PRIMERGY TX1320 M5
Compact Tower Server

FUJITSU
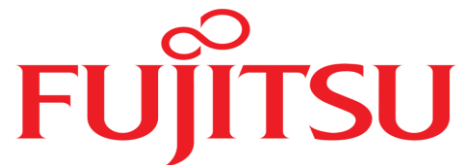
Chapter	Folder	Content
	Cover	List of content, Instructions for usage of this configurator, abbreviations
	Description	System Description for easier understanding
1	Base	describes base unit of TX1320 M5
2		describes rack mount kits and services
3	CPU	Order code and Infos of processors
4	RAM	DDR4 System 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 prerequesites, technical back ground, configuration rules, limitations, …

S26361-F4610-E2	<-- order code E-part (bold) --
S26361-F4610-L3	<-- 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

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/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); SAS2.0 = 6GBit/s; SAS3.0 = 12GBit/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
Spaces	OS	Microsoft spaces, optimized in Win2012 R2 offers software RAID and storage tiering
vSAN	OS	
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-**E**240" 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-**L**240" ordercode with "L" means, the part will be shipped with extra package, may be as well with extra shipment

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
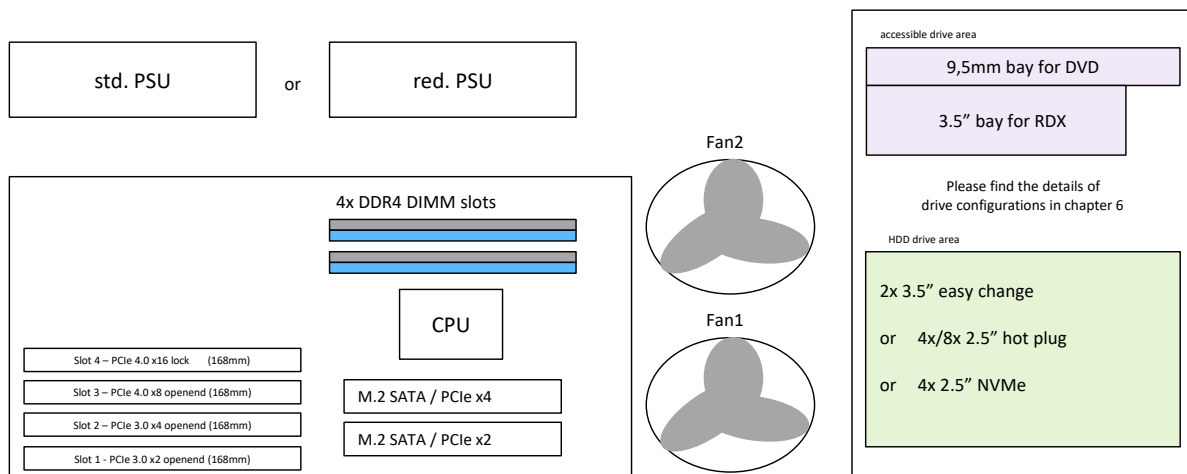 in case of 4x 2.5" the drives may be NVMe

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"

std. PSU	or	red. PSU

accessible drive area

9,5mm bay for DVD
3.5" bay for RDX

Please find the details of
drive configurations in chapter 6

HDD drive area

2x 3.5" easy change

or   4x/8x 2.5" hot plug

or   4x 2.5" NVMe

4x DDR4 DIMM slots

CPU

Fan2

Fan1

Slot 4 – PCIe 4.0 x16 lock   (168mm)
Slot 3 – PCIe 4.0 x8 openend (168mm)
Slot 2 – PCIe 3.0 x4 openend (168mm)
Slot 1 - PCIe 3.0 x2 openend (168mm)

M.2 SATA / PCIe x4
M.2 SATA / PCIe x2

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

Software

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 Gen1x1 Type A
1x Display port	Interfaces internal
1x VGA (15 pins)	2x internal USB 3.2 Gen1x1 connectors for backup devices
2x USB 3.2 Gen2x1 Type A	2x M.2 (80mm and 110mm)modules: 1x SATA/NVMe(PCIe x4) and 1x
4x USB 2.0 Type A	SATA/NVMe(PCIe x2)
1x RS-232-C (serial, 9 pin) - optional	1x Mini SATA (4x SATA 6G)

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

hot plug HDD
PYT1325T2S
TX1320 M5 SFF Base Unit w/ std. PSU (2.5" HDD)
PYT1325T2M
TX1320 M5 SFF Base Unit w/ red. PSU (2.5" HDD)

easy change HDD
PYT1325T3S
TX1320 M5 LFF Base Unit w/ std. PSU (3.5" HDD)
PYT1325TAN *will be available in Nov, 2022.
TX1320 M5 LFF Base Unit w/ red. PSU (3.5" HDD)

A

Chapter 2 - Rack architecture

A

B
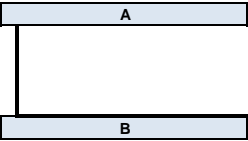
Rackmount not supported by TX1320 M5

Chapter 3- CPU

B

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

Pentium (Rocket Lake)		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	-
Xeon E-23xx (Rocket Lake-E)		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

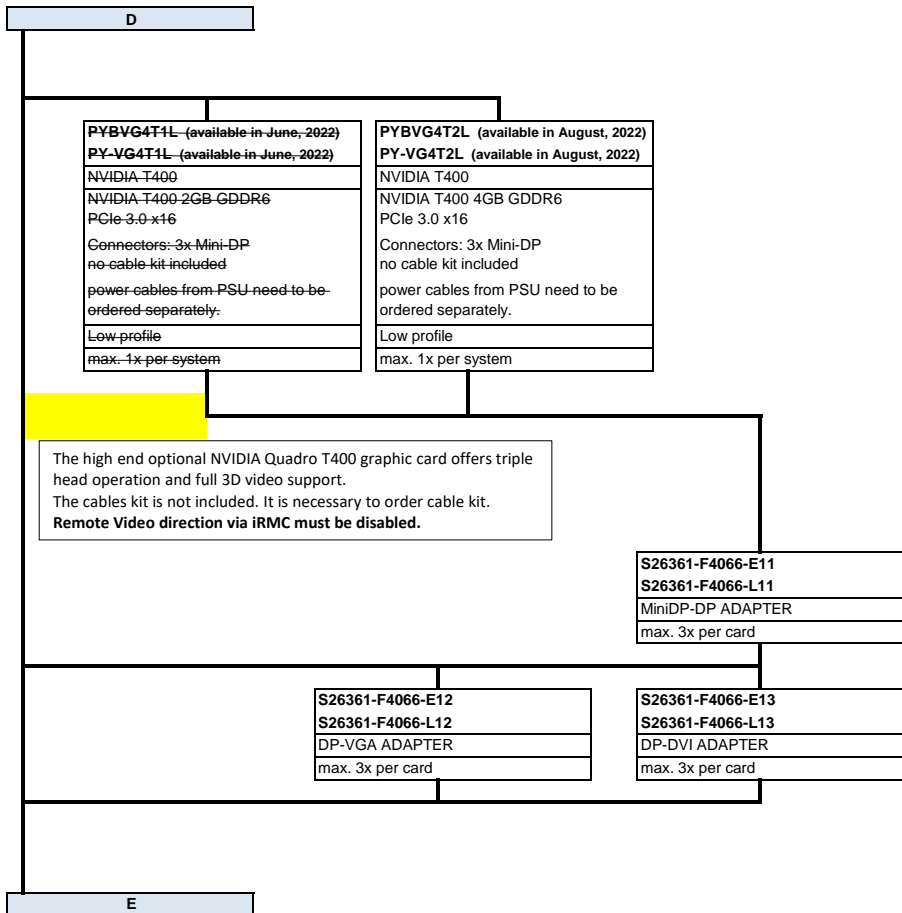**Note**: Memory is not included in the base unit and has to be configured separately, min 1x.**

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.

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

C

Chapter 5 - Graphics cards

D

PYBVG4T1L (available in June, 2022)	PYBVG4T2L (available in August, 2022)
PY-VG4T1L (available in June, 2022)	PY-VG4T2L (available in August, 2022)
NVIDIA T400	NVIDIA T400
NVIDIA T400 2GB GDDR6	NVIDIA T400 4GB GDDR6
PCIe 3.0 x16	PCIe 3.0 x16
Connectors: 3x Mini-DP	Connectors: 3x Mini-DP
no cable kit included	no cable kit included
power cables from PSU need to be ordered separately.	power cables from PSU need to be ordered separately.
Low profile	Low profile
max. 1x per system	max. 1x per system

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

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

S26361-F4066-E12	S26361-F4066-E13
S26361-F4066-L12	S26361-F4066-L13
DP-VGA ADAPTER	DP-DVI ADAPTER
max. 3x per card	max. 3x per card

E

Chapter 6 - HD drive cage

E

Definition:
TX1320 M5 is availabel 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 an 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 unit w/ hot plug PSU only

2. RAID controller PRAID EP540i NVMe, PRAID EP580i NVMe or PRAID EP680i NVMe required
   EP540i NVMe = S26361-F4042-E224, EP580i NVMe = S26361-F4042-E228
   EP680i NVMe = PYBSR4C62L

1. for SFF SAS/SATA base units only

2. RAID controller required

3. RAID/SAS controller for 4x SAS/SATA also requiered

PYBBA24SD	**PYBBA24PG**
PY-BA24SD	**PY-BA24PG**
2nd HDD Backplae	NVMe extension kit
offers 4x SFF (2,5") hot plug HDD	adds 4x PCIe SSD bays to 4x SFF (2,5") hot plug HDD bays
max. 1x per system	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

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

OS support matrix:

Windows Server 2022	Supported
Windows Server 2019	Supported
Red Hat Enterprise Linux 8.4, 8.5, 8.6	Supported
SUSE Linux Enterprise Server 15 SP3, SP4	Supported
VMware ESXi	Not supported

Support OS may vary by system.

internal HBA and RAID controller, no 2nd Level cache

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

PRAID CP600i LP available from 2023/05	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

PSAS CP600i LP available from 2023/05	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

PRAID CP500i RAID Contr.	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

PSAS CP503i HBA SAS Contr.	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

PSAS CP 2100-8i LP	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

PRAID EP640i LP available from 2023/02	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

PRAID EP680i LP available from 2022/11	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

PRAID EP520i RAID Contr. LP	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

PRAID EP540i RAID Contr. LP	4GB Cache	RAID 0,1,1E,10,5,50,6,60	1x	S26361-F4042-E214	S26361-F4042-L514
PRAID EP580i RAID Contr. LP	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 explicite ordering and cabling)

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

FBU Option for PRAID EP5xx / EP6xx: Supercap securing the power supply of the RAID controller in case of power failure including cable with 55cm lenght	1x	S26361-F4042-E155	S26361-F4042-L110

internal RAID controllers for PCIe SSD drives						
PRAID EP680i NVMe LP available from 2022	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 explicite ordering and cabling)

internal RAID controllers for PCIe SSD drives						
PRAID EP540i RAID NVMe LP	4GB Cache	RAID 0,1,1E,10,5,50,6,60		1x	**S26361-F4042-E224**	**S26361-F4042-L514**
PRAID EP580i RAID NVMe LP	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 explicite ordering and cabling)

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 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 EPxxxi 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

G

Chapter 8 - ODD optical disk drives

G

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

H

Chapter 9 - backup drives

TX1320 M5 is availabel 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				

RDX drive				
RDX drive is not including Cartridge.				
RDX Drive cage (w/o cartriges)	USB 3.0, 3.5 inch / Half Height	1x	S26361-F3750-E5	S26361-F3750-L5

	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

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

SSD SAS 2.5" Write Intensive (SFF) Enterprise with hot plug/hot replace tray
based on **Seagate Nytro3732** 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

SSD SAS 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray
based on **Seagate Nytro3532** 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

SSD SAS 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray
based on **Seagate Nytro3332** 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

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

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

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						

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)

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						

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3.5" NON hot plug Drives for internal bays

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

Capacity	RPM	Interface	Sector		order code E-part	order code L-part
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

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						

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					will be available in CQ1'23	

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	will be available in CQ1'23	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.							

2.5" (SFF) PCIe-SSD

2.5" PCIe-SSDs require a RAID Controller
RAID Controller : PRAID EP540i/580i

PCIe-SSD 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray
based on **Kioxia CM6-V** 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 **Intel DC P4610** 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

PCIe-SSD 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray

based on **Kioxia CM6-R** 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 **Intel DC P4510** 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

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Chapter 11 - Communications / Ethernet Network Components

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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 **availble from 2023/1**	PY-LA284 **availble from 2023/1**
max. 2 adapters per system				

Intel 10GbE BEASE-T for PCIe				
PLAN EP X710-T2L 2x10GBASE-T LP	2x	Intel, 10GTx2port	PYBLA342L	PY-LA342
PLAN EP X710-T4L 4x10GBASE-T LP	2x	Intel, 10GTx4port	PYBLA344L	PY-LA344
max. 4 adapters per server system				

Broadcom 10GbE BEASE-T for PCIe				
PLAN EP P210TP 2X 10GBASE-T PCIe LP	2x	Broadcom, 10GTx2port	PYBLA3K2L **availble from 2023/1**	PY-LA3K2 **availble from 2023/1**
max. 2 adapters per system				

Intel 10GbE for PCIe				
Each cage consumes 1x optical SFP+ transceiver per port. Dual rate 10G/1G support requires 10G/1G Dual Rate SFP+ Optical Transceiver Modules. **All ports on this card need to install the same Parts Number of optical module.**				
PLAN EP X710-DA2 2x10Gb SFP+ LP	2x	Intel, 10Gx2port	S26361-F3640-E202	S26361-F3640-L502
PLAN EP X710-DA4 4x10Gb SFP+	2x	Intel, 10Gx4port	S26361-F3640-E204	S26361-F3640-L504
Optional, 10Gb SFP+ optical transceiver module, select one per cage				
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. **All ports on this card need to install the same Parts Number of optical module.**				
PLAN EP P210P 2x10Gb SFP PCIe LP	2x	Broadcom, 10Gx2port	PYBLA3J2L **availble from 2023/1**	PY-LA3J2 **availble from 2023/1**
Optional, 10Gb SFP+ optical transceiver module, select one per cage				
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				

Intel 25GbE for PCIe				
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. **All ports on this card need to install the same Parts Number of optical module.** **10G SFP BTO is not available for 25G cards, please select L parts.**				
PLAN EP E810-XXVDA2 2x25Gb LP	2x	Intel, 25Gx2port	PYBLA402L	PY-LA402
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, select one per cage				
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
max. 1x per port				
max. 2x adapters per system				

Mellanox 25GbE for PCIe				
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.				
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 MCX4-LX 25Gb 2p SFP28 LP	2x	Mellanox, 25Gx2port	S26361-F4054-E202	S26361-F4054-L502
Optional, 25Gb SFP28 optical transceiver module with LC connector, each cage consumes one.				
SFP28 Optical Transceiver 25G SR MMA2P00-AS LC	2x	Mellanox, 25G SR SFP28	S26361-F4054-E701	S26361-F4054-L701
max. 1x per port				
Optional, 10Gb SFP+ optical transceiver module, select one per cage				
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
max. 1x per port				
max. 4x adapters per system				

L

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

L

Std. Base Unit		Red. Base Unit **(No redundant PSU is included)**

No PSU is included in base unit. Need to be chosen 1x redundant PSU at least. A second redundant power requires an additional country specific power cord. Dummy module is required if 1st PSU only.

For converting the base unit **PYT1325T2S** from standard PSU to redundant PSU use this conversion kit: **PY-TKPC02**

*available from 2022, Dec.

PYBPU501
PY-PU501
500W platinum power supply unit
500W PSU module platinum 1st or 2nd PSU for redundancy. 94% efficiency

100-240V, 50-60Hz
occupies hot plug PSU slot
max. **2x** per system

PYBPU503
PY-PU503
500W titanium power supply unit
500W PSU module platinum 1st or 2nd PSU for redundancy. 96% efficiency

220-240V, 50-60Hz
occupies hot plug PSU slot
max. **2x** per system

S26113-F574-E99

Dummy module instead PSU
Dummy module
for closing the 2nd PSU hole, in case only 1 PSU is equipped

closes hot plug PSU slot
max. 1x per system

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	-	(Sales region for EMEIA only)
Region Kit China for CCC option required systems, Contains warranty sheet and safety instructions for	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	S26361-F3301-E120	-

M

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

limitations for E-Star Fam1certification.

please make sure to follow the guidelines below in order meet ENERGY STAR V3.0 Fam1 requirements:
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
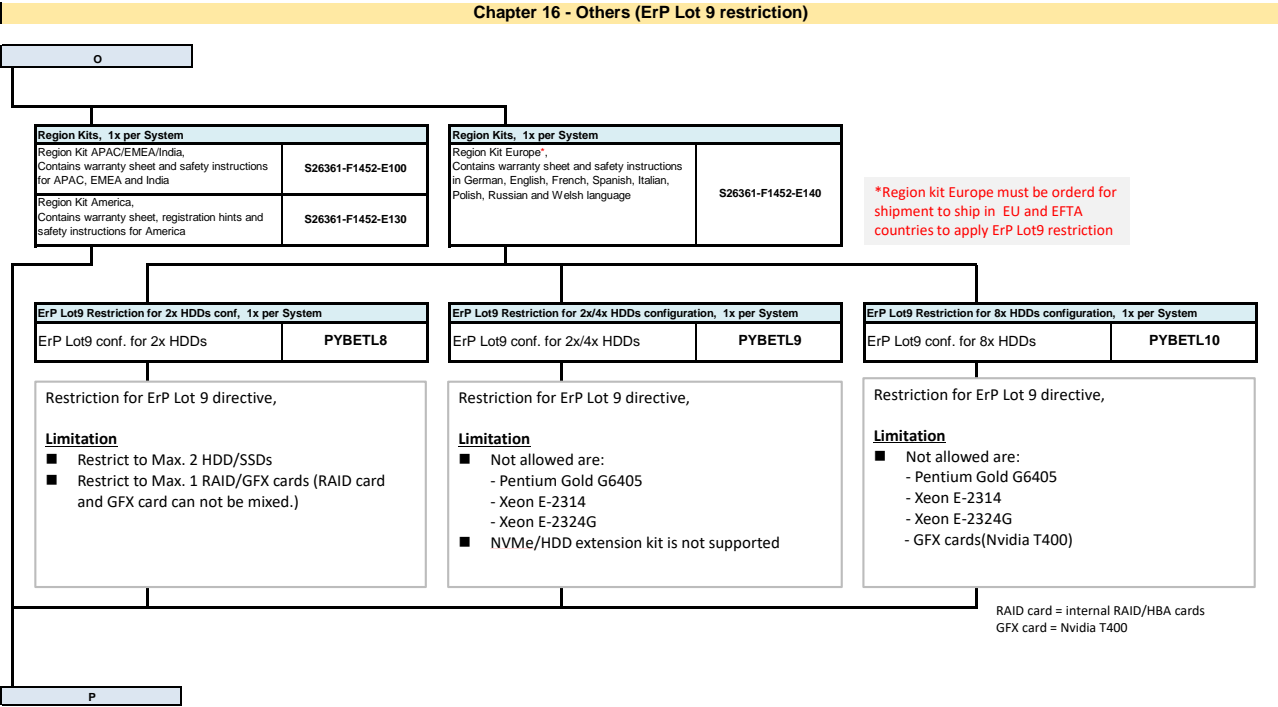do not use more than two PCIe cards (RAID, LAN, …) (two is ok)

ENERGY STAR-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)

O

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

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

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

ErP Lot9 Restriction for 2x HDDs conf, 1x per System	
ErP Lot9 conf. for 2x HDDs	**PYBETL8**

Restriction for ErP Lot 9 directive,

Limitation
- Restrict to Max. 2 HDD/SSDs
- Restrict to Max. 1 RAID/GFX cards (RAID card and GFX card can not be mixed.)

ErP Lot9 Restriction for 2x/4x HDDs configuration, 1x per System	
ErP Lot9 conf. for 2x/4x HDDs	**PYBETL9**

Restriction for ErP Lot 9 directive,

Limitation
- Not allowed are:
  - Pentium Gold G6405
  - Xeon E-2314
  - Xeon E-2324G
- NVMe/HDD extension kit is not supported

ErP Lot9 Restriction for 8x HDDs configuration, 1x per System	
ErP Lot9 conf. for 8x HDDs	**PYBETL10**

Restriction for ErP Lot 9 directive,

Limitation
- Not allowed are:
  - Pentium Gold G6405
  - Xeon E-2314
  - Xeon E-2324G
  - GFX cards(Nvidia T400)

RAID card = internal RAID/HBA cards
GFX card = Nvidia T400

P

Chapter 16 - others

P

PYBRMC44
PY-RMC44

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.

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

S26361-F3776-E340

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

General rules for ATD40 and ATD45:

ATD40 and ATD45 use high performance cooling components

ATD40:
- CPU can be supported up to 80W. No support 95W CPU.
ATD45:
- 480GB M.2 can not be supported
- Base unit with Standard PSU can not be supported
- Nvidia T400 can not be supported.
2.5" base unit with Redundant PSU:
- CPU can be supported up to 80W. No support 95W CPU.

S26361-F3776-E345

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

S26361-F3552-E100 will be EOL at end-Sep 2
S26361-F3552-L100
TPM 2.0 module
Microsoft Windows Server 2022 not supported
max. 1x per system

PYBTPM16
PY-TPM16
TPM 2.0 module
Microsoft Windows Server 2022 only supported
required for Microsoft Windows Server 2022
max. 1x per system

When using Windows Server 2022 as host OS, PYBTPM16 / PY-TPM16 is 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 S26361-F3552-L100	PYBTPM16 PY-TPM16
Windows Server 2022	-	required
Windows Server 2019	supported	supported
Red Hat Enterprise Linux 8	supported	supported
SUSE Linux Enterprise Server 15	-	-
VMware ESXi 7.0	supported	supported

Support OS may vary by system.

S26361-F3552-E100/L100 will be EOL at end-Sep 2022.

PYBTPM16/PY-TPM16 will be an alternative
because they have extended the support OS like the table on the left
and they are backward compatible with S26361-F3552-E100/L100.

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

PYBFOF01
PY-FOF01
Dust Protection kit
max. 1x per system

Your Server is ready

Date of change	Configurator revision	Folder / order code / description	What has been changed / comment	Name
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
16.06.2022	1,08	change_history	Introduce this history table with a new style	
		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