

PRIMERGY RX4770 M1

System configurator and order-information guide

Contents

Instructions

Configuration diagram

Configurator

- 0 System software
- I Basic unit
- II Processor
- III Memory
- IV USB devices / optical devices
- V Hard disk drives / SSD's
- VI Internal SAS RAID Controller
- VI.I PCIe - Switch and SFF Dev
- VII External SCSI / SAS controller
- VIII Fibre Channel controller
- IX Communication / Network / CNA / IB
- X iRMC S2 advanced pack / TPM
- XI Optional PSU / Power Cord
- XII Miscellaneous

Change report



PRIMERGY Server

Instructions

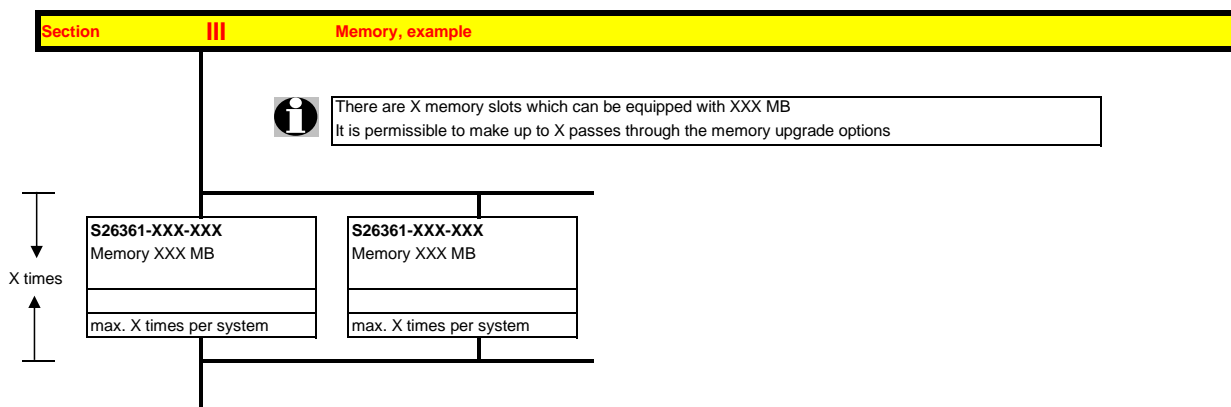
This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect

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

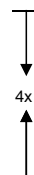
You can configure your individual PRIMERGY server in order to adjust your specific requirements.

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.



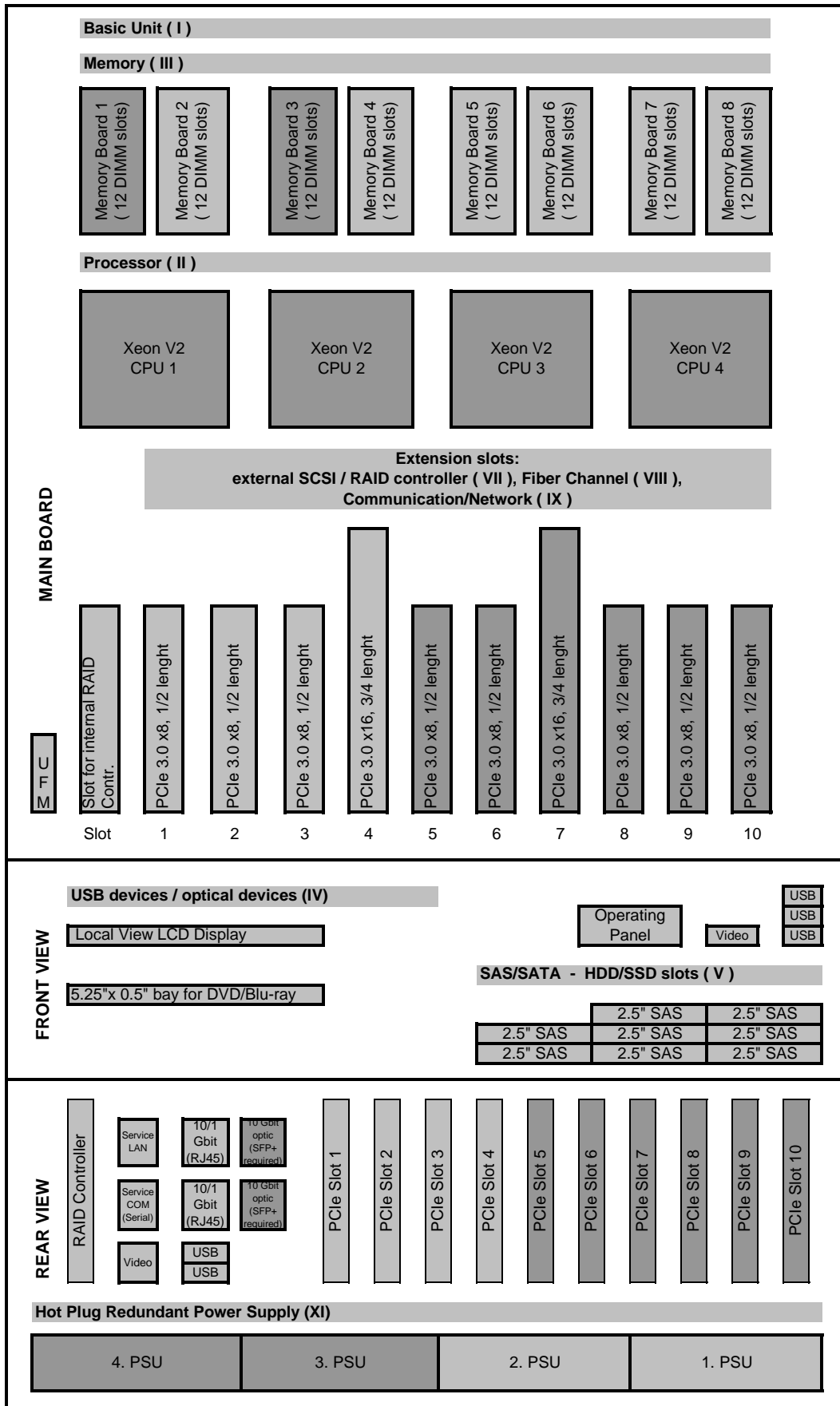
Further information in the internet see:

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

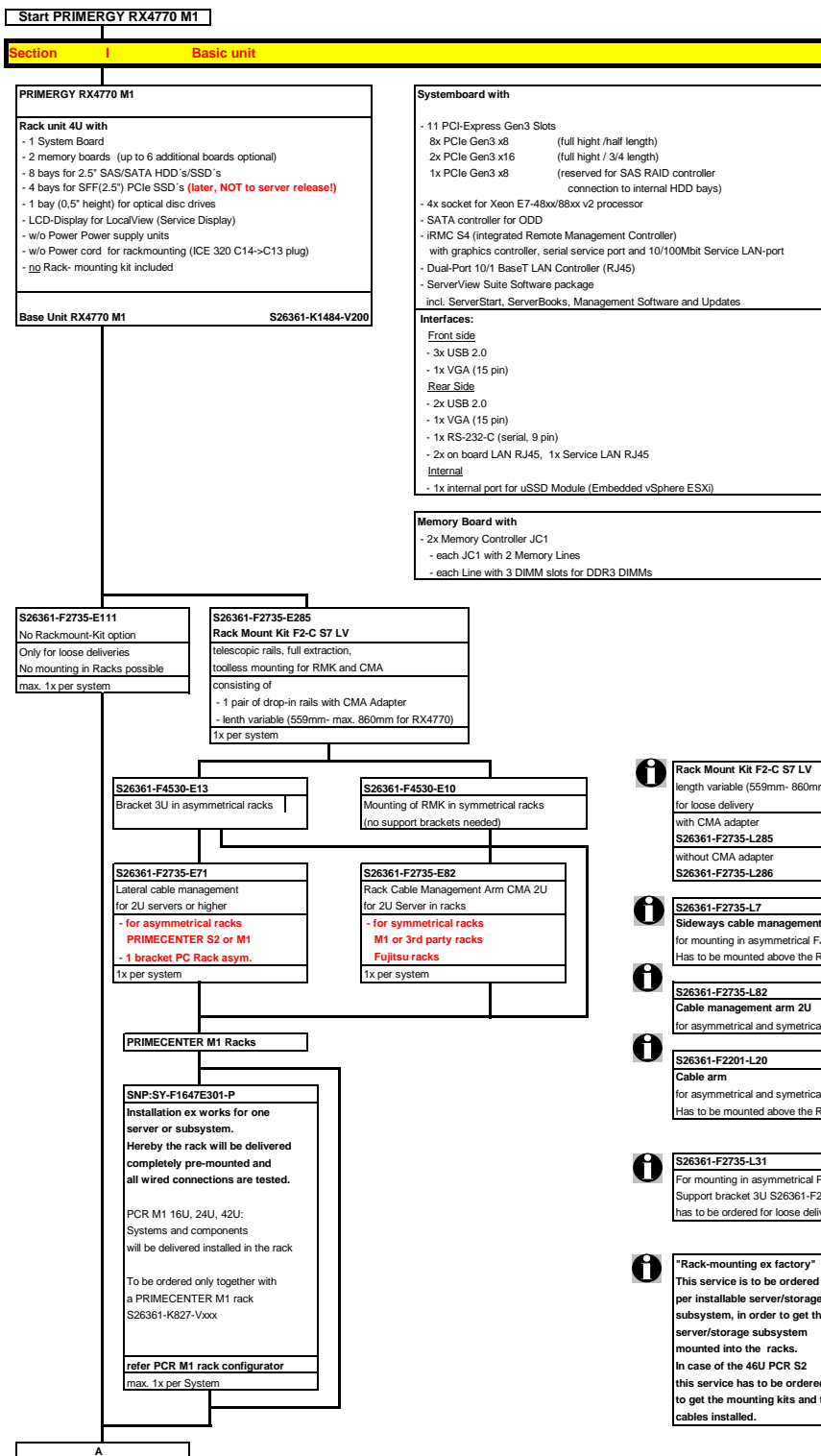
https://partners.ts.fujitsu.com/com/order-supply/configurators/primergy_config/current/P (extranet)

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

Configuration diagram PRIMERGY RX4770 M1



Key: Included in basic unit
 Option



Section II Processor

i Two CPU must be configured as minimum, as maximum 4 CPU's are possible.
 Only 2 CPU or 4 CPU configurations are allowed!
 Later upgrading to a 4 processor system is also possible, but may require adding of PSU and Memory modules. Extension CPUs must be identical to the already installed CPU's.

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

CPU overview
 - Intel Xeon processor E7-4800v2 / E7-8800v2 series
 incl. passive heat sink
 occupies socket for one CPU

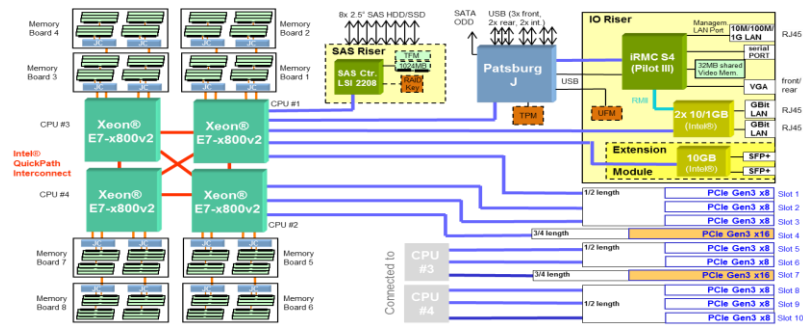
Xeon E7-4809v2 6C/12T 1.90GHz 12MB 6.40GT/s 105W	S26361-F5308-E409	on special release
Xeon E7-4820v2 8C/16T 2.00GHz 12MB 7.20GT/s 105W	S26361-F5308-E420	
Xeon E7-4830v2 10C/20T 2.20GHz 20MB 7.20GT/s 105W	S26361-F5308-E430	
Xeon E7-4850v2 12C/24T 2.30GHz 24MB 7.20GT/s 105W	S26361-F5308-E450	
Xeon E7-4870v2 15C/30T 2.30GHz 30MB 8.00GT/s 130W	S26361-F5308-E470	
Xeon E7-4880v2 15C/30T 2.50GHz 37.5MB 8.00GT/s 130W	S26361-F5308-E480	
Xeon E7-4890v2 15C/30T 2.80GHz 37.5MB 8.00GT/s 155W	S26361-F5308-E490	
Xeon E7-8857v2 12C/12T 3.00GHz 30MB 8.00GT/s 130W	S26361-F5308-E857	
Xeon E7-8893v2 6C/12T 3.40GHz 37.5MB 8.00GT/s 155W	S26361-F5308-E893	

2x OR 4x

i Mix of CPU Versions are not allowed.

i Without Memory Mirroring and Sparin

RX4770 M1 Architecture

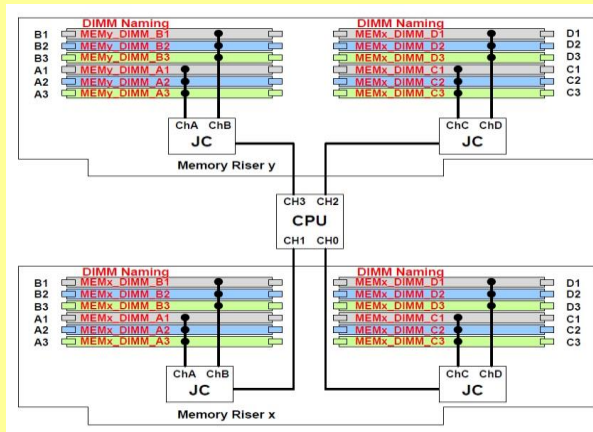


B

Section III Memory

Basically DIMM population orders:

DIMM population order for each CPU is done by DIMM pair (2x DIMMs) using Round Robin scheme (e.g. CPU1, CPU2, CPU3, CPU4, CPU1...)



BTO Order for DIMM population (DIMM installation order)

DIMM population limitation in platform is listed as below.

- Mixing of LRDIMM with any other DIMM type is not allowed per platform.
- Mixing of DDR3 voltages is not validated within a socket or across sockets. (If 1.35V (DDR3L) and 1.50V (DDR3) DIMMs are mixed, the DIMMs will run at 1.50V.)
- Mixing of DDR3 operating frequencies is not validated within a socket or across. (If DIMMs with different frequencies are mixed, all DIMMs will run at the common lowest frequency.)
- A maximum of 8 logical ranks (ranks seen by the host) per channel is allowed.
- Mixing of Independent and Lockstep channel mode is not allowed per platform.
- Mixing of Non-Mirrored and Mirrored mode is not allowed per platform.
- Mixing of Sparing and Non-Sparing mode is not allowed per platform.

Server configuration modes with minimum need of DIMMs per CPU and further Stepping (see Population #):

Population #	SMI2 Channel Mode	Memory Mirror Mode	Memory Spare Mode	DIMM population #
1	Independent mode	Off	Off	2
2	Independent mode	On	Off	2
3	Independent mode	Off	On	4
4	Lockstep mode	Off	Off	4
5	Lockstep mode	On	Off	4
6	Lockstep mode	Off	On	8

Server Rules for Combination CPU and Memory Boards:

- A minimum of one Memory Board per each CPU must be populated.
- If two Memory Boards per CPU will be used, each CPU have to be populated with two Memory Boards.
- Following Configurations of CPU and Memory Boards per Server are possible:
 - Two CPU with two Memory Boards.
 - Two CPU with four Memory Boards.
 - Four CPU with four Memory Boards.
 - Four CPU with eight Memory Boards

Memory population Table:

TDB

SMI2 Channel modes are selectable in BIOS setup menu.
 Lockstep Mode is default Mode if HW configuration makes it possible.
 Performance Mode can be switched on.

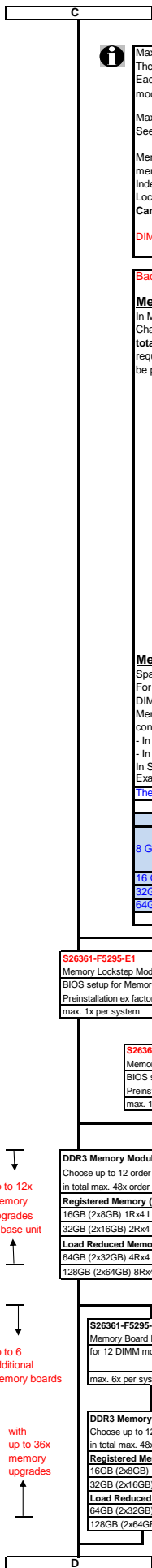
Lockstep Mode:

- Lockstep --> default mode, parallel Throughput to both MEM Lines of one SMI2.
- Bus frequency ratio SMI2 to MEM Line is 1:1
- Max. SMI2 frequency are 2666 MHz, means in Lockstep-Mode 1600 MHz DIMMs can also used with 1600 MHz.
- Memory Interleaving functionate only via 2 level, required for interleaving are same - Memory capacity on DDR channels.
- Mirror Mode and Sparing Mode can be combined.
- In Lockstep Channel Mode, each memory access is a 128-bit data access that spans Channel 0 and Channel 1, and Channel 2 and Channel 3. Lockstep Channel mode allows SDDC/DDDC. **Lockstep Channel Mode requires that Channel 0 and Channel 1, and Channel 2 and Channel 3 must be populated identically** with regards to size and organization. DIMM slot populations within a channel do not have to be identical but the same DIMM slot location across Channel 0 and Channel 1 and across Channel 2 and Channel 3 must be populated the same

Intel Independent Mode:

- Bus frequency ratio SMI2 to MEM Line is 2:1
- Max. SMI2 frequency are 2666 MHz, means in Independent -Mode fast 1600 MHz - DIMMs can be used with Max. with 1333 MHz.
- Memory Interleaving functionate via all 3 memory level what will be result in faster memory troughput than Lockstep Mode, required for interleaving are same Memory capacity on DDR channels.
- Mirror Mode and Sparing Mode can be combined.
- 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 DDR channels must run at the same interface frequency but individual channels may run at different DIMM timings (RAS latency, CAS latency, and so forth) Independent Channel mode allows SDDC.

C



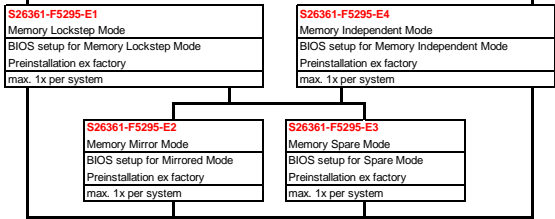
Max Capacity / Features
 The system can be equipped with up to 96 DIMMs (distributed on 8 memory boards)
 Each DIMM slot can optionally be equipped with 8GB, 16GB, 32GB or 64GB DDR3 LV DIMM modules, so the maximal memory size is 6144 GB with 64GB modules.
 Max. Memory Speed depends on CPU QPI Speed and Memory Type, but is limited to 1600 MHz.
 See also description above!
 Memory Controller Independent Mode and Lockstep Mode can be switched by BIOS setup menu.
 Independent Mode (higher I/O, B/W)
 Lockstep Mode (highest DDR3 speeds)
Can be combined with in ordering Mirroring Mode or Spare Model!
 DIMM population tables will be added later!

Background for access able Memory capacity calculation:

Memory Mirroring Mode:
 In Mirrored Channel Mode, the memory contents are mirrored between SMI2 Channel 0 and SMI2 Channel 1 and also between SMI2 Channel 2 and SMI2 Channel 3. **As a result of the mirroring, the total physical memory available to the system is half of what is populated.** Mirrored Channel Mode requires that SMI2 Channel 0 and SMI2 Channel 1, and SMI2 Channel 2 and SMI2 Channel 3 must be populated identically with regards to size and organization

Memory Sparing Mode:
 Sparing will be done by Rank Sparing within the same Memory Line (DDR channel).
 For Ivy-Bridge Processors, Rank Sparing can be achieved if there are 2Ranks in each DDR channel.
 DIMM number is unrelated.
 Memory Controller on CPU can handle up to 8 logical RANKS per DDR3 channel. Requirement to configure RANK-sparing is as follows.
 - In case of 1R/2R RDIMM, at least two DIMMs should be populated on the DDR3 channel.
 - In case of 4R RDIMM or LR-DIMM, one DIMM population is allowed.
 In Spare Mode the used Ranks as Spare Ranks shrink the direct access able Memory:
 Example: Rank Information in Memory Order Number description: xxGB (2xxxGB) 2R x4 L DDR3-1600 R ECC

	Populated DIMM slots in Channel:		
	1DPC	2DPC	3DPC
8 GB R DIMM(1pr)	Not possible, because min. 2 DIMMs	1	1
16 GB R DIMM(2pr)	1	1	1
32GB LR DIMM(4pr)	1	1	2
64GB LR DIMM(8pr)	4	4	4



DDR3 Memory Module with SDDC (chipkill) support
 Choose up to 12 order codes per CPU / 6 per Memory Board
 in total max. 48x order codes per system

Registered Memory (RDIMM)	
16GB (2x8GB) 1Rx4 L DDR3-1600 R ECC	S26361-F5309-E642
32GB (2x16GB) 2Rx4 L DDR3-1600 R ECC	S26361-F5309-E643
Load Reduced Memory (LRDIMM)	
64GB (2x32GB) 4Rx4 L DDR3-1600 LR ECC	S26361-F5309-E644
128GB (2x64GB) 8Rx4 L DDR3-1333 LR ECC	S26361-F5309-E645

S26361-F5295-E100
 Memory Board RX4770 M1
 for 12 DIMM modules / 6 order codes each
 max. 6x per system

DDR3 Memory Module with SDDC (chipkill) support
 Choose up to 12 order codes per CPU / 6 per Memory Board
 in total max. 48x order codes per system

Registered Memory (RDIMM)	
16GB (2x8GB) 1Rx4 L DDR3-1600 R ECC	S26361-F5309-E642
32GB (2x16GB) 2Rx4 L DDR3-1600 R ECC	S26361-F5309-E643
Load Reduced Memory (LRDIMM)	
64GB (2x32GB) 4Rx4 L DDR3-1600 LR ECC	S26361-F5309-E644
128GB (2x64GB) 8Rx4 L DDR3-1333 LR ECC	S26361-F5309-E645

Mix of memory, RDIMMs and LR-DIMMs are not allowed.
 Frequency Mix is not validated, all DIMMs run on lowest frequency.

Min. - Max. Memory Boards Rules:
 Minimum Memory board rules:
 --- One Memory Board for each CPU
 --- By step to two Memory Boards per CPU all CPUs have to be populated with two Memory Boards.
 Per CPU max. 2 Memory Boards can be installed
 - with 2 CPU = max. 4 Memory boards (two included in the Base unit)
 - with 4 CPU = max. 8 Memory boards
 - on each CPU must be populated a minimum of Memory defined by rules of specific Memory Mode.

loose delivery: S26361-F5295-L100

Mix of memory, RDIMMs and LR-DIMMs are not allowed.
 Frequency Mix is not validated, all DIMMs run on lowest frequency.

loose delivery Memory option numbers:
 S26361-F5309-L642
 S26361-F5309-E643
 S26361-F5309-E644
 S26361-F5309-E645

D

Section IV USB devices / optical devices / UFM

i Setup RX4770 M1 by SV Installation Manager is supported with following configurations:
built in CD/DVD or USB CD/DVD, no Floppy disk drive:
 UNC Network share reachable

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

i Following USB Components are available
 2) USB Memorybird:
 A-DATA USB3.0 Flash Stick UE700 32GB S26391-F6048-L332 as long as available
 A-DATA USB3.0 Flash Stick UE700 64GB S26391-F6048-L364 as long as available
 Additionally a monitor can be connected to the VGA 15-pin interface.

One UFM (USB Flash Module) can be configured
 The UFM is bundled with VMWare offering:
 VMware vSphere Embedded UFM Device 4 GB S26361-F2341-E432



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-F3718-E1
 DVD-ROM, slimline 0.5" fitting height, black
 all CD/DVD formats, DUAL/DL
 0.5 x 5.25", black bezel
 max. 1x per system
Only for FJJ Sales Market!

E

E

Section V Hard disk drives

max. 8x

HDD SAS 6Gb/s 2.5" with hot plug/hot replace tray	
10000rpm	
300GB 10000rpm, <4,5ms, 32MB Cache	S26361-F3818-E130
450GB 10000rpm, <4,5ms, 32MB Cache	S26361-F3818-E145
600GB 10000rpm, <4,5ms, 32MB Cache	S26361-F3818-E160
900GB 10000rpm, <4,5ms, 32MB Cache	S26361-F3818-E190
1.2TB 10000rpm, <4,5ms, 64MB Cache	S26361-F3818-E112
15000rpm	
146GB 15krpm, <4,5ms, 32MB Cache	S26361-F3818-E514
300GB 15krpm, <4,5ms, 32MB Cache	S26361-F3818-E530
450GB 15krpm, <3,0ms, 64MB Cache	S26361-F3818-E545
600GB 15krpm, <3,0ms, 64MB Cache	S26361-F3818-E560
7.200rpm	
500GB 7.2krpm, <9,5ms, 64MB Cache	S26361-F3817-E500
1TB 7.2krpm, <9,5ms, 64MB Cache	S26361-F3817-E100
max. 8x per system	



configuration of SAS/SATA HDDs & SSDs requires SAS RAID controller

HDD SAS 12Gb/s 2.5" with hot plug/hot replace tray (H-P)	
300GB 15000rpm, <=3.1ms, 128MB Cache	S26361-F5531-E530
450GB 15000rpm, <=3.1ms, 128MB Cache	S26361-F5531-E545
600GB 15000rpm, <=3.1ms, 128MB Cache	S26361-F5531-E560
max. 8x per system	



support of 12G RAID controller. SAS 12G SSDs/HDDs support 12G and 6G.

HDD SAS 2.5" 10K (SFF) Enterprise performance with hot plug/hot replace tray							
capacity	RPM	SAS	Cache	sector	Endurance	order code E-part	order code L-part
450GB	10.000	SAS 3.0		512e	mainstream	S26361-F5543-E145	S26361-F5543-L145
600GB	10.000	SAS 3.0		512e	mainstream	S26361-F5543-E160	S26361-F5543-L160
900GB	10.000	SAS 3.0		512e	mainstream	S26361-F5543-E190	S26361-F5543-L190
1.2TB	10.000	SAS 3.0		512e	mainstream	S26361-F5543-E112	S26361-F5543-L112
1.8TB	10.000	SAS 3.0		512e	mainstream	S26361-F5543-E118	S26361-F5543-L118
max. 8x devices per server, no mix of SATA or SAS HDD are possible							

SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray (H-P)	
200GB, Enterprise (EP), Mainstream Endurance (ME)	S26361-F5298-E200
400GB, Enterprise (EP), Mainstream Endurance (ME)	S26361-F5298-E400
800GB, Enterprise (EP), Mainstream Endurance (ME)	S26361-F5298-E800
1.6TB, Enterprise (EP), Mainstream Endurance (ME)	S26361-F5298-E160
max. 8x per system	

*) SSD Mainstream Endurance 10DWPD over 5y

SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray	
Mainstream Endurance	
100GB, Enterprise (EP), Mainstream Endurance (ME)	S26361-F3821-E100
200GB, Enterprise (EP), Mainstream Endurance (ME)	S26361-F3821-E200
400GB, Enterprise (EP), Mainstream Endurance (ME)	S26361-F3821-E400
800GB, Enterprise (EP), Mainstream Endurance (ME)	S26361-F3821-E800
max. 8x per system	

*) SSD Value Endurance (Read Intensive) 0.3 DWPD over 5y

SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray	
Value Endurance (Read Intensive)	
SSD SATA 6G 120GB ReadIntensive 2.5" H-P	S26361-F5525-E120
SSD SATA 6G 240GB ReadIntensive 2.5" H-P	S26361-F5525-E240
SSD SATA 6G 480GB ReadIntensive 2.5" H-P	S26361-F5525-E480
SSD SATA 6G 800GB ReadIntensive 2.5" H-P	S26361-F5525-E800
max. 8x per system	



All PCIe SSD (iodrive2) controller are restricted for use in PCIe slot #5 up to #10 if PCIe Switch cards used in #4!

Occupies PCIe Card slots!

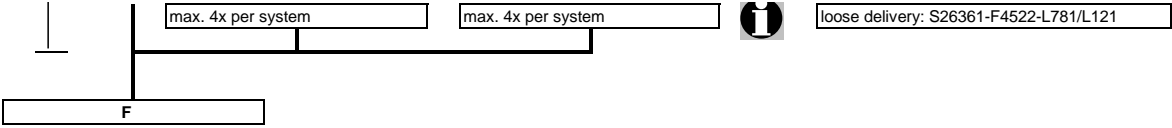
S26361-F4522-E781
PCIe-SSD 785GB MLC
ioDrive2 785GB
PCIe 2.0
25nm Lithography
PCIe x4, Low Profile

S26361-F4522-E121
PCIe-SSD 1.2TB MLC
ioDrive2 1.2TB
PCIe 2.0
25nm Lithography
PCIe x4, Low Profile



Must not populated on PCIe Slot 5 and 10!

max. 4x

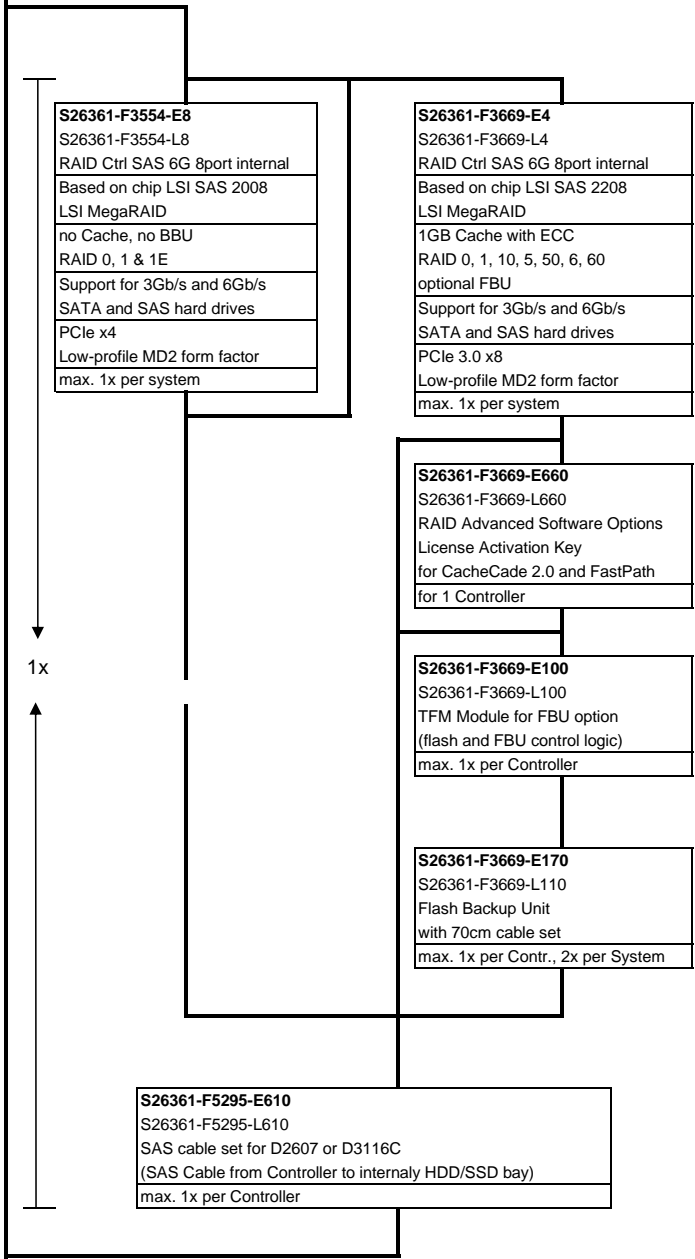


F

Section VI internal SAS V2 (6Gbit) RAID 0/1 and RAID5 Controller for HDD's/SSD's



RAID Controller must be ordered, if at least one internal HDD is configured and maximal one RAID controller for internal SAS/SATA devices are possible!



1x

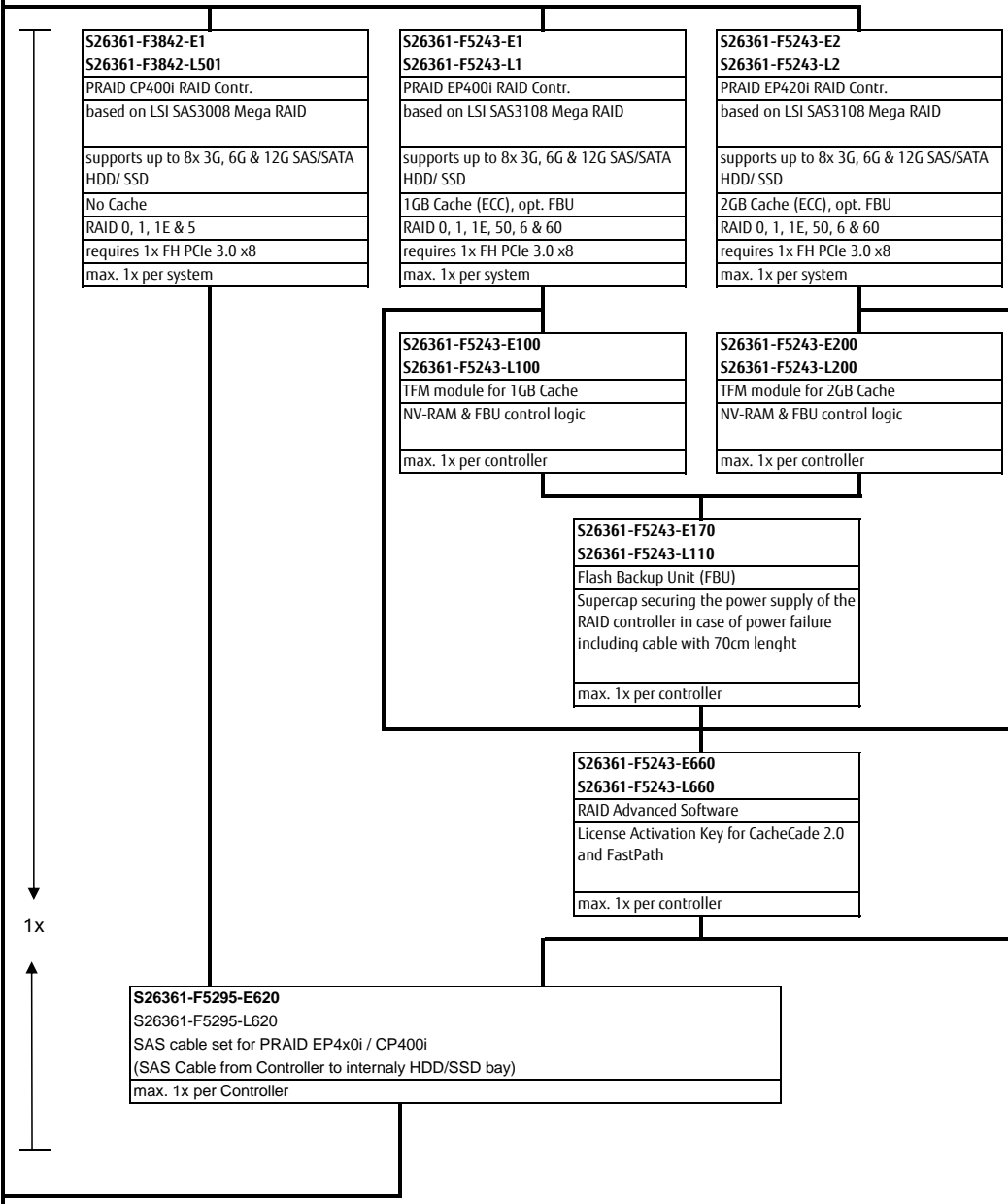
G

G

Section VI internal SAS V3 (12Gbit) RAID 0/1 and RAID5 Controller for HDD 's/SSD's



RAID Controller must be ordered, if at least one internal HDD is configured and maximal one RAID controller for internal SAS/ SATA devices are possible!



H

H

Section VI.I PCIe - PCIe Switch Controller Card and internal PCIe SSD devices

max. 1x

S26361-F5267-E1
 S26361-F5267-L501
 PCIe to PCIeSwitch Card internal
 PCIe V3.0
 Occupies PCIe Card slot!
 Mandatory for use PCIe SSF
 SSD 2.5" devices
 max. 1x per system, PCIe slot #4 only



Restrictions for PCIe Slot #5, #6, #7, #8, #9 and #10
 If PCIe switch Card is used on PCIe Slot #4, following PCIe Cards can NOT used on PCIe slot #5 up to #10:

S26361-F4522-E781	PCIe-SSD 785GB MLC
S26361-F4522-E121	PCIe-SSD 1.2TB MLC
S26361-F3628-E1	SAS Controller 6Gb/s 8 port
S26361-F3713-E3	RAID Ctrl SAS 6G 8port external
S26361-F3847-E2	RAID Ctrl SAS 12G 8port external
S26361-F5313-E1	16GBit/s FC Controller
S26361-F5313-E2	16GBit/s FC Controller
S26361-F3631-E1	8GBit/s FC Controller
S26361-F3631-E2	8GBit/s FC Controller
S26361-F3961-E1	8GBit/s FC Controller
S26361-F3961-E2	8GBit/s FC Controller
S26361-F4994-E1	16GBit/s FC Controller
S26361-F4994-E2	16GBit/s FC Controller
S26361-F5250-E1	10GBit/s PCNA Standard
S26361-F5536-E2	10GBit/s NIC

max. 1x

S26361-F5295-E630
 S26361-F5295-L630
 PCIe cable set for PCIe switch to SFF 2.5" SSD backplane
 (PCIe Cable from Controller to internally SFF SSD bay)
 max. 1x per Controller

max. 4x

PCIe SSD 2.5" SFF devices (Occupies PCIe 2.5" SFF slots!)	
Mainstream Endurance	
800 GB PCIe-SSD SFF device (Hot Plug)	S26361-F5534-E800
	S26361-F5534-L800
1.6 TB PCIe-SSD SFF device (Hot Plug)	S26361-F5534-E161
	S26361-F5534-L161
2.0 TB PCIe-SSD SFF device (Hot Plug)	S26361-F5534-E201
	S26361-F5534-L201
max. 4x per system	

I

Section VII external SCSI / SAS controller

B. SAS controller for external backup drives

max. 3x

S26361-F3628-E1
SAS Controller 6Gb/s 8 port
LSI SAS9200-8e
PCIe 2.0 x4,
ext: 8 port
max. 3x per system

Lose delivery

S26361-F3628-L501
SAS Controller 6Gb/s 8 port

i All external SAS controller are restricted for use in PCIe slot #5 up to #10 if PCIe Switch cards used in #4!

i The RAID controller can be used only for the connection of external subsystems (FibreCAT SX40, Eternus JX40) Cables for the connection from the RAID Controllers to the subsystem see configurator FibreCAT SX40 The usage of the internal SAS ports is not supported !

C. SAS RAID controller for JBOD subsystems

max. 2x

S26361-F3713-E3
S26361-F3713-L503
RAID Ctrl SAS 6G 8port external
LSI MegaRAID SAS 9286-8e
1GB Cache with ECC
RAID 0, 1, 5, 6, 10, 50 & 60
without FBU
SAS 6Gb/sec
8 port external
PCIe 3.0 x8, MD2 form factor
full height bracket
max. 2x per system

S26361-F3847-E2
S26361-F3847-L502
RAID Ctrl SAS 12G 8port external
PRAID EP420e
2GB Cache with ECC
RAID 0, 1, 5, 6, 10, 50 & 60
without FBU
SAS 12Gb/sec
8 port external
PCIe 3.0 x8, MD2 form factor
full height bracket
max. 2x per system

Explanation PCI Slot population:
 RX4770M1 can be installed 2pcs of FBUs, FBU1 and FBU2. Normally FBU1 is for Internal RAID and FBU2 is for External RAID.
 FBU cables for External RAID connection can be reached to following slots:
 FBU-A: PCIe Slot 1,2,3,4 or to slot for internal RAID controller
 FBU-B: Slot 4,5,6,7,8,9,10
 Slot 4 is connected with CPU2, to use by External RAID w/ FBU with in 2-CPU-scket configuration. If no internal RAID with FBU, FBU-A can be connected to PCI Slot 1~4.
 Summery:
 Slot 1,2,3 : Support when no FBU for internal RAID controller Slot
 4,5,6,7,8,9,10 : Support

S26361-F3669-E170
S26361-F3669-L110
Flash Backup Unit
with 70cm cable set
max. 1x per Controller

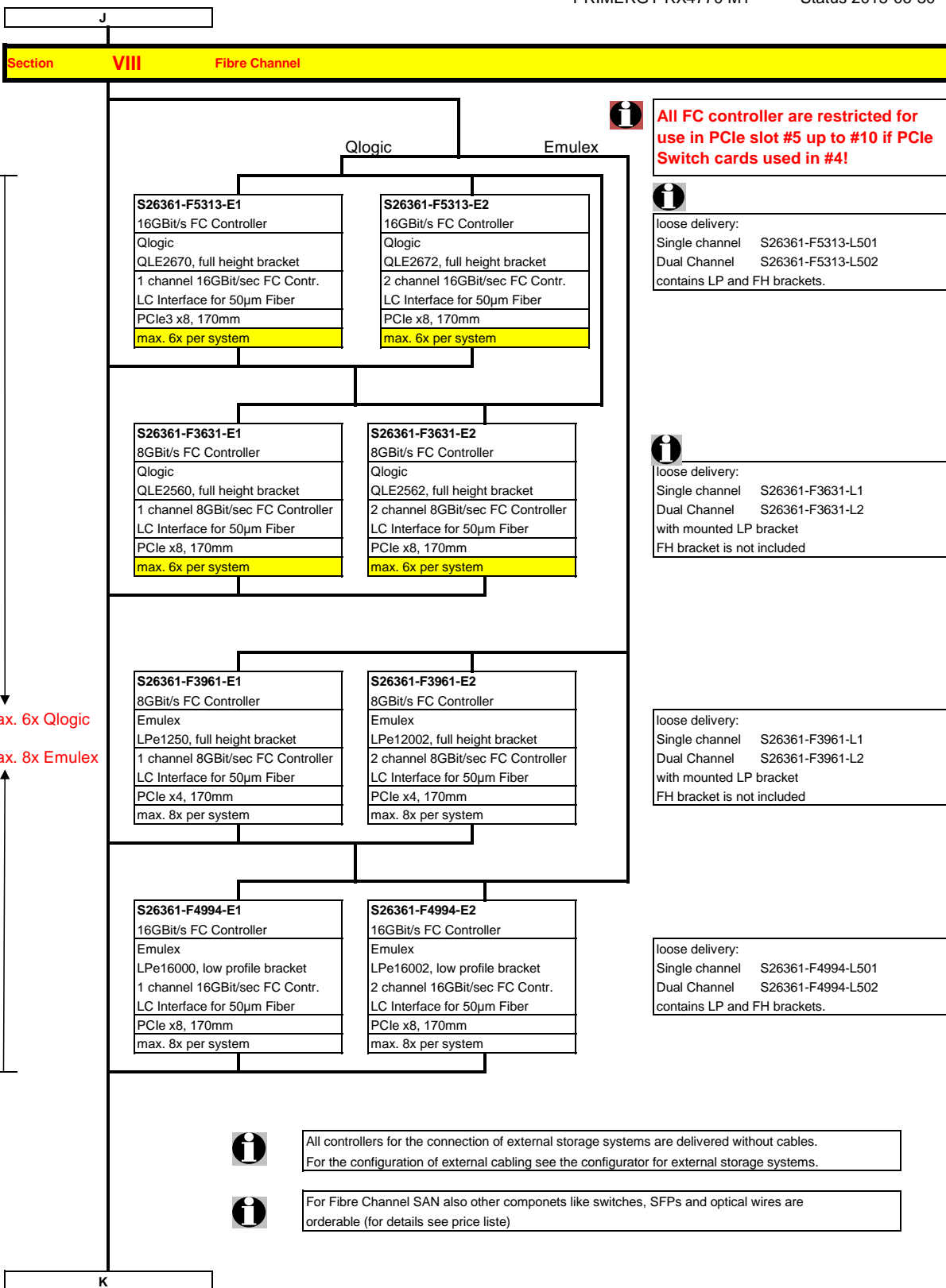
S26361-F5243-E200
S26361-F5243-L200
TFM Module for FBU option
(flash and FBU control logic)
max. 1x per Controller

S26361-F5243-E170
S26361-F5243-L110
EP400 Flash Backup Unit
with 70cm cable set
max. 1x per Controller

S26361-F3669-E661
S26361-F3669-L661
RAID Advanced Software Options
License Activation Key
for CacheCade 2.0 and FastPath
for 1 Controller

S26361-F5243-E660
S26361-F5243-L660
RAID Advanced Software Options
License Activation Key
for CacheCade 2.0 and FastPath
for 1 Controller

J



K

Section IX Communication / Network / CNA / IB

on-board LAN Controller
 2x Dual 10Gbit Ethernet Contr. on-board
 Intel X540 (Intel Twinville)
 ext: 2x RJ45 connector

4x

A) 2-Port Copper PCIe Adapter 1000TX

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

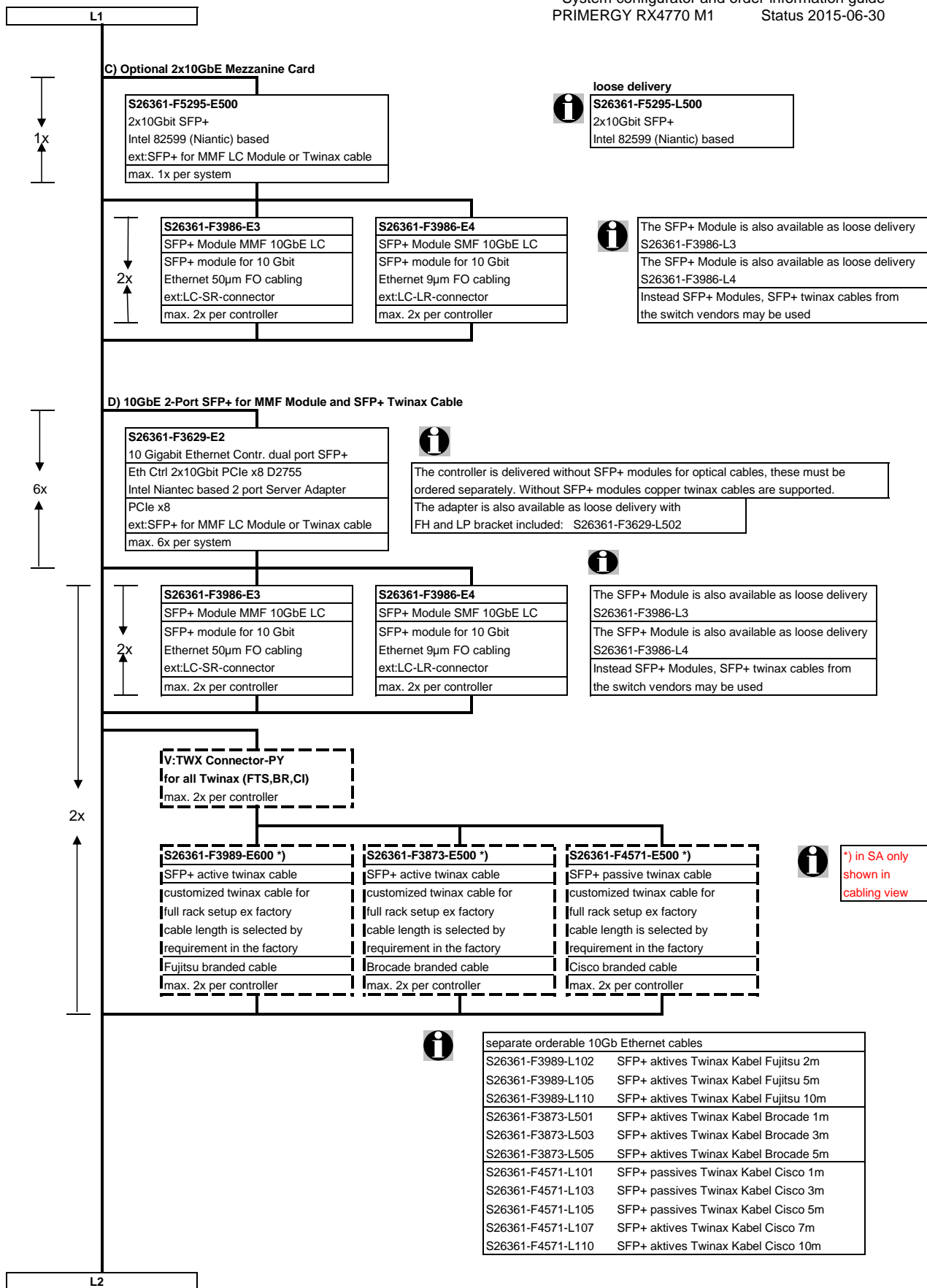
i Loose delivery with FH and LP bracket:
 I350-T2 S26361-F4610-L502
 I350-T4 S26361-F4610-L504

B) 4-Port Copper PCIe Adapter 1000TX

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

i I350-T4 S26361-F4610-E4/L504
 Use excepted for PCIe Slot 8 and 10!

L1



L2

i All CNA controller (FCoE) are restricted for use in PCIe slot #5 up to #10 if PCIe Switch cards used in #4!

E) Fibre Channel over Ethernet

4x

S26361-F5536-E2
10Gbit/s NIC
Emulex
OCe14102 NIC
2 channel 10Gbit/sec NIC
SFP+ Cage
PCIe x8, 170mm
max. 4 per system

i

S26361-F5250-E1
10Gbit/s PCNA Standard
Emulex
OCe14102
2 channel 10Gbit/sec CNA
SFP+ Cage
PCIe x8, 170mm
max. 4x per system

i

Lose delivery
S26361-F5250-L501 PCNA Standard
S26361-F5536-L502 NIC
 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-F5250-E110
SFP+ Module MMF 10GbE LC
SFP+ module for 10 Gbit Ethernet FO cabling ext.LC-connector
max. 2x per controller

i

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.

i

The SFP+ Module is also available as loose delivery
S26361-F5250-L110
 Instead SFP+ Modules, SFP+ twinax cables from the switch vendors may be used

V:TWX Connector-PY
 for all Twinax (FTS,BR,CI)
 max. 2x per controller

2x

S26361-F3989-E600 *)
SFP+ active twinax cable
customized twinax cable for full rack setup ex factory
cable length is selected by requirement in the factory
Fujitsu branded cable
max. 2x per controller

S26361-F3873-E500 *)
SFP+ active twinax cable
customized twinax cable for full rack setup ex factory
cable length is selected by requirement in the factory
Brocade branded cable
max. 2x per controller

S26361-F4571-E500 *)
SFP+ passive twinax cable
customized twinax cable for full rack setup ex factory
cable length is selected by requirement in the factory
Cisco branded cable
max. 2x per controller

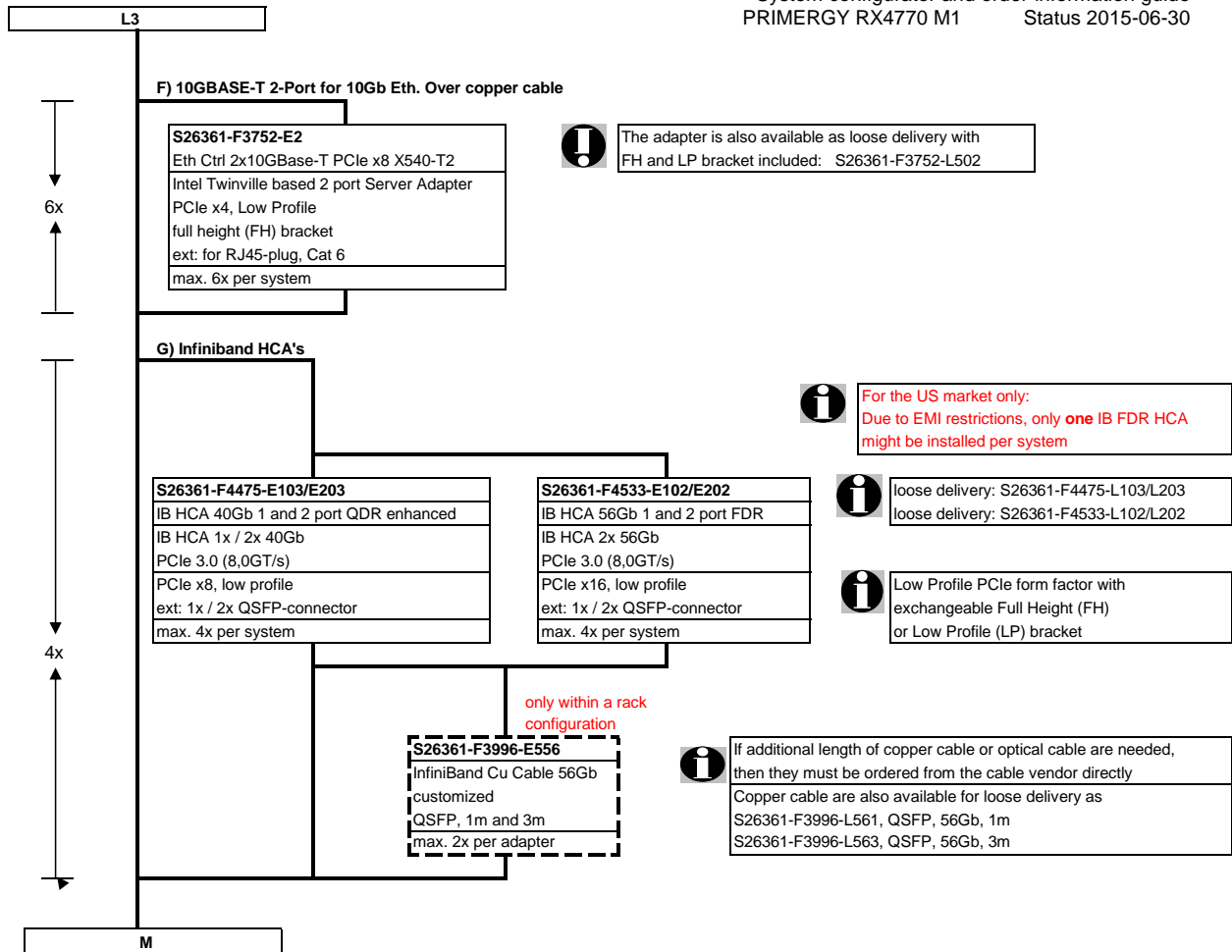
i

***) in SA only shown in cabling view**

i

separate orderable 10Gb Ethernet cables	
S26361-F3989-L102	SFP+ aktives Twinax Kabel Fujitsu 2m
S26361-F3989-L105	SFP+ aktives Twinax Kabel Fujitsu 5m
S26361-F3989-L110	SFP+ aktives Twinax Kabel Fujitsu 10m
S26361-F3873-L501	SFP+ aktives Twinax Kabel Brocade 1m
S26361-F3873-L503	SFP+ aktives Twinax Kabel Brocade 3m
S26361-F3873-L505	SFP+ aktives Twinax Kabel Brocade 5m
S26361-F4571-L101	SFP+ passives Twinax Kabel Cisco 1m
S26361-F4571-L103	SFP+ passives Twinax Kabel Cisco 3m
S26361-F4571-L105	SFP+ passives Twinax Kabel Cisco 5m
S26361-F4571-L107	SFP+ aktives Twinax Kabel Cisco 7m
S26361-F4571-L110	SFP+ aktives Twinax Kabel Cisco 10m

L3



M

Section X System Management Products (RemoteView) iRMC S2 advanced pack / TPM

S26361-F1790-E243
S26361-F1790-L244
iRMC S4 advanced pack
integrated remote management controller activation key for graphical console redirection and remote media redirection max. 1x per system

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

i Executing system updates, controlling the hardware setup or running diagnostic tests on components are frequent tasks of IT administrators to ensure a continuous 24x7 server operation. ServerView embedded Lifecycle Management (eLCM) for Fujitsu PRIMERGY servers greatly supports such routine tasks by consolidating and enhancing management functions directly available ("embedded") within the server.

S26361-F1790-E310
embedded Lifecycle Management (eLCM)
Server Online Update OS driver Update Hardware firmware update
Server Offline Update Hardware update via Update Manager Express
PrimeCollect Autonomous creation of Primecollect archives Creation and use of PrimeCollect archives over AIS connect
Custom Image (Jukebox function) Automatic and manual download of CD and DVD Images Automatic and manual start of CD and DVD Images
max. 1x per system

i Loose delivery
eLCM Activation Pack (Node Locked License)
BDL:ELCM-PACK
options contains:
- 16GB SD card
- Paper with TAN for Licensekey

S26361-F3552-E5
TPM Module Trusted Platform Module on Motherboard Use according to import restrictions max. 1x per system

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

S26361-F3552-L5
TPM Module add-on kit for later integration (loose delivery) Trusted Platform Module on Motherboard Use according to import restrictions max. 1x per system

Section XI Optional PSU / Power cords / Region kit

i Base Unit will be shipped without Power supply Modules, as minimum Configuration 2x PSU must be configured to enable PSU redundancy.

max.
4 x

S26113-F5295-E120 Power Supply Module 1200W w/o power cord ICE320 C14->C13 max. 4x per system Allowed populations, driven by in SysArc calculated power requirement. 2+1 or 3+1 or 2+2	S26113-F5295-E160 Power Supply Module 1600W w/o power cord ICE320 C14->C13 max. 4x per system Allowed populations, driven by in SysArc calculated power requirement. 1+1 or 2+1 or 3+1 or 2+2
--	---

i **Be aware that in worst case 1200W PSU population do not solve all configuration possibilities!**
 Mix of PSU Versions are not allowed!

max.
4 x

Power cord options (1x per PSU)

T26139-Y1968-E100	Powercord for rack, 4m, grey, IEC 320 C14->C13 connector
T26139-Y1742-E10	USA, Canada, 1.8m, grey
T26139-Y3850-E10	Option "no powercord", for Countries without specific cable orderable like e.g. China

i **Power cord has to be ordered separately**

S26361-F1452-E100
REGION KIT APAC/America/EMEA/India
For Shipments to Asia pacific, America, EMEA or India regions
1x per system

S26361-F1452-E110
REGION KIT JP
For Shipments to Japan regions
1x per system

N

N

Section XII 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-E101
Cool-safe® Advanced Thermal Design
 Restricts configuration to make
 5-40° possible
 Feature is enabled and fixed ex factory
 max. 1x per system

Cool-safe ATD configuration restrictions for RX4770 M1: related L-numbers as well restricted



PSU/Memory/HDD/SSD/PCIe Controller

Actually no restrictions!

Restrictions by CPU in Cool-Safe Mode

S26361-F5308-E470	Xeon E7-4870v2 15C/30T 2.30GHz 30MB 8.00GT/s 130W
S26361-F5308-E480	Xeon E7-4880v2 15C/30T 2.50GHz 37.5MB 8.00GT/s 130W
S26361-F5308-E857	Xeon E7-8857v2 12C/12T 3.00GHz 30MB 8.00GT/s 130W
By this CPU Throttling is generated at over 35°C.	
By other CPU Throttling can generated too in extremely situations.	

Restrictions by PCIe-SSD 2.5" (SFF) in Cool-Safe Mode

PCIe-SSD 2.5" (SFF) Throttling can generated in extremely situations.

End PRIMERGY RX4770 M1

Change Report

Date	Order number	Changes
2014-08-26	S26361-F5543-E118	Added 2.5" HDD SAS 12G 10Krpm 512e 1.8TB
2014-08-26	S26361-F5531-E5*	Added 2.5" HDD SAS 12G 15Krpm 300GB, 450GB, 600GB
2014-07-30	S26361-F2735-E82	defined as „can“-position to RMK
2014-07-08	S26361-F5308-E409	Updated CPU spec for E7-4809 v2
2014-06-24	S26361-F5308-E420	Xeon E7-4820v2 no longer special release
2014-05-20	S26361-F5308-E409	Added another 6 Core CPU on special release (Xeon E7-4809v2)
2014-04-03		Corrected Basic Unit order number S26361-F4530-E10 and S26361-F4530-E13
2014-03-31		First Version