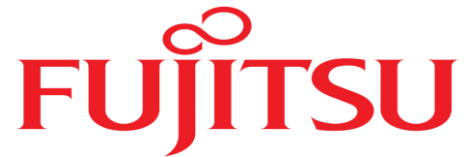


PRIMERGY TX1320 M5  
Compact Tower Server



Chapter	Folder	Content
	Cover	List of content, Instructions for usage of this configurator, abbreviations
	Description	System Description for easier understanding
1	Base	describes base unit of TX1320 M5
2		describes rack mount kits and services
3	CPU	Order code and Infos of processors
4	RAM	DDR4 System memory (RAM) and memory modes
5	GFX	Graphics-, Grid-cards, GPU and Xeon Co processors
6	HD_cage	HDD cage kits
7	RAID	SAS / RAID Controller and components
8	ODD	optical disk drives (DVD, DVD-rw, Blu ray)
9	Backup	RDX drive
10	HD_SSD	Storage drives - SAS/SATA SSD & HDD
11		LAN Components
12	LAN_FC_IB	Fibre Channel Controller (n.a. for TX1320 M5)
13		Infiniband Controller (n.a. for TX1320 M5)
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 PC-/SystemArchitect 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 PC-/SystemArchitect.

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 background, configuration rules, limitations, ...)

<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

### For further information see:

Link to datasheet:

<https://sp.ts.fujitsu.com/dmsp/Publications/public/ds-py-tx1320-m5.pdf>

<https://www.fujitsu.com/fts/products/computing/servers/primerqy/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



The PRIMERGY TX1320 M5 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  
in case of 4x 2.5" the drives may be NVMe

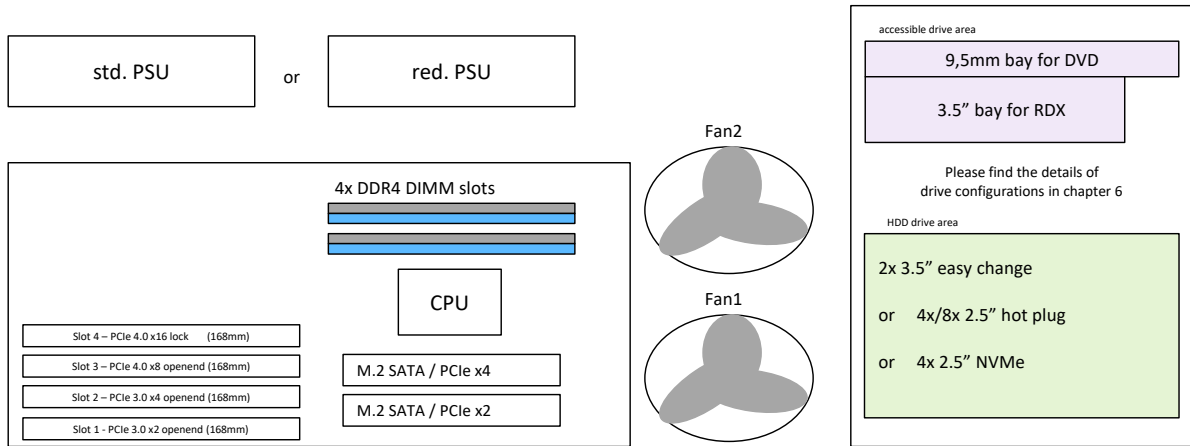
**choose backup option**

- 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"



**Chapter 1 - base unit**

**Start**

**Base Unit**  
 For the PRIMERGY TX 1320 M5 you can choose between different base units:  
 - a version using a standard 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 and 4x 2.5" hot plug NVMe 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 D3931 based on Chipset Intel® C256  
 > cables for connection to the modular or onboard controllers included  
 > Xeon E2300 series CPUs and Pentium CPUs

**Slots:**  
 Slot 4 PCIe 4.0 x8 or x16 (with lock) - supports modular RAID and GPGPU/GPU option  
 Slot 3 PCIe 4.0 x8 or x0 (openend) - supports Raid card and Grafics Card option  
 Slot 2 PCIe 3.0 x4 (openend)  
 Slot 1 PCIe 3.0 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 4.0 x8 or 1x PCIe 4.0 x16

**System RAM**  
 Up to DDR4 3200 MHz  
 4 memory slots for max. 128GB DDR4 RAM.

**LAN**  
 2x Intel i210 Gigabit Ethernet

**Connectivity**

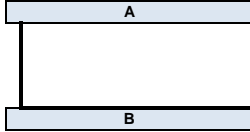
<p><u>Interfaces at rear side</u>                  2x LAN RJ45 (1 Gbit)                  1x service LAN RJ45 (1 Gbit)                  1x Display port                  1x VGA (15 pins)                  2x USB 3.2 Gen2x1 Type A                  4x USB 2.0 Type A                  1x RS-232-C (serial, 9 pin) - optional</p>	<p><u>Interfaces at front</u>                  1x USB 3.2 Gen2x2 Type C                  1x USB 3.2 Gen1x1 Type A</p> <p><u>Interfaces internal</u>                  2x internal USB 3.2 Gen1x1 connectors for backup devices                  2x M.2 (80mm and 110mm)modules: 1x SATA/NVMe(PCIe x4) and 1x SATA/NVMe(PCIe x2)                  1x Mini SATA (4x SATA 6G)</p>
---	---

For converting the base units with standard PSU, to converet redundant PSU use this conversion kit: **PY-TKPC02**

<p><b>hot plug HDD</b></p> <p><b>PYT1325T2S</b> *EOL in EMEA market due to Erp Lot9 regulation                  TX1320 M5 SFF Base Unit w/ std. PSU (2.5" HDD)</p> <p><b>PYT1325T2M</b>                  TX1320 M5 SFF Base Unit w/ red. PSU (2.5" HDD)</p>	<p><b>easy change HDD</b></p> <p><b>PYT1325T3S</b> *EOL in EMEA market due to Erp Lot9 regulation                  TX1320 M5 LFF Base Unit w/ std. PSU (3.5" HDD)</p> <p><b>PYT1325TAI</b> *Only in EMEA market                  TX1320 M5 LFF Base Unit w/ red. PSU (3.5" HDD)</p>
---	---

**A**

**Chapter 2 - Rack architecture**



Rackmount not supported by TX1320 M5

**Chapter 3- CPU**

**B**

One of following CPU's has to be selected for an orderable basic unit

<b>Pentium (Rocket Lake)</b>		order code (BTO)	order code (Loose delivery)
64-bit Intel Pentium processor supporting DDR4 @ 2666MHz			
Pentium Gold G6405 2C/4T 4.1GHz 4MB 2666MHz 58W		PYBCP63C1	-
<b>Xeon E-23xx (Rocket Lake-E)</b>		order code (BTO)	order code (Loose delivery)
64-bit Intel Xeon processor supporting DDR4 @ 3200MHz			
Xeon E-2314	4C/4T 2.8GHz 8MB 3200MHz Turbo 65W	PYBCP63E1	-
Xeon E-2324G	4C/4T 3.1GHz 8MB 3200MHz Turbo 65W	PYBCP63E5	-
Xeon E-2334	4C/8T 3.4GHz 8MB 3200MHz Turbo 65W	PYBCP63E2	-
Xeon E-2374G	4C/8T 3.7GHz 8MB 3200MHz Turbo 80W	PYBCP63E7	-
Xeon E-2336	6C/12T 2.9GHz 12MB 3200MHz Turbo 65W	PYBCP63E3	-
Xeon E-2356G	6C/12T 3.2GHz 12MB 3200MHz Turbo 80W	PYBCP63E6	-
Xeon E-2386G	6C/12T 3.5GHz 12MB 3200MHz Turbo 95W	PYBCP63E9	-
Xeon E-2378	8C/16T 2.6GHz 16MB 3200MHz Turbo 65W	PYBCP63E4	-
Xeon E-2378G	8C/16T 2.8GHz 16MB 3200MHz Turbo 80W	PYBCP63E8	-
Xeon E-2388G	8C/16T 3.2GHz 16MB 3200MHz Turbo 95W	PYBCP63EA	-

**C**

**Chapter 4 - DDR4 System memory**

**B**

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.

Max. 128GB unbuffered DDR4 RAM for UDIMMs with 32GB moduls

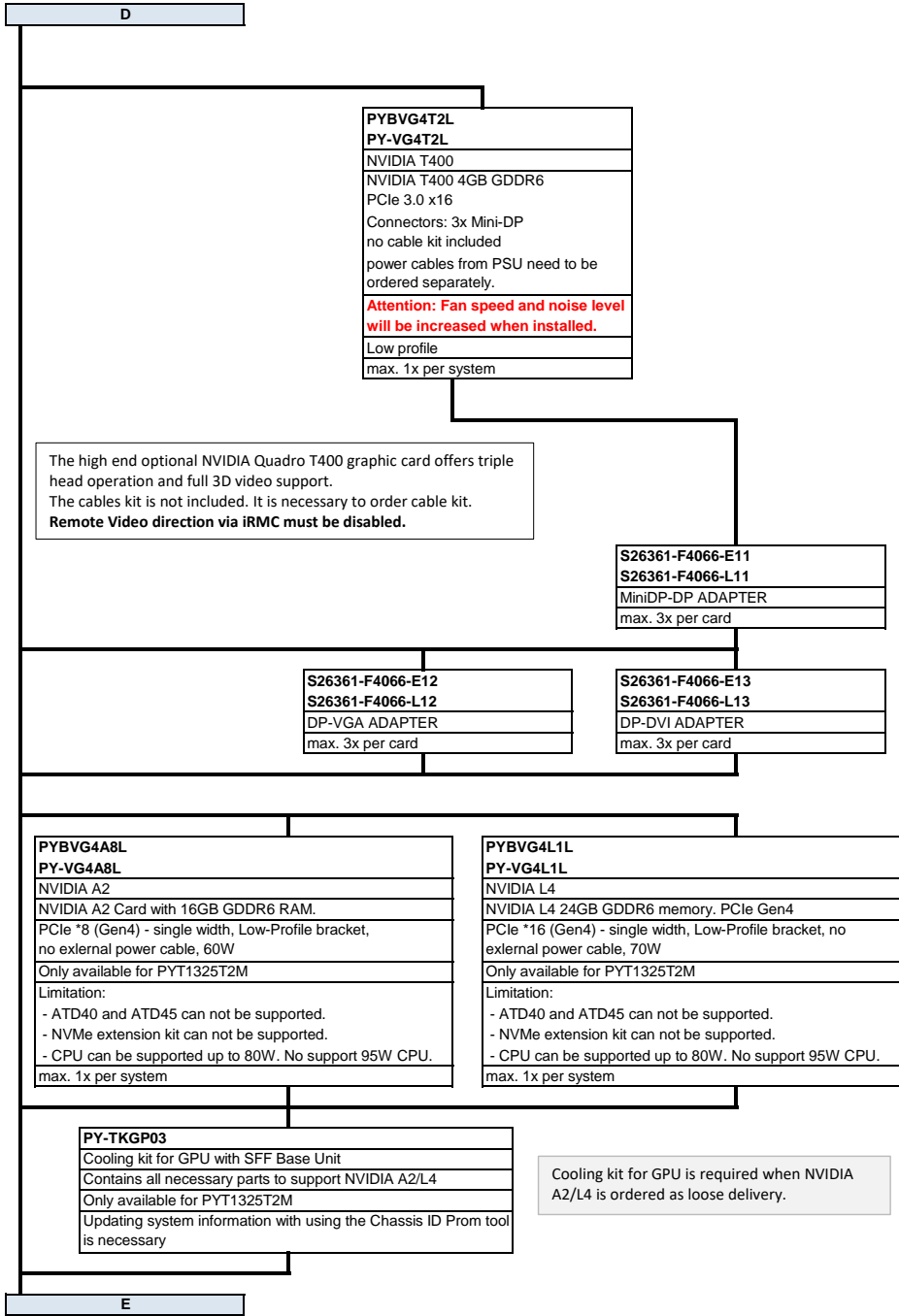
**Note\*\*:** Memory is not included in the base unit and has to be configured separately, min 1x.

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.  
PYBME08UG2 will be EOL on December 1st  
New order code for 8GB are added, but mixed configuration between PYBME08UG2, PY-ME08UG2 and PYBME08UG4, PY-ME08UG4 are not supported  
New order code of PYBME08UG4, PY-ME08UG4 will be available at end of December

8GB DDR4 Unbuffered DIMM 3200MHz 1R x8		order code (BTO)	order code (loose delivery)
8GB (1x8GB) 1Rx8 DDR4-3200 U ECC	single rank	PYBME08UG2	PY-ME08UG2
<b>8GB DDR4 Unbuffered DIMM 3200MHz 1R x8</b>		<b>order code (BTO)</b>	<b>order code (loose delivery)</b>
8GB (1x8GB) 1Rx8 DDR4-3200 U ECC	single rank	PYBME08UG4	PY-ME08UG4
<b>16GB DDR4 Unbuffered DIMM 3200MHz 1R x8</b>		<b>order code (BTO)</b>	<b>order code (loose delivery)</b>
16GB (1x16GB) 1Rx8 DDR4-3200 U ECC	single rank	PYBME16UG3	PY-ME16UG3
<b>32GB DDR4 Unbuffered DIMM 3200MHz 2R x8</b>		<b>order code (BTO)</b>	<b>order code (loose delivery)</b>
32GB (1x32GB) 2Rx8 DDR4-3200 U ECC	dual rank	PYBME32UG2	PY-ME32UG2
min 1x / max 4x for System			

**C**

**Chapter 5 - Graphics cards**





**Chapter 6 - HD drive cage**

**E**

Definition:  
 TX1320 M5 is available in 3 basic versions:  
 1. Base unit for 2x 3.5" non hot plug SATA HDD w/ std. PSU  
 2. Base base unit for 4x/8x 2.5" hot plug SAS/SATA HDD w/ std. PSU  
 3. Base 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 a 2nd HDD Backplane for a total of 8x 2.5" hot plug HDD  
 The base unit using hot plug PSU may be updated with 4x 2.5" NVMe for a total of 8x 2.5" hot plug HDD (4x SAS/SATA + 4x NVMe)

- 1. for SFF SAS/SATA base units only
- 2. RAID controller required

- 1. for SFF SAS/SATA base unit w/ hot plug PSU only
- 2. RAID controller PRAID EP540i NVMe, PRAID EP580i NVMe, PRAID EP680i NVMe or PRAID EP 3258-16i NVMe required  
 EP540i NVMe = S26361-F4042-E224, EP580i NVMe = S26361-F4042-E228  
 EP680i NVMe = PYBSR4C62L  
 EP 3258-16i NVMe = PYBSR4MA4L
- 3. RAID/SAS controller for 4x SAS/SATA also required  
 (Not supported with onboard SATA controller)

<b>PYBBA24SD</b>
<b>PY-BA24SD</b>
2nd HDD Backplae
offers 4x SFF (2,5") hot plug HDD
max. 1x per system

<b>PYBBA24PG</b>
<b>PY-BA24PG</b>
NVMe extension kit
adds 4x PCIe SSD bays to 4x SFF (2,5") hot plug HDD bays
max. 1x per system

**F**

**Chapter 7 - SAS / RAID Controller**

F

See pictures in folder Base / HD\_cage for details of combinations

onboard SATA controller with SW-RAID

max number of drives depends on base units

For Support OS, please check "PRIMERGY Release Matrix" at <https://support.ts.fujitsu.com/>

onboard controller for SATA HDD or SSD drives

6 ports 3, 6Gb/s SATA HDD/SSD	based on Intel chipset	No Cache	SW-RAID 0, 1, 10	1x	onboard, included
-------------------------------	------------------------	----------	------------------	----	-------------------

internal HBA and RAID controller, no 2nd Level cache

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

<b>PRAID CP600i LP</b>	No Cache	RAID 0, 1, 10	1x	PYBSR4FAL	PY-SR4FA
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3808					

<b>PSAS CP600i LP</b>	No Cache	HBA, no RAID	1x	PYBSC4FAL	PY-SC4FA
16 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 16 drives without expander requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3816; IT FW stack without RAID functionality					

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

<b>PRAID CP500i RAID Contr.</b>	No Cache	RAID 0, 1, 10, 5, 50	1x	PYBSR3FBL	PY-SR3FB
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 devices without expander requires 1x LP PCIe 3.0 x8 (int.) slot, based on LSI SAS3408					

<b>PSAS CP500i HBA SAS Contr.</b>	No Cache	HBA, no RAID	1x	PYBSC3FBL	PY-SC3FB
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 devices without expander requires 1x LP PCIe 3.0 x8 (int.) slot, based on LSI SAS3408; IT FW stack without RAID functionality					

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

<b>PSAS CP 2100-8i LP</b>	No Cache	HBA + RAID 0, 1, 10, 5	1x	PYBSC3MA2L	PY-SC3MA2
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander requires 1x LP PCIe 3.0 x8 (int.) slot					

internal RAID controller with 2nd Level cache

internal RAID controllers for SAS, SATA HDD or SSD drives

<b>PRAID EP640i LP</b>	4GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	PYBSR4C63L	PY-SR4C63
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander includes FastPath and SafeStore Advanced SW-Licence, CacheCade is no longer supported requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3908					

<b>PRAID EP680i LP</b>	8GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	PYBSR4C6L	PY-SR4C6
16 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 16 SAS/SATA drives without expander (the configuration for up to 4 x4 NVMe drives requires a different order number, please see below) includes FastPath and SafeStore Advanced SW-Licence, CacheCade is no longer supported requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3916 (FYI: PYBSR4C6L and PYBSR4C62L are identical products. The 2nd Order number was only introduced for explicit ordering and cabling)					

internal RAID controllers for SAS, SATA HDD or SSD drives

<b>PRAID EP520i RAID Contr. LP</b>	2GB Cache	RAID 0,1,1E,10,5,50,6,60	1x	S26361-F4042-E202	S26361-F4042-L502
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 devices without expander includes Fastpath and SafeStore Advanced SW-Licence requires 1x LP PCIe 3.0 x8 (int.) slot, based on LSI SAS3516					

<b>PRAID EP540i RAID Contr. LP</b>	4GB Cache	RAID 0,1,1E,10,5,50,6,60	1x	S26361-F4042-E214	S26361-F4042-L514
------------------------------------	-----------	--------------------------	----	-------------------	-------------------

<b>PRAID EP580i RAID Contr. LP</b>	8GB Cache	RAID 0,1,1E,10,5,50,6,60	1x	S26361-F4042-E208	S26361-F4042-L508
16 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, based on LSI SAS3516, without expander, up to 16 SAS/SATA devices are supported. (the configuration for 4 x 4 NVMe drives require a different order number, please see below) includes FastPath and SafeStore Advanced SW-Licence, CacheCade is no longer supported requires 1x LP PCIe 3.0 x8 (int.) slot, based on LSI SAS3516 (FYI: S26361-F4042-E214 and E224, S26361-F4042-E208 and E228 are identical products. The 2nd Order number was only introduced for explicit ordering and cabling )					

optional Flash Backup Unit (FBU), Transportable Flash module (TFM) is already included

<b>FBU Option for PRAID EP5xx / EP6xx:</b> 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
--	----	-------------------	-------------------

internal RAID controllers for PCIe SSD drives

<b>PRAID EP680i NVMe LP</b>	8GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	PYBSR4C62L	PY-SR4C6
up to 4 x4 NVMe drives are supported. (the configuration for SAS/SATA only requires a different order number, please see above) includes FastPath and SafeStore Advanced SW-Licence, CacheCade is no longer supported requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3916 (FYI: PYBSR4C6L and PYBSR4C62L are identical products. The 2nd Order number was only introduced for explicit ordering and cabling)					

internal RAID controllers for PCIe SSD drives

<b>PRAID EP540i RAID NVMe LP</b>	4GB Cache	RAID 0,1,1E,10,5,50,6,60	1x	S26361-F4042-E224	S26361-F4042-L514
----------------------------------	-----------	--------------------------	----	-------------------	-------------------

<b>PRAID EP580i RAID NVMe LP</b>	8GB Cache	RAID 0,1,1E,10,5,50,6,60	1x	S26361-F4042-E228	S26361-F4042-L508
16 ports for NVMe PCIe SSD, based on LSI SAS3516 up to 4 x4 NVMe devices are supported. (the configuration for SAS/SATA only require a different order number, please see above) includes FastPath and SafeStore Advanced SW-Licence, CacheCade is no longer supported requires 1x LP PCIe 3.0 x8 (int.) slot, based on LSI SAS3516 (FYI: S26361-F4042-E214 and E224, S26361-F4042-E208 and E228 are identical products. The 2nd Order number was only introduced for explicit ordering and cabling )					

<b>Internal RAID controllers for SAS, SATA HDD or SSD drives -Cancelled-</b>					
<b>PRAID EP 3252-8i LP</b>	2GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	<b>PYBSR4MA1L</b>	<b>PY-SR4MA1</b>
<b>PRAID EP 3254-8i LP</b>	4GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	<b>PYBSR4MA2L</b>	<b>PY-SR4MA2</b>
8 ports 6, 12 & 24Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander requires 1x LP PCIe 4.0 x8 (int.) slot					
<b>PRAID EP 3258-16i LP</b>	8GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	<b>PYBSR4MA3L</b>	<b>PY-SR4MA3</b>
16 ports 6, 12 & 24Gb/s SAS/SATA HDD/SSD, supports up to 16 SAS/SATA drives without expander (the configuration for up to 4 x4 NVMe drives requires a different order number, please see below) requires 1x LP PCIe 4.0 x8 (int.) slot (FYI: PYBSR4MA3L and PYBSR4MA4L are identical products. The 2nd Order number was only introduced for explicate ordering and cabling)					
optional Flash Backup Unit (FBU)					
<b>FBU Option for PRAID EP325x:</b> Supercap securing the power supply of the RAID controller in case of power failure including cable with 46cm length			1x	<b>PYFBM012</b>	<b>PY-FBM01</b>

<b>Internal RAID controllers for PCIe SSD drives -Cancelled-</b>					
<b>PRAID EP 3258-16i NVMe LP</b>	8GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	<b>PYBSR4MA4L</b>	<b>PY-SR4MA3</b>
up to 4 x4 NVMe drives are supported. (the configuration for SAS/SATA only requires a different order number, please see above) requires 1x LP PCIe 4.0 x8 (int.) slot (FYI: PYBSR4MA3L and PYBSR4MA4L are identical products. The 2nd Order number was only introduced for explicate ordering and cabling)					
optional Flash Backup Unit (FBU)					
<b>FBU Option for PRAID EP325x:</b> Supercap securing the power supply of the RAID controller in case of power failure including cable with 46cm length			1x	<b>PYFBM012</b>	<b>PY-FBM01</b>

**PSAS CP 2100-8i and PRAID EP540i NVMe / EP580i NVMe / EP680i NVMe cannot be mixed**

maximum number of internal RAID + HBA (See also pictures on folder base / HD\_cage):  
standard config: max. 1  
for NVMe support only: max. 2x controllers: one PRAID EP540i / EP580i / EP680i NVMe or PRAID EP 3258-16i NVMe for 4x NVMe; second RAID, HBA controller for SAS/SATA

up to **1x FBU** can be integrated per System  
for PRAID EP540i / EP580i / EP680i NVMe, no FBU is allowed (performance)

**Expander configurations:** Use PRAID EPxxx for optimal performance

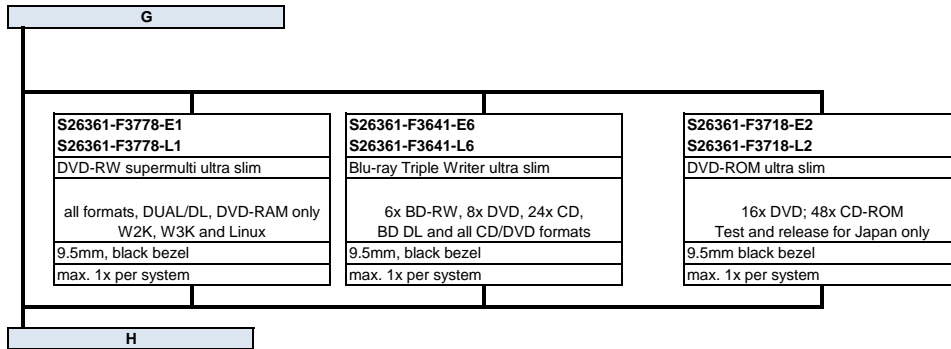
**Cable kit for upgrade cards:** For upgrade L-parts RAID/HBA controller card(EP6xxi/CP6xxi), L-parts Cable kit is required.  
Cable Kit for EP6xxi/CP6xxi : PY-CBS096

**PRAID EP 3252-8i / EP 3254-8i / EP 3258-16i and PRAID EP540i NVMe / EP580i NVMe / EP680i NVMe cannot be mixed**

**PRAID EP 3258-16i NVMe and PSAS CP503i / CP600i / PRAID CP500i / CP600i / EP520i / EP540i / EP580i / EP640i / EP680i cannot be mixed**

G

**Chapter 8 - ODD optical disk drives**



**Chapter 9 - backup drives**

TX1320 M5 is available in three basic versions:  
 1. Base unit for 2x 3.5" non hot plug HDD w/ std. PSU  
 2. Base base unit for 4x/8x 2.5" hot plug HDD w/ std. PSU  
 3. 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.

**H**

<b>RDX drive</b>				
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

<b>RDX</b>				
<b>RDX Cartridge</b>				
RDX Cartridge 500GB		-	-	S26361-F3857-L500
RDX Cartridge 1TB		-	-	S26361-F3857-L600
RDX Cartridge 2TB		-	-	S26361-F3857-L700
RDX Cartridge 4TB		-	-	S26361-F3857-L900

**I**

**Chapter 10 - storage drives**

I

SAS drives and SATA drives can be mixed, but cannot be used in one logical RAID volume.  
 SAS drives require a dedicated SAS / RAID Controller  
 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.  
 512e HDD Disk Drives: VMWare 6.0 or earlier is not supported.  
 When using SSDs with VMWare ESXi, select the SSDs that meet the endurance requirement described in KB2145210 below.  
<https://kb.vmware.com/kb/2145210>  
 DWPD: Drive Writes Per Day over 5 years.  
 SED (-Self Encrypting Drives) require either a RAID controller with \*SafeStore (SED) support 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.  
**HDD Classes:**  
 Economic (ECO) SATA: Entry Class Drives.  
 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**

<b>SSD SAS 2.5" Write Intensive (SFF) Enterprise with hot plug/hot replace tray</b>							
based on <b>Seagate Nytro3732</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
400GB	2.5" (SFF)	SAS 12Gb/s	Write Intensive	10		PYBSS40NGA	PY-SS40NGA
800GB	2.5" (SFF)	SAS 12Gb/s	Write Intensive	10		PYBSS80NGA	PY-SS80NGA
1.6TB	2.5" (SFF)	SAS 12Gb/s	Write Intensive	10		PYBSS16NGA	PY-SS16NGA
400GB	2.5" (SFF)	SAS 12Gb/s	Write Intensive	10	SED	PYBSS40NGW	PY-SS40NGW
800GB	2.5" (SFF)	SAS 12Gb/s	Write Intensive	10	SED	PYBSS80NGW	PY-SS80NGW
1.6TB	2.5" (SFF)	SAS 12Gb/s	Write Intensive	10	SED	PYBSS16NGW	PY-SS16NGW

max. 8x - depending on base unit & configuration

<b>SSD SAS 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray</b>							
based on <b>Seagate Nytro3532</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
800GB	2.5" (SFF)	SAS 12Gb/s	Mixed Use	3		PYBSS80NPF	PY-SS80NPF
1.6TB	2.5" (SFF)	SAS 12Gb/s	Mixed Use	3		PYBSS16NPF	PY-SS16NPF
3.2TB	2.5" (SFF)	SAS 12Gb/s	Mixed Use	3		PYBSS32NPF	PY-SS32NPF
6.4TB	2.5" (SFF)	SAS 12Gb/s	Mixed Use	3		PYBSS64NPF	PY-SS64NPF

max. 8x - depending on base unit & configuration

<b>SSD SAS 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray</b>							
based on <b>Seagate Nytro3332</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
960GB	2.5" (SFF)	SAS 12Gb/s	Read Intensive	1		PYBSS96NNJ	PY-SS96NNJ
1.92TB	2.5" (SFF)	SAS 12Gb/s	Read Intensive	1		PYBSS19NNH	PY-SS19NNH
3.84TB	2.5" (SFF)	SAS 12Gb/s	Read Intensive	1		PYBSS38NNH	PY-SS38NNH
7.68TB	2.5" (SFF)	SAS 12Gb/s	Read Intensive	1		PYBSS76NNH	PY-SS76NNH
15.36TB	2.5" (SFF)	SAS 12Gb/s	Read Intensive	1		PYBSS15NNG	PY-SS15NNG

max. 8x - depending on base unit & configuration

will be available in CQ1'24

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 5300 MAX drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
240GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		S26361-F5776-E240	S26361-F5776-L240
480GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		S26361-F5776-E480	S26361-F5776-L480
960GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		S26361-F5776-E960	S26361-F5776-L960
1.92TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		S26361-F5776-E192	S26361-F5776-L192
3.84TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3,5		S26361-F5776-E384	S26361-F5776-L384
max. 8x - depending on base unit & configuration							

will be available in CQ1'24

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 5300 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		S26361-F5783-E240	S26361-F5783-L240
480GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		S26361-F5783-E480	S26361-F5783-L480
960GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		S26361-F5783-E960	S26361-F5783-L960
1.92TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		S26361-F5783-E192	S26361-F5783-L192
3.84TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,2		S26361-F5783-E384	S26361-F5783-L384
7.68TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	0,6		S26361-F5783-E768	S26361-F5783-L768
max. 8x - depending on base unit & configuration							

2.5" (SFF) Hard drives

EOL, as long as stock available

HDD SAS 2.5" 15K (SFF) Enterprise Mission Critical with hot plug/hot replace tray						
Capacity	RPM	Interface	Sector		order code E-part	order code L-part
300GB	15 000	SAS 12Gb/s	512n		S26361-F5727-E530	S26361-F5727-L530
600GB	15 000	SAS 12Gb/s	512n		S26361-F5727-E560	S26361-F5727-L560
900GB	15 000	SAS 12Gb/s	512n		S26361-F5531-E590	S26361-F5531-L590
max. 8x - depending on base unit & configuration						

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		S26361-F5729-E130	S26361-F5729-L130
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
300GB	10 000	SAS 12Gb/s	512n	SED	PYBSH301EU	PY-SH301EU
600GB	10 000	SAS 12Gb/s	512n	SED	PYBSH601EU	PY-SH601EU
1.2TB	10 000	SAS 12Gb/s	512n	SED	PYBSH121EU	PY-SH121EU
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
600GB	10 000	SAS 12Gb/s	512e		S26361-F5730-E160	S26361-F5730-L160
1.2TB	10 000	SAS 12Gb/s	512e		S26361-F5730-E112	S26361-F5730-L112
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
1.8TB	10 000	SAS 12Gb/s	512e	SED	PYBSH181DU	PY-SH181DU
2.4TB	10 000	SAS 12Gb/s	512e	SED	S26361-F5582-E124	S26361-F5582-L124
max. 8x - depending on base unit & configuration						

EOL, as long as stock available

HDD SATA 2.5" 7.2K 512n (SFF) Enterprise Business Critical with hot plug/hot replace tray						
Capacity	RPM	Interface	Sector		order code E-part	order code L-part
1TB	7 200	SATA 6Gb/s	512n		S26361-F3956-E100	S26361-F3956-L100
2TB	7 200	SATA 6Gb/s	512n		S26361-F3956-E200	S26361-F3956-L200
max. 8x - depending on base unit & configuration						

The HDDs not released with PRAID EP5x0i (S26361-F4042-E202/E204/E208)

EOL, as long as stock available

HDD SATA 2.5" 7.2K 512e (SFF) Enterprise Business Critical with hot plug/hot replace tray						
Capacity	RPM	Interface	Sector		order code E-part	order code L-part
1TB	7 200	SATA 6Gb/s	512e		S26361-F3907-E100	S26361-F3907-L100
2TB	7 200	SATA 6Gb/s	512e		S26361-F3907-E200	S26361-F3907-L200
max. 8x - depending on base unit & configuration						

J

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
1TB	7 200	SATA 6Gb/s	512n		PYBBH1T2B4	PY-BH1T2B4
2TB	7 200	SATA 6Gb/s	512n		PYBBH2T2B4	PY-BH2T2B4
4TB	7 200	SATA 6Gb/s	512n		PYBBH4T2B4	PY-BH4T2B4
max. 2x - depending on base unit & 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		PYBBH6T2E4	PY-BH6T2E4
8TB	7 200	SATA 6Gb/s	512e		S26361-F5639-E800	S26361-F5639-L800
12TB	7 200	SATA 6Gb/s	512e		PYBBHCT2E4	PY-BHCT2E4
max. 2x - depending on base unit & configuration						

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

EOL, as long as stock available

HDD SATA 3.5" 7.2K (LFF) ECO with NON hot plug/hot replace tray						
Capacity	RPM	Interface	Sector		order code E-part	order code L-part
1TB	7 200	SATA 6Gb/s	512e		S26361-F3952-E100	S26361-F3952-L100
max. 2x - depending on base unit & 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 & configuration						



M.2 SATA SSD

SSD SATA M.2 drive for booting, non hot-plug, for VMware ESXi							
Capacity	Formfactor	Interface		Category		order code E-part	order code L-part
240GB	M.2	SATA 6Gb/s		Boot		S26361-F5816-E240	S26361-F5816-L240

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 CP100.

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

SSD SATA M.2 drive for booting, non hot-plug							
Capacity	Formfactor	Interface	DWPD	Category		order code E-part	order code L-part
240GB	M.2	SATA 6Gb/s	1,5	Boot		S26361-F5787-E240	S26361-F5787-L240
480GB	M.2	SATA 6Gb/s	1,5	Boot		S26361-F5787-E480	S26361-F5787-L480
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 CP100.

Dual M.2

PDUAL CP100 and M.2 drive on Motherboard cannot be mixed

PDUAL CP100, 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	PYBDMCP24L	PY-DMCP24

PDUAL CP100 is a carrier 2x M.2 SATA modules and offers RAID1 with 2x M.2 modules.  
 PDUAL CP100 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 level : RAID1 only, 2x M.2 modules need to be ordered separately.  
 Supported M.2 Modules : SSD SATA M.2 240GB/480GB, and 240GB for VMware ESXi. (S26361-F5787-E240/L240/E480/L480 or S26361-F5816-E240/L240)  
 Windows 2022 support: For PY-DMCP24, Firmware Package 2.3.21.2009 or later is required. PYBDMCP24L is shipped with the required Firmware Package  
 To manage the CP100, iRMC 1.13S or later is required  
 max. 1x per Server, requires 2x SSD SATA 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 CP100 ex factory.  
 max. 1x per Server, requires 1x PDUAL CP100.

2.5" PCIe-SSDs require a RAID Controller

2.5" (SFF) PCIe-SSD

will be available in CQ1 '24

PCIe-SSD 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray							
based on <b>Kioxia CM7-V</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
1.6TB	2.5" (SFF)	PCIe5.0 x4	Mixed Use	3		PYBBS16PDB	PY-BS16PDB
3.2TB	2.5" (SFF)	PCIe5.0 x4	Mixed Use	3		PYBBS32PDB	PY-BS32PDB
6.4TB	2.5" (SFF)	PCIe5.0 x4	Mixed Use	3		PYBBS64PDB	PY-BS64PDB
12.8TB	2.5" (SFF)	PCIe5.0 x4	Mixed Use	3		PYBBS12PDB	PY-BS12PDB
max. 4x - depending on base unit & configuration							

EOL, as long as stock available

PCIe-SSD 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray							
based on <b>Kioxia CM6-V</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
1.6TB	2.5" (SFF)	PCIe4.0 x4	Mixed Use	3		PYBBS16PD6	PY-BS16PD6
3.2TB	2.5" (SFF)	PCIe4.0 x4	Mixed Use	3		PYBBS32PD6	PY-BS32PD6
6.4TB	2.5" (SFF)	PCIe4.0 x4	Mixed Use	3		PYBBS64PD6	PY-BS64PD6
12.8TB	2.5" (SFF)	PCIe4.0 x4	Mixed Use	3		PYBBS12PD6	PY-BS12PD6
max. 4x - depending on base unit & configuration							

PCIe-SSD 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray [EOL]							
based on <b>Intel DC P4610</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
1.6TB	2.5" (SFF)	PCIe3.0 x4	Mixed Use	4,1		S26361-F5737-E160	S26361-F5737-L160
3.2TB	2.5" (SFF)	PCIe3.0 x4	Mixed Use	3,7		S26361-F5737-E320	S26361-F5737-L320
6.4TB	2.5" (SFF)	PCIe3.0 x4	Mixed Use	3,1		S26361-F5737-E640	S26361-F5737-L640
max. 4x - depending on base unit & configuration							

will be available in CQ1 '24

PCIe-SSD 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on <b>Kioxia CM7-R</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
1.92TB	2.5" (SFF)	PCIe5.0 x4	Read Intensive	1		PYBBS19PEA	PY-BS19PEA
3.84TB	2.5" (SFF)	PCIe5.0 x4	Read Intensive	1		PYBBS38PEA	PY-BS38PEA
7.68TB	2.5" (SFF)	PCIe5.0 x4	Read Intensive	1		PYBBS76PEA	PY-BS76PEA
15.36TB	2.5" (SFF)	PCIe5.0 x4	Read Intensive	1		PYBBS15PEB	PY-BS15PEB
max. 4x - depending on base unit & configuration							

EOL, as long as stock available

PCIe-SSD 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on <b>Kioxia CM6-R</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
960GB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS96PE6	PY-BS96PE6
1.92TB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS19PE6	PY-BS19PE6
3.84TB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS38PE6	PY-BS38PE6
7.68TB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS76PE6	PY-BS76PE6
15.36TB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS15PE6	PY-BS15PE6
max. 4x - depending on base unit & configuration							

PCIe-SSD 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray [EOL]							
based on <b>Intel DC P4510</b> drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
1TB	2.5" (SFF)	PCIe3.0 x4	Read Intensive	1,0		S26361-F5738-E100	S26361-F5738-L100
2TB	2.5" (SFF)	PCIe3.0 x4	Read Intensive	0,7		S26361-F5738-E200	S26361-F5738-L200
4TB	2.5" (SFF)	PCIe3.0 x4	Read Intensive	0,8		S26361-F5738-E400	S26361-F5738-L400
max. 4x - depending on base unit & configuration							

K

**Chapter 11 - Communications / Ethernet Network Components**

K

PRIMERGY TX1320 M5 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**

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. 2 adapters per system				

Broadcom 1GbE BEASE-T for PCIe				
PLAN CP BCM5719-4P 4X 1000BASE-T PCIe LP	2x	Broadcom, 1GTx4port	PYBLA284L	PY-LA284
max. 2 adapters per system				
<b>Attention: Fan speed and noise level will be increased when installed.</b>				

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. 4 adapters per server system				

Broadcom 10GbE BEASE-T for PCIe				
PLAN EP P210TP 2X 10GBASE-T PCIe LP	2x	Broadcom, 10GTx2port	PYBLA3K2L	PY-LA3K2
max. 2 adapters per system				
<b>Attention: Fan speed and noise level will be increased when installed.</b>				

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.				
<b>All ports on this card need to install the same Parts Number of optical module.</b>				
PLAN EP X710-DA2 2x10Gb SFP+ LP	2x	Intel, 10Gx2port	S26361-F3640-E202	S26361-F3640-L502
PLAN EP X710-DA4 4x10Gb SFP+	2x	Intel, 10Gx4port	S26361-F3640-E204	S26361-F3640-L504
<b>Optional, 10Gb SFP+ optical transceiver module, select one per cage</b>				
SFP+ Optical Transceiver 10G Single Rate SR	4x	Finisar, 10G SR SFP+	S26361-F3986-E3	S26361-F3986-L3
SFP+ Optical Transceiver 10G Single Rate LR	4x	Finisar, 10G LR SFP+	S26361-F3986-E4	S26361-F3986-L4
SFP+ Optical Transceiver 10G/1G Dual Rate SR	4x	Intel, 1G/10G SR SFP+	S26361-F3986-E5	S26361-F3986-L5
SFP+ Optical Transceiver 10G/1G Dual Rate LR	4x	Intel, 1G/10G LR SFP+	S26361-F3986-E6	S26361-F3986-L6
max. 1x per port				
max. 4 adapters per server system				

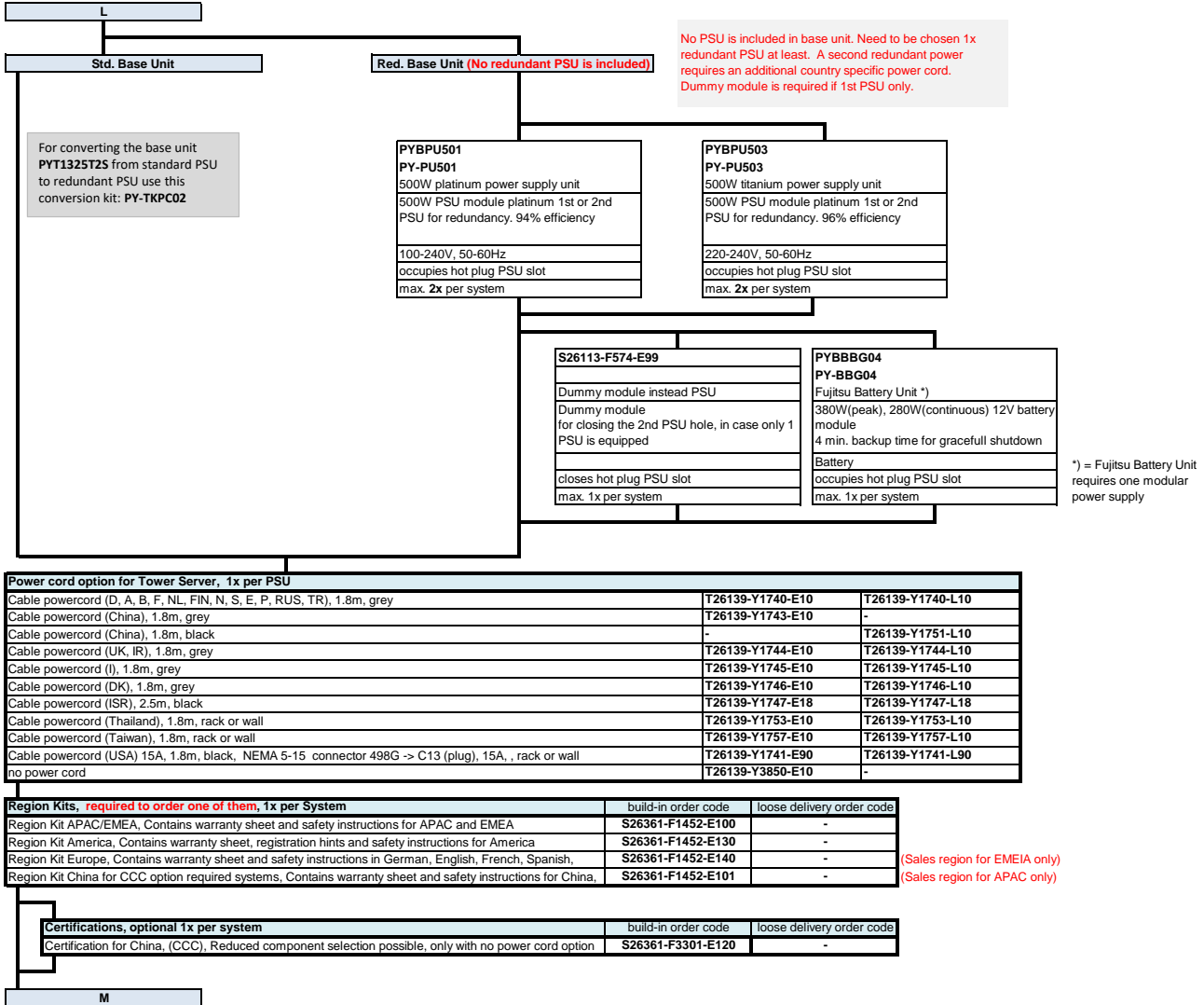
Broadcom 10GbE for PCIe				
Each cage consumes 1x optical SFP+ transceiver per port.				
Dual rate 10G/1G support requires 10G/1G Dual Rate SFP+ Optical Transceiver Modules.				
<b>All ports on this card need to install the same Parts Number of optical module.</b>				
<b>Attention: Fan speed and noise level will be increased when installed.</b>				
PLAN EP P210P 2x10Gb SFP PCIe LP	2x	Broadcom, 10Gx2port	PYBLA3J2L	PY-LA3J2
<b>Optional, 10Gb SFP+ optical transceiver module, select one per cage</b>				
SFP+ Optical Transceiver 10G Single Rate SR	2x	Finisar, 10G SR SFP+	S26361-F3986-E3	S26361-F3986-L3
SFP+ Optical Transceiver 10G Single Rate LR	2x	Finisar, 10G LR SFP+	S26361-F3986-E4	S26361-F3986-L4
SFP+ Optical Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+	S26361-F3986-E5	S26361-F3986-L5
SFP+ Optical 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				

<b>Intel 25GbE for PCIe</b>				
Each cage consumes 1x optical SFP28 or SFP+ transceiver per port. Intel adapters support 1Gbps line rate per-port in addition, with the Intel-branded 10G/1G Dual Rate SFP+ Optical Transceiver Modules. <b>All ports on this card need to install the same Parts Number of optical module.</b> <b>10G SFP BTO is not available for 25G cards, please select L parts.</b>				
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, select one per cage</b>				
SFP+ Optical Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+		S26361-F3986-L5
SFP+ Optical Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
<i>max. 1x per port</i>				
max. 2x adapters per system				

<b>Mellanox 25GbE for PCIe</b>				
Each cage consumes 1x optical SFP28 or SFP+ transceiver per port. Intel adapters support 1Gbps line rate per-port in addition, with the Intel-branded 10G/1G Dual Rate SFP+ Optical Transceiver Modules. <b>All ports on this card need to install the same Parts Number of optical module.</b> <b>10G SFP BTO is not available for 25G cards, please select L parts.</b>				
PLAN EP MCX4-LX 25Gb 2p SFP28 LP	2x	Mellanox, 25Gx2port	S26361-F4054-E202	S26361-F4054-L502
<b>Optional, 25Gb SFP28 optical transceiver module with LC connector, each cage consumes one.</b>				
SFP28 Optical Transceiver 25G SR MMA2P00-AS LC	2x	Mellanox, 25G SR SFP28	S26361-F4054-E701	S26361-F4054-L701
<i>max. 1x per port</i>				
<b>Optional, 10Gb SFP+ optical transceiver module, select one per cage</b>				
SFP+ Optical Transceiver 10G Single Rate SR	2x	Finisar, 10G SR SFP+		S26361-F3986-L3
SFP+ Optical Transceiver 10G Single Rate LR	2x	Finisar, 10G LR SFP+		S26361-F3986-L4
SFP+ Optical Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+		S26361-F3986-L5
SFP+ Optical Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
<i>max. 1x per port</i>				
max. 4x adapters per system				

L

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



Power cord option for Tower Server, 1x per PSU		
Cable powercord (D, A, B, F, NL, FIN, N, S, E, P, RUS, TR), 1.8m, grey	T26139-Y1740-E10	T26139-Y1740-L10
Cable powercord (China), 1.8m, grey	T26139-Y1743-E10	-
Cable powercord (China), 1.8m, black	-	T26139-Y1751-L10
Cable powercord (UK, IR), 1.8m, grey	T26139-Y1744-E10	T26139-Y1744-L10
Cable powercord (I), 1.8m, grey	T26139-Y1745-E10	T26139-Y1745-L10
Cable powercord (DK), 1.8m, grey	T26139-Y1746-E10	T26139-Y1746-L10
Cable powercord (ISR), 2.5m, black	T26139-Y1747-E18	T26139-Y1747-L18
Cable powercord (Thailand), 1.8m, rack or wall	T26139-Y1753-E10	T26139-Y1753-L10
Cable powercord (Taiwan), 1.8m, rack or wall	T26139-Y1757-E10	T26139-Y1757-L10
Cable powercord (USA) 15A, 1.8m, black, NEMA 5-15 connector 498G -> C13 (plug), 15A, rack or wall	T26139-Y1741-E90	T26139-Y1741-L90
no power cord	T26139-Y3850-E10	-

Region Kits, required to order one of them, 1x per System	build-in order code	loose delivery order code
Region Kit APAC/EMEA, Contains warranty sheet and safety instructions for APAC and EMEA	S26361-F1452-E100	-
Region Kit America, Contains warranty sheet, registration hints and safety instructions for America	S26361-F1452-E130	-
Region Kit Europe, Contains warranty sheet and safety instructions in German, English, French, Spanish,	S26361-F1452-E140	-
Region Kit China for CCC option required systems, Contains warranty sheet and safety instructions for China,	S26361-F1452-E101	-

(Sales region for EMEA only)  
(Sales region for APAC only)

Certifications, optional 1x per system	build-in order code	loose delivery order code
Certification for China, (CCC), Reduced component selection possible, only with no power cord option	S26361-F3301-E120	-

**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
Mouse M530 Black	S26381-K468-L100
Mouse M530 Grey	S26381-K468-L101

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
Czech/Slovak	S26381-K521-L104
US 104 keys (US keyboard + US layout)	S26381-K521-L110
Germany	S26381-K521-L120
Germany / Int	S26381-K521-L122
France	S26381-K521-L140
Sweden / Finland	S26381-K521-L154
United Kingdom	S26381-K521-L165
Switzerland	S26381-K521-L170
Spain	S26381-K521-L180
Italy	S26381-K521-L185

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

**N**

**Chapter 16 - others (Energy Star restrictions)**

N

**S26361-F3301-E241**

will be expired after 2024-1-11

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

will be effective after 2024-1-12

**PYBES21**

E-Star Fam1 Certification  
 RX/TX13x0 Mx E-Star Fam1  
 Limits configuration in accordance for ENERGY STAR V4.0  
 max. 1x per system

limitations for E-Star Fam1 certification.

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

**<ENERGY STAR V3.0 / S26361-F3301-E241>**

- use 2x redundant PSU
- do not use one of the following CPUs : Pentium Gold G6405; Xeon E-2314/E-2324G/E-2334/E-2374G
- use total 16GB or more DIMMs
- do not use more than two PCIe cards (RAID, LAN, ...) (two is ok)

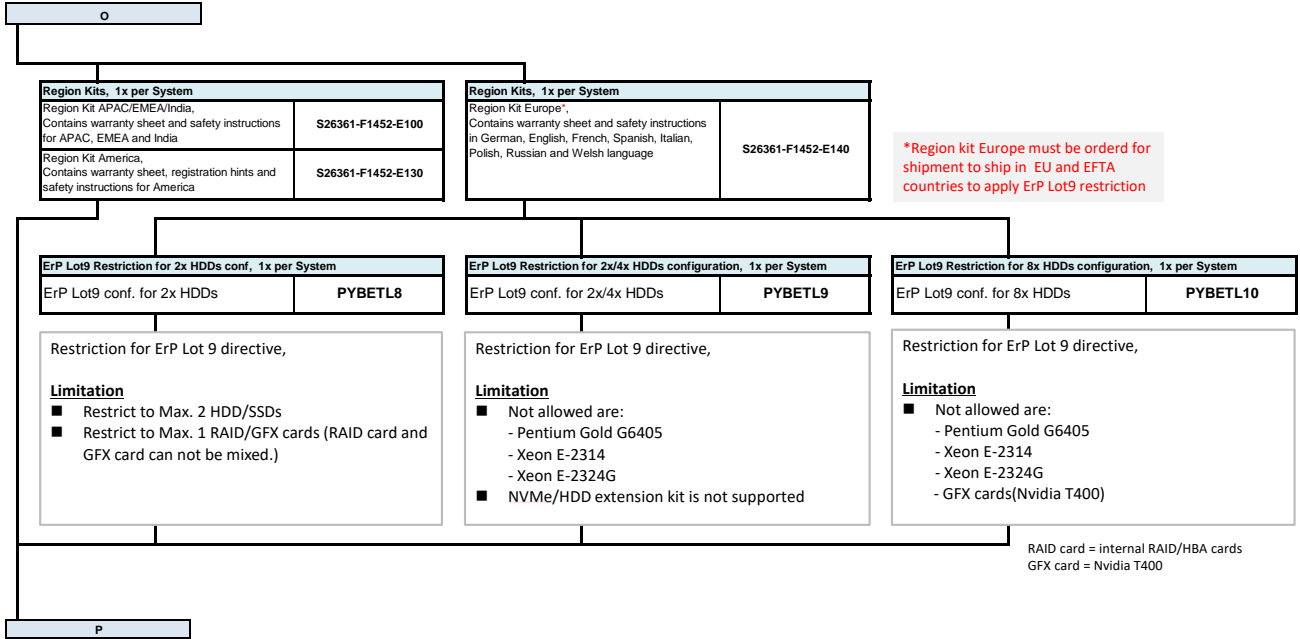
**<ENERGY STAR V4.0 / PYBES21>**

- use one of the following CPUs : Xeon E-2378G/E-2388G
- use total 32GB or more DIMMs
- use less than five SATA SSDs(Max. 4x: including M.2 SSD) / do not use any HDDs
- do not use any PCIe cards (RAID, LAN, ...)

ENERGY STAR-configurationen will be labeld: **PRIMERGY TX1320 M5 E-Star Fam1**  
 non ENERGY STAR-configurationen will be labeld: **PRIMERGY TX1320 M5**

O

Chapter 16 - Others (ErP Lot 9 restriction)





**Chapter 16 - others**

P

<b>PYBRMC44</b>
<b>PY-RMC44</b>
iRMC advanced pack
integrated remote Management controller activation key for graphical console redirection and remote media redirection
max. 1x per system

others

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.

<b>PYBLCM14</b>
<b>embedded Lifecycle Management (eLCM)</b>
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)
<b>PY-LCM14</b>
<b>options contains:</b>
- Paper with TAN for Licensekey

<b>S26361-F3776-E340</b>
Cool-safe ® Advanced Thermal design see right side
enables the PRIMERGY Server to cope with temperatures from 5-40° in operating mode due to extended Fan settings
this setting can be activated ex factory only
max. 1x per system

<b>General rules for ATD40 and ATD45:</b>
ATD40 and ATD45 use high performance cooling components
<b>ATD40:</b>
- CPU can be supported up to 80W. No support 95W CPU.
- Fujitsu Battery Unit can not be supported.
- <b>NVIDIA A2 can not be supported.</b>
- <b>NVIDIA L4 can not be supported.</b>
- <b>Broadcom 1GbE BEASE-T for PCIe/10GbE BEASE-T for PCIe/10GbE for PCIe can not be supported.</b>
<b>ATD45:</b>
- Base unit with Standard PSU can not be supported
- 480GB M.2 can not be supported
- CPU can be supported up to 80W. No support 95W CPU.
- Nvidia T400 can not be supported.
- Fujitsu Battery Unit can not be supported.
- <b>NVIDIA A2 can not be supported.</b>
- <b>NVIDIA L4 can not be supported.</b>
- <b>Broadcom 1GbE BEASE-T for PCIe/10GbE BEASE-T for PCIe/10GbE for PCIe can not be supported.</b>

<b>S26361-F3776-E345</b>
Cool-safe ® Advanced Thermal design see right side
enables the PRIMERGY Server to cope with temperatures from 5-45° in operating mode due to extended Fan settings
this setting can be activated ex factory only
max. 1x per system

<b>S26361-F3552-E100 [EOL]</b> <b>S26361-F3552-L100</b> TPM 2.0 module Microsoft Windows Server 2022 not supported max. 1x per system	will be EOL in CQ2'24 <b>PYBTPM16</b> <b>PY-TPM16</b> TPM 2.0 module Microsoft Windows Server 2022 only supported required for Microsoft Windows Server 2022 max. 1x per system	will be available in CQ1'24 <b>PYBTPM19</b> <b>PY-TPM19</b> TPM 2.0 Module V2 SPI interface required for Microsoft Windows Server 2022 max. 1x per system
---	---	---

When using Windows Server 2022 as host OS, PYBTPM16 / PY-TPM16 / PYBTPM19 / PY-TPM19 are required.  
 In case Windows Server 2022 is guest OS, the TPM is not necessary.  
 OS support matrix:

Operating system for host OS	S26361-F3552-E100	PYBTPM16	PYBTPM19
Windows Server 2022	-	required	required
Windows Server 2019	supported	supported	supported
Red Hat Enterprise Linux 8	supported	supported	supported
SUSE Linux Enterprise Server 15	-	-	-
VMware ESXi 7.0	supported	supported	supported

S26361-F3552-E100/L100 are EOL at end-Sep 2022.  
 PYBTPM16/PY-TPM16 are currently available when will be EOL in CQ2'24  
 PYBTPM19/PY-TPM19 will be an alternative in CQ1'24 because new TPM supports mandatory to fit to new Windows requirement  
 New TPM are backward compatible with former TPMs.

<b>PYBCOM09</b> <b>PY-COM09</b> serial port (RS232) mounted on rear wall max. 1x per system
---

<b>PYBFOF01</b> <b>PY-FOF01</b> 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
14.04.2022			First release	Y. Narita
15.04.2022		CPU	corrected cache size of Xeon E-2388G	A. Iwata
02.05.2022		RAID	added OS support matrix for SW-RAID	T. Sudou
11.05.2022		HD_SSD / S26361-F5816-E240/L240 / updated	added the description "as soon as available" according to system T50 plan about VMware	Y. Sugiyama
17.05.2022		base	corrected the order code	Y. Narita
19.05.2022		RAID	added PRAID/PSAS CP600i, PRAID EP640i/EP680i/EP680i NVMe	T. Sudou
19.05.2022		HD_cage	added PRAID EP680i NVMe	T. Sudou
30.05.2022		RAID	updated OS support matrix for SW-RAID, removed BSMI limitation from PSAS CP 2100-8i	T. Sudou
01.06.2022		GFX	Remove the MiniDP-DP ADAPTER condition	T. Sasaki
		change_history	Introduce this history table with a new style	
16.06.2022	1,08	HD_cage	added the restriction for NVMe extension kit	H.Okabe
28.06.2022	1,09	RAID	added Cable Kit for EP6xxi/CP6xxi: PY-CBS096	H.Okabe
13.07.2022	1,10	LAN	Added Broadcom LAN. PYBLA284L, PY-LA284 PYBLA3K2L, PY-LA3K2 PYBLA3J2L, PY-LA3J2	Y. Ikuta
25.07.2022	1,11	others	deleted "Nvidia T400 can not be supported." about ATD40	H.Okabe
25.07.2022	1,12	PSU	added new Titanium PSUs PYBPU503, PY-PU503, PY-PU503B8	Y.Narita
08.08.2022	1,13	LAN	Released some LAN cards. S26361-F4610-E204/S26361-F4610-L504 PYBLA344L/PY-LA344 S26361-F3640-E204/S26361-F3640-L504	Y.Ikuta
22.08.2022	1,14	others	updated Notes for TPM2.0	T. Sudou
25.08.2022	1,15	HD_SSD / S26361-F5816-E240/L240 / updated	removed the description "as soon as available" according to T50 report	Y. Sugiyama
30.08.2022	1,16	LAN	Released PYBLA402L / PY-LA402.	Y.Ikuta
09.09.2022	1,17	RAID	added SLES15 SP4 to OS support matrix for SW-RAID	T. Sudou
09.09.2022	1,17	HD_SSD	updated Notes on max. No for M.2 SATA SSD updated Notes for PDUAL CP100	T. Sudou
26.09.2022	1,18	RAID	updated FBU description to add EP6xx S26361-F4042-E155, S26361-F4042-L110	T. Sudou
21.10.2022	1,19	HD_SSD	updated the EOL status for SSD PCIe "Intel P4610/P4510" according to Sales Status added the HDD ECO-SATA 5.4K "PY*PH1T4E/PY*PH2T4E" added the M.2 SSD SATA 960GB "PY*MF96YN"	Y. Sugiyama
04.11.2022	1,20	HD_SSD	added RAID PRESET1 option S26361-F5659-E13	T. Sudou
04.11.2022	1,20	RAID	added PRAID EP 3252-8i PYBSR4MA1L, PY-SR4MA1 PRAID EP 3254-8i PYBSR4MA2L, PY-SR4MA2 PRAID EP 3258-16i (NVMe) PYBSR4MA3L, PYBSR4MA4L, PY-SR4MA3 FBU for EP 325x PYFBM012, PY-FBM01	T. Sudou
04.11.2022	1,20	HD_cage	added PRAID EP 3258-16i NVMe	T. Sudou
24.11.2022	1,21	base	removed "will be available in Nov. 2022" from PYT1325TAN added remark to PYT1325T2S/PYT1325T3S	H.Okabe
03.02.2023	1,22	RAID	added RHEL 8.7 to OS support matrix for SW-RAID updated availability schedules	T. Sudou
23.02.2023	1,23	PSU	added Fujitsu Battery Unit PYBBBG04 / PY-BBG04	H.Okabe
13.04.2023	1,24	GFX	added NVIDIA A2 and L4 .	T. Sasaki
18.04.2023	1,25	RAID	updated availability schedules	T. Sudou
09.05.2023	1,26	HD_SSD	updated availability schedules for ECO-SATA and M.2 SATA 960GB	Y. Sugiyama
15.05.2023	1,27	RAID	added RHEL 9.1 to OS support matrix for SW-RAID updated availability schedules	T. Sudou
19.05.2023	1,28	PSU, others	removed the description "will be available in CY2023, 2Q." about Fujitsu Battery Unit updated general rules for ATD40 and ATD45	H.Okabe
19.05.2023	1,28	HD_cage	added the restriction for NVMe extension kit	H.Okabe
15.06.2023	1,30	RAID	cancelled PSAS CP600i, PRAID CP600i, PRAID EP 3252-8i, PRAID EP 3254-8i, PRAID EP 3258-16i, PRAID EP 3258-16i NVMe	T. Sudou
16.06.2023	1,31	GFX, LAN	added the attention about noise	H.Okabe
31.07.2023	1,32	HD_SSD	added the PCIe-SSD "Kioxia CM7 series"	Y. Sugiyama
31.07.2023	1,33	HD_SSD	revised the order codes for Kioxia CM7 15.36TB	Y. Sugiyama
07.08.2023	1,34	RAID	added RHEL 8.8, 9.2 and SLES15 SP5 to OS support matrix for SW-RAID	T. Sudou
22.08.2023	1,35	GFX	change the released schedule(PYxVG4L1L/PYxVG4A8L/PY-TKGP03)	M. Takaoka
23.08.2023	1,36	others	updated General rules for ATD40 and ATD45	H.Okabe
08.09.2023	1,37	HD_SSD	added the EOL status for HDD SAS 15K and HDD 2.5" BC-SATA/SAS	Y. Sugiyama
19.09.2023	1,38	Energy Star restrictions	added E-Star Fam1 Certification for ENERGY STAR V4.0	H.Okabe
22.09.2023	1,39	HD_SSD	updated availability schedules added the following drives as new products -Samsung PM897a/PM893a as SSD SATA	Y. Sugiyama
03.10.2023	1,40	RAM, others	Add new order code for 8GB UDIMM, and current BTO order code will be EOL Add new TPM	H. Konno
13.10.2023	1,41	HD_SSD	updated the EOL information for PCIe-SSD	Y. Sugiyama
23.10.2023	1,42	GFX	released NVIDIA A2/L4	H.Okabe
30.10.2023	1,43	HD_SSD	revised the information about 2.5" SSD SATA for Samsung PM893a/PM897a	Y. Sugiyama
06.11.2023	1,44	RAID	updated Note for onboard SATA SW-RAID	T. Sudou
20.11.2023	1,45	Energy Star restrictions	added the guidelines for ENERGY STAR V4.0	H.Okabe