

PRIMERGY TX1320 M6  
Compact Tower Server



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	Cover	List of content, Instructions for usage of this configurator, abbreviations
	Description	System Description for easier understanding
1	Base	describes base unit of TX1320 M6
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13		Infiniband Controller (n.a. for TX1320 M6)
14	PSU	Power supply units, power cables, country specific opt.
15	USB_devices	Keyboards, Mice, USB devices
16	others	System Management, ATD, RS232 port, TPM module

# Instructions

This document contains basic product and configuration information that supports you in more complicated configurations.

In any case we recommend to use the WebArchitect to make sure, that you configure a valid system.

This System configurator is divided into several chapters. They are identical to the current price list and WebArchitect.

Please follow this document step by step from the top to the bottom.

## Chapter xx - description of chapter

Text fields with grey color offer extra information for related topics (e.g prerequisites, technical back ground, configuration rules, limitations, ...

For example:

<b>S26361-F4610-E2</b>
<b>S26361-F4610-L3</b>
PLAN 2x1Gb Ethern. Controller
i350-T2 chip (based on Intel Powerville) offers 2x1Gb RJ45 connectors
PCIe Gen2 x4 full height card max. 6x per system

<-- order code E-part (bold) --

<-- order code L-part (bold)

<-- "name" of this part

<--description of this part, in same cases as well description of content

<--requires a free PCIe slot --> means total amount of PCIe slots reduced

<--indicates how often this part can be configured in the related Server

<b>PYBVAP04</b>
<b>PY-VAP04</b>
Front VGA connector (15-pin)
Front VGA connector (15-pin) including cable and front connector
Not for 10x3.5", 32xEDSFF Base unit max. 1x per system

<-- "PYB" order code (bold) for BTO(Built to Order) part

<-- "PY-" order code (bold) for Loose delivery part

<-- "name" of this part

<--description of this part, in same cases as well description of content

<-- Limitation for this part

<--indicates how many this part can be configured in the related Server

For further information see:

Link to datasheet:

<https://sp.ts.fujitsu.com/dmsp/Publications/public/ds-py-tx1320-M6.pdf>

<https://www.fujitsu.com/global/products/computing/servers/primergy/index.html>  
(internet)

<https://extranet.ts.fujitsu.com/com/tools/configure/server/Pages/default.aspx>  
(extranet)

Fujitsu is providing the content of this document with very high accuracy. In case you identify a mistake, we would kindly encourage you to inform us. We kindly ask for understanding, that errors still may occur and that Fujitsu may change this document without notice

Abbreviations
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[illegible]

The PRIMERGY TX1320 M6 Server is available in 3 versions:

Start

choose base unit

- Easy change base unit for 2x 3.5" non hot plug HDD w/std. PSU
- hot plug base base unit for 4x/8x 2.5" hot plug HDD/SSD w/std. PSU
- hot plug base base unit for 4x/8x 2.5" hot plug HDD/SSD w/red. PSU

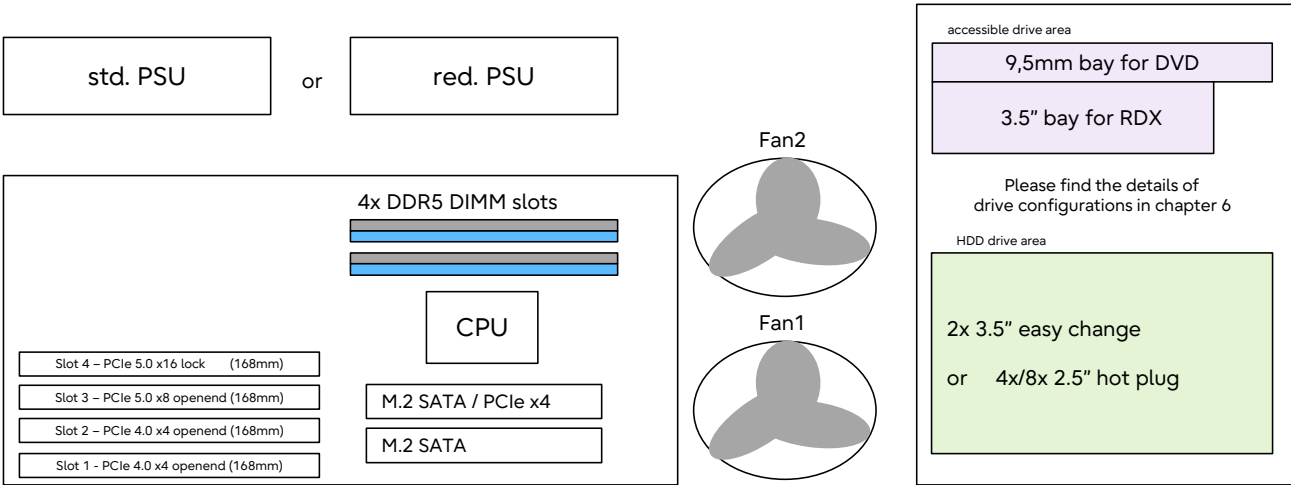
choose backup option

- Independent from the base unit you can configure an RDX backup drive

choose optical drive

- Select 9,5mm DVD or Blu Ray drive

Please find all details, possible and released configurations in the chapter 6 - "HD\_cage"



recommended components for TX1320 M6	#
embedded Lifecycle Management (eLCM)	1x

Chapter 1 - base unit

Start

Base Unit

For the PRIMERGY TX1320 M6 you can choose between different base units:  
- a version using a standard or an hot plug PSU and supporting up to 2x 3.5" easy change (non hot plug) SATA HDDs  
- a version using either a standard or an hot plug PSU and supporting up to 4x/8x 2.5" hot plug SAS/SATA HDDs  
or 4x 2.5" hot plug SAS/SATA HDDs

HDD Extension Box

The base units supporting hot plug HDDs may be extended to 8x 2.5" HDD by using the optional 2nd HDD backplane.

Server Management

iRMC S6 (integrated Remote Management Controller) on-board with dedicated (or shared) 10/100/1000 Service LAN-port and integrated graphics controller. With the integrated onboard indicators and controls You can highlight easily failed components via LEDs. The LEDs can be displayed during service even without mains connection by simply pressing the "indicate CSS" button.

Platform

Fujitsu Systemboard D4132 based on Chipset Intel® C266  
> cables for connection to the modular or onboard controllers included  
> Xeon E2400 series CPUs and Pentium CPUs

Slots:

Slot 4 PCIe 5.0 x8 or x16 (with lock) - supports GPGPU/GPU or RAID card option  
Slot 3 PCIe 5.0 x8 or x0 (openend) - supports GPGPU/GPU or RAID card option  
Slot 2 PCIe 4.0 x4 (openend)  
Slot 1 PCIe 4.0 x4 (openend)

All PCIe slots are low profile (lp) with supporting cards w/ max 168mm length  
\*Slot 4 and Slot 3 can be switched 2x PCIe 5.0 x8 or 1x PCIe 5.0 x16

System RAM

Up to DDR5 4400 MT/s  
4 memory slots for max. 128GB DDR5 RAM.

LAN

2x Intel i210 Gigabit Ethernet

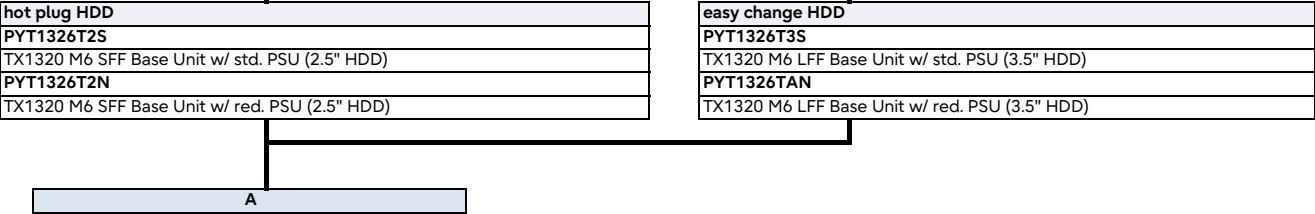
Software

\* ServerView Suite Software incl. ServerView Installation Manager, Management Software and Updates is optional available

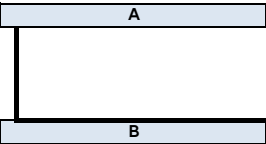
Connectivity

<u>Interfaces at rear side</u> 2x LAN RJ45 (1 Gbit) 1x service LAN RJ45 (1 Gbit) 1x VGA (15 pins) 6x USB 3.2 Gen1 Type A 1x RS-232-C (serial, 9 pin) - optional	<u>Interfaces at front</u> 1x USB 3.2 Gen2x2 Type C 1x USB 3.2 Gen1 Type A <u>Interfaces internal</u> 1x internal USB 3.2 Gen1 connectors for backup devices 2x M.2 (80mm and 110mm)modules: 1x SATA/NVMe(PCIe x4) and 1x SATA 1x Mini SATA (4x SATA 6G)
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For converting the base units with standard PSU, to converet redundant PSU use this conversion kit: **PY-TKPC05**



Chapter 2 - Rack architecture



Rackmount not supported by TX1320 M6

Chapter 3- CPU

B

One of following CPU's has to be selected for an orderable basic unit(max 1x)

Pentium (Alder Lake)		order code (BTO)	order code (Loose delivery)
64-bit Intel Pentium processor supporting DDR5 @ 4800MT/s			
Pentium Gold G7400	2C/4T 3.7GHz 6MB 4800MT/s 46W	PYBCP67C1	-
Xeon E-24xx (Raptor Lake-E)		order code (BTO)	order code (Loose delivery)
64-bit Intel Xeon processor supporting DDR5 @ 4800MT/s			
Xeon E-2414	4C/4T 2.6GHz 12MB 4800MT/s Turbo 55W	PYBCP67E7	-
Xeon E-2434	4C/8T 3.4GHz 12MB 4800MT/s Turbo 55W	PYBCP67E8	-
Xeon E-2436	6C/12T 2.9GHz 18MB 4800MT/s Turbo 65W	PYBCP67E1	-
Xeon E-2456	6C/12T 3.3GHz 18MB 4800MT/s Turbo 80W	PYBCP67E2	-
Xeon E-2486	6C/12T 3.5GHz 18MB 4800MT/s Turbo 95W	PYBCP67E3	-
Xeon E-2468	8C/16T 2.6GHz 24MB 4800MT/s Turbo 65W	PYBCP67E4	-
Xeon E-2478	8C/16T 2.8GHz 24MB 4800MT/s Turbo 80W	PYBCP67E5	-
Xeon E-2488	8C/16T 3.2GHz 24MB 4800MT/s Turbo 95W	PYBCP67E6	-

C

Chapter 4 - DDR5 System memory

C

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.

**The memory speed depends on memory configuration:**  
Single channel memory configuration : max. 4,400 MT/s  
Dual channel memory configuration(1R) : max. 4,000 MT/s  
Dual channel memory configuration(2R) : max. 3,600 MT/s

Max. 128GB unbuffered DDR5 RAM for UDIMMs with 32GB modules

Memory module is not included in the base unit and has to be configured min 1x memory modules.  
All memory module installing in one system must be identical.  
Any mix of different memory modules with different order code is not supported.

16GB DDR5 Unbuffered DIMM 4800MT/s 1R x8		order code (BTO)	order code (loose delivery)
16GB (1x16GB) 1Rx8 DDR5-4800 U ECC	single rank	PYBME16UH	PY-ME16UH
32GB DDR5 Unbuffered DIMM 4800MT/s 2R x8		order code (BTO)	order code (loose delivery)
32GB (1x32GB) 2Rx8 DDR5-4800 U ECC	dual rank	PYBME32UH	PY-ME32UH
min 1x / max 4x for System			

D



Chapter 5 - Graphics cards

D

The different GPU mixed configuration does not support.

PYBVG4T2L
PY-VG4T2L
NVIDIA T400
NVIDIA T400 4GB GDDR6
PCIe 3.0 x16
Connectors: 3x Mini-DP
no cable kit included
power cables from PSU need to be ordered separately.
Low profile
max. 1x per system

The high end optional NVIDIA Quadro T400 graphic card offers triple head operation and full 3D video support.  
The cables kit is not included. It is necessary to order cable kit.  
**Remote Video direction via iRMC must be disabled.**

S26361-F4066-E11
S26361-F4066-L11
MiniDP-DP ADAPTER
max. 3x per card

S26361-F4066-E11 is  
One cable case  
S26361-F4066-E12(1pcs) or S26361-F4066-E13(1pcs)  
  
Two cables case  
S26361-F4066-E12(2pcs) or  
S26361-F4066-E13(2pcs) or  
S26361-F4066-E12(1pcs)/ S26361-F4066-E13(1pcs)  
  
Three cables case  
S26361-F4066-E12(3pcs) or  
S26361-F4066-E13(3pcs) or  
S26361-F4066-E12(1pcs)/ S26361-F4066-E13(2pcs) or  
S26361-F4066-E12(2pcs)/ S26361-F4066-E13(1pcs)

S26361-F4066-E12
S26361-F4066-L12
DP-VGA ADAPTER
max. 3x per card

S26361-F4066-E13
S26361-F4066-L13
DP-DVI ADAPTER
max. 3x per card

PYBVG4A8L
PY-VG4A8L
NVIDIA A2
NVIDIA A2 Card with 16GB GDDR6 RAM.
PCIe *8 (Gen4) - single width, Low-Profile bracket, no external power cable, 60W
Limitation: Not supported on base unit with Std. Powersupply base unit (PYT1326T2S, PYT1326T3S)
max. 2x per system

PYBVG4L1L
PY-VG4L1L
NVIDIA L4
NVIDIA L4 24GB GDDR6 memory. PCIe Gen4
PCIe *16 (Gen4) - single width, Low-Profile bracket, no external power cable, 70W
Limitation: Not supported on base unit with Std. Powersupply base unit (PYT1326T2S, PYT1326T3S)
max. 2x per system

PY-TKHP03
Cooling kit for high-performance option with SFF Base Unit
Contains all necessary parts to support NVIDIA A2/L4
Necessary for NVIDIA A2/L4 loose delivery with PYT1326T2N
Updating system information with using the Chassis ID Prom tool is necessary
max. 1x per system

PY-TKHP02
Cooling kit for high-performance option with LFF Base Unit
Contains all necessary parts to support NVIDIA A2/L4
Necessary for NVIDIA A2/L4 loose delivery with PYT1326TAN
Updating system information with using the Chassis ID Prom tool is necessary
max. 1x per system

E

Chapter 6 - HD drive cage

E

Definition:  
TX1320 M6 is availabel in 4 basic versions:  
1. Base unit for 2x 3.5" non hot plug SATA HDD w/ std. PSU  
2. Base unit for 2x 3.5" non hot plug SATA HDD w/ hot plug PSU  
3. Base unit for 4x/8x 2.5" hot plug SAS/SATA HDD w/ std. PSU  
4. Base unit for 4x/8x 2.5" hot plug SAS/SATA HDD w/ hot plug PSU

In case of 2.5" SAS/SATA base unit you can configure an 2nd HDD Backplane for a total of 8x 2,5" hot plug HDD

- 1. for SFF SAS/SATA base units only  
(PYT1326T2S/PYT1326T2N)
- 2. RAID controller required

PYBBA24SH
PY-BA24SH
2nd HDD Backplae
offers 4x SFF (2,5") hot plug HDD
max. 1x per system

F

## Chapter 7 - SAS / RAID Controller

F

onboard SATA controller with SW-RAID

max number of drives depends on base units

onboard controller for SATA HDD or SSD drives

6Gb/s SATA	Intel VROC (SATA RAID) based on chipset	No Cache	SW-RAID 0, 1, 10	1x	onboard, included
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internal HBA and RAID controller, no 2nd Level cache

internal RAID / HBA controllers for SAS, SATA HDD or SSD drives

PRAID CP600i LP	No Cache	RAID 0, 1, 10	1x	PYBSR4FAL	PY-SR4FA
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8 ports 3, 6 &amp; 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander

supports SED (Self Encrypting Drives)

requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3808

internal RAID / HBA controllers for SAS, SATA HDD or SSD drives

PSAS CP 2200-16i LP	No Cache	HBA + RAID 0, 1, 10, 5	1x	PYBSC4MA1L	PY-SC4MA1
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16 ports 6, 12 &amp; 24Gb/s SAS/SATA HDD/SSD, supports up to 16 SAS/SATA drives without expander

requires 1x LP PCIe 4.0 x8 (int.) slot

internal RAID controller with 2nd Level cache

internal RAID controllers for SAS, SATA HDD or SSD drives

PRAID EP640i LP	4GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	PYBSR4C63L	PY-SR4C63
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8 ports 3, 6 &amp; 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander

supports SED (Self Encrypting Drives)

requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3908

PRAID EP680i LP	8GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	PYBSR4C6L	PY-SR4C6
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16 ports 3, 6 &amp; 12Gb/s SAS/SATA HDD/SSD, supports up to 16 SAS/SATA drives without expander

supports SED (Self Encrypting Drives)

requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3916

optional Flash Backup Unit (FBU)

FBU option for PRAID EP6xx: Supercap securing the power supply of the RAID controller in case of power failure including cable with 55cm length	1x	S26361-F4042-E155	S26361-F4042-L110
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internal RAID controllers for SAS, SATA HDD or SSD drives

PRAID EP 3252-8i LP	2GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	PYBSR4MA1L	PY-SR4MA1
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8 ports 6, 12 &amp; 24Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander

supports SED (Self Encrypting Drives)

requires 1x LP PCIe 4.0 x8 (int.) slot

optional Flash Backup Unit (FBU)

FBU option for PRAID EP 325x: Supercap securing the power supply of the RAID controller in case of power failure including cable with 46cm length	1x	PYBFBM012	PY-FBM01
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up to 1x FBU can be integrated per System

Cable kit for upgrade cards: For upgrade L-parts RAID/HBA controller card(EP6xxi/CP6xxi), L-parts Cable kit is required.

Cable Kit for EP6xxi/CP6xxi/EP325x/CP2200 : PY-CBS118

G

Chapter 8 - ODD optical disk drives

G

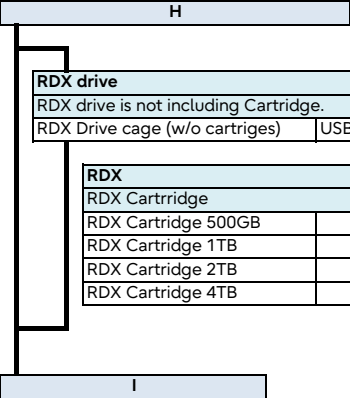
<b>S26361-F3778-E1</b> <b>S26361-F3778-L1</b>	<b>S26361-F3641-E6</b> <b>S26361-F3641-L6</b>	<b>S26361-F3718-E2</b> <b>S26361-F3718-L2</b>
DVD-RW supermulti ultra slim	Blu-ray Triple Writer ultra slim	DVD-ROM ultra slim
all formats, DUAL/DL, DVD-RAM only W2K, W3K and Linux	6x BD-RW, 8x DVD, 24x CD, BD DL and all CD/DVD formats	16x DVD; 48x CD-ROM
9.5mm, black bezel	9.5mm, black bezel	9.5mm black bezel
max. 1x per system	max. 1x per system	max. 1x per system

H

Chapter 9 - backup drives

Definition:  
TX1320 M6 is available in 4 basic versions:  
1. Base unit for 2x 3.5" non hot plug SATA HDD w/ std. PSU  
2. Base unit for 2x 3.5" non hot plug SATA HDD w/ hot plug PSU  
3. Base base unit for 4x/8x 2.5" hot plug HDD w/ std. PSU  
4. Base base unit for 4x/8x 2.5" hot plug HDD w/ hot plug PSU

In any case an RDX backup drive may be configured.



RDX drive				
RDX drive is not including Cartridge.				
RDX Drive cage (w/o cartridges)	USB 3.0, 3.5 inch / Half Height	1x	S26361-F3750-E5	S26361-F3750-L5
RDX				
RDX Cartridge				
RDX Cartridge 500GB		-	-	S26361-F3857-L500
RDX Cartridge 1TB		-	-	S26361-F3857-L600
RDX Cartridge 2TB		-	-	S26361-F3857-L700
RDX Cartridge 4TB		-	-	S26361-F3857-L900

Chapter 10 - storage drives

I

SATA drives can be connected to the onboard Controller (max. 4x), or require a dedicated SAS / RAID Controller.  
SAS drives require a dedicated SAS / RAID Controller.  
PCIe-SSDs require a dedicated RAID Controller.  
FIPS and SED drives are Self Encrypting Drives, and they require either a RAID controller with SED support or an HBA and in addition a software instance, supporting SED Key Management. It is strongly recommended to order a RAID controller with SED function for SED/FIPS drives.

SATA, SAS and PCIe drives can be mixed based on RAID spec, but cannot be used in one logical RAID volume.  
FIPS and SED drives can be mixed based on RAID spec, but cannot be used in one logical RAID volume.  
One logical RAID volume must be created the same order code products.

Hard Disk Sector Format Information:  
512n HDD: 512 byte sectors on the drive media.  
512e (e=emulation) HDD: 4K physical sectors on the drive media with 512 byte logical configuration.  
DWPD: Drive Writes Per Day over 5 years.

When using SSDs with VMware ESXi, select the SSDs that meet the endurance requirement described in KB2145210 below.  
<https://kb.vmware.com/kb/2145210>

HDD Classes:  
Economic (ECO) SATA: Entry Class Drives, for non critical applications.  
Business-Critical (BC) -SATA=Nearline SATA Enterprise Drives / 7.2Krpm, SATA 6G.  
Business-Critical (BC) -SAS=Nearline SAS Enterprise Drives / 7.2Krpm, SAS 12G .  
Mission-Critical (MC)=SAS 10K and SAS 15K Enterprise Drives with max. performance and reliability.

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.

2.5" (SFF) SATA SSD

SSD SATA 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray							
based on Samsung PM897a drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
480GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3	SED	PYBSS48NKS	PY-SS48NKS
960GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3	SED	PYBSS96NKS	PY-SS96NKS
1.92TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3	SED	PYBSS19NKS	PY-SS19NKS
3.84TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3	SED	PYBSS38NKS	PY-SS38NKS
This SSDs can be used as Non-SED drives, but it requires a RAID controller with SED support for using as SED drives.							
max. 8x - depending on base unit & configuration							

SSD SATA 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray							
based on Samsung PM897 drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
480GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3		PYBSS48NKQ	PY-SS48NKQ
960GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3		PYBSS96NKQ	PY-SS96NKQ
1.92TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3		PYBSS19NKQ	PY-SS19NKQ
3.84TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3		PYBSS38NKQ	PY-SS38NKQ
max. 8x - depending on base unit & configuration							

SSD SATA 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray							
based on Micron 5400 MAX drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
480GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		PYBSS48NQ	PY-SS48NQ
960GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		PYBSS96NQ	PY-SS96NQ
1.92TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		PYBSS19NQ	PY-SS19NQ
3.84TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3,5		PYBSS38NQ	PY-SS38NQ
max. 8x - depending on base unit & configuration							

SSD SATA 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on Samsung PM893a drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
480GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0	SED	PYBSS48NME	PY-SS48NME
960GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0	SED	PYBSS96NME	PY-SS96NME
1.92TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0	SED	PYBSS19NME	PY-SS19NME
3.84TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0	SED	PYBSS38NME	PY-SS38NME
7.68TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0	SED	PYBSS76NME	PY-SS76NME
This SSDs can be used as Non-SED drives, but it requires a RAID controller with SED support for using as SED drives.							
max. 8x - depending on base unit & configuration							

SSD SATA 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on Samsung PM893 drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
240GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0		PYBSS24NMD	PY-SS24NMD
480GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0		PYBSS48NMD	PY-SS48NMD
960GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0		PYBSS96NMD	PY-SS96NMD
1.92TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0		PYBSS19NMD	PY-SS19NMD
3.84TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0		PYBSS38NMD	PY-SS38NMD
7.68TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,0		PYBSS76NMD	PY-SS76NMD
max. 8x - depending on base unit & configuration							

SSD SATA 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on Micron 5400 PRO drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
240GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		PYBSS24NME	PY-SS24NME
480GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		PYBSS48NMF	PY-SS48NMF
960GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		PYBSS96NMF	PY-SS96NMF
1.92TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		PYBSS19NMF	PY-SS19NMF
3.84TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,2		PYBSS38NMF	PY-SS38NMF
7.68TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	0,6		PYBSS76NMF	PY-SS76NMF
max. 8x - depending on base unit & configuration							

2.5" (SFF) Hard drives

HDD SAS 2.5" 10K 512n (SFF) Enterprise Mission Critical with hot plug/hot replace tray							
Capacity	RPM	Interface	Sector			order code E-part	order code L-part
300GB	10 000	SAS 12Gb/s	512n			PYBSH301EB	PY-SH301EB
600GB	10 000	SAS 12Gb/s	512n			S26361-F5729-E160	S26361-F5729-L160
1.2TB	10 000	SAS 12Gb/s	512n			S26361-F5729-E112	S26361-F5729-L112
max. 8x - depending on base unit & configuration							

HDD SAS 2.5" 10K 512e (SFF) Enterprise Mission Critical with hot plug/hot replace tray							
Capacity	RPM	Interface	Sector			order code E-part	order code L-part
1.8TB	10 000	SAS 12Gb/s	512e			S26361-F5730-E118	S26361-F5730-L118
2.4TB	10 000	SAS 12Gb/s	512e			S26361-F5543-E124	S26361-F5543-L124
max. 8x - depending on base unit & configuration							

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## 3.5" NON hot plug Drives for internal bays

HDD SATA 3.5" 7.2K 512n (LFF) Enterprise Business Critical with NON hot plug/hot replace tray						
Capacity	RPM	Interface	Sector		order code E-part	order code L-part
2TB	7 200	SATA 6Gb/s	512n		PYBBH2T2B5	PY-BH2T2B5
4TB	7 200	SATA 6Gb/s	512n		PYBBH4T2B5	PY-BH4T2B5

max. 2x - depending on base unit &amp; configuration

HDD SATA 3.5" 7.2K 512e (LFF) Enterprise Business Critical with NON hot plug/hot replace tray						
Capacity	RPM	Interface	Sector		order code E-part	order code L-part
6TB	7 200	SATA 6Gb/s	512e		PYBBH6T2E5	PY-BH6T2E5
8TB	7 200	SATA 6Gb/s	512e		PYBBH8T2E5	PY-BH8T2E5

max. 2x - depending on base unit &amp; configuration

ECO SATA drives cannot be mixed with SAS HDD drives in same RAID Controller

HDD SATA 3.5" 5.4K (LFF) ECO with NON hot plug/hot replace tray						
Capacity	RPM	Interface	Sector		order code E-part	order code L-part
1TB	5 400	SATA 6Gb/s	512e		PYBPH1T4E	PY-PH1T4E
2TB	5 400	SATA 6Gb/s	512e		PYBPH2T4E	PY-PH2T4E

max. 2x - depending on base unit &amp; configuration

## M.2 SATA SSD

M.2 drive for VMware ESXi and for other OSs cannot be mixed  
M.2 SATA and M.2 PCIe drive cannot be mixed

SSD SATA M.2 drive for booting, non hot-plug, for VMware ESXi						
based on Micron 5400 PRO drives						
Capacity	Formfactor	Interface		Category	order code E-part	order code L-part
240GB	M.2	SATA 6Gb/s		Boot	PYBMF24NVD	PY-MF24NVD

M.2 drive is designed for use as a VMware ESXi boot drive.  
2x M.2 drive for any Hypervisor by the onboard chipset Software RAID is not supported.  
max. 1x per Server; in case M.2 drive is installed in connector located on Motherboard (please see folder "description"). VMware ESXi is only supported.  
2x M.2 drives required; in case M.2 drives are used with PDUAL CP300.

SSD SATA M.2 drive for booting, non hot-plug						
based on Micron 5400 PRO drives						
Capacity	Formfactor	Interface	DWPD	Category	order code E-part	order code L-part
240GB	M.2	SATA 6Gb/s	1,5	Boot	PYBMF24YN5	PY-MF24YN5
480GB	M.2	SATA 6Gb/s	1,5	Boot	PYBMF48YN5	PY-MF48YN5
960GB	M.2 2280	SATA 6Gb/s	1,5	Boot	PYBMF96YN	PY-MF96YN

M.2 drive is designed for use as a boot drive with the Endurance Spec. above.  
2x M.2 drive for any Hypervisor by the onboard chipset Software RAID is not supported.  
max. 2x per Server; in case M.2 drive is installed in connector located on Motherboard (please see folder "description"). VMware is not supported.  
2x M.2 drives required; in case M.2 drives are used with PDUAL CP300.

SSD PCIe M.2 drive for booting, non hot-plug (will be available in CQ2'24)						
based on Micron 7450 PRO drives						
Capacity	Formfactor	Interface	DWPD	Category	order code E-part	order code L-part
480GB	M.2 2280	PCIe4.0 x4	0,9	Boot	PYBBS48PEA	PY-BS48PEA
960GB	M.2 2280	PCIe4.0 x4	0,9	Boot	PYBBS96PEA	PY-BS96PEA

M.2 drive is designed for use as a boot drive with the Endurance Spec. above.  
**Limitation:** Required 'Configuration Thermal Design 30°C(CTD30)[PYBETA6]'  
max. 1x per Server; connector located on Motherboard (please see folder "description").  
2x M.2 drives required; in case M.2 drives are used with PDUAL CP300.

## Dual M.2

PDUAL CP300 and M.2 drive on Motherboard cannot be mixed

PDUAL CP300, dual M.2 for booting, non hot-plug						
Capacity	Formfactor	Interface		Category	order code E-part	order code L-part
n/a	AIC	PCIe		Boot LP	PYBDMCP35L	PY-DMCP35

PDUAL CP300 is a carrier of 2x SSD SATA or PCIe M.2 drives, which offers RAID1 with the 2x SSD M.2 drives.  
PDUAL CP300 is designed for use as a hardware-mirrored (RAID1) boot device for Hypervisor, which cannot be supported by M.2 via the onboard chipset Software RAID.  
Supported RAID levels : RAID1 and 0 (optional), 2x same type of SSD M.2 drives need to be ordered separately.  
Supported M.2 drives : SSD SATA M.2 240GB/480GB/960GB or 240GB for VMware ESXi. (PY\*MF24YN5/PY\*MF48YN5/PY\*MF96YN or PY\*MF24NVD) or  
SSD PCIe M.2 480GB/960GB. (PY\*BS48PEA/PY\*BS96PEA)  
max. 1x per Server, requires 2x SSD M.2 drives.

RAID PRESET option				
Component			order code E-part	order code L-part
pre-config. RAID1 Array for M.2 in PDUAL			S26361-F5659-E13	-

This option allows pre-configuration of 2x M.2 modules to a RAID1 Array with PDUAL CP300 ex factory.  
max. 1x per Server, requires 1x PDUAL CP300.

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## Chapter 11 - Communications / Ethernet Network Components

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PRIMERGY TX1320 M6 provides default Intel LAN on Motherboard:

- 2x Controller Intel I210 1000BASE-T, provides
- 2x RJ45 ports, 10M/100M/1G autonegotiate for 10M/100M/1G capable Ethernet network infrastructure
- Wake-On LAN supported on both ports
- PXE and iSCSI boot support
- Maximum one port can be configured as a shared Management LAN port

## Network PCIe Adapters

## Broadcom 1GbE BEASE-T for PCIe

PLAN CP BCM5719-4P 4X 1000BASE-T PCIe LP	2x	Broadcom, 1GTx4port	PYBLA284L	PY-LA284
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max. 2x adapters per system

## Intel 1GbE BEASE-T for PCIe

PLAN CP 2x1Gbit Cu Intel I350-T2 LP	2x	Intel, 1GTx2port	S26361-F4610-E202	S26361-F4610-L502
PLAN CP 4x1Gbit Cu Intel I350-T4 LP	2x	Intel, 1GTx4port	S26361-F4610-E204	S26361-F4610-L504

max. 2x adapters per system (both I350-T2 and I350-T4 in total)

## Broadcom 10GbE BEASE-T for PCIe

PLAN EP P210TP 2X 10GBASE-T PCIe LP	2x	Broadcom, 10GTx2port	PYBLA3K2L	PY-LA3K2
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max. 2x adapters per system

## Intel 10GbE BEASE-T for PCIe

PLAN EP X710-T2L 2x10GBASE-T LP	2x	Intel, 10GTx2port	PYBLA342L	PY-LA342
PLAN EP X710-T4L 4x10GBASE-T LP	2x	Intel, 10GTx4port	PYBLA344L	PY-LA344

max. 2x adapters per server system

## Broadcom 10GbE for PCIe

Each cage consumes 1x optical SFP+ transceiver per port.  
Dual rate 10G/1G support requires 10G/1G Dual Rate SFP+ Optical Transceiver Modules.  
All ports on this card need to install the same Parts Number of optical module.

PLAN EP P210P 2x10Gb SFP PCIe LP	2x	Broadcom, 10Gx2port	PYBLA3J2L	PY-LA3J2
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## Optional, 10Gb SFP+ optical transceiver module, select one per cage

SFP+ Module Multi Mode Fiber 10GbE LC	2x	Finisar, 10G SR SFP+	S26361-F3986-E3	S26361-F3986-L3
SFP+ Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+	S26361-F3986-E5	S26361-F3986-L5
SFP+ Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+	S26361-F3986-E6	S26361-F3986-L6

max. 1x per port

max. 2x adapters per system

## Intel 10GbE for PCIe

Each cage consumes 1x optical SFP+ transceiver per port.  
Dual rate 10G/1G support requires 10G/1G Dual Rate SFP+ Optical Transceiver Modules.  
All ports on this card need to install the same Parts Number of optical module.

PLAN EP X710-DA2 2x10Gb SFP+ LP	2x	Intel, 10Gx2port	S26361-F3640-E202	S26361-F3640-L502
PLAN EP X710-DA4 4x10Gb SFP+ LP	2x	Intel, 10Gx4port	S26361-F3640-E204	S26361-F3640-L504

## Optional, 10Gb SFP+ optical transceiver module, select one per cage

SFP+ Module Multi Mode Fiber 10GbE LC	4x	Finisar, 10G SR SFP+	S26361-F3986-E3	S26361-F3986-L3
SFP+ Transceiver 10G/1G Dual Rate SR	4x	Intel, 1G/10G SR SFP+	S26361-F3986-E5	S26361-F3986-L5
SFP+ Transceiver 10G/1G Dual Rate LR	4x	Intel, 1G/10G LR SFP+	S26361-F3986-E6	S26361-F3986-L6

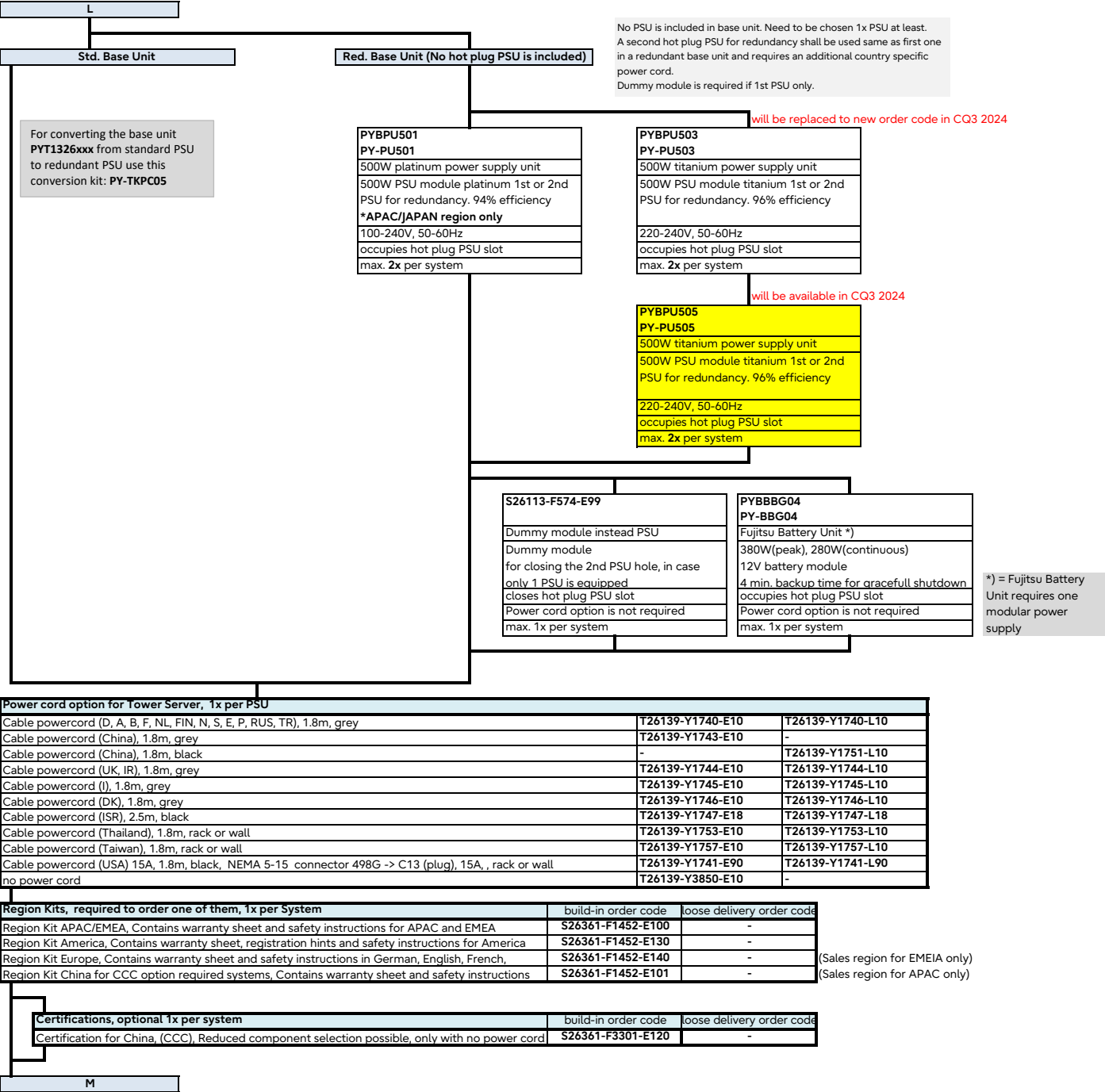
max. 1x per port

max. 2x adapters per system

<b>Broadcom 25GbE for PCIe</b>				
Each cage consumes 1x optical SFP28 or SFP+ transceiver per port. All ports on this card need to install the same Parts Number of optical module. 10G SFP BTO is not available for 25G cards, please select L parts.				
PLAN EP P225P 25Gb 2p SFP28 PCIe LP	2x	Broadcom, 25Gx2port	PYBLA3H2L	PY-LA3H2
<b>Optional, 25Gb SFP28 optical transceiver module with LC connector, each cage consumes one.</b>				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
<i>max. 1x per port</i>				
<b>Optional, 10Gb SFP+ optical transceiver module, each cage consumes one.</b>				
SFP+ Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+		S26361-F3986-L5
SFP+ Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
<i>max. 1x per port</i>				
<i>max. 2x adapters per system</i>				
<b>Intel 25GbE for PCIe</b>				
Each cage consumes 1x optical SFP28 or SFP+ transceiver per port. All ports on this card need to install the same Parts Number of optical module. 10G SFP BTO is not available for 25G cards, please select L parts.				
PLAN EP E810-XXVDA2 2x25Gb LP	2x	Intel, 25Gx2port	PYBLA402L	PY-LA402
<b>Optional, 25Gb SFP28 optical transceiver module with LC connector, each cage consumes one.</b>				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
<i>max. 1x per port</i>				
<b>Optional, 10Gb SFP+ optical transceiver module, each cage consumes one.</b>				
SFP+ Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+		S26361-F3986-L5
SFP+ Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
<i>max. 1x per port</i>				
<i>max. 2x adapters per system</i>				
<b>NVIDIA 25GbE for PCIe</b>				
Each cage consumes 1x optical SFP28 or SFP+ transceiver per port. All ports on this card need to install the same Parts Number of optical module. 10G SFP BTO is not available for 25G cards, please select L parts.				
PLAN EP MCX6-LX 25Gb 2p SFP28 PCIe LP	2x	NVIDIA, 25Gx2port	PYBLA402L4	PY-LA4024
Not supported on LFF(3.5"HDD) base unit (PYT1326T3S, PYT1326TAN)				
<b>Optional, 25Gb SFP28 optical transceiver module with LC connector, each cage consumes one.</b>				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
SFP28 Transceiver 25G SR MMA2P00-AS LC	2x	NVIDIA, 25G SR SFP28	S26361-F4054-E701	S26361-F4054-L701
<i>max. 1x per port</i>				
<b>Optional, 10Gb SFP+ optical transceiver module, each cage consumes one.</b>				
SFP+ Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+		S26361-F3986-L5
SFP+ Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
<i>max. 1x per port</i>				
<i>max. 2x adapters per system</i>				

L

Chapter 14 - Power supply unit, power cable, country specific options



Chapter 15 - Accessories

M <http://www.fujitsu.com/fts/products/computing/peripheral/accessories/index-facts.html>

USB Mouse:	
Mouse M520 Black	S26381-K467-L100
Mouse M520 Grey	S26381-K467-L101

APAC only  
APAC only

USB Keyboards for Tower Servers for following countries:	
Country version	FUJITSU Keyboard KB521 USB (grey)
US/ int 105 keys (UK keyboard + US int. Layout)	S26381-K521-L102
France	S26381-K521-L140
Spain	S26381-K521-L180

APAC only  
APAC only  
APAC only

USB Optical Disc Drive	
External Ultra Slim Portable DVD Writer (Hitachi-LG)	S26341-F103-L142

N

Chapter 16 - others (Energy Star restrictions)

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PYBES21
E-Star Fam1 Certification
RX/TX13x0 Mx E-Star Fam1
Limits configuration in accordance with Energy Star 4.0 requirements
max. 1x per system

limitations for E-Star Fam1certification.

please make sure to follow the guidelines below in order meet ENERGY STAR V4.0 Fam1 requirements:

<All base unit>  
Not allowed:  
- CPU: Pentium Gold G7400 (PYBCP67C1)  
- CPU: Xeon E-2414 (PYBCP67E7)  
- CPU: Xeon E-2434 (PYBCP67E8)

<PYT1326T3S, PYT1326TAN>  
Maximum sotrage quantity 2pcs (HDD 3,5" LFF + SSD M.2)

<PYT1326T2S, PYT1326T2N>  
Maximum sotrage quantity 4pcs (HDD/SSD 2,5" SFF + SSD M.2)

ENERGY STAR-configurationen will be labeld: PRIMERGY TX1320 M6 E-Star Fam1  
non ENERGY STAR-configurationen will be labeld: PRIMERGY TX1320 M6

O

Chapter 16 - Others (ErP Lot 9 restriction)

o

Region Kits, 1x per System	
Region Kit APAC/EMEA/India, Contains warranty sheet and safety instructions for APAC, EMEA and India	S26361-F1452-E100
Region Kit America, Contains warranty sheet, registration hints and safety instructions for America	S26361-F1452-E130

Region Kits, 1x per System	
Region Kit Europe*, Contains warranty sheet and safety instructions in German, English, French, Spanish, Italian, Polish, Russian and Welsh language	S26361-F1452-E140

\*Region kit Europe must be ordered for  
shipment to ship in EU and EFTA  
countries to apply ErP Lot9 restriction

Erp Lot9 Configuration for Xeon, 1x per System	
Erp Lot9 Configuration 1	PYBETL32

Restriction for ErP Lot 9 directive,  <u>Limitation</u> Not allowed: - CPU: Pentium Gold G7400 (PYBCP67C1)  Maximum quantity 2pcs: - 1GbE Ethernet card
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Erp Lot9 Configuration for Pentium, 1x per System	
Erp Lot9 Configuration 2	PYBETL33

Restriction for ErP Lot 9 directive,  <u>Limitation</u> Not allowed: - 1GbE Ethernet card - NVIDIA T400 (PYBVG4T2L)
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<Internal RAID / HBA controllers>  
- PYBSR4FAL  
- PYBSC4MA1L  
- PYBSR4C63L  
- PYBSR4C6L  
- PYBSR4MA1L

<1GbE Ethernet card>  
- PYBLA284L  
- S26361-F4610-E202  
- S26361-F4610-E204

p

Chapter 16 - others															
P															
<div><div><div><div><div><div>PYBRMC44</div><div>PY-RMC44</div><div>iRMC advanced pack</div><div>integrated remote Management controller activation key for graphical console redirection and remote media redirection</div><div>max. 1x per system</div></div></div></div><div><div>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.</div></div></div></div>															
<div><div><div><div><div><div>PYBLCM14</div><div>embedded Lifecycle Management (eLCM)</div><div>Server Online Update</div><div>OS driver Update</div><div>Hardware firmware update</div><div>Server Offline Update</div><div>Hardware update via Update Manager Express</div><div>PrimeCollect</div><div>Autonomous creation of Primecollect archives</div><div>Creation and use of PrimeCollect archives over AIS connect</div><div>Custom Image (Jukebox function)</div><div>Automatic and manual download of CD and DVD Images</div><div>Automatic and manual start of CD and DVD Images</div><div>max. 1x per system</div></div></div></div><div><div>Loose delivery</div><div>eLCM Activation Pack (Node Locked License)</div><div>PY-LCM14</div><div>options contains:</div><div>- Paper with TAN for Licensekey</div></div></div></div>		<div><div><div><div><div><div><div>will be available in CQ4'24</div><div>iRMC MicroSD card option</div><table><tr><th>Capacity</th><th>Interface</th><th>E-parts</th><th>L-parts</th></tr><tr><td>64GB</td><td>SDXC</td><td>PYBMD64R1</td><td>PY-MD64R1</td></tr><tr><td>128GB</td><td>SDXC</td><td>PYBMD12R1</td><td>PY-MD12R1</td></tr></table><div>max. 1x per system, instead of 16GB MicroSD card</div></div></div></div></div></div></div>		Capacity	Interface	E-parts	L-parts	64GB	SDXC	PYBMD64R1	PY-MD64R1	128GB	SDXC	PYBMD12R1	PY-MD12R1
Capacity	Interface	E-parts	L-parts												
64GB	SDXC	PYBMD64R1	PY-MD64R1												
128GB	SDXC	PYBMD12R1	PY-MD12R1												
<div><div><div><div><div><div>PYBSSS3</div><div>iRMC standard/legacy Option</div><div>When this product is orderd, following iRMC default setting is changed.</div><div>Unique default password: No. The fixed password is printed on ID tag.</div><div>SSH: Enabled</div><div>USB Host LAN : Enabled</div><div>Force to change default pwd to use Redfish/RESTful/other interfaces: No</div><div>max. 1x per system</div></div></div></div></div></div>		<div><div><div><div><div><div>S26361-F3776-E340</div><div>Cool-safe ® Advanced Thermal design 40°C(ATD40)</div><div>enables the PRIMERGY Server to cope with temperatures from 5-40° in operating mode due to extended Fan settings</div><div>Limitation: Refer to "General rules for ATD40 and ATD45"</div><div>this setting can be activated ex factory only</div><div>max. 1x per system</div></div></div></div><div><div><div><div><div><div>S26361-F3776-E345</div><div>Cool-safe ® Advanced Thermal design 45°C(ATD45)</div><div>enables the PRIMERGY Server to cope with temperatures from 5-45° in operating mode due to extended Fan settings</div><div>Limitation: Refer to "General rules for ATD40 and ATD45"</div><div>this setting can be activated ex factory only</div><div>max. 1x per system</div></div></div></div></div></div></div></div>													
<div><div><div><div><div><div>PYBETA6 (will be available in CQ2'24)</div><div>Configuration Thermal Design 30°C(CTD30)</div><div>Sets the PRIMERGY server to support temperatures of up to 30 °C in operating mode for the configuration with thermal restriction.</div><div>this setting can be activated ex factory only</div><div>max. 1x per system</div></div></div></div></div></div>		<div><div><div><div><div><div>General rules for ATD40 and ATD45:</div><div>ATD40 and ATD45 use high performance cooling components</div><div>ATD40:</div><div>&lt;PYT1326T2N, PYT1326TAN&gt;</div><div>- Fujitsu Battery Unit can not be supported</div><div>ATD45:</div><div>Base unit with Standard PSU(PYT1326T2S, PYT1326T3S)</div><div>can not be supported</div><div>&lt;PYT1326T2N, PYT1326TAN&gt;</div><div>- Fujitsu Battery Unit can not be supported</div></div></div></div></div></div>													

TPM module must not order for China region.

PYBTPM19

PY-TPM19

TPM 2.0 Module SPI

required for Microsoft Windows Server 2022 (host OS)

max. 1x per system

PYBNTPM

No TPM for WINSVR

Eitehr PYBTPM19 or PYBNTPM is required in ordering

Windows Server 2022 OEM

max. 1x per system

PYBCOM09

PY-COM09

serial port (RS232)

mounted on rear wall

max. 1x per system

PYBFOF01

PY-FOF01

Dust Protection kit

max. 1x per system

Your Server is ready



Date of change	Configurator revision	Folder / order code / description	What has been changed / comment	Name
10.04.2024	1.02	Cover	updated the address of "For further information see:"	H. Okabe
25.03.2024	1.01	others	revised the description about iRMC MicroSD card options for eLCM	Y. Sugiyama
22.03.2024	1.00		1st release	H. Okabe