PRIMERGY TX1330 M6
Tower or 4U Rack 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 TX1330 M6
2		describes rack mount kits and services
3	CPU	Order code and Infos of processors
4	RAM	DDR5 System memory (RAM)
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	LTO drives & RDX drive
10	HD_SSD	Storage drives - PCIe SSD - SAS/SATA SSD & HDD
11	LAN_FC_IB	LAN Components
12		Fibre Channel Controller
13		Infiniband Controller (n.a. for TX1330 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 prerequesites, technical back ground, configuration rules, limitations, ...

For example:

S26361-F4610-E2 **S26361-F4610-L3**	<-- order code E-part (bold) -- <-- order code L-part (bold)
PLAN 2x1Gb Ethern. Controller	<-- "name" of this part
i350-T2 chip (based on Intel Powerville) offers 2x1Gb RJ45 connectors	<--description of this part, in same cases as well description of content
PCIe Gen2 x4 full height card	<--requires a free PCIe slot --> means total amount of PCIe slots reduced
max. 6x per system	<--indicates how often this part can be configured in the related Server

PYBVAP04 **PY-VAP04**	<-- "PYB" order code (bold) for BTO(Built to Order) part <-- "PY-" order code (bold) for Loose delivery part
Front VGA connector (15-pin)	<-- "name" of this part
Front VGA connector (15-pin) including cable and front connector	<--description of this part, in same cases as well description of content
Not for 10x3.5", 32xEDSFF Base unit	<-- Limitation for this part
max. 1x per system	<--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-tx1330-m6-en.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

SAS	Drives, RAID	Serial attached SCSI Device (HDD, SSD, LTO drives); SAS3.0 = 12GBit/s; SAS4.0 = 24GBit/s
SATA	Drives, RAID	Serial ATA (HDD, SSD) current SATA speed = 6GBit/s
HDD	Drives	Hard disk drive (Non volatile storage device), 2.5" (SFF) or 3.5" (LFF)
SSD	Drives	Solid state disk (Non volatile storage device), 2.5" (SFF)
SFF	Drives	small form factor (=2.5")
LFF	Drives	large form factor (=3.5")
CPU	Processor	central processing unit ("processor")
RAID	Drives, RAID	RAID 0 = max speed, RAID 1 = mirroring, RAID 5 = 1 out of x drives is spare
storage tiering	RAID	offers optimized storage allocation (fast area for "hot data"; slower area for "cold data")
hot data	Drives	Data which are currently being processed
cold data	Drives	Data which are currently not processed (only stored)
ODD	Drives	optical disk drive (i.e. DVD-player, DVD-burner, Blu ray player, blu ray burner)
OS	operating system	OS=operating system - required for running, organize and administrating the server
E-Part	"Einbau-Part"	"e.g. S26361-F1234-E240" ordercode with "E" means it is either integrated into to Server (CPU, Mem, ..) or integrated in the shipping box /Keyboard, Mouse, ..)
L-Part	"Lose Lieferung-Part"	"e.g. S26361-F1234-L240" ordercode with "L" means, the part will be shipped with extra package, may be as well with extra shipment

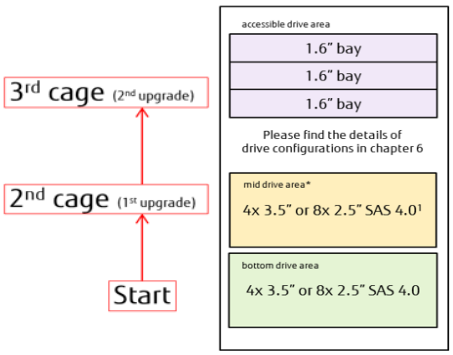
PRIMERGY TX1330 M6 Server offers 2 types base units with 3 drive mounting areas:

choose base unit

- Tower
- Rack

accessible drive area (purple color code) optional with

- for up to 3x 1.6" bay for optical drives or back up drives (standard)
- or optional 3rd cage for up to 4x 3.5" SAS/SATA 4.0 LFF HDD
  (then only a 9.5mm ODD can be configured)
- or optional 3rd cage for up to 8x 2.5" SAS/SATA 4.0 SFF HDD or SSD
  (then 1x 1.6" ODD/backup drive combination can be configured)



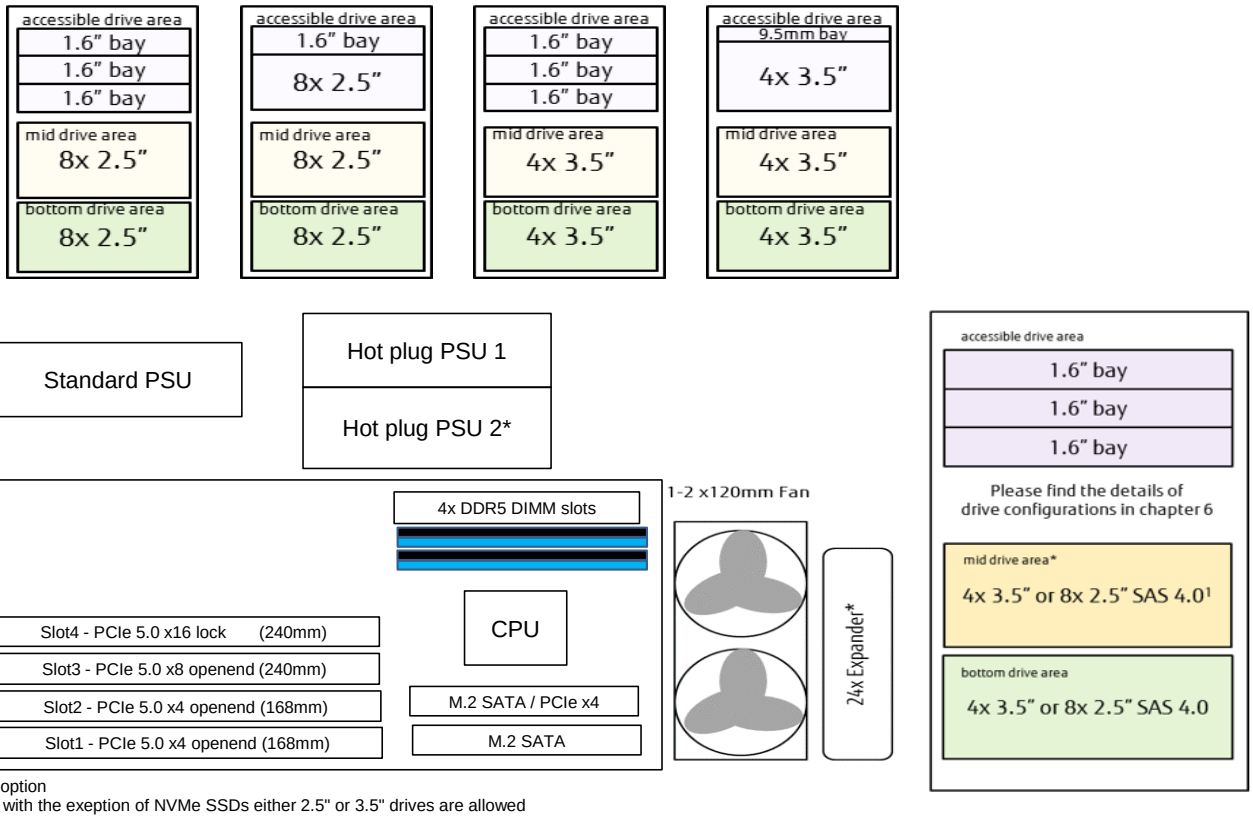
mid drive area (yellow color code) - optional with

- space for 2nd cage with up to 4x 3.5" SAS/SATA 4.0 LFF HDD
- or space for 2nd cage for up to 8x 2.5" SAS/SATA 4.0 SFF HDD or SSD

bottom drive area (green color code) - mandatory with

- space for up to 4x 3.5" SAS/SATA 4.0 LFF HDD
- or space for up to 8x 2.5" SAS/SATA 4.0 SFF HDD or SSD

Please find all details, possible and released configurations in the chapter 6 - "HD_cage"



*: option
1: with the exeption of NVMe SSDs either 2.5" or 3.5" drives are allowed

recommended components for TX1330 M6	#
embedded Lifecycle Management (eLCM)	1x

Chapter 1 - base unit

Start

Power supply units & cooling
For the PRIMERGY TX1330 M6 you can choose between a standard power supply unit (PSU) with 450W or an hot plug PSU with 500W / 900W (opt. redundant). In case you choose the hot plug PSU you will get redundant Fans as well.

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 or Pentium CPU
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 (open end) - supports GPGPU/GPU or RAID card option
Slot 2 PCIe 4.0 x4 (open end)
Slot 1 PCIe 4.0 x4 (open end)
***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

Interfaces at rear side	Interfaces at front
2x LAN RJ45 (1 Gbit)	1x USB 3.2 Gen2x2 Type C
1x service LAN RJ45 (1 Gbit)	1x USB 3.2 Gen1 Type A
1x VGA (15 pins)	Interfaces internal
6x USB 3.2 Gen1 Type A	1x internal USB 3.2 Gen1 connectors for backup devices
1x RS-232-C (serial, 9 pin) - optional	2x M.2 (80mm and 110mm)modules: 1x SATA/NVMe(PCIe x4) and 1x SATA
	1x Mini SATA (4x SATA 6G)

Tower
PYT1336TNS
TX1330 M6 Base Unit standard 450W Platinum PSU
PYT1336TNN
TX1330 M6 Base Unit redundant Fan and hot plug PSU

B

Rack
to create an Rack Base Unit w/ standard PSU you can
use the Tower-to-Rack conversion kit (PY-RC20)
PYT1336RNN
TX1330 M6 Base Unit redundant Fan and hot plug PSU

A

Chapter 2 - Rack architecture

A

PYBRRL6 **PY-RRL6**
Rack Mount Kit F2-C S7 LV
telescopic drop-in rail, full extractical, supports 1-hand-mounting
Rackmount Kit ex factory > 1 pair of vario carrier with variable length & quick release lever support > 1 pair of telescopic drop-in rails with Cable Management Arm (CMA) adapter
1x per system

S26361-F2735-E111
No Rackmount-Kit
No rackmount. Upgrade later possible with L-part
max. 1x per system

S26361-F2735-E82 **S26361-F2735-L82**
2U cable management arm (CMA) for 2U server or higher
for mounting in **symmetrical** PRIMECENTER M2/M1 racks - 1 bracket PCM2/M1 Rack
1x per system

S26361-F1647-E302
Rack installation for server ex factory Service for installation of a server or subsystem ex factory. With ordering this service, the rack will be delivered completely premounted and tested ex factory. Mounted systems and cabels will be fitted with labels.
max. 1x per System

The installation service is to be ordered once per installable server/storage subsystem, in order to get the server/storage subsystem mounted into the racks. In case of not-installed server and subsystems this service has to be ordered, to get the mounting kits and the cables installed.

PY-RC20
Tower-to-Rack conversion kit
Contains all necessary parts to convert PRIMERGY TX1330 M6 Tower Server into a Rack server. !! Mounting kit has to be ordered seperatly.

B

Chapter 2' - Options for Base Unit

B

For later upgrade to redundancy the following PSU-kits are available:	
Std to Redundant Fan/PSU Upgrade Kit consisting of a redundant Fans w/ Airduct, PSU cage and backplane	**PY-TKPC06**
Does not contain any PSU module	

C

Chapter 3- CPU

C

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

Pentium (Alder Lake) 64-bit Intel Pentium processor supporting DDR5 @ 4800MT/s		order code (BTO)	order code (Loose delivery)
Pentium Gold G7400	2C/4T 3.7GHz 6MB 4800MT/s 46W	PYBCP67C1	-
Xeon E-24xx (Raptor Lake-E) 64-bit Intel Xeon processor supporting DDR5 @ 4800MT/s		order code (BTO)	order code (Loose delivery)
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	-

D

Chapter 4 - DDR5 System memory

D

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 moduls

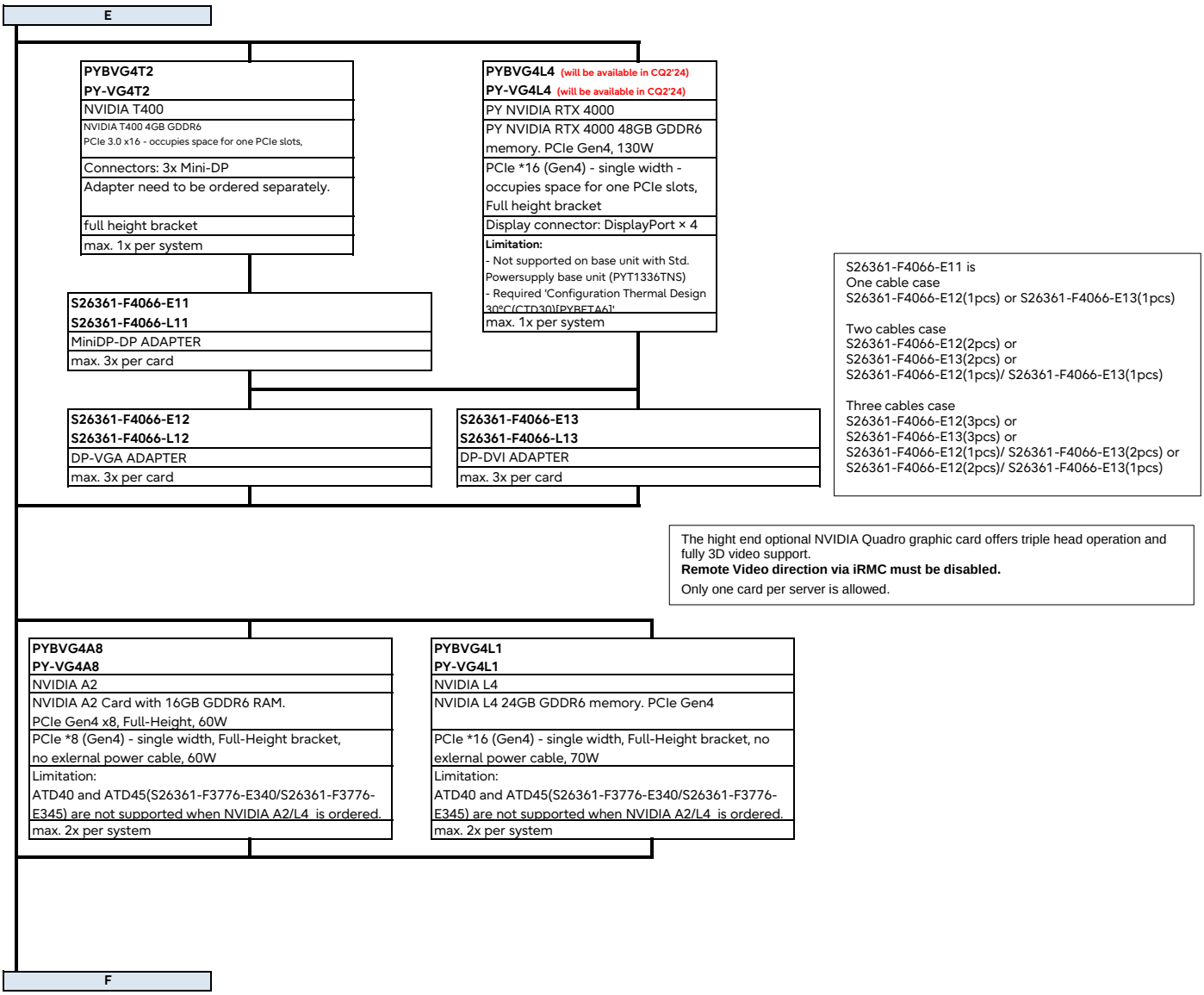
Memory module is not included in the base unit and has to be configured min 1x memory modules.
All memory module installing in one system must be identical.
Any mix of different memory modules with different order code is not supported.

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			

E

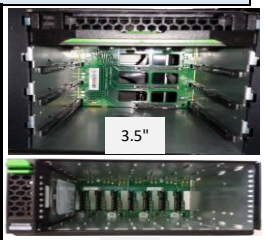
Chapter 5 - Graphics cards

The different GPU mixed configuration does not support.

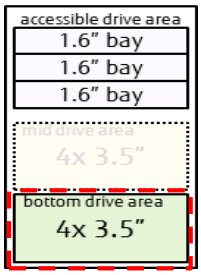


Chapter 6 - HD drive cage

G



Definition:
HD drive cage = metal box providing 4 bays for 3.5" HDD or 8 bays for 2.5" HDD/SSD (see sample pictures left).
Please choose one of the drive cage kits of the following pages. Each kit contains all relevant parts (metal cage, SAS 4.0 backplanes, SAS 4.0 cables and mounting materials). Kits for more than 8x SAS 4.0 HDD contain a 24x SAS 4.0 Expander.
The red dotted line highlights the content of each drive cage kit.
1) indicates the order code of the complete kit, explanation & describes the content
2) lists the recommended or possible RAID controllers with the related order code
3) describes how many drive bays for ODD / backup drives are available
4) lists the available upgrade kit options after purchase.
! for upgrades in the accessible drive area the mid drive area must be completed first!
5) Remark

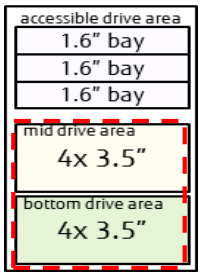


1) PYBBA34SC	Basic 3.5" kit for 4x SAS 4.0 HDD mounted in the bottom drive area
1x 3.5" kit for up to 4x 3.5" HDD incl. SAS 4.0 Backplane & SAS 4.0 cable mounted in bottom drive area	

2a) recommended RAID configuration		**2b) possible RAID configuration**	
1x PYBSR4FA	PRAID CP600i FH	1x PYBSR4C63	PRAID EP640i FH
1x PYBSC4MA1	PSAS CP 2200-16i FH	1x PYBSR4C6	PRAID EP680i FH
		1x PYBSR4MA1	PRAID EP 3252-8i FH

3) accessible drive area	3x 1.6" bays for DVD, Blu Ray, LTO or RDX drives or additional HDD cages available
4) PY-BA34SD	4x 3.5" HDD kit for mid drive area
4) PY-BA34SE	4x 3.5" HDD kit incl. Expander, SAS 4.0 BPL & cables for accessible drive area*
4) Restriction	upgrade of mid drive area and accessible drive area requires hot plug PSU Base Unit
5) Remark	up to 4x SATA HDD can be opperated using the onboard SATA controller

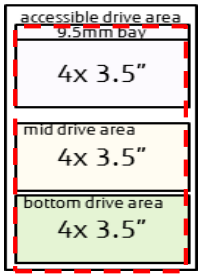
*) PY-BA34SD is mandatory



1) PYBBA38S5	Medium 3.5" kit for 8x SAS 4.0 HDD mounted in the bottom and mid drive area
2x 3.5" HDD cages for up to 8x 3.5" HDD incl. SAS 4.0 Backplanes & SAS 4.0 cables mounted in the bottom and mid drive area	
1) Restriction	hot plug PSU(500W/900W) is required
1) Restriction	internal RAID controller is required

2a) recommended RAID configuration		**2b) possible RAID configuration**	
1x PYBSR4FA	PRAID CP600i FH	1x PYBSR4C63	PRAID EP640i FH
1x PYBSC4MA1	PSAS CP 2200-16i FH	1x PYBSR4C6	PRAID EP680i FH
		1x PYBSR4MA1	PRAID EP 3252-8i FH

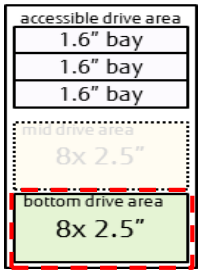
3) accessible drive area	3x 1.6" bays for DVD, Blu Ray, LTO or RDX drives or additional HDD cages available
4) PY-BA34SE	4x 3.5" HDD kit incl. Expander, SAS 4.0 BPL & cables for accessible drive area



1) PYBBA3TS3	Maximum 3.5" kit for 12x HDD mounted in the bottom, mid & accessible drive area
3x 3.5" HDD cages for bottom, mid and accesible drive area for up to 12x 3.5" HDD incl. **24x** SAS 4.0 Expander, SAS 4.0 Backplanes & SAS 4.0 cables. HDD cage (acc. Area) are mounted directly to the housing - higher noise levels may occur	
1) Restriction	hot plug PSU(500W/900W) is required
1) Restriction	internal RAID controller is required

2a) recommended RAID configuration		**2b) possible RAID controllers**	
1x PYBSR4FA	PRAID CP600i FH	1x PYBSR4C63	PRAID EP640i FH
1x PYBSC4MA1	PSAS CP 2200-16i FH	1x PYBSR4C6	PRAID EP680i FH
		1x PYBSR4MA1	PRAID EP 3252-8i FH

3) accessible drive area	**!!** 1x 9.5mm bay for **ultra slim DVD or Blu Ray** available



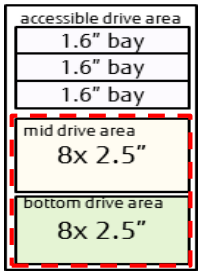
1) PYBBA28SW	Basic 2.5" kit for 8x SAS 4.0 HDD or SSD mounted in the bottom drive area
basic 2.5" HDD kit for up to 8x 2.5" SAS 4.0 HDD or SSD incl. SAS 4.0 Backplane & SAS 4.0 cable	

2a) recommended RAID configuration		**2b) possible RAID controllers**	
1x PYBSR4FA	PRAID CP600i FH	1x PYBSR4C63	PRAID EP640i FH
1x PYBSC4MA1	PSAS CP 2200-16i FH	1x PYBSR4C6	PRAID EP680i FH
		1x PYBSR4MA1	PRAID EP 3252-8i FH

3) accessible drive area	3x 1.6" bays for DVD, Blu Ray, LTO or RDX drives

4) PY-BA28SX	8x 2.5" HDD kit for mid drive area incl. Expander, SAS 4.0 BPL & cables
4) PY-BA28SY	8x 2.5" HDD kit SAS 4.0 BPL & cables for accessible drive area*
4) Restriction	upgrade of mid drive area and accessible drive area requires hot plug PSU Base Unit
5) Remark	up to 4x SATA HDD can be opperated using the onboard SATA controller

*) PY-BA28SX is mandatory

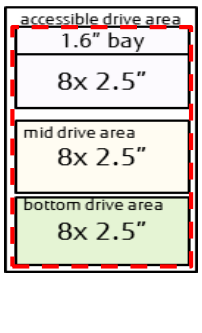


1) PYBBA2SS9	Medium 2.5" kit for 16x SAS 4.0 HDD or SSD mounted in the bottom & mid drive area
mid 2.5" HDD kit for up to 16x 2.5" SAS 3.0 HDD or SSD incl. **24x** SAS 4.0 Expander, SAS 4.0 Backplanes & SAS 4.0 cable	
1) Restriction	hot plug PSU(500W/900W) is required
1) Restriction	internal RAID controller is required

2a) recommended RAID configuration		**2b) possible RAID controllers**	
1x PYBSR4FA	PRAID CP600i FH	1x PYBSR4C63	PRAID EP640i FH
1x PYBSC4MA1	PSAS CP 2200-16i FH	1x PYBSR4C6	PRAID EP680i FH
		1x PYBSR4MA1	PRAID EP 3252-8i FH

3) accessible drive area	3x 1.6" bays for DVD, Blu Ray, LTO or RDX drives or additional HDD cages available

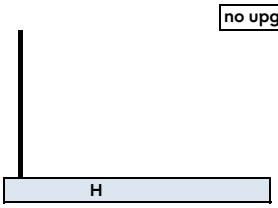
4) PY-BA28SY	8x 2.5" HDD kit SAS 4.0 BPL & cables for accessible drive area



1) PYBBA2LS6	Advanced 2.5" kit for 24x SAS 4.0 HDD or SSD mounted in the bottom, mid and accessible drive area
Supreme 2.5" HDD kit for up to 24x 2.5" SAS 4.0 HDD or SSD incl. 24x SAS 4.0 Expander, SAS 4.0 Backplanes & SAS 4.0 cable. ! HDD cages are mounted directly to the housing - higher noise levels may occur	
1) Restriction	hot plug PSU(500W/900W) is required
1) Restriction	internal RAID controller is required

2a) recommended RAID configuration		**2b) possible RAID controllers**	
1x PYBSR4FA	PRAID CP600i FH	1x PYBSR4C63	PRAID EP640i FH
1x PYBSC4MA1	PSAS CP 2200-16i FH	1x PYBSR4C6	PRAID EP680i FH
		1x PYBSR4MA1	PRAID EP 3252-8i FH

3) accessible drive area	1x 1.6" bays for DVD, Blu Ray, LTO or RDX drives available
no upgrades possible	



Chapter 7 - SAS / RAID Controller

H

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**

internal HBA and RAID controller, no 2nd Level cache

internal RAID / HBA controllers for SAS, SATA HDD or SSD drives					
PRAID CP600i FH	No Cache	RAID 0, 1, 10	1x	**PYBSR4FA**	**PY-SR4FA**
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander supports SED (Self Encrypting Drives) requires 1x FH 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 FH	No Cache	HBA + RAID 0, 1, 10, 5	1x	**PYBSC4MA1**	**PY-SC4MA1**
16 ports 6, 12 & 24Gb/s SAS/SATA HDD/SSD, supports up to 16 SAS/SATA drives without expander requires 1x FH 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 FH	4GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	**PYBSR4C63**	**PY-SR4C63**
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander supports SED (Self Encrypting Drives) requires 1x FH PCIe 4.0 x8 (int.) slot, based on LSI SAS3908					
PRAID EP680i FH	8GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	**PYBSR4C6**	**PY-SR4C6**
16 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 16 SAS/SATA drives without expander supports SED (Self Encrypting Drives) requires 1x FH 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**

internal RAID controllers for SAS, SATA HDD or SSD drives					
PRAID EP 3252-8i FH	2GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	**PYBSR4MA1**	**PY-SR4MA1**
8 ports 6, 12 & 24Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander supports SED (Self Encrypting Drives) requires 1x FH 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 31cm length			1x	**PYBFBM011**	**PY-FBM01**

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-CBS119**

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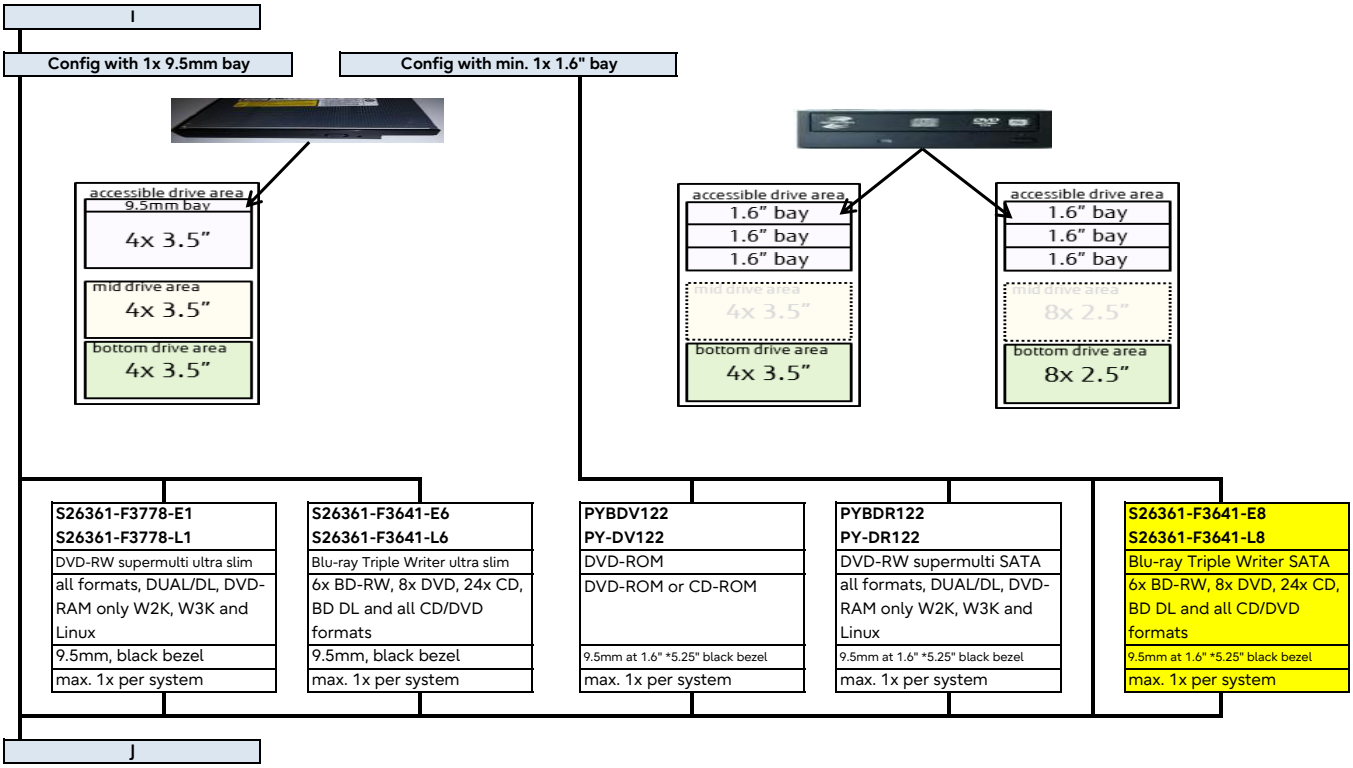
Chapter 8 - ODD optical disk drives

With most configurations the TX1330 M6 offers 3 x 1.6" bay in the accissible drives area located at the top of the Tower Server (or at the right side of the Rack) f or various ODD and or backup drives.
Depending on the HDD drive configuration there may be some or all of these 1.6" bays already occupied - please find the number of available bays and the size listed as point **3)** at each of the drive bundles (see chapter 6). All bundles with limitations are highlighted with 2 exclamation marks in the fr ont (e.g. "!! 1x 9.5mm ...")

The restriction for PYBDV122, PYBDR122, S26361-F3641-E8
- When PYBBA3TS3 ordered, PYBDV122, PYBDR122 and S26361-F3641-E8 cannot be ordered
- When PYBBA2LS6 ordered and LTO or RDX ordered, PYBDV122, PYBDR122 and S26361-F3641-E8 cannot be ordered



Chapter 9 - backup drives

With most configurations the TX1330 M6 offers 3 x 1.6" bay in the accissible drives area located at the top of the Tower Server (or at the right side of the Rack) for various ODD and or backup drives.
Depending on the HDD drive configuration there may be some or all of these 1.6" bays already occupied - please find the number of available bays and the size listed as point **3)** at each of the drive bundles. All bundles with limitations are highlighted with 2 exclamation marks in the front (e.g. "!! 1x 9.5mm ...")

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Config with min. 1x free 1.6" bay

SAS HBA card for Internal LTO drives				
SAS HBA Controller				
PSAS CP 2200-16i FH for LTO	requires 1x FH PCIe 4.0 x8 / for LTO drives	1x	**PYBSC4MA3**	**PY-SC4MA1**

LTO drives (Need to select one of following LTO drives togheter with SAS HBA)				
LTO drives are not including tape drives. Cleaning Cartridge and Cables are included				
LTO 7 tape drive (w/o tape)	6.0TB, 300MB/s, SAS 2.0, 5.25 inch/HalfHeight	1x	**S26361-F5606-E1**	**S26361-F5606-L1**
LTO 8 tape drive (w/o tape)	12.0TB, 300MB/s, SAS 2.0, 5.25 inch/HalfHeight	1x	**S26361-F5789-E1**	**S26361-F5789-L1**
LTO 9 tape drive (w/o tape)	18.0TB, 300MB/s, SAS 3.0, 5.25 inch/HalfHeight	1x	**PYBLT911**	**PY-LT911**

RDX drives				
RDX drive is not including Cartridge.				
RDX Drive cage (w/o cartriges)	USB 3.0, 5.25 inch / Half Height	1x	**S26361-F3750-E4**	**S26361-F3750-L4**

RDX				
RDX Cartrridge				
RDX Cartridge 500GB		-	-	**S26361-F3857-L500**
RDX Cartridge 1TB		-	-	**S26361-F3857-L600**
RDX Cartridge 2TB		-	-	**S26361-F3857-L700**
RDX Cartridge 4TB		-	-	**S26361-F3857-L900**

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Chapter 10 - storage drives

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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. 24x - 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. 24x - 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. 24x - 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. 24x - 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. 24x - 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. 24x - 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. 24x - 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. 24x - depending on base unit & configuration

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3.5" (LFF) SATA SSD

SSD SATA 3.5" Mixed Use (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace tray

based on **Samsung PM897a** drives

Capacity	*Formfactor*	*Interface*	*Endurance*	*DWPD*		*order code E-part*	*order code L-part*
480GB	3.5" (LFF)	SATA 6Gb/s	Mixed Use	3	SED	**PYBTS48NK9**	**PY-TS48NK9**
960GB	3.5" (LFF)	SATA 6Gb/s	Mixed Use	3	SED	**PYBTS96NK9**	**PY-TS96NK9**
1.92TB	3.5" (LFF)	SATA 6Gb/s	Mixed Use	3	SED	**PYBTS19NK9**	**PY-TS19NK9**
3.84TB	3.5" (LFF)	SATA 6Gb/s	Mixed Use	3	SED	**PYBTS38NK9**	**PY-TS38NK9**

This SSDs can be used as Non-SED drives, but it requires a RAID controller with SED support for using as SED drives.

max. 12x - depending on base unit & configuration

SSD SATA 3.5" Mixed Use (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace tray

based on **Samsung PM897** drives

Capacity	*Formfactor*	*Interface*	*Endurance*	*DWPD*		*order code E-part*	*order code L-part*
480GB	3.5" (LFF)	SATA 6Gb/s	Mixed Use	3		**PYBTS48NK8**	**PY-TS48NK8**
960GB	3.5" (LFF)	SATA 6Gb/s	Mixed Use	3		**PYBTS96NK8**	**PY-TS96NK8**
1.92TB	3.5" (LFF)	SATA 6Gb/s	Mixed Use	3		**PYBTS19NK8**	**PY-TS19NK8**
3.84TB	3.5" (LFF)	SATA 6Gb/s	Mixed Use	3		**PYBTS38NK8**	**PY-TS38NK8**

max. 12x - depending on base unit & configuration

SSD SATA 3.5" Mixed Use (LFF) 2.5" SSD Enterprise with 3.5" 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		**PYBTS48NKA**	**PY-TS48NKA**
960GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		**PYBTS96NKA**	**PY-TS96NKA**
1.92TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		**PYBTS19NKA**	**PY-TS19NKA**
3.84TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3,5		**PYBTS38NKA**	**PY-TS38NKA**

max. 12x - depending on base unit & configuration

SSD SATA 3.5" Read Intensive (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace tray

based on **Samsung PM893a** drives

Capacity	*Formfactor*	*Interface*	*Endurance*	*DWPD*		*order code E-part*	*order code L-part*
480GB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0	SED	**PYBTS48NMB**	**PY-TS48NMB**
960GB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0	SED	**PYBTS96NMA**	**PY-TS96NMA**
1.92TB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0	SED	**PYBTS19NMA**	**PY-TS19NMA**
3.84TB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0	SED	**PYBTS38NMA**	**PY-TS38NMA**
7.68TB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0	SED	**PYBTS76NMA**	**PY-TS76NMA**

This SSDs can be used as Non-SED drives, but it requires a RAID controller with SED support for using as SED drives.

max. 12x - depending on base unit & configuration

SSD SATA 3.5" Read Intensive (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace tray

based on **Samsung PM893** drives

Capacity	*Formfactor*	*Interface*	*Endurance*	*DWPD*		*order code E-part*	*order code L-part*
240GB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0		**PYBTS24NM9**	**PY-TS24NM9**
480GB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0		**PYBTS48NM9**	**PY-TS48NM9**
960GB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0		**PYBTS96NM9**	**PY-TS96NM9**
1.92TB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0		**PYBTS19NM9**	**PY-TS19NM9**
3.84TB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0		**PYBTS38NM9**	**PY-TS38NM9**
7.68TB	3.5" (LFF)	SATA 6Gb/s	Read Intensive	1,0		**PYBTS76NM9**	**PY-TS76NM9**

max. 12x - depending on base unit & configuration

SSD SATA 3.5" Read Intensive (LFF) 2.5" SSD Enterprise with 3.5" 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		**PYBTS24NMB**	**PY-TS24NMB**
480GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		**PYBTS48NMC**	**PY-TS48NMC**
960GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		**PYBTS96NMB**	**PY-TS96NMB**
1.92TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		**PYBTS19NMB**	**PY-TS19NMB**
3.84TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,2		**PYBTS38NMB**	**PY-TS38NMB**
7.68TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	0,6		**PYBTS76NMB**	**PY-TS76NMB**

max. 12x - depending on base unit & configuration

3.5" (LFF) Hard drives

HDD SAS 3.5" 7.2K 512n (LFF) Enterprise Business Critical with hot plug/hot replace tray

Capacity	*RPM*	*Interface*	*Sector*		*order code E-part*	*order code L-part*
2TB	7 200	SAS 12Gb/s	512n		**PYBCH2T7G6**	**PY-CH2T7G6**
4TB	7 200	SAS 12Gb/s	512n		**PYBCH4T7G6**	**PY-CH4T7G6**

max. 12x - depending on base unit & configuration

HDD SAS 3.5" 7.2K 512e (LFF) Enterprise Business Critical with hot plug/hot replace tray

Capacity	*RPM*	*Interface*	*Sector*		*order code E-part*	*order code L-part*
6TB	7 200	SAS 12Gb/s	512e		**PYBCH6T7BA**	**PY-CH6T7BA**
8TB	7 200	SAS 12Gb/s	512e		**PYBCH8T7B9**	**PY-CH8T7B9**
12TB	7 200	SAS 12Gb/s	512e		**PYBCHCT7B8**	**PY-CHCT7B8**
14TB	7 200	SAS 12Gb/s	512e		**PYBCHET7B8**	**PY-CHET7B8**
16TB	7 200	SAS 12Gb/s	512e		**PYBCHGT7B5**	**PY-CHGT7B5**
18TB	7 200	SAS 12Gb/s	512e		**PYBCHJT7B2**	**PY-CHJT7B2**
20TB	7 200	SAS 12Gb/s	512e		**PYBCHLT7B**	**PY-CHLT7B**

max. 12x - depending on base unit & configuration

L2

HDD SATA 3.5" 7.2K 512n (LFF) Enterprise Business Critical with hot plug/hot replace tray

Capacity	*RPM*	*Interface*	*Sector*		*order code E-part*	*order code L-part*
2TB	7 200	SATA 6Gb/s	512n		**PYBBH2T7BA**	**PY-BH2T7BA**
4TB	7 200	SATA 6Gb/s	512n		**PYBBH4T7BA**	**PY-BH4T7BA**

max. 12x - depending on base unit & configuration

HDD SATA 3.5" 7.2K 512e (LFF) Enterprise Business Critical with hot plug/hot replace tray

Capacity	*RPM*	*Interface*	*Sector*		*order code E-part*	*order code L-part*
6TB	7 200	SATA 6Gb/s	512e		**PYBBH6T7EA**	**PY-BH6T7EA**
8TB	7 200	SATA 6Gb/s	512e		**PYBBH8T7E5**	**PY-BH8T7E5**

max. 12x - depending on base unit & configuration

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

HDD SATA 3.5" 5.4K (LFF) ECO with hot plug/hot replace tray

Capacity	*RPM*	*Interface*	*Sector*		*order code E-part*	*order code L-part*
1TB	5 400	SATA 6Gb/s	512e		**PYBPH1TFE**	**PY-PH1TFE**
2TB	5 400	SATA 6Gb/s	512e		**PYBPH2TFE**	**PY-PH2TFE**

max. 12x - depending on base unit & 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

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.
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	FH	**PYBDMCP35**	**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 RAI
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.

M

Chapter 11 - Communication / Ethernet Network Components

M

PRIMERGY TX1330 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

Ethernet Network PCIe Adapters

Broadcom 1GbE BEASE-T for PCIe				
PLAN CP BCM5719-4P 4X 1000BASE-T PCIe FH	2x	Broadcom, 1GTx4port	PYBLA284	PY-LA284
max. 2x adapters per system				
Intel 1GbE BEASE-T for PCIe				
PLAN CP 2x1Gbit Cu Intel I350-T2 FH	2x	Intel, 1GTx2port	S26361-F4610-E2	S26361-F4610-L502
PLAN CP 4x1Gbit Cu Intel I350-T4 FH	2x	Intel, 1GTx4port	S26361-F4610-E4	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 FH	2x	Broadcom, 10GTx2port	PYBLA3K2	PY-LA3K2
max. 2x adapters per system				
Intel 10GbE BEASE-T for PCIe				
PLAN EP X710-T2L 2x10GBASE-T FH	2x	Intel, 10GTx2port	PYBLA342	PY-LA342
PLAN EP X710-T4L 4x10GBASE-T FH	2x	Intel, 10GTx4port	PYBLA344	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 FH	2x	Broadcom, 10Gx2port	PYBLA3J2	PY-LA3J2
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+ FH	2x	Intel, 10Gx2port	S26361-F3640-E2	S26361-F3640-L502
PLAN EP X710-DA4 4x10Gb SFP+ FH	2x	Intel, 10Gx4port	S26361-F3640-E4	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				

Broadcom 25GbE for PCIe				
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 FH	2x	Broadcom, 25Gx2port	PYBLA3H2	PY-LA3H2
Optional, 25Gb SFP28 optical transceiver module with LC connector, each cage consumes one.				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
max. 1x per port				
Optional, 10Gb SFP+ optical transceiver module, each cage consumes one.				
SFP+ Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+	[redacted]	S26361-F3986-L5
SFP+ Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
max. 1x per port				
max. 2x adapters per system				
Intel 25GbE for PCIe				
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 FH	2x	Intel, 25Gx2port	PYBLA402	PY-LA402
Optional, 25Gb SFP28 optical transceiver module with LC connector, each cage consumes one.				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
max. 1x per port				
Optional, 10Gb SFP+ optical transceiver module, each cage consumes one.				
SFP+ Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+	[redacted]	S26361-F3986-L5
SFP+ Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
max. 1x per port				
max. 2x adapters per system				
NVIDIA 25GbE for PCIe				
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 FH	2x	NVIDIA, 25Gx2port	PYBLA4024	PY-LA4024
Optional, 25Gb SFP28 optical transceiver module with LC connector, each cage consumes one.				
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
max. 1x per port				
Optional, 10Gb SFP+ optical transceiver module, each cage consumes one.				
SFP+ Transceiver 10G/1G Dual Rate SR	2x	Intel, 1G/10G SR SFP+	[redacted]	S26361-F3986-L5
SFP+ Transceiver 10G/1G Dual Rate LR	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
max. 1x per port				
max. 2x adapters per system				

M - FC

Chapter 12 - Communication / Fibre Channel Components

M-FC

Fibre Channel PCIe Adapters

32Gb Fibre Channel adapter with LC interface for 50 m optical cables (OM5 or OM3)				
PFC EP LPe35002 2x 32Gb FH will be available in CQ2'24	2x	Broadcom, 32FCx2port	PYBFC422	PY-FC422
PFC EP LPe35000 1x 32Gb FH will be available in CQ2'24	2x	Broadcom, 32FCx1port	PYBFC421	PY-FC421
PFC EP QLE2772 2x 32Gb FH	2x	Marvell, 32FCx2port	PYBFC412	PY-FC412
PFC EP QLE2770 1x 32Gb FH	2x	Marvell, 32FCx1port	PYBFC411	PY-FC411
16Gb Fibre Channel adapter with LC interface for 50 m optical cables (OM5 or OM3)				
PFC EP LPe31002 2x 16Gb FH will be available in CQ2'24	2x	Broadcom, 16FCx2port	S26361-F5596-E2	S26361-F5596-L502
PFC EP LPe31000 1x 16Gb FH will be available in CQ2'24	2x	Broadcom, 16FCx1port	S26361-F5596-E1	S26361-F5596-L501
PFC EP QLE2692 2x 16Gb FH	2x	Marvell, 16FCx2port	S26361-F5580-E2	S26361-F5580-L502
PFC EP QLE2690 1x 16Gb FH	2x	Marvell, 16FCx1port	S26361-F5580-E1	S26361-F5580-L501
max. 2 adapters per system (mixed configurations are supported)				

N

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

N

No PSU is included in base unit. Need to be chosen 1x PSU at least.
You have a choice 500W or 900W.
A second hot plug PSU for redundancy shall be used same as first one in a redundant base unit and requires an additional country specific power cord.
Dummy module is required if 1st PSU only.

Std. Base Unit

Red. Base Unit (No hot plug PSU is included)

will be replaced to
new order code in CQ3 2024

PYBPU501 **PY-PU501**	**PYBPU902** **PY-PU902**	**PYBPU503** **PY-PU503**	**PYBPU901** **PY-PU901**
500W platinum power supply unit	900W platinum power supply unit	500W titanium power supply unit	900W titanium power supply unit
500W PSU module platinum 1st or 2nd PSU for redundancy. 94% efficiency ***APAC/JAPAN region only**	900W PSU module platinum 1st or 2nd PSU for redundancy. 94% efficiency ***APAC/JAPAN region only**	500W PSU module titanium 1st or 2nd PSU for redundancy. 96% efficiency	900W PSU module titanium 1st or 2nd PSU for redundancy. 96% efficiency
100-240V, 50-60Hz	100-240V, 50-60Hz	220-240V, 50-60Hz	220-240V, 50-60Hz
occupies hot plug PSU slot	occupies hot plug PSU slot	occupies hot plug PSU slot	occupies hot plug PSU slot
max. 2x per system	max. 2x per system	max. 2x per system	max. 2x per system

will be available in CQ3 2024

PYBPU505 **PY-PU505**
500W titanium power supply unit
500W PSU module titanium 1st or 2nd PSU for redundancy. 96% efficiency
220-240V, 50-60Hz
occupies hot plug PSU slot
max. 2x per system

S26113-F574-E99	**PYBBBG04** **PY-BBG04**
Dummy module instead PSU	Fujitsu Battery Unit *)
Dummy module for closing the 2nd PSU hole, in case only 1 PSU is equipped	380W(peak), 280W(continuous) 12V battery module 4 min. backup time for gracefull shutdown
closes hot plug PSU slot	occupies hot plug PSU slot
Power cord option is not required	Power cord option is not required
max. 1x per system	max. 1x per system

*) = Fujitsu Battery Unit requires one modular power supply

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**	-
Power cord option for Rack Server, 1x per PSU		
Cable powercord rack, 1.8m, black, IEC 320 C14 -> C13 (10A plug)	**T26139-Y1968-E180**	**T26139-Y1968-L180**
Cable powercord rack, 2.5m, black, IEC 320 C14 -> C13 (10A plug)	**T26139-Y1968-E250**	**T26139-Y1968-L250**
Cable powercord rack, 4m, black, IEC 320 C14 -> C13 (10A plug)	**T26139-Y1968-E100**	**T26139-Y1968-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**
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 (D, A, B, F, NL, FIN, N, S, E, P, RUS, TR), 1.8m, grey	-	**T26139-Y1740-L10**
Cable powercord (UK, IR), 1.8m, grey	-	**T26139-Y1744-L10**
Cable powercord (I), 1.8m, grey	-	**T26139-Y1745-L10**
Cable powercord (DK), 1.8m, grey	-	**T26139-Y1746-L10**
Cable powercord (ISR), 2.5m, black	-	**T26139-Y1747-L18**
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, Italian, Polish, Russian and Welsh language	**S26361-F1452-E140**	-	(Sales region for EMEIA only)
Region Kit China for CCC option required systems, Contains warranty sheet and safety instructions for China,	**S26361-F1452-E101**	-	(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 necessary to be selected always when "region kit China (S26361-F1452-E101)" is selected	**S26361-F3301-E120**	-

O

Chapter 15 - Accessories

O

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

USB Mouse:		
Mouse M520 Black	**S26381-K467-L100**	**APAC only**
Mouse M520 Grey	**S26381-K467-L101**	**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**	**APAC only**
France	**S26381-K521-L140**	**APAC only**
Spain	**S26381-K521-L180**	**APAC only**

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

P

Chapter 16 - Others (Energy Star restriction)

P

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:

Not allowed:
- CPU: Pentium Gold G7400 (PYBCP67C1)
- CPU: Xeon E-2414 (PYBCP67E7)
- Any PCIe cards (RAID, LAN, ...)

Maximum sotrage quantity 4pcs [(HDD/SSD 3,5“ LFF or HDD/SSD 2,5“ SFF) + SSD M.2]

ENERGY STAR-configurationen will be labeld:	PRIMERGY TX1330 M6 E-Star Fam1
non ENERGY STAR-configurationen will be labeld:	PRIMERGY TX1330 M6

Q

Chapter 16 - Others (ErP Lot 9 restriction)

Q

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 orderd for shipment to ship in EU and EFTA countries to apply ErP Lot9 restriction

Erp Lot9 Configuration for 6/8core Xeon, 1x per System	
Erp Lot9 Configuration 1	PYBETL35

Restriction for ErP Lot 9 directive,

Limitation
Not allowed:
- CPU: Pentium Gold G7400 (PYBCP67C1)
- CPU: Xeon E-2414 (PYBCP67E7)
- CPU: Xeon E-2434 (PYBCP67E8)

Erp Lot9 Configuration for 4core Xeon 1x per System	
Erp Lot9 Configuration 2	PYBETL36

Restriction for ErP Lot 9 directive,

Limitation
Not allowed:
- CPU: Pentium Gold G7400 (PYBCP67C1)
- 1GbE Ethernet card
- NVIDIA T400 (PYBVG4T2)

Erp Lot9 Configuration for Pentium, 1x per System	
Erp Lot9 Configuration 3	PYBETL37

Restriction for ErP Lot 9 directive,

Limitation
Not allowed:
- Internal RAID / HBA controllers

Maximum quantity 1pcs:
- 1GbE Ethernet card

<1GbE Ethernet card>
- PYBLA284
- S26361-F4610-E2
- S26361-F4610-E4

<Internal RAID / HBA controllers>
- PYBSR4FA
- PYBSC4MA1
- PYBSR4C63
- PYBSR4C6
- PYBSR4MA1

R

Chapter 16 - others

R

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

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

PYBLCM14 embedded Lifecycle Management (eLCM)
Server Online Update OS driver Update Hardware firmware update
Server Offline Update Hardware update via Update Manager Express
PrimeCollect Autonomous creation of Primecollect archives Creation and use of PrimeCollect archives over AIS connect
Custom Image (Jukebox function) Automatic and manual download of CD and DVD Images Automatic and manual start of CD and DVD Images
max. 1x per system

Loose delivery
eLCM Activation Pack (Node Locked License) **PY-LCM14**
options contains: **- Paper with TAN for Licensekey**

will be available in CQ3'24

iRMC MicroSD card option			
Capacity	Interface	E-parts	L-parts
64GB	SDXC	PYBMD64R1	PY-MD64R1
128GB	SDXC	PYBMD12R1	PY-MD12R1
max. 1x per system, instead of 16GB MicroSD card			

PYBSSS3
iRMC standard/legacy Option
When this product is orderd, following iRMC default setting is changed. Unique default password: No. The fixed password is printed on ID tag. SSH: Enabled USB Host LAN : Enabled Force to change default pwd to use Redfish/RESTful/other interfaces: No
max. 1x per system

S26361-F3776-E340
Cool-safe ® Advanced Thermal design 40°C(ATD40)
enables the PRIMERGY Server to cope with temperatures from 5-40° in operating mode due to extended Fan settings
Limitation: Refer to "General rules for ATD40 and ATD45"
this setting can be activated ex factory only
max. 1x per system

S26361-F3776-E345
Cool-safe ® Advanced Thermal design 45°C(ATD45)
enables the PRIMERGY Server to cope with temperatures from 5-45° in operating mode due to extended Fan settings
Limitation: Refer to "General rules for ATD40 and ATD45"
this setting can be activated ex factory only
max. 1x per system

PYBETA6 (will be available in CQ2'24)
Configuration Thermal Design 30°C(CTD30)
Sets the PRIMERGY server to support temperatures of up to 30 °C in operating mode for the configuration with thermal restriction.
this setting can be activated ex factory only
max. 1x per system

General rules for ATD40 and ATD45:
ATD40 and ATD45 use high performance cooling components
ATD40: - NVIDIA A2/L4 can not be supported - Fujitsu Battery Unit can not be supported **ATD45:** - NVIDIA A2/L4 can not be supported - SSD PCIe M.2 drive can not be supported - Fujitsu Battery Unit can not be supported

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
Either 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

PYBFOF02 PY-FOF02
Dust Protection kit
not for Rack base units(PYT1336RNN)
max. 1x per system

S26361-F3776-E10
Silent TX configuration
This is possible in an office environment. Components which lead to a general increase of fan speed are excluded from the configuration.
this setting can be activated ex factory only
max. 1x per system

Excluded from the configurations:
- All SSDs
- All SAS disks
- All PCI cards
- 900W power supply unit
- ATD40/ATD45 options
- Restrict to:
  - Up to 2x 3.5" HDDs
  - Up to 4x 2.5" HDDs

PYBFOP26 PY-FOP09
4U Rack Front Bezel for TX1330 M6
not for tower base units(PYT1336TNS/PYT1336TNN)
max. 1x per system

Your Server is ready

Date of change	Configurator revision	Folder / order code / description	What has been changed / comment	Name
22.04.2024	1.03	ODD	added Blu-ray Triple Writer SATA for 1.6" bay	H. Okabe
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