

# PRIMERGY CX400 M1

## *System configurator and order-information guide*

April 2017

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#### Change report

### PRIMERGY Server

24x 2.5" Hot-plug HDD or SSD (K1530-V100)



12x 2.5" Hot-plug HDD or SSD (K1530-V200)



8x 2.5" Hot-plug HDD or SSD (K1530-V300)



# Instructions

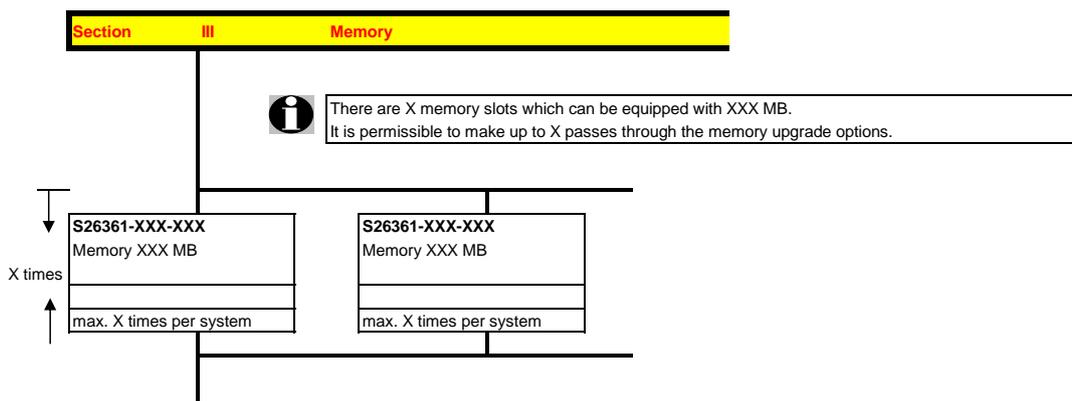
This document contains basic product and configuration information that will enable you to configure your system via PC-/SystemArchitect.

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

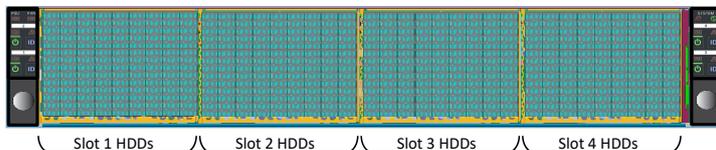
Prices and availability see price list and PC-/SystemArchitect.  
 Subject to change and errors excepted.

## Configuration diagram PRIMERGY CX400 M1

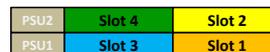
### System unit (I)

with up to 24x 2.5" HDD/SSD for CX2550 M1 and up to 12x 2.5" HDD/SSD for CX2570 M1  
 Below drawing shows slot numbering. For HDD installation order, please refer operating manual.

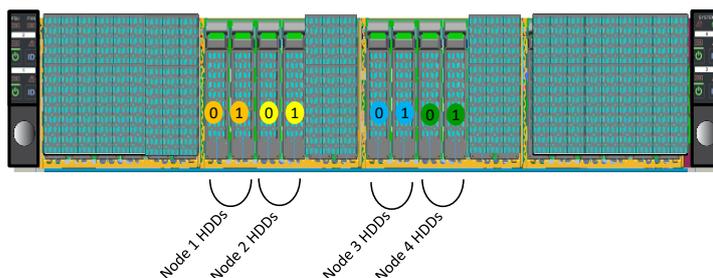
#### CX400 M1 for CX2550 (S26361-K1530-V100)



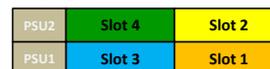
rear view



#### CX400 M1 for CX2550 variant 8x 2,5 HDD (S26361-K1530-V300)

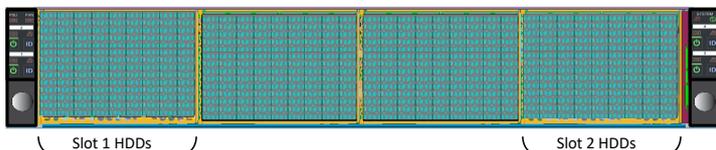


Rear view

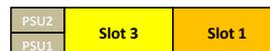


#### CX400 M1 for CX2570 (S26361-K1530-V200)

**i** Liquid Cooling is not possible



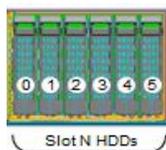
rear view



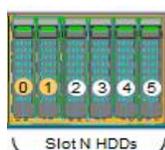
#### HDD cage including BP/Linking board options (can be selected under node of CX25y0 M1)

- Type A: 6x 2.5" SAS Backplane (SAS / SATA only) (S26361-F5519-E10)
- Type B: 6x PCIe Backplane (2x for SAS / SATA / PCIe SFF SSD + 4x for SAS / SATA only) (S26361-F5519-E20)
- Dummy HDD cage: This is for customer who does not use front HDDs/SSDs (e.g. SATADOM or UFM only used) (S26361-F5519-E50)

Type A



Type B



**i** CX25y0 can select Type A or B or Dummy HDD cage

**i** No loose delivery available for HDD cage options  
 Only special release



SAS / SATA / PCIe SFF SSD combi  
 SAS / SATA only

#### PSU (S26113-F617-E50/L50)

1x 1,600W PSU (Platinum efficiency)  
 100-240V wide range

#### PSU (S26113-F620-E30/L30)

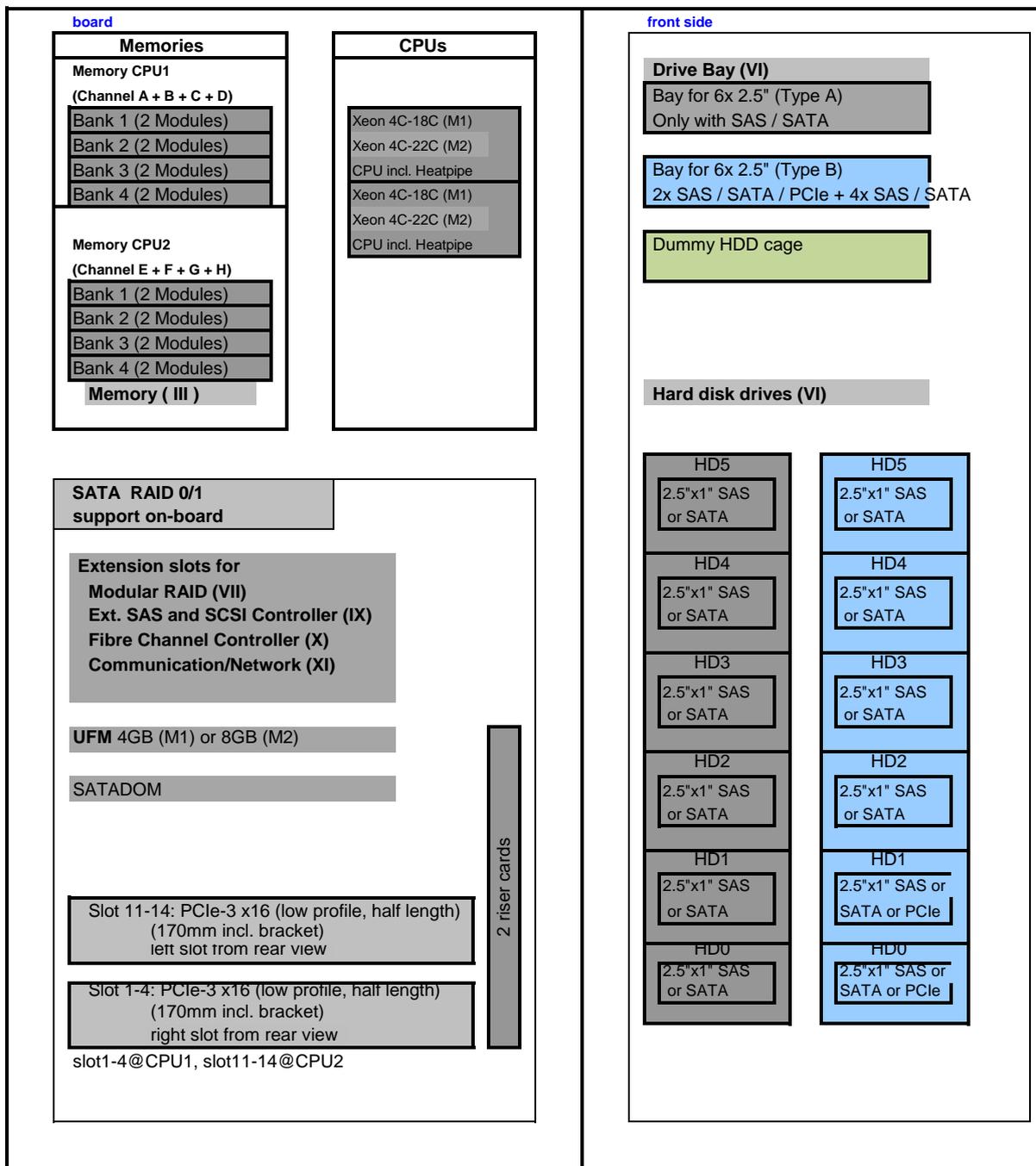
1x 2,400W PSU (Platinum efficiency)  
 100-240V wide range

**i** In case of single PSU, throttling might be occurred.  
 It depends on Consumed power.

**i** 100V environment requires below HW config limitation  
 CPU: Only LV CPU (E5-2650L/2630L v3)  
 Please see sheet of "CX400 M1 Base Unit"  
 Mem: Only R-DIMM, not LR-DIMM

## Configuration diagram CX400 M1 for PRIMERGY CX2550 M2 24x 2.5" HDD (S26361-K1530-V100)

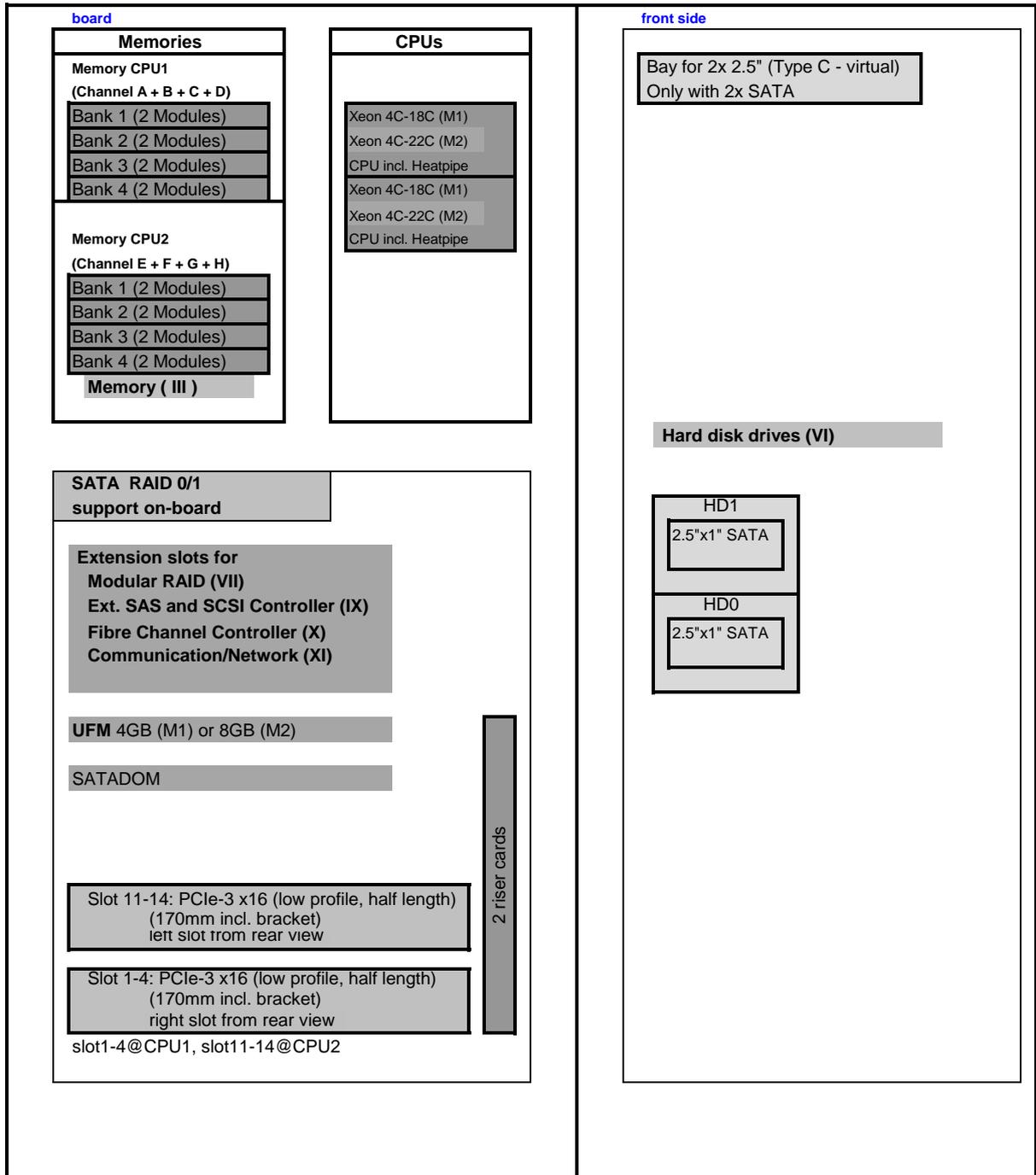
System unit (I)



Key:  Included in basic unit     or     or     =Option

## Configuration diagram CX400 M1 for PRIMERGY CX2550 M2 8x 2.5" HDD (S26361-K1530-V300)

System unit (I)

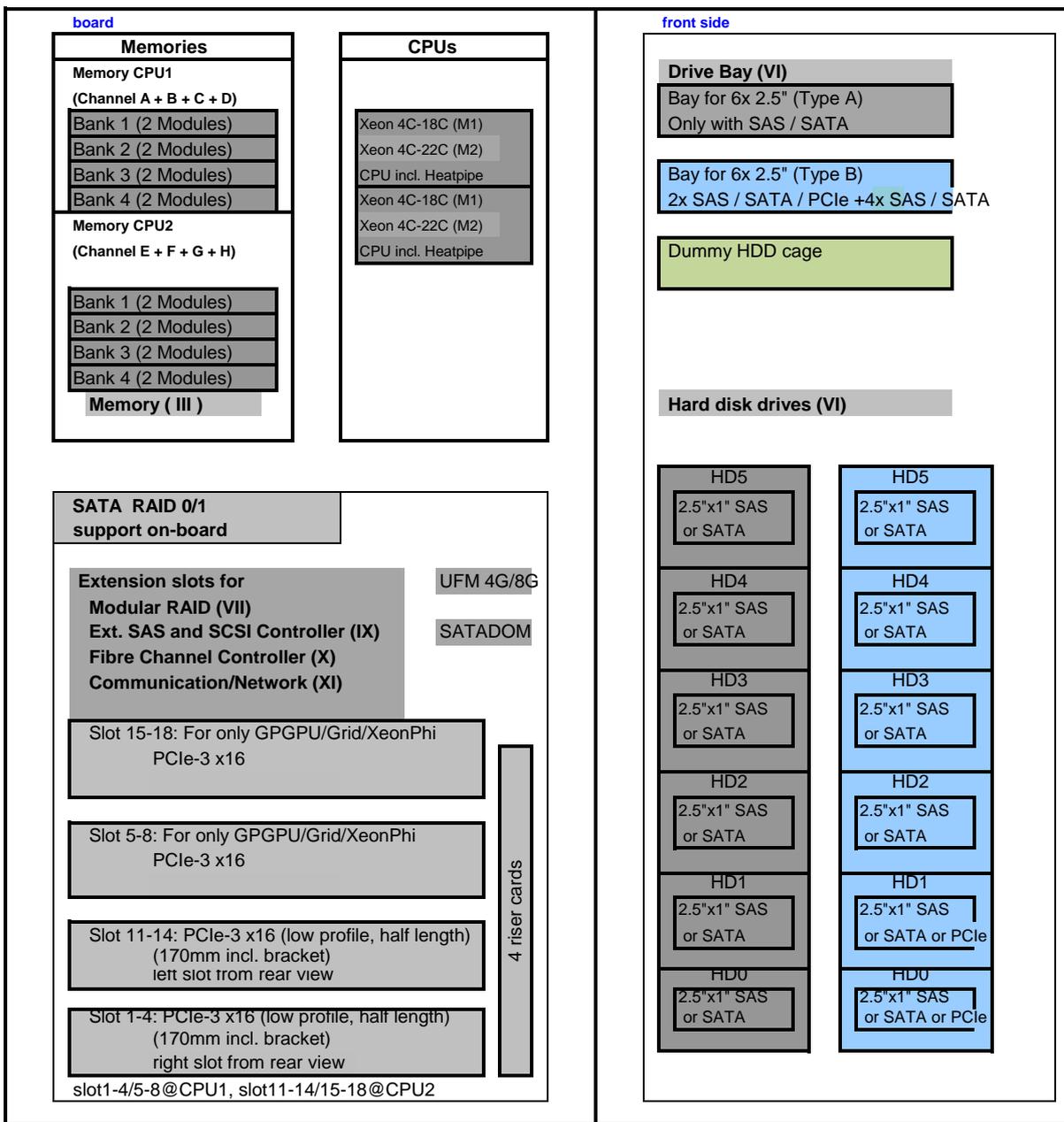


Key:  Included in basic unit  or  or  =Option

## Configuration diagram CX400 M1 for PRIMERGY CX2570 M2 12x 2.5" HDD (S26361-K1530-V200)

System unit (I)

 Liquid Cooling is not possible



Key:  Included in basic unit     or     or     =Option

Start PRIMERGY CX400 M1

Section | CX400 M1 Basic unit



**System unit consisting of:**

- \* **2U Housing without power supply modules/HDD cage/HDD BP/Linking board**  
(PSU has to be configured min 2x for 1,600W PSU, min 1x for 2,400W PSU)
- \* **Fans**
  - Redundant and non hot plug system 4x double-fans (n+1 redundancy)
- \* **RMK**
  - Sliding rail
- \* **Drives / Bays (option for node)**
  - 6x 2.5" HDD cage per node or 6x 2.5" HDD/PCIe SSD cage per node option or dummy HDD cage per node option
    - \*HDD cage option includes HDD BP and Linking board
  - 2x 2.5" SATA HDD/SSD cage per node
  - 2x dummy cage for CX2570 M1/M2 variant base unit only
  - 4x dummy cage for CX25y0 M1/M2
- \* **Nodes (option)**
  - up to 4x CX2550 M1 or M2
  - up to 2x CX2570 M1 or M2

B

<b>B</b>
<b>Rack version for 19" racks with No PSU included in Base Unit</b>
Basic unit CX400 M1 for <b>CX2550 M2 variant 24x 2,5 HDD</b> <b>S26361-K1530-V100</b>
Basic unit CX400 M1 for <b>CX2570 M2 variant</b> <b>S26361-K1530-V200</b>
Basic unit CX400 M1 for <b>CX2550 M2 variant 8x 2,5 HDD</b> <b>S26361-K1530-V300</b>



For AC 100V environment using CX2550M1/M2, restrictions based on the quantity of memory and HDD applied as follow :

CPU (TDP)	Memory (RDIMM) / Internal HDD quantity				
	Memory quantity	8	8	16	16
	HDD quantity	2	6	2	6
>= 135 W		-	NA	-	NA
120 W		X	-	-	-
105 W, 90 W, 85 W		X	X	X	-
65 W, 55 W		X	X	X	X

Remark : LRDIMM is not supported under AC 100V environment

Liquid cooling is not possible

<b>S26113-F617-E50</b>
1,600W PSU module platinum redundancy
94% efficiency (platinum)
uses hot plug PSU slot
min. 2 / max. 2x per system

<b>S26113-F620-E30</b>
2,400W PSU module platinum redundancy
94% efficiency (platinum)
uses hot plug PSU slot
min. 1 / max. 2x per system



In case of 1x 2,400W Config 2x below accelerator card can't be possible on CX2570 M1/M2  
 Tesla K80  
 XeonPhi 3120P / 7120P



Full redundancy cannot be guaranteed for high duty config. In this case SysArch will generate a warning and PowerSafeguard will throttle CPUs and memory in case of a PSU failure. So, power consumption will be limited to 1,600W.



You must purchase "Dummy PSU", if you purchased only one PSU.

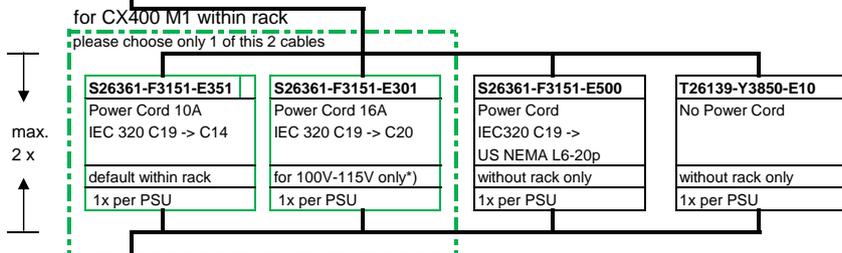
<b>S26361-F5564-E10</b>
Dummy PSU
min 1x / max 1x



2,400W (S26113-F620-E30) must use Power Cord 16A (S26361-F3151-E301)



	1600W PSU	2400W PSU
S26361-F3151-E351	200-240V only	Not supported
S26361-F3151-E301	100-120V / 200-240V	100-120V / 200-240V



\*) in System architect please change the default 16A connection to a 10A connection for all PSU

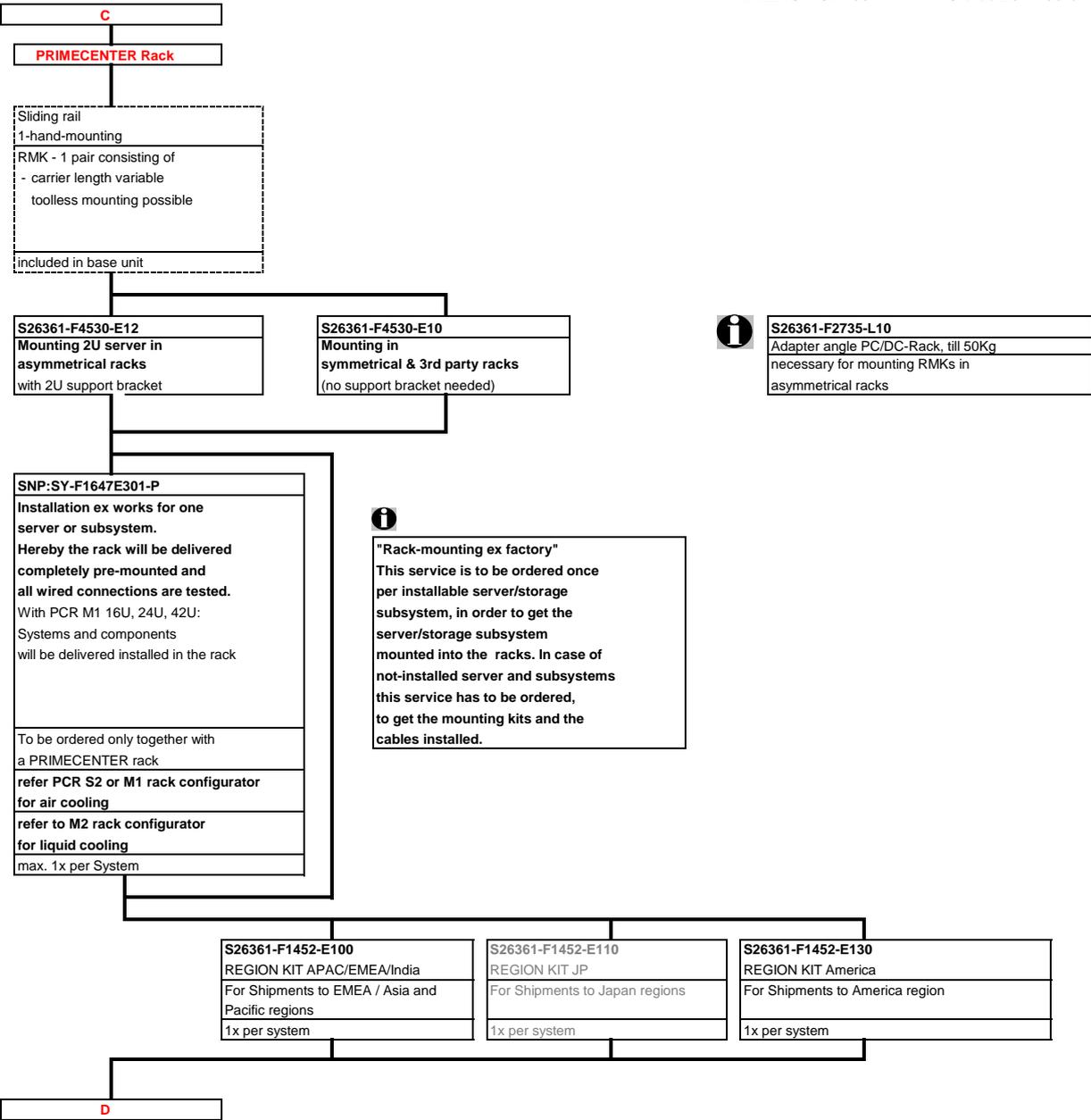


Please order appropriate power cord additionally:  
 Power code IEC320 C19 -> C14 (200-240V only)  
 Power code IEC320 C19 -> C20  
 Power code IEC320 C19 -> US NEMA L6-20p

**S26361-F3151-L350**  
**S26361-F3151-L300**  
**S26361-F3151-L500**

<b>S26361-F5558-E50</b>
Liquid cooling tube set
for Liquid cooling
1x per CX400

**C**



Start PRIMERGY CX25y0 M2

Section II CX25y0 M2 Basic unit



**CX2550 M2 System unit consisting of:**

**\* 1U Half wide server node**

- 1U Half wide tray
- Motherboard
- 2x PCIe Gen3 x16 riser card for low profile slot  
(Liquid Cooling can only support 1x PCIe Gen3)
- 1x UFM 8GB placement possible
- 1x SATADOM possible
- 1x corresponding cooling part (Air Cooling = Heatsinks / Liquid Cooling = LC Kit) already included

**CX2570 M2 System unit consisting of:**

**\* 2U Half wide server node**

- 2U Half wide tray
- Motherboard
- 2x PCIe Gen3 x16 riser card for low profile slot
- 2x PCIe Gen3 x16 riser card for GPGPU/Grid/XeonPhi
- 1x UFM 8GB placement possible
- 1x SATADOM possible

**Systemboard D3343-B (same for CX2550 M2 and CX2570 M2) with:**

**\* Two Xeon E5-2600 v4 4C, 6C, 8C, 10C, 12C, 14C, 16C, 18C, 20C & 22C CPU's (Socket-R3) with 2 serial QPI links ( Quick Path Interconnect ) and four memory channels per CPU**

**Two CPU has to be selected for an orderable basic unit,**

**\* Chipset Intel® C610 (codenamed Wellsburg)**

**\* 4 PCIe slots**

- 2x PCIe-3 x16 (Low Profile cards)
- 2x PCIe-3 x16 (GPGPU/Grid/XeonPhi)

**\* 16 memory slots for max. 2,048GB RAM DDR4 available**

**- Memory is divided into 8 DIMMs per CPU ( 4 channels with 2 slots per channel )**

**Possible max. configurations are:**

**16x 128GB LRDIMM (8 rank modules) = 2,048GB**

**16x 32GB RDIMM (dual rank modules) = 512GB**

**First Memory ( one module ) has to be selected for an orderable basic unit per CPU**

**- Memory upgrade is possible module wise**

**- SDDC (Chipkill) is supported for memory modules,**

**\* Dual Port 10/100/1000 x4 PCI Express\* Gigabit Ethernet Intel LAN controller Powerville on-board**

**\* iRMC S4 (integrated Remote Management Controller) on-board server management controller with dedicated 10/100/1000 Service LAN-port and integrated graphics controller.**

**The Service LAN-port can be switched alternatively on standard Gbit LAN port 1**

**\* Graphics Controller integrated in iRMC S4 (integrated Remote Management Controller):**

**1600x1200x16bpp 60Hz, 1280x1024x16bpp 60Hz, 1024x768x32bpp 75Hz, 800x600x32bpp 85Hz,**

**640x480x32bpp 85Hz**

**(1280x1024x24bpp 60Hz only possible if local monitor or remote video redirection is off)**

A

A

**Interfaces at the rear:**

- \* 1x VGA (15 pins)
- \* 2x USB 3.0 (UHCI), no USB wakeup
- \* 2x LAN RJ45, 1x Service-LAN RJ45

**Interfaces internal:**

- \* MiniSAS HD connector for 6 HDD & SSD
- \* 2x USB ports for internal USB redirection connected to BMC
- \* 1 port of USB 2.0 internally used for UFM

**Software:**

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



**Note: Power Cord is not included in the basic unit and has to be configured separately**

B

**B**

<b>Server node for CX400 M1 2U Chassis</b>	
PSU is not part of CX400 M1 Base unit	
Basic unit is without CPU and Memory For an orderable basic unit two CPU and eight memory = 1 per channel has to be selected	
CX2550 M2 Basic unit	
<b>PRIMERGY CX2550 M2 Air Cooling</b>	<b>S26361-K1568-V200</b>
CX2570 M2 Basic unit	
<b>PRIMERGY CX2570 M2 Air Cooling</b>	<b>S26361-K1569-V200</b>
CX2550 M2 Basic unit	
<b>PRIMERGY CX2550 M2 Liquid Cooling</b>	<b>S26361-K1568-V210</b>

**i** Mixed node configuration of CX2550 & CX2570 is NOT allowed

**i** Different HW configuration for each node in chassis can be possible.  
 But ≥135W and ≤120W CPU can't be mixed \*)  
 \*) Note: cannot be checked by system architect !

**i** **Mix of Air Cooling & Liquid Cooling SKUs is NOT possible**

**i** **CX2550 M2 liquid cooling / CX2570 M2 requires two CPU support only one PCIe Gen3 slot**

<b>S26361-K1568-V200</b>
PRIMERGY CX2550 M2 Air Cooling
1U half wide w/o GPGPU support
INTEL Processor based dual socket Server Blade.
CPU Heatsinks already included
max. 4x per system unit

<b>S26361-K1569-V200</b>
PRIMERGY CX2570 M2 Air Cooling
2U half wide w/ GPGPU support
INTEL Processor based dual socket Server Blade.
CPU Heatsinks already included
max. 2x per system unit

<b>S26361-K1568-V210</b>
PRIMERGY CX2550 M2 Liquid Co.
1U half wide w/o GPGPU support
INTEL Processor based dual socket Server Blade.
Liquid Cooling set already included
max. 4x per system unit

Liquid cooling based Node

**mandatory if chassis is not full equipped by nodes (only within special release)**

<b>S26361-F5518-E100</b>
Dummy node for CX400M1 chassis CX2550M1/M2
1U half wide dummy
needed to be ordered 1x for each left open server slot
max. 3x per S26361-K1530-V100

<b>S26361-F5518-E200</b>
Dummy node for CX400M1 chassis CX2570M1/M2
1U half wide dummy
Including Dummy nodes x2 which is for open server slots
max. 1x per S26361-K1530-V200

<b>S26361-F5518-E300</b>
Dummy node for CX400 M1 chassis 8x 2.5HDD
1U half wide dummy
needed to be ordered 1x for each left open server slot
max. 3x per S26361-K1530-V300

<b>S26361-F4575-E11</b>
Service for CX-Server nodes installation in the CX400 24x 2.5"
HDD cage standard
max. 4x per system unit

<b>S26361-F4575-E21</b>
CX-Server nodes individually packed/delivered for CX400 24x 2.5"
HDD cage standard
max. 1x per CX-Server node

<b>S26361-F4575-E31</b>
Service for CX-Server nodes installation in the CX400 8x 2.5"
HDD cage standard
max. 4x per system unit

<b>S26361-F4575-E41</b>
CX-Server nodes individually packed/delivered for CX400 8x 2.5"
HDD cage standard
max. 1x per CX-Server node

**C**

C

**Section Processor**



There are 2 processor sockets available.  
The first socket must always be equipped with the first CPU which can be selected via configurator  
**Two processors with different clock frequencies are not possible**  
**Liquid Cooling variant (S26361-K1568-V210) must select 2 processors. Single processor is not possible.**  
**CX2570 M2 air cooling variant (S26361-K1569-V200) must select 2 processors. Single processor is not possible**



Single CPU configuration is supported

<b>Max. two CPU's can be selected per basic unit</b>	
One of following CPU's can be selected once (only as first CPU) for an orderable basic unit	
Optional second CPU has to be the same type like the first CPU	
<b>Xeon E5-2600v4 (R) Basic</b>	
- 1x 64-bit Intel Xeon (15MB Smart Cache) 1866 MHz DDR4 Bus; 6.4 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2603v4 6C/6T 1.70GHz 15MB 6.4GT/s 1866MHz 85W	S26361-F3933-E103
Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W	S26361-F3933-E109
<b>Xeon E5-2600v4 (R) Standard</b>	
- 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 8.0 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W	S26361-F3933-E120
Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W	S26361-F3933-E130
Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W	S26361-F3933-E140
<b>Xeon E5-2600v4 (R) Advanced</b>	
- 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W	S26361-F3933-E150
Xeon E5-2660v4 14C/28T 2.00GHz 35MB 9.6GT/s 2400MHz 105W	S26361-F3933-E160
Xeon E5-2680v4 14C/28T 2.40GHz 35MB 9.6GT/s 2400MHz 120W	S26361-F3933-E180
Xeon E5-2690v4 14C/28T 2.60GHz 35MB 9.6GT/s 2400MHz 135W	S26361-F3933-E190
<b>Xeon E5-2600v4 (R) Frequency Optimized</b>	
- 1x 64-bit Intel Xeon (10-30MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 8.0 & 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 85W	S26361-F3933-E123
Xeon E5-2637v4 4C/8T 3.50GHz 15MB 9.6GT/s 2400MHz 135W	S26361-F3933-E137
Xeon E5-2643v4 6C/12T 3.40GHz 20MB 9.6GT/s 2400MHz 135W	S26361-F3933-E143
Xeon E5-2667v4 8C/16T 3.20GHz 25MB 9.6GT/s 2400MHz 135W	S26361-F3933-E167
Xeon E5-2687Wv4 12C/24T 3.00GHz 30MB 9.6GT/s 2400MHz 160W	S26361-F3933-E187
Xeon E5-2687Wv4 12C/24T 3.00GHz 30MB 9.6GT/s 2400MHz 160W	S26361-F3933-E188
Xeon E5-2689v4 10C/20T 3.10GHz 25MB 9.6GT/s 2400MHz 165W	S26361-F3933-E189
<b>Xeon E5-2600v4 (R) High Core Count</b>	
- 1x 64-bit Intel Xeon (35-40MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2683v4 16C/32T 2.10GHz 40MB 9.6GT/s 2400MHz 120W	S26361-F3933-E183
Xeon E5-2695v4 18C/36T 2.10GHz 45MB 9.6GT/s 2400MHz 120W	S26361-F3933-E195
Xeon E5-2697v4 18C/36T 2.30GHz 45MB 9.6GT/s 2400MHz 145W	S26361-F3933-E197
Xeon E5-2697Av4 16C/32T 2.60GHz 40MB 9.6GT/s 2400MHz 145W	S26361-F3933-E191
Xeon E5-2698v4 20C/40T 2.20GHz 50MB 9.6GT/s 2400MHz 135W	S26361-F3933-E198
Xeon E5-2699v4 22C/44T 2.20GHz 55MB 9.6GT/s 2400MHz 145W	S26361-F3933-E199
Xeon E5-2699Av4 22C/44T 2.40GHz 55MB 9.6GT/s 2400MHz 145W	S26361-F3933-E192
<b>Xeon E5-2600v4 (R) Low Power</b>	
- 1x 64-bit Intel Xeon (20/30MB Smart Cache); Hyper-Threading (HT); 2133/2400 MHz DDR4 Bus; 8.0/9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2630Lv4 10C/20T 1.80GHz 25MB 8.0GT/s 2133MHz 55W	S26361-F3933-E131
Xeon E5-2650Lv4 14C/28T 1.70GHz 35MB 9.6GT/s 2400MHz 65W	S26361-F3933-E151

Max. DDR4 Bus Speed depends on:  
- max. DDR4 Bus Speed from the CPU and  
- max. DDR4 Memory Speed and  
- max. memory modules on one memory channel



Advanced Thermal Design  
refer to ATD with S26361-F3776-E240

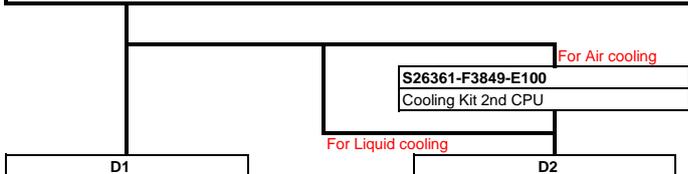
CPU type	Ambient temp	front HDD	PCIe slots	
			Air cooled	Liquid cooled
<b>w/o ATD option</b>				
<= 145W	35°C	6	2	1
160W	30°C	0	2	1
<b>w/ ATD option</b>				
135/145/160W (Liquid cooling only)	40°C	6	-	1
<=120W	40°C	6	2	1

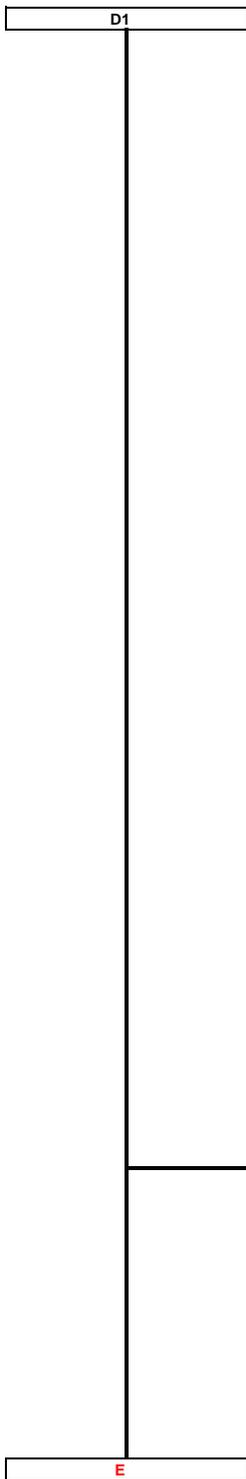


For air cooled solution on Special Release only  
For liquid cooled solution only  
For liquid cooled solution on Special Release only

Restrictions if special release request is required:  
- Up to 30 deg-C ambient temperature is allowed  
- Integration of HDD/SSD is not possible (only SATADOM)

planned to release on Nov, 2016





D2

<b>One of following CPU's has to be selected as second CPU</b>	
<b>Optional second CPU has to be the same type like the first CPU</b>	
<b>Xeon E5-2600v4 (R) Basic</b>	
- 1x 64-bit Intel Xeon (15MB Smart Cache) 1866 MHz DDR4 Bus; 6.4 GT/s QPI Bus occupies socket for one CPU	
<b>Xeon E5-2603v4 6C/6T 1.70GHz 15MB 6.4GT/s 1866MHz 85W</b>	<b>S26361-F3933-E103</b>
<b>Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W</b>	<b>S26361-F3933-E109</b>
<b>Xeon E5-2600v4 (R) Standard</b>	
- 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 8.0 GT/s QPI Bus occupies socket for one CPU	
<b>Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W</b>	<b>S26361-F3933-E120</b>
<b>Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W</b>	<b>S26361-F3933-E130</b>
<b>Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W</b>	<b>S26361-F3933-E140</b>
<b>Xeon E5-2600v4 (R) Advanced</b>	
- 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
<b>Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W</b>	<b>S26361-F3933-E150</b>
<b>Xeon E5-2660v4 14C/28T 2.00GHz 35MB 9.6GT/s 2400MHz 105W</b>	<b>S26361-F3933-E160</b>
<b>Xeon E5-2680v4 14C/28T 2.40GHz 35MB 9.6GT/s 2400MHz 120W</b>	<b>S26361-F3933-E180</b>
<b>Xeon E5-2690v4 14C/28T 2.60GHz 35MB 9.6GT/s 2400MHz 135W</b>	<b>S26361-F3933-E190</b>
<b>Xeon E5-2600v4 (R) Frequency Optimized</b>	
- 1x 64-bit Intel Xeon (10-30MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 8.0 & 9.6 GT/s QPI Bus occupies socket for one CPU	
<b>Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 85W</b>	<b>S26361-F3933-E123</b>
<b>Xeon E5-2637v4 4C/8T 3.50GHz 15MB 9.6GT/s 2400MHz 135W</b>	<b>S26361-F3933-E137</b>
<b>Xeon E5-2643v4 6C/12T 3.40GHz 20MB 9.6GT/s 2400MHz 135W</b>	<b>S26361-F3933-E143</b>
<b>Xeon E5-2667v4 8C/16T 3.20GHz 25MB 9.6GT/s 2400MHz 135W</b>	<b>S26361-F3933-E167</b>
<b>Xeon E5-2687Wv4 12C/24T 3.00GHz 30MB 9.6GT/s 2400MHz 160W</b>	<b>S26361-F3933-E187</b>
<b>Xeon E5-2689v4 10C/20T 3.10GHz 25MB 9.6GT/s 2400MHz 165W</b>	<b>S26361-F3933-E189</b>
<b>Xeon E5-2600v4 (R) High Core Count</b>	
- 1x 64-bit Intel Xeon (35-40MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
<b>Xeon E5-2683v4 16C/32T 2.10GHz 40MB 9.6GT/s 2400MHz 120W</b>	<b>S26361-F3933-E183</b>
<b>Xeon E5-2695v4 18C/36T 2.10GHz 45MB 9.6GT/s 2400MHz 120W</b>	<b>S26361-F3933-E195</b>
<b>Xeon E5-2697v4 18C/36T 2.30GHz 45MB 9.6GT/s 2400MHz 145W</b>	<b>S26361-F3933-E197</b>
<b>Xeon E5-2697Av4 16C/32T 2.60GHz 40MB 9.6GT/s 2400MHz 145W</b>	<b>S26361-F3933-E191</b>
<b>Xeon E5-2698v4 20C/40T 2.20GHz 50MB 9.6GT/s 2400MHz 135W</b>	<b>S26361-F3933-E198</b>
<b>Xeon E5-2699v4 22C/44T 2.20GHz 55MB 9.6GT/s 2400MHz 145W</b>	<b>S26361-F3933-E199</b>
<b>Xeon E5-2699Av4 22C/44T 2.40GHz 55MB 9.6GT/s 2400MHz 145W</b>	<b>S26361-F3933-E192</b>
<b>Xeon E5-2600v4 (R) Low Power</b>	
- 1x 64-bit Intel Xeon (20/30MB Smart Cache); Hyper-Threading (HT); 2133/2400 MHz DDR4 Bus; 8.0/9.6 GT/s QPI Bus occupies socket for one CPU	
<b>Xeon E5-2630Lv4 10C/20T 1.80GHz 25MB 8.0GT/s 2133MHz 55W</b>	<b>S26361-F3933-E131</b>
<b>Xeon E5-2650Lv4 14C/28T 1.70GHz 35MB 9.6GT/s 2400MHz 65W</b>	<b>S26361-F3933-E151</b>



<b>Separate orderable CPU upgrade kits</b>	
S26361-F3933-L703	<b>Xeon E5-2603v4 6C/6T 1.70GHz 15MB 6.4GT/s 1866MHz 85W</b>
S26361-F3933-L709	<b>Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W</b>
S26361-F3933-L720	<b>Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W</b>
S26361-F3933-L730	<b>Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W</b>
S26361-F3933-L740	<b>Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W</b>
S26361-F3933-L750	<b>Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W</b>
S26361-F3933-L723	<b>Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 105W</b>

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**Section IV Memory**



- There are 8 memory slots per CPU for max.  
 512GB LRDIMM (8x 64GB 4R)  
 512GB RDIMM (8x 64GB 3DS)  
 CX25y0 M2: => max. 1.024GB for two CPU's ( 512GB per CPU ), using RDIMM or LRDIMM
- The memory area is divided into 4 channels per CPU with 2 slots per channel
- Slot 1 of each channel belongs to memory bank 1, the slot 2 belongs to memory bank 2,

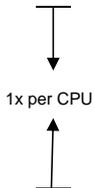
**Registered and Load Reduced DIMMs can be selected**  
**No mix of registered and load reduced modules is allowed.**  
 Memory can be operated at 1.2V.  
 Depending on the CPU following memory speeds will be reached:  
 - 1DPC & 2DPC - 2400MHz max  
**SDDC (Chipkill) is supported for registered / load 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 and load reduced modules is allowed.**

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



Liquid Cooling supports Performance mode only



<p><b>S26361-F3694-E10 Independent Mode</b>                  Independent Channel Mode allows all channels to be populated in any order. No specific Memory RAS features are defined  <b>Requires min 1 memory Module per CPU</b></p>
<p><b>S26361-F3694-E2 Performance Mode Installation</b>                  BIOS Setup factory preinstalled for max. Performance, Four identical memory modules will be equipped in one memory bank to achieve highest memory performance. All four modules are active and full capacity can be used.  <b>Multiple of 4 identical modules to be configured per CPU</b></p>

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CX25y0 M2



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

Note 1)

Max. DDR4 memory speed depends on the memory configuration (No of mem modules per channel) as well as on the CPU type. The memory channel with the lowest speed defines the speed of all CPU channels in the system. For real memory speed (depending on memory type / population), please check the table "Memory speed" below

Note 2)

Mix of memory modules is only possible within the same group

up to 8x per CPU	<b>Registered Memory (RDIMM) with SDDC (chipkill) support</b> - one DDR4 registered ECC memory Module, 1.2V <b>Choose up to 8 order codes per CPU</b> 8GB (1x8GB) 1Rx4 DDR4-2400 R ECC S26361-F3934-E611 16GB (1x16GB) 2Rx4 DDR4-2400 R ECC S26361-F3934-E612 32GB (1x32GB) 2Rx4 DDR4-2400 R ECC S26361-F3934-E615
	<b>Registered Memory (RDIMM 3DS) with SDDC (chipkill) support</b> - one DDR4 registered 3DS ECC memory Module, 1.2V <b>Choose up to 8 order codes per CPU</b> 64GB (1x64GB) 4Rx4 DDR4-2400 3DS ECC S26361-F3934-E617
	<b>Registered Memory (RDIMM) no SDDC (chipkill) support</b> - one DDR4 registered ECC memory Module, 1.2V <b>Choose up to 8 order codes per CPU</b> 8GB (1x8GB) 2Rx8 DDR4-2400 R ECC S26361-F3934-E614 16GB (1x16GB) 2Rx8 DDR4-2400 R ECC S26361-F3934-E613
	<b>Load Reduced Memory (LRDIMM) with SDDC (chipkill) support</b> - one DDR4 load reduced ECC memory Module, 1.2V <b>Choose up to 8 order codes per CPU</b> 64GB (1x64GB) 4Rx4 DDR4-2400 LR ECC S26361-F3935-E616

available from Q4/2017

On Special Release Request only



Loose delivery available for Air Cooling, **NOT** available for Liquid Cooling



For Liquid Cooling, S26361-F3935-E616 \* must be handled as Special Release.

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## Memory Configuration PRIMERGY CX25y0 M2

Each CPU offers 8 **Slots** for DDR4 Memory Modules organised in **2 Banks and 4 Channels**.  
Depending on the amount of memory configured you can decide between 2 basic modes of operation (see explanation below).

There are 2 different kinds of DDR4 Memory Modules available: RDIMM and LRDIMM  
RDIMM / LRDIMM offer different functionality. Mix of RDIMM / LRDIMM is not allowed.

Mode	Configuration	RDIMM	RDIMM		Application
			LRDIMM		
		x8	x4		
SDDC (chipkill) support	any	no	yes		detect multi-bit errors
Independent Channel Mode	1, 2 or 3 Modules per Bank	yes	yes		offers max. flexibility, upgradeability, capacity
Performance Mode	4 identical Modules / Bank	yes	yes		offers maximum performance and capacity

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

Capacity	Configuration	CX25y0 M2		Notes
		RDIMM	LRDIMM	
Min. Memory per CPU	1 Module / CPU	1x8GB	1x64GB	with one CPU
Max. Memory per CPU	8 Modules / CPU	8x64GB*	8x64GB	with one CPU
Max. Memory per System	16 Modules / System	1024GB*	1024GB	with <b>two</b> CPU

\*planned

### Memory-Speed:

**Max. DDR4 memory speed depends on the memory configuration on one memory channel and the speed of the CPU**

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

Real maximum memory-bus speed depending on CPU type, memory configuration (DPC) and voltage setting (BIOS)

Mem. Speed provided by CPU	CX25y0 M2								
				RDIMM			LRDIMM		
				2400MHz			2400MHz		
	Voltage setting (BIOS)			1.2V			1.2V		
			1	2	3	1	2	3	
			DPC	DPC	DPC	DPC	DPC	DPC	
CPU with 2400MHz DDR4 Bus			2400	2400	-	2400	2400	-	
CPU with 2133MHz DDR4 Bus			2133	2133	-	2133	2133	-	
CPU with 1866MHz DDR4 Bus			1866	1866	-	1866	1866	-	
CPU with 1600MHz DDR4 Bus			-	-	-	-	-	-	

- 1R - Single Rank
- 2R - Dual Rank
- 4R - Quad Rank
- 8R - Octal Rank

- 1DPC = 1 DIMM per Channel
- 2DPC = 2 DIMM per Channel
- 3DPC = 3 DIMM per Channel

Configuration hints:

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

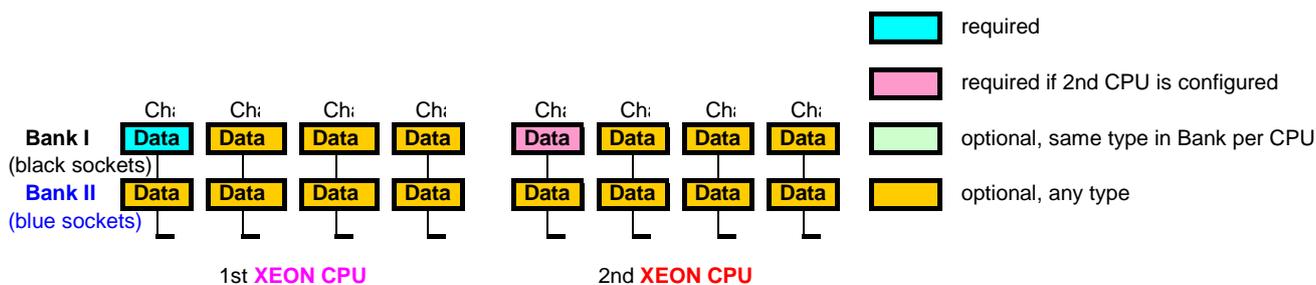
- Bank I** black sockets
- Bank II** blue sockets
- Bank III** green sockets

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

- Bank I on CPU 1/2** up to 4 memory modules connected to Channel A - H on the 1st/2nd CPU
- Bank II on CPU 1/2** up to 4 memory modules connected to Channel A - 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)

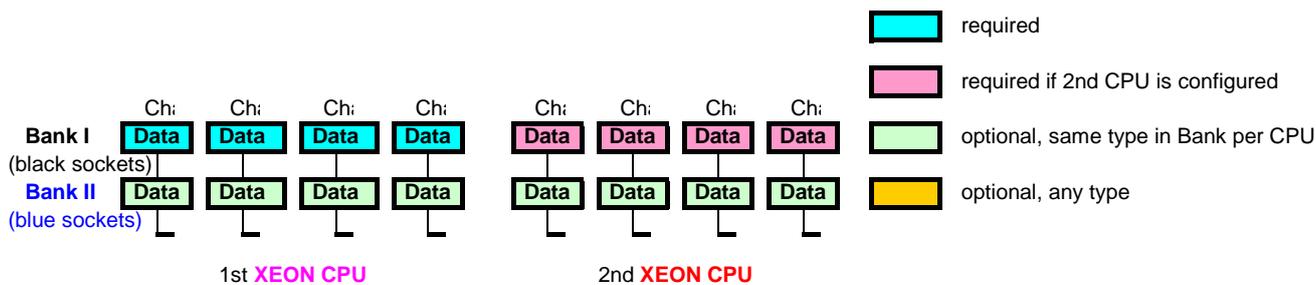
- See below and next page for a detailed descriptions of the memory configuration supported.

### 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

### 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.

**Section V Graphics-as-GPGPU/Intel/Non-PHU**

Graphics Controller integrated in iRMC 24 (Integrated Remote Management Controller).  
H600x1200x180pp 60Hz, 1200x1024x110pp 60Hz, 1024x768x220pp 75Hz, 800x600x220pp 80Hz, 640x480x220pp 85Hz  
1200x1024x220pp 60Hz only possible if local monitor or remote video redirection is off.

**CX2570 M2 only** No mixed configuration

Two GPGPU (General Purpose Graphical Processor Unit) can be ordered as option.  
A mounting kit has to be installed separately and will be installed if ordered ex factory together with the GPGPU card. **New cards require the suitable Air Duct and bracket kit.**  
**The Riser card, power cables and Airunnel are part of System delivery.**  
**ATD option are not supported for Intel Xeon Phi, NVIDIA K80, M60, M10 & P100**

Liquid Cooling is not possible



**S26361-F3736-E500**  
Mounting kit for CX2570  
Consists of 1x per cable  
1x bracket and 2x fixation material  
max. 2x per system

**S26361-F3736-E510**  
Mounting kit for K80  
Consists of 1x per cable  
1x bracket and 2x fixation material  
max. 2x per system

**S26361-F3736-L510**  
Mounting kit for K80  
for loose delivery

**S26361-F3736-L500**  
Mounting kit for CX2570  
for loose delivery

1x mounting kit for 1x GPGPU  
2x mounting kit for 2x GPGPU

**S26361-F3222-E40**  
BY NVIDIA Tesla K40 Computing Processor  
NVIDIA Tesla K40  
12 GB Memory  
PCIe Gen3 x16  
2880 cores  
for GPGPU purpose only  
max. 2x per system

power cables from PSU are cabled when ordering GPGPU ex factory  
Riser card for GPGPU is part of delivery  
no PCIe bracket attached

**S26361-F3222-E30**  
BY PACC CP NVIDIA Tesla K30  
NVIDIA Tesla K30  
24 GB Memory  
PCIe Gen3 x16  
4892 cores  
for GPGPU purpose only  
max. 2x per system

power cables from PSU are cabled when ordering GPGPU ex factory  
Riser card for GPGPU is part of delivery  
no PCIe bracket attached

**S26361-F4022-E110**  
BY NVIDIA Tesla P100 for PCIe  
NVIDIA Tesla P100 Card with 3584 graphic cores & 16GB graphic memory, PCIe Gen3  
Power cables from PSU need to be ordered separately.  
800W PSU is recommended  
PCIe \*16 (Gen3) - single width - occupies space for one PCIe slots. Full height bracket  
max. 2x per system

power cables from PSU are cabled when ordering GPGPU ex factory  
Riser card for GPGPU is part of delivery  
no PCIe bracket attached

**S26361-F4022-E112**  
BY NVIDIA Tesla P100 for PCIe  
NVIDIA Tesla P100 Card with 3584 graphic cores & 16GB graphic memory, PCIe Gen3  
Power cables from PSU need to be ordered separately.  
800W PSU is recommended  
PCIe \*16 (Gen3) - single width - occupies space for one PCIe slots. Full height bracket  
max. 2x per system

power cables from PSU are cabled when ordering GPGPU ex factory  
Riser card for GPGPU is part of delivery  
no PCIe bracket attached

**S26361-F3222-L40**  
**S26361-F3222-L30**  
**S26361-F4022-L110**  
**S26361-F4022-L112**  
for loose delivery  
Riser is part of basic unit CX270



**Education Software license**

**as soon as available**

**as soon as available**

**Perpetual license**

**Subscription license**

S26381-14624-5481
S26381-14624-5481
NVIDIA GRID EDU Perpetual License, 1 GPU
32x per MTO card
64x per MTO card

**EDU SUMS must be ordered in equal numbers with each SW perpetual licenses. Please refer data sheet.**

S26381-14624-5411
S26381-14624-5411
NVIDIA GRID EDU Subscription License, 1 year, 1 GPU
32x per MTO card
64x per MTO card

S26381-14624-5413
S26381-14624-5413
NVIDIA GRID EDU Subscription License, 3 year, 1 GPU
32x per MTO card
64x per MTO card

this SKU uses EDU SUMS

S26381-14624-5835
S26381-14624-5835
NVIDIA GRID EDU SUMS 3 year-4 GPU
same volume with EDU perpetual license

S26381-14624-5835
S26381-14624-1835
NVIDIA GRID EDU SUMS 3 year-1 GPU
same volume with EDU perpetual license

S26381-14624-5835
S26381-14624-1835
NVIDIA GRID EDU SUMS 3 year-1 GPU
same volume with EDU perpetual license

S26381-14624-5835
S26381-14624-1835
NVIDIA GRID EDU SUMS 3 year-1 GPU
same volume with EDU perpetual license

**as soon as available**

**as soon as available**

**NVIDIA EDU SUMS License (6 months) for renewal - Loose Delivery -**

S26381-14624-4510
NVIDIA GRID EDU SUMS 6 months Renew, 1 GPU
NVIDIA EDU SUMS License (6 months) for renewal. It needs if you need to continue EDU SUMS.

**NVIDIA EDU SUMS License (1 year) for renewal - Loose Delivery -**

S26381-14624-4511
NVIDIA GRID EDU SUMS 1yr Renew, 1 GPU
NVIDIA EDU SUMS License (1 year) for renewal. It needs if you need to continue EDU SUMS.

**as soon as available**

**NVIDIA EDU SUMS License (2 years) for renewal - Loose Delivery -**

S26381-14624-4512
NVIDIA GRID EDU SUMS 2ys Renew, 1 GPU
NVIDIA EDU SUMS License (2 years) for renewal. It needs if you need to continue EDU SUMS.

**as soon as available**

**NVIDIA EDU SUMS License (3 years) for renewal - Loose Delivery -**

S26381-14624-4513
NVIDIA GRID EDU SUMS 3ys Renew, 1 GPU
NVIDIA EDU SUMS License (3 years) for renewal. It needs if you need to continue EDU SUMS.

**as soon as available**

**NVIDIA EDU SUMS License (4 years) for renewal - Loose Delivery -**

S26381-14624-4514
NVIDIA GRID EDU SUMS 4ys Renew, 1 GPU
NVIDIA EDU SUMS License (4 years) for renewal. It needs if you need to continue EDU SUMS.

**as soon as available**

**NVIDIA EDU SUMS License (5 years) for renewal - Loose Delivery -**

S26381-14624-4515
NVIDIA GRID EDU SUMS 5ys Renew, 1 GPU
NVIDIA EDU SUMS License (5 years) for renewal. It needs if you need to continue EDU SUMS.

**NVIDIA Subscription License (6 months) for renewal - Loose Delivery -**

S26381-14624-4506
NVIDIA GRID EDU Subscription License 6 months Renew, 1 GPU
NVIDIA Subscription License (6 months) for renewal. It needs if you need to continue Subscriptions.

**NVIDIA Subscription License (1 year) for renewal - Loose Delivery -**

S26381-14624-4507
NVIDIA GRID EDU Subscription License 1yr Renew, 1 GPU
NVIDIA Subscription License (1 year) for renewal. It needs if you need to continue Subscriptions.

**as soon as available**

**NVIDIA Subscription License (2 years) for renewal - Loose Delivery -**

S26381-14624-4502
NVIDIA GRID EDU Subscription License 2ys Renew, 1 GPU
NVIDIA Subscription License (2 years) for renewal. It needs if you need to continue Subscriptions.

**as soon as available**

**NVIDIA Subscription License (3 years) for renewal - Loose Delivery -**

S26381-14624-4503
NVIDIA GRID EDU Subscription License 3ys Renew, 1 GPU
NVIDIA Subscription License (3 years) for renewal. It needs if you need to continue Subscriptions.

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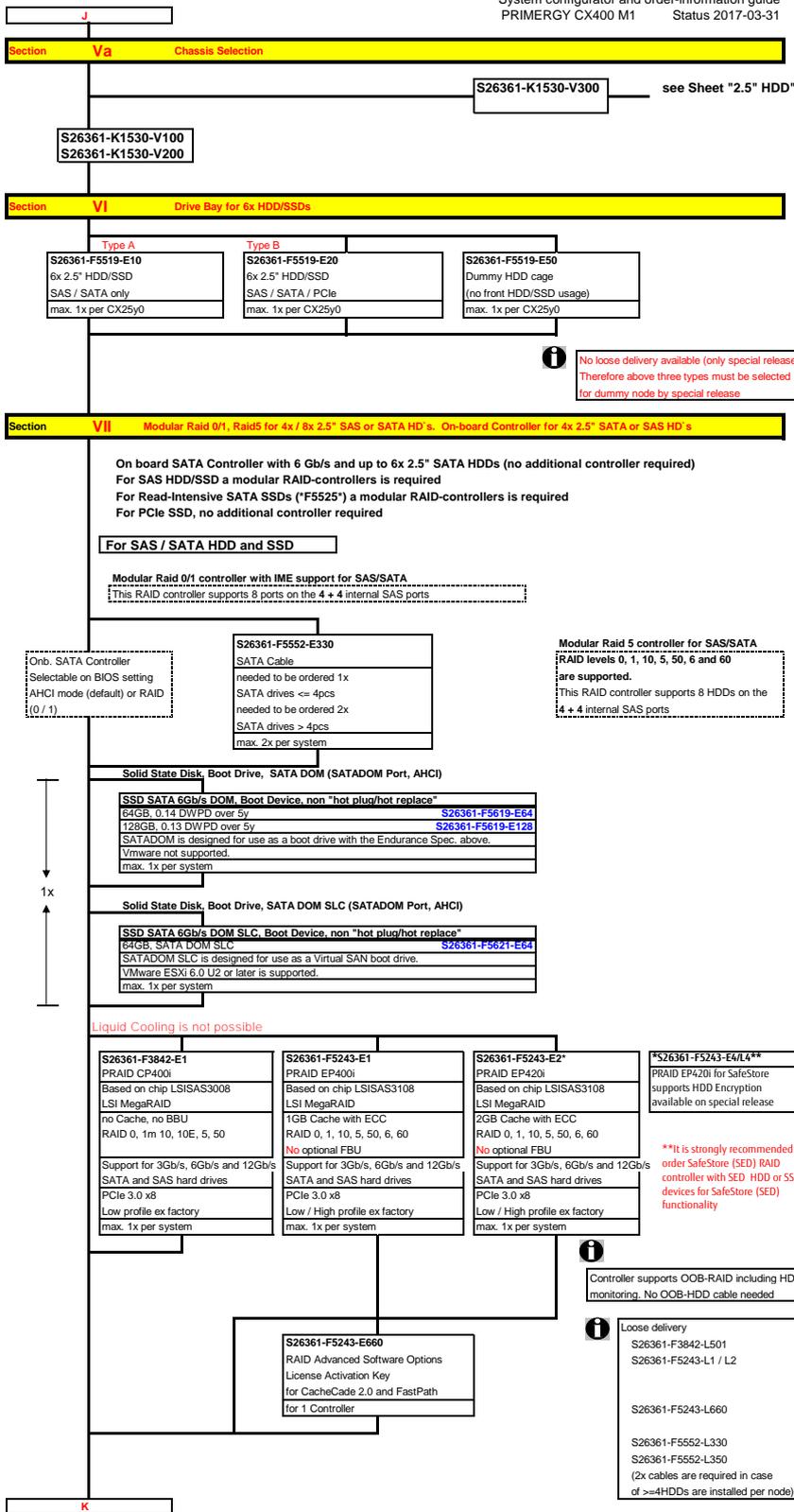
**Section V Accessible drives**

	Setup by ServerStart is supported with following configurations:
	<b>no DVD, no CD:</b> remote installation only ( PXE service & DHCP server required)
	<b>built in DVD or USB DVD:</b> UNC Network share reachable or USB Floppy or MemoryBird connected

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

	Following USB Components are available		
	1) USB DVD SM / Blu-Ray		
	External SuperMulti Drive	S26341-F103-L126	as long as available
	External Blu-Ray Drive	S26341-F103-L127	as long as available
	2) USB Memorybird:		
	MyUSBS A910 8GB, MLC Flash	S26391-F6048-L208	as long as available
	MyUSBS A910 16GB, MLC Flash	S26391-F6048-L216	as long as available

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CX25y0 M2

**Section VIII 2.5" SAS / SATA / PCIe Hard disk drives / SATADOM**

Advanced Thermal Design refer to ATD with S26361-F3776-E240

CPU type	Ambient temp	PCle slots			
		front HDD	Air cooled	Liquid cooled	
w/o ATD option	<= 145W	35°C	6	2	1
	160W	30°C	0	2	1
w/ ATD option (Liquid cooling only)	135/145/160W	40°C	6	-	1
	135W	40°C	2	2	1
	<=120W	40°C	6	2	1

ATD refer to S26361-F3776-E240 (Advanced Thermal Design)

Warranty:  
SSD and SATA DOM have a built-in Wear-Out indicator. In this case the warranty for such a component, as an exception to the system warranty, is restricted to the time period until the indicator reaches the exhaust level.

**SATA Disk Drive 2.5"**

**HDD SATA 6Gb/s 2.5" with hot plug/hot replace tray**

11TB 7.2krpm, 64MB Cache, 512n	S26361-F3895-E100
11TB 7.2krpm, 128MB Cache, 512e	S26361-F3936-E100
2TB 7.2krpm, 128MB Cache, 512e	S26361-F3936-E200

max. 2/6x per server node

**Enterprise Solid State Disk, 3DWPD over 5 years**

**SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray**

240GB, for read/write workload (mixed-use)	S26361-F5588-E240
480GB, for read/write workload (mixed-use)	S26361-F5588-E480
240GB, for read/write workload (mixed-use)	S26361-F5675-E240
480GB, for read/write workload (mixed-use)	S26361-F5675-E480
960GB, for read/write workload (mixed-use)	S26361-F5588-E960
1.92TB, for read/write workload (mixed-use)	S26361-F5588-E192

max. 2/6 per server node

CX25y0 M2  
Endurance  
3DWPD over 5y

**Enterprise Solid State Disk, 1DWPD over 5 years**

**SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray**

240GB, Enterprise (EP), Read-Intensive (1DWPD/5y)	S26361-F5632-E240
480GB, Enterprise (EP), Read-Intensive (1DWPD/5y)	S26361-F5632-E480
800GB, Enterprise (EP), Read-Intensive (1DWPD/5y)	S26361-F5632-E800
960GB, Enterprise (EP), Read-Intensive (1DWPD/5y)	S26361-F5632-E960
1.2TB, Enterprise (EP), Read-Intensive (1DWPD/5y)	S26361-F5632-E120
1.6TB, Enterprise (EP), Read-Intensive (1DWPD/5y)	S26361-F5632-E160

max. 2/6 per server node

CX25y0 M2  
Endurance  
1DWPD over 5y

**SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray**

240GB, Enterprise (EP), Read-Intensive (1.4DWPD/5y)	S26361-F5701-E240
480GB, Enterprise (EP), Read-Intensive (0.9DWPD/5y)	S26361-F5701-E480
960GB, Enterprise (EP), Read-Intensive (0.9DWPD/5y)	S26361-F5701-E960
1.92TB, Enterprise (EP), Read-Intensive (0.9DWPD/5y)	S26361-F5701-E192
3.84TB, Enterprise (EP), Read-Intensive (1.0DWPD/5y)	S26361-F5701-E384
7.68TB, Enterprise (EP), Read-Intensive (0.5DWPD/5y)	S26361-F5701-E768

max. 2/6 per server node

CX25y0 M2  
as soon as available  
as soon as available

**SAS Disk Drive 2.5"**

**HDD SAS 12Gb/s 2.5" with hot plug/hot replace tray**

11TB 7.2krpm, 512n Sektor Size, 128MB Cache	S26361-F5600-E100
2TB 7.2krpm, 512n Sektor Size, 128MB Cache	S26361-F5600-E200
300GB 10krpm, 512n Sektor Size, 128MB Cache	S26361-F5550-E130
600GB 10krpm, 512n Sektor Size, 128MB Cache	S26361-F5550-E160
900GB 10krpm, 512n Sektor Size, 128MB Cache	S26361-F5550-E190
1.2TB 10krpm, 512n Sektor Size, 128MB Cache	S26361-F5550-E112
300GB, 10krpm, 128MB Cache, 512n, SED*	S26361-F5581-E130
600GB, 10krpm, 128MB Cache, 512n, SED*	S26361-F5581-E160
1.2TB, 10krpm, 128MB Cache, 512n, SED*	S26361-F5581-E112
600GB 10krpm, 512e Sektor Size, 128MB Cache	S26361-F5543-E160
900GB 10krpm, 512e Sektor Size, 128MB Cache	S26361-F5543-E190
1.2TB 10krpm, 512e Sektor Size, 128MB Cache	S26361-F5543-E112
1.8TB 10krpm, 512e Sektor Size, 128MB Cache	S26361-F5543-E118
1.8TB, 10krpm, 128MB Cache, 512e, SED*	S26361-F5582-E118
300GB 15krpm, 512n Sektor Size, 128MB Cache	S26361-F5531-E530
450GB 15krpm, 512n Sektor Size, 128MB Cache	S26361-F5531-E545
600GB 15krpm, 512n Sektor Size, 128MB Cache	S26361-F5531-E560

max. 2 / 6 per server node

**SAS Disk Drive 2.5" Liquid Cooling is not possible**

SED (=Self Encrypting Drives) require either a RAID controller with \*SafeStore (SED) supporting or an HBA and in addition a software instance, supporting SED Key Management.  
It is strongly recommended to order SafeStore (SED) RAID controller with SED HDD or SSD devices for SafeStore (SED) functionality.

**Enterprise Solid State Disk, Mainstream Endurance\***

**SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray**

400GB, Enterprise Performance	S26361-F5608-E400
800GB, Enterprise Performance	S26361-F5608-E800
1.6TB, Enterprise Performance	S26361-F5608-E160
400GB, Enterprise (EP), 10DWPD (5y), SED*	S26361-F5611-E400
800GB, Enterprise (EP), 10DWPD (5y), SED*	S26361-F5611-E800
1.6TB, Enterprise (EP), 10DWPD (5y), SED*	S26361-F5611-E160

max. 2/6x per server node

\*) SSD Mainstream Endurance  
10DWPD over 5y

SSD Interface: SAS12Gb/s and SAS 6Gb/s.  
For 12G support is an SAS 12G controller required

**SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray**

480GB, for read/write workload (mixed-use)	S26361-F5614-E480
960GB, for read/write workload (mixed-use)	S26361-F5614-E960
1.92TB, for read/write workload (mixed-use)	S26361-F5614-E192
3.84TB, for read/write workload (mixed-use)	S26361-F5614-E384
400GB, for read/write workload (mixed-use)	S26361-F5666-E400
800GB, for read/write workload (mixed-use)	S26361-F5666-E800
1.6TB, for read/write workload (mixed-use)	S26361-F5666-E160
3.2TB, for read/write workload (mixed-use), 2.3DWPD (5y)	S26361-F5666-E320

max. 2/6x per server node

Endurance  
3DWPD over 5y

**SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray**

480GB, read intensive	S26361-F5617-E480
960GB, read intensive	S26361-F5617-E960
1.92TB, read intensive	S26361-F5617-E192
3.84TB, read intensive	S26361-F5617-E384
480GB, read intensive	S26361-F5670-E480
960GB, read intensive	S26361-F5670-E960
1.92TB, read intensive	S26361-F5670-E192
3.84TB, read intensive	S26361-F5670-E384

max. 2/6x per server node

Endurance  
1DWPD over 5y

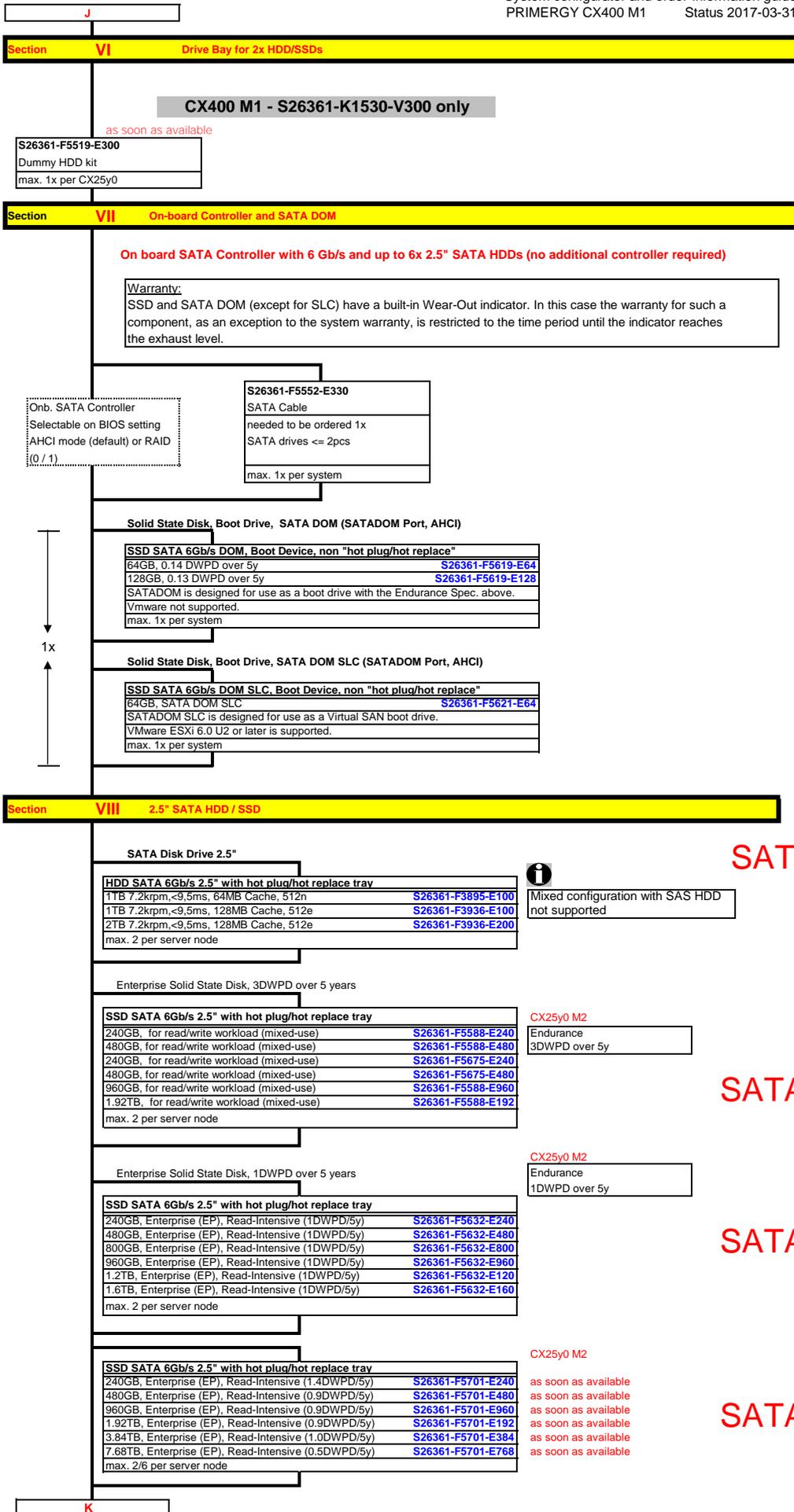
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SATA

SATA

SATA

SAS



K

**Section IX Internal SAS Disk Array & Backup drives**

**Liquid Cooling is not possible**

SAS controller for internal storage



S26361-F3842-E2
PSAS CP400i
LSI
SAS 12Gb/sec
int: 8 port
PCIe 3.0 x8, full height or low profile bracket
max. 1x per system

**i** Only for CX2550 M2  
CX2570 M2 does not support int. SAS HBA

**i** Loose delivery  
S26361-F3842-L502

L

K

Section IX External SAS Disk Array & Backup drives

Liquid Cooling is not possible

SAS controller for external storage



S26361-F3845-E201
PSAS CP400e LP
LSI
SAS 12Gb/sec
ext: 8 port
PCIe 3.0 x8, low profile bracket
max. 2x per system

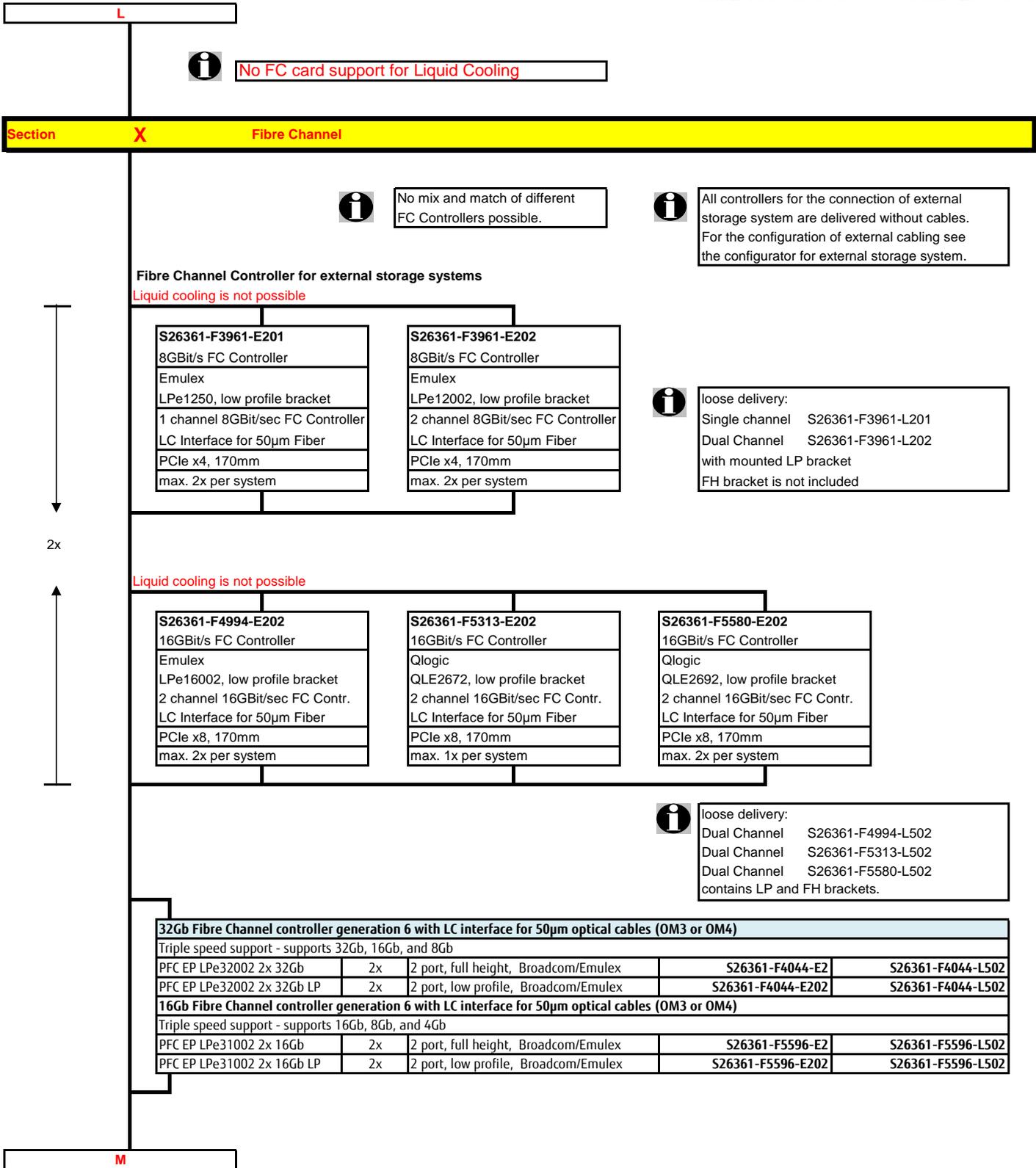


Only for CX2550 M2  
CX2570 M2 does not support ext. SAS HBA



Loose delivery  
S26361-F3845-L501

L



**i** No FC card support for Liquid Cooling

**i** No mix and match of different FC Controllers possible.

**i** 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.

**i** loose delivery:  
 Single channel S26361-F3961-L201  
 Dual Channel S26361-F3961-L202  
 with mounted LP bracket  
 FH bracket is not included

**i** loose delivery:  
 Dual Channel S26361-F4994-L502  
 Dual Channel S26361-F5313-L502  
 Dual Channel S26361-F5580-L502  
 contains LP and FH brackets.

M

## Chapter 11 - Communication / Network

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

### 1Gb Ethernet network components Liquid cooling is not possible

#### 1Gb Ethernet controller with RJ45 interface (1000BASE-T)

PLAN CP 2x1Gbit Cu Intel I350-T2 LP	2x	2 port, Intel	S26361-F4610-E202	S26361-F4610-L502
PLAN CP 2x1Gbit Cu Intel I350-T4 LP	2x	4 port, Intel	S26361-F4610-E204	S26361-F4610-L504

max. 2 Controller per system

### 10Gb Ethernet network components Liquid cooling is not possible

#### 10Gb Ethernet controller with RJ45 interface (10GBASE-T)

Eth Ctrl 2x10GBase-T PCIe x8 X540-T2 LP	2x	2 port NIC, Intel	S26361-F3752-E202	S26361-F3752-L502
PLAN EP X550-T2 2x10GBASE-T LP	2x	2 port NIC, Intel	S26361-F3948-E202	S26361-F3948-L502
PLAN EP OCe14102 2x 10GBase-T LP	2x	2 port NIC with RDMA, Emulex	S26361-F5557-E201	S26361-F5557-L501

#### 10Gb Ethernet controller with SFP+ interface (for SFP+ modules or twinax cables, Fujitsu / Intel based)

Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+	2x	2 port NIC, Intel 82599 based	S26361-F3629-E202	S26361-F3629-L502
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#### optional 10Gb SFP+ module with LC connector for Fujitsu / Intel based controller

SFP+ Module MMF 10GbE LC	2x	MMF / SR SFP+ module, up to 400m	S26361-F3986-E3	S26361-F3986-L3
SFP+ Module SMF 10GbE LC	2x	SMF / LR SFP+ module, up to 10km	S26361-F3986-E4	S26361-F3986-L4
Twinax Anschlussplatz Primergy	2x	virtual connector for twinax cables	V:TWX CONNECTOR-PY	
SFP+ active Twinax Cable Fujitsu	2x	customized cable length	S26361-F3989-E600	see table at the bottom of this page
SFP+ active Twinax Cable Brocade	2x	(best fitting cable length is defined during rack installation at the factory)	S26361-F3873-E500	
SFP+ passive Twinax Cable Cisco	2x		S26361-F4571-E500	

max. 2x SFP+ or Twinax Cable per controller

#### 10Gb Ethernet controller with SFP+ interface (for SFP+ modules or twinax cables, Emulex)

PLAN EP OCe14102 2x10Gb LP	2x	2 port NIC with RDMA, Emulex	S26361-F5536-E202	S26361-F5536-L502
PCNA EP OCe14102 2x 10Gb LP	2x	2 port CNA with FCoE & RDMA, Emulex	S26361-F5250-E201	S26361-F5250-L501
PCNA EP OCe14102 2x 10Gb DMF LP	1x	2 port CNA with DMF for PAN, Emulex	S26361-F5250-E210	S26361-F5250-L510

#### optional 10Gb SFP+ module with LC connector for Emulex controller

PCNA SFP+ MMF Modul OCe14102	2x	MMF / SR SFP+ module, up to 400m	S26361-F5250-E110	S26361-F5250-E110
Twinax Anschlussplatz Primergy	2x	virtual connector for twinax cables	V:TWX CONNECTOR-PY	
SFP+ active Twinax Cable Fujitsu	2x	customized cable length	S26361-F3989-E600	see table at the bottom of this page
SFP+ active Twinax Cable Brocade	2x	(best fitting cable length is defined during rack installation at the factory)	S26361-F3873-E500	
SFP+ passive Twinax Cable Cisco	2x		S26361-F4571-E500	

max. 2x SFP+ or Twinax Cable per controller

max. 2 Controller per system

special release only; max 1 controller

Liquid cooling is not possible

#### 40Gb Ethernet controller with QSFP+ interface (for QSFP+ modules or twinax cables, Emulex)

PCNA EP OCe14401 1x 40Gb LP	1x	1x QSFP+ plugs for twinax or modules	S26361-F5539-E201	S26361-F5539-L501
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#### optional 40Gb QSFP+ module with MTO connector for Emulex controller

SFP+ Module MMF 10GbE LC	1x	MMF / SR SFP+ module, up to 400m	S26361-F5539-E140	S26361-F5539-L140
Twinax Anschlussplatz Primergy	1x	virtual connector for twinax cables	V:TWX CONNECTOR-40	
QSFP+ active Twinax Cable	1x	customized cable length	S26361-F3986-E400	see table at the bottom of this page
QSFP+ aktives Twinax Kabel Brocade	1x	(best fitting cable length is defined during rack installation at the factory)	S26361-F5317-E40	

max. 1x QSFP+ or Twinax Cable per controller

max. 1 Controller per system

## Network cables for later upgrade

#### Fujitsu active SFP+ Twinax 10Gb cable

SFP+ active Twinax Cable Fujitsu 2m	S26361-F3989-L102
SFP+ active Twinax Cable Fujitsu 5m	S26361-F3989-L105
SFP+ active Twinax Cable Fujitsu 10m	S26361-F3989-L110

#### Brocade active SFP+ Twinax 10Gb cable

SFP+ active Twinax Cable Brocade 1m	S26361-F3873-L501
SFP+ active Twinax Cable Brocade 3m	S26361-F3873-L503
SFP+ active Twinax Cable Brocade 5m	S26361-F3873-L505

#### Cisco passive SFP+ Twinax 10Gb Ethernet

SFP+ passive Twinax Cable Cisco 1m	S26361-F4571-L101
SFP+ passive Twinax Cable Cisco 3m	S26361-F4571-L103
SFP+ passive Twinax Cable Cisco 5m	S26361-F4571-L105
SFP+ active Twinax Cable Cisco 7m	S26361-F4571-L107
SFP+ active Twinax Cable Cisco 10m	S26361-F4571-L110

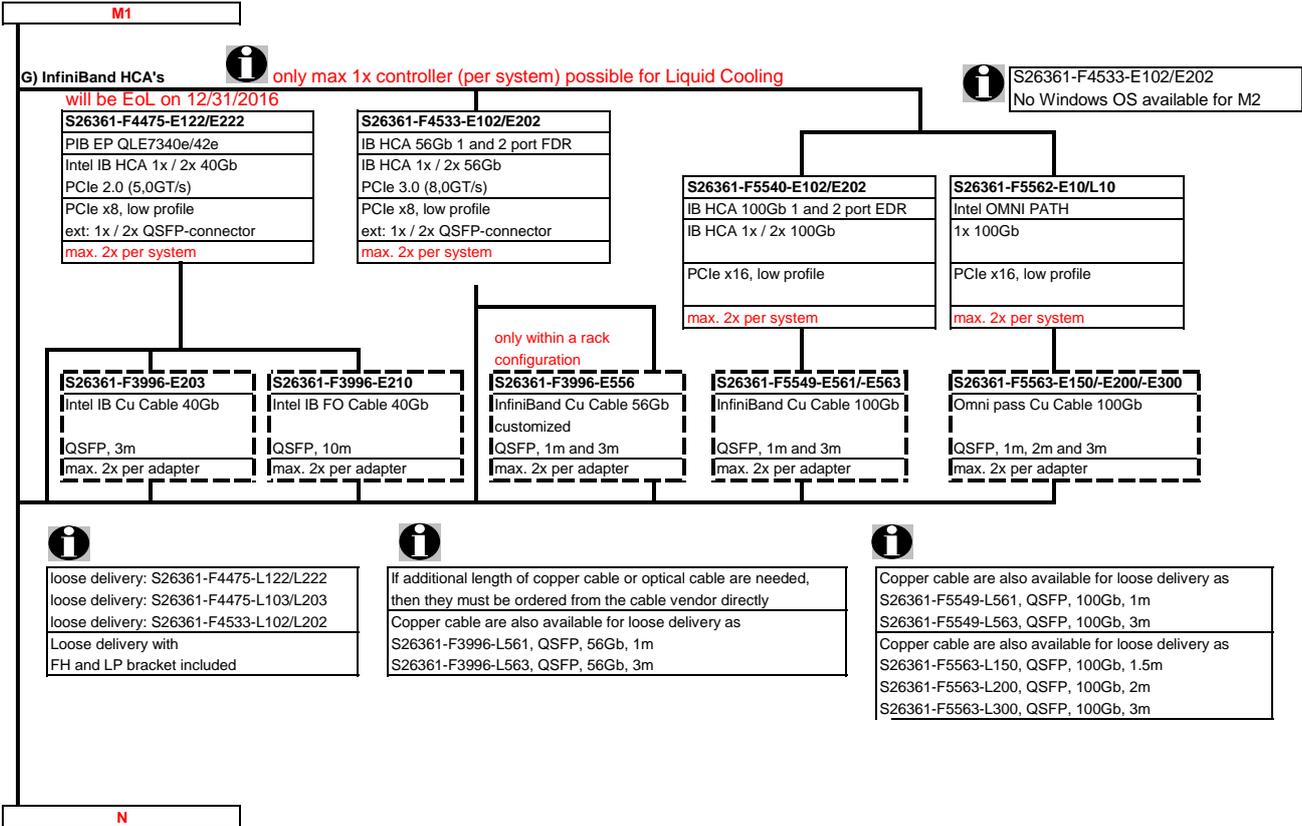
#### Fujitsu QSFP+ / QSFP+ Twinax 40Gb cable

QSFP+ passive Twinax Cable Fujitsu 2m	S26361-F3986-L402
QSFP+ passive Twinax Cable Fujitsu 5m	S26361-F3986-L405
QSFP+ active Twinax Cable Fujitsu 10m	S26361-F3986-L410

#### Brocade active QSFP+ / QSFP+ Twinax 40Gb cable

QSFP+ active Twinax Cable Brocade 1m	S26361-F5317-L41
QSFP+ active Twinax Cable Brocade 3m	S26361-F5317-L43
QSFP+ active Twinax Cable Brocade 5m	S26361-F5317-L45
40GE Direct Attached QSFP-QSFP, 10m, 1-pack	D:QSFP-QSFP-AOC10L
<b>Brocade active QSFP+ / 4xSFP+ Twinax 40Gb cable</b>	
QSFP+/4xSFP+ Breakout Cable Brocade 1m	S26361-F5317-L401
QSFP+/4xSFP+ Breakout Cable Brocade 3m	S26361-F5317-L403
QSFP+/4xSFP+ Breakout Cable Brocade 5m	S26361-F5317-L405
4x10GE Direct QSFP-4SFP Cable, 10m, 1-pack	D:QSFP-4SFP-AOC10L

M1



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

iRMC S4 (integrated Remote Management Controller) onboard server management Controller with dedicated 10/100/1000 Service LAN-port and integrated graphics. Optional 10/100 Service LAN-port on front panel. The Service LAN-port can be switched alternatively on standard Gbit LAN port



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



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



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

**Section XIII Miscellaneous**

**Only for M1**  
**S26361-F3776-E101**  
**Advanced Thermal Design**  
 Restricts configuration to make 5-40° possible  
 Feature is enabled and fixed ex factory  
 max. 1x per system



Restriction for ATD option with air cooling (M1 node)

CPU	#HDD	#PCIe
120W	2	1

Special Release



Below components may not be use on M1/M2 Cool-safe ATD  
 1. CPUs bigger than 120W  
 2. Xeon Phi, NVIDIA K80 and M60

**Only for M2**  
**S26361-F3776-E240**  
**Advanced Thermal Design**  
 Restricts configuration to make 5-40° possible  
 Feature is enabled and fixed ex factory  
 max. 1x per system



Advanced Thermal Design  
 refer to ATD with S26361-F3776-E240

CPU type	Ambient temp	front HDD	PCIe slots	
			Air cooled	Liquid cooled
<b>w/o ATD option</b>				
<= 145W 160W	35°C	6	2	1
	30°C	0	2	1
<b>w/ ATD option</b>				
135/145/160W (Liquid cooling only)	40°C	6	-	1
	<=120W	40°C	6	2

Q

