Floppy or MemoryBird connected

i If installation is done locally, make sure you have internal or external FDD available for driver installation.
 Following USB Components are available
 1) USB DVD SM / Blu-Ray
 External SuperMulti Drive (as soon as released)
 External Blu-Ray Drive (as soon as released)
 2) USB Memorybird:
 MyUSBS A910 16GB, MLC Flash S26391-F6048-L216

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-F3531-E2
 Blu-ray Combo slim SATA
 6x BD-ROM, 16x DVD, 40x CD
 BD DL and all CD/DVD formats
 0.5 x 5.25", black bezel
 max. 1x per system

S26361-F3324-E2
 Tape drive DDS Gen5 USB 3.5"
 36GB, 3MB/s, USB 2.0
 Connector: USB "B"
 with USB cable
 incl. description (Ger/US)
 data and cleaning cartridge
 1.6 x 3.5", anthracite/black bezel
 max. 1x per system

i **S26361-F3324-L2**
 Loose delivery of
 Tape drive DDS Gen5 USB 3.5"

S26361-F3857-E2
 RDX drive USB 3.5" internal
 80-320GB, 25MB/s, USB 2.0
 Connector: USB "B"
 with USB cable
 incl. description (Ger/US)
 without RDX cartridges
 1.6 x 3.5", anthracite/black bezel
 max. 1x per system

i **S26361-F3857-L2**
 Loose delivery of
 RDX drive USB 3.5" internal

i RDX cartridges must be ordered separately
 RDX 160GB = S26361-F3857-L160
 RDX 320GB = S26361-F3857-L320
 RDX 500GB = S26361-F3857-L500
 RDX 1TB = S26361-F3857-L600 *
 10x RDX160 = S26361-F3857-L169
 10x RDX320 = S26361-F3857-L329
 * as soon as available

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S26361-F2826-E130
HDD Extension for 2x hot plug
Occupies one 3.5" x 1.6" bay in the accessible bay area
- 2x 2.5" SAS/SATA HD's
max. 1 per system



HDD extension box allows configuration of 2 additional HDDs instead of Backup Device
4 HDD Configuration w/o additional RAID controller allows usage of SATA HDD's only - RAID 0,1
Configuration of SAS HDD's requires an optional SAS RAID Controller

Section VI Hard Disk Drives

S26361-F3515-E160
HD 160GB 5.4krpm 2.5"
5.400rpm,<10,5ms, 8MB Cache
ECO SATA
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F3515-E320
HD 320GB 5.4krpm 2.5"
5.400rpm,<10,5ms, 8MB Cache
ECO SATA
hot plug/hot replace tray
max. 2x or 4x per base unit



Mix of ECO SATA with SAS HDDs is not possible !

configuration of SAS-HDDs requires **SAS RAID controller**

S26361-F3208-E114
HD 146GB 10krpm 2.5"
10000rpm,<4,5ms, 8MB Cache
SAS 3Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F3208-E130
HD 300GB 10krpm 2.5"
10000rpm,<4,5ms, 8MB Cache
SAS 3Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F3208-E573
HD 73GB 15krpm 2.5"
15000rpm,<4,5ms, 8MB Cache
SAS 3Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

2x/4x

S26361-F4004-E114
HD 146GB 10krpm 2.5"
10000rpm,<4,5ms, 8MB Cache
SAS 6Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F4004-E130
HD 300GB 10krpm 2.5"
10000rpm,<4,5ms, 8MB Cache
SAS 6Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F4004-E573
HD 73GB 15krpm 2.5"
15000rpm,<4,5ms, 8MB Cache
SAS 6Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F4004-E514
HD 146GB 15krpm 2.5"
15000rpm,<4,5ms, 8MB Cache
SAS 6Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F3600-E160
HD 160GB 7.2krpm 2.5"
7200rpm,<9,5ms, 32MB Cache
BC SATA
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F3600-E500
HD 500GB 7.2krpm 2.5"
7200rpm,<9,5ms, 32MB Cache
BC SATA
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F3998-E32
SSD 32GB
Solid State Disk
SATA 3Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

S26361-F3998-E64
SSD 64GB
Solid State Disk
SATA 3Gb/s
hot plug/hot replace tray
max. 2x or 4x per base unit

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Section 8 VII SCSI/SAS-Controller SCSI/SAS-Controller Low Profile

Slot suitable for
 Low Profile PCIe
 only 1x per System

2 slots PCIe x8 (wired x8) available

SCSI / SAS controller for
 external drives and peripheral devices

i Only released for FibreCAT TXF
 All controllers for the connection of external storage systems are delivered without cables. For the configuration of external cabling see the configurator for external storage systems.

S26361-F3270-E201
SCSI U320 Controller
Adaptec SCSI Card 29320LPE
PCIe x1, Low Profile
int: LVD HD68
ext: VHDCI 68pin
max. 1x per system

S26361-F3271-E201
SAS Controller 3Gb/s 8 port LP
LSI SAS3442E-R Low Profile
PCIe x4,
int: 4 port
ext: 4 port
max. 1x per system

S26361-F3628-E201
SAS Controller 6Gb/s 8 port LP
LSI SAS9200-8e LP
PCIe 2.0 x4,
ext: 8 port
max. 1x per system

Section VIII Disk Array

SATA Configuration

i On board Hot Plug
SATA RAID Controller
RAID 0, 1
 MegaSR integrated into Intel ICH9-R
 4-channel SATA RAID Controller
 max. 300MB/s, with cable
 1 HD per channel max.
 int.: 4 x SATA 300

SAS or SATA Configuration

i If you want to use SAS harddisks one SAS-Controller is required.
Mix of ECO SATA with SAS HDDs is not possible

Controller for 1 to 4 SFF (2.5") HDD; mandatory for SAS HDD's

S26361-F3257-E4
4 port SAS RAID Controller
LSI
MegaRAID SAS 1064
no Cache, no BBU
RAID 0, 1 & 1E
SAS 3Gb/sec
4 internal ports
PCIe x4, 160mm
max. 1x per system

S26361-F3257-E256
8 port SAS RAID Controller
LSI
MegaRAID SAS 1078
256MB Cache with ECC
RAID 0, 1, 10, 5, 50, 6, 60
optional BBU
SAS 3Gb/sec
8 internal ports
PCIe x4, 160mm
max. 1x per system

S26361-F3554-E512
RAID Ctrl SAS 6G 8port internal
Based on chip LSISAS2108
LSI MegaRAID
512MB Cache with ECC
RAID 0, 1, 10, 5, 50, 6, 60
optional BBU
Support for 3Gb/s and 6Gb/s
SATA and SAS hard drives
PCIe x8
Low-profile MD2 form factor
max. 1x per system

S26361-F3554-E8
RAID Ctrl SAS 6G 8port internal
Based on chip LSISAS2008
LSI MegaRAID
no Cache, no BBU
RAID 0, 1 & 1E
Support for 3Gb/s and 6Gb/s
SATA and SAS hard drives
PCIe x8
Low-profile MD2 form factor
max. 1x per system

S26361-F3257-E116
Cache Battery Backup Unit
with 16cm cable set
max. 1x per Controller

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S26361-F3257-L110
Loose delivery
Cache Battery Backup Unit
with 16cm cable set
max. 1x per Controller

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Section IX Communication / Network

Gigabit Ethernet Contr. on-board
 82567LM (Boazman)
 ext: for RJ 45-connector
 SW: AFT, VLAN, Fast Channel



Teaming: Failover, Load Balancing
 The Intel LAN Controllers 1000TX and 1000SX can be used with the on-board controller in Teaming Mode.

iSCSI boot
 Onboard LAN Controller supports iSCSI boot (also diskless) by system BIOS and native iSCSI initiators

Single Port PCI-Express Adapter 1000TX/SX

S26361-F3516-E201 (Shelter Island)
 Gigabit Ethernet Controller LP
 Eth Ctrl 1x1Gbit Low Cost
 Intel
 PCIe x1, Low Profile
 ext: for RJ45-connector, Cat 5
 max. 2x per system

S26361-F3241-E201 (Glyndon)
 Gigabit Ethernet Contr. 1000TX LP
 Eth Ctrl 1x1Gbit PCI-e Pro/1000PT Cu LP
 Intel PRO/1000 PT Server Adaptor
 PCIe x1, Low Profile
 ext: for RJ45-connector, Cat 5
 max. 2x per system

S26361-F3242-E201 (Sheepshead Bay)
 Gigabit Ethernet Contr. 1000SX
 Eth Ctrl 1x1Gbit PCI-e Pro/1000PF LC LP
 Intel PRO/1000 PF Server Adaptor
 PCIe x4, Low Profile
 ext:LC-connector
 max. 2x per system

↑
 max. 2x

Dual Port PCIe Adapter 1000TX

S26361-F3228-E201 (Redwater)
 Gigabit Ethernet Controller Dual 1000TX LP
 Eth. Ctrl 2x1Gbit PCIe PRO/1000PT Cu LP
 Intel Pro/1000PT dual Server Adapter
 PCIe x4, Low Profile
 ext: for RJ45-plug, Cat 5
 max. 2x per system

S26361-F3610-E202
 Gigabit Ethernet Controller Dual 1000TX LP
 Eth Ctrl 2x1Gbit PCIe x4 D2735 Cu lp
 Intel Kawela based 2 port Server Adapter
 PCIe x4, Low Profile
 ext: for RJ45-plug, Cat 5
 max. 2x per system



for loose delivery:
 S26361-F3610-L502

↓
 max. 2x

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Section X System management options

S26361-F1790-E240
iRMC S2 advanced pack
integrated remote management controller
activation key for
graphical console redirection
and remote media redirection
max. 1x per system

S26361-F2571-E17
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

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Section XI Country specific power cords



A country specific power cord has to be ordered for all floorstand versions:
 - once per basic unit and an additional second cable
 - if an second hot plug, redundant power supply modul is ordered.

max.
1 x

Power cord for following countries:
 1,8 m, grey

T26139-Y1740-E10	D, A, B, F, NL, FIN, S, N, E, P, RUS, TR
T26139-Y1742-E10	USA, Canada
T26139-Y1743-E10	Switzerland
T26139-Y1744-E10	UK, Ireland
T26139-Y1745-E10	Italy
T26139-Y1746-E10	Denmark
T26139-Y3850-E10	Option "no powercord", for Countries without specific cable orderable like e.g. China



Attention: For connection of a monitor to the system an additional country specific power cord has to be ordered as option.

Power cord for optional monitor connection for the following countries:
 1.8m, grey

T26139-Y1740-L10	D, A, B, F, NL, FIN, N, S, E, P, RUS, TR
T26139-Y1742-L10	USA, Canada
T26139-Y1744-L10	UK, IR
T26139-Y1745-L10	Italy
T26139-Y1746-L10	Denmark



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

USB keyboards for floorstand versions for following countries:

Professional KBPC PX		Standard KBPC SX
S26381-K340-E110	USA / international	S26381-K398-E110
S26381-K340-E120	Germany	S26381-K398-E120
S26381-K340-E140	France	S26381-K398-E140
S26381-K340-E155	Sweden / Finland	S26381-K398-E155
S26381-K340-E165	United Kingdom	S26381-K398-E165
S26381-K340-E180	Spain	S26381-K398-E180
S26381-K340-E185	Italy	S26381-K398-E185

End PRIMERGY TX120 S2

