

PRIMERGY RX2540 M7
2U 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 RX2540 M7
2		describes rack mount kits and services
3	CPU	Order code and Infos of Intel® Xeon® Processor Scalable Family CPUs
4	RAM	DDR5 System memory (RAM) and memory modes
5	GFX	Graphics-, Grid-cards, GPU and Xeon Co processors and other graphics options
6	HD_cage	Drive cage and PCIe riser options
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
14	PSU	Power supply units, power cables, country specific opt.
15	USB_devices	Keyboards, Mice, USB devices
16	Energy Star	Energy Star limitation
17	Erp Lot9	Erp Lot9 limitation
18	Thermal Rule	Thermal Rule
19	others	System Management, ATD, CTD, RS232 port, TPM module

Instructions

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

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

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

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

Chapter xx - description of chapter

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

Conventional order code

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

<-- order code E-part (bold) --
<-- order code L-part (bold)
<-- "name" of this part

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

<--requires a free PCIe slot --> means total amount of PCIe slots reduced
<--indicates how often this part can be configured in the related Server

New order code

PYBVAP05
PY-VAP05
Front VGA connector (15-pin)
Front VGA connector (15-pin) including cable and front connector
Not for 12x3.5", 24x2.5", 64xEDSFF base unit.
max. 1x per system

<-- "PYB" order code (bold) for BTO(Built to Order) part
<-- "PY-" order code (bold) for Loose delivery part
<-- "name" of this part
<--description of this part, in same cases as well description of content

<-- Limitation for this part

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

For further information see:

Link to datasheet:
<https://sp.ts.fujitsu.com/dmsp/Publications/public/ds-py-RX2540M7.pdf>

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

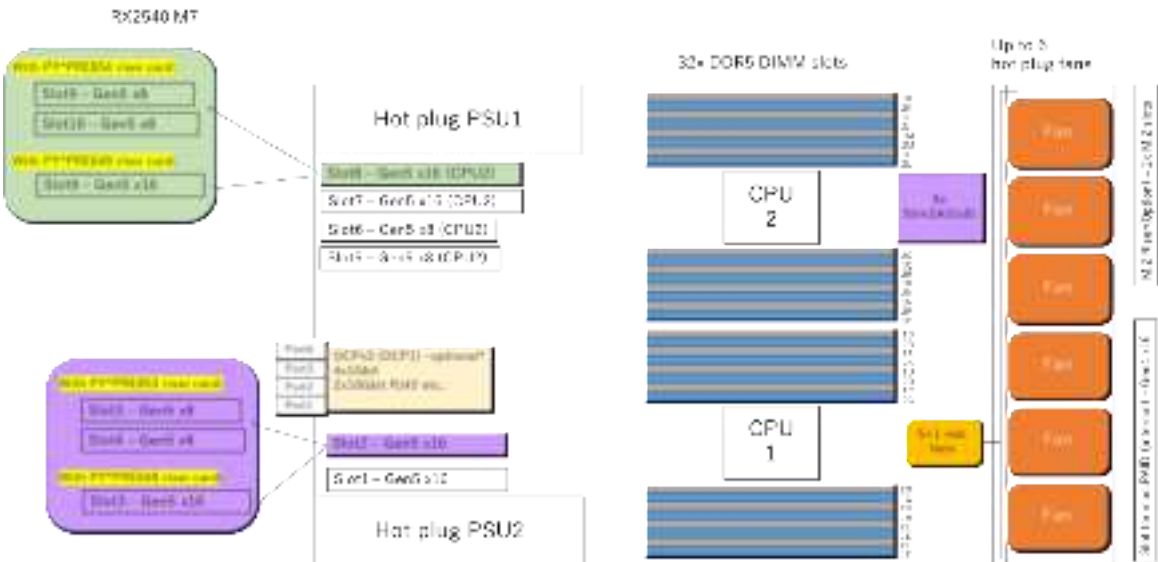
<https://extranet.ts.fujitsu.com/com/tools/configure/server/Pages/default.aspx>
(extranet)

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

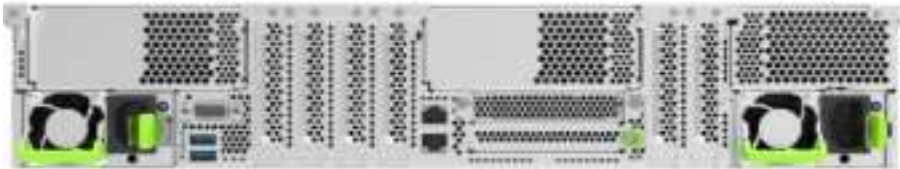
SAS	Drives, RAID	Serial attached SCSI Device (HDD, SSD, LTO drives); SAS2.0 = 6GBit/s; SAS3.0 = 12GBit/s
SATA	Drives, RAID	Serial ATA (HDD, SSD) current SATA speed = 6GBit/s
HDD	Drives	Hard disk drive (Non volatile storage device), 2.5" (SFF) or 3.5" (LFF)
SSD	Drives	Solid state disk (Non volatile storage 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

PRIMERGY RX2540 M7 schematics of the System board



*For the available options, please see the “Chapter 11”.

PRIMERGY RX2540 M7 rear view with 2x PSU, 6x PCIe Slots and OCPv3



PRIMERGY RX2540 M7 front view with drives and operation panel

3.5-inch hot plug SAS/SATA

10x HDDs/SSDs



2.5-inch hot plug SAS/SATA/NVMe

16x HDDs/SSDs



12x HDDs/SSDs



24x HDDs/SSDs



recommended components for RX2540 M7	#
Independant Mode installation	1x
PLAN CP I350-T4 4X 1000BASE-T OCPv3	1x
Region kit APAC/EMEA/India	1x
iRMC advanced pack	1x
Modular PSU 900W Titanium hot plug	2x

Chapter 1 - base unit

Start

Power supply units & cooling
The PRIMERGY RX2540 M7 offers bays for 1x or 2x direct attached hot plug (opt. redundant) power supply units of 500W, 900W, 1600W and 2200W with up to 96% efficiency. The PRIMERGY RX2540 M7 comes equipped with ultimate performance processor heat pipes and 6 high performance hot plug fans (N+1 redundant).

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 easily highlight 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 D3983-A with PFR function based on Chipset Intel® C741 (Emmitsburg)

> 4 serial UPI(Intel® Ultra Path Interconnect)links

> Up to two Intel® Xeon® Processor Scalable Family CPUs (Sapphire Rapids)

Slots: per default, 7 PCIe slots are on board - please see schematics in "Description"

> 2 PCIe slots low profile, 198 mm length @ first CPU:

Internal RAID slot PCIe-Gen4 x16 - only for modular RAID/SAS controller

Slot 1 PCIe-Gen5 x16

Slot 2 PCIe-Gen5 x16

> 4 PCIe slot low profile, 198 mm length @ second CPU:

Slot 5 PCIe-Gen5 x8

Slot 6 PCIe-Gen5 x8

Slot 7 PCIe-Gen5 x16

Slot 8 PCIe-Gen5 x16

Maximum 8 PCI slots are possible with PCIe riser card options (4x full height, please see below)

System RAM up to DDR5-4800 MHz

8TB memory with 32x DDR5 RDIMMs (16 per CPU)

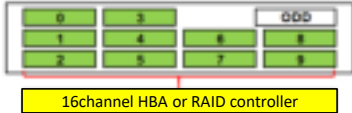
Memory speed depends on CPU and configuration, please see folder "CPU" and "RAM" for further details.

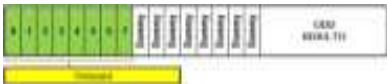
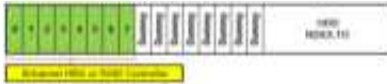
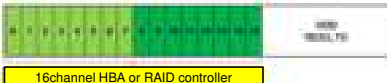
LAN
1x1Gbit/s (RJ45) on Motherboard - optional OCPv3 cards are available.

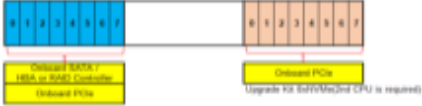
Software
* ServerView Suite Software option

Connectivity

<u>Interfaces at rear side</u> - 1 service LAN RJ45 (1 Gbit) - 1x RJ45 with integrated LEDs for fixed onboard 1Gb LAN - 1x VGA (15 pins) - 2x USB 3.0 UHCI - 1x serial 16550 interface - Slot for interface OCPv3 cards up to 4 LAN ports	<u>Interfaces at front</u> - 2x USB 3.0 on COP(Common Operation Panel) - for base units with less HDD: front VGA option <u>Interfaces internal</u> - 2x USB 3.0 - 2x M.2 - 2x 4* SATA 6G
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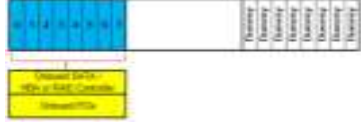
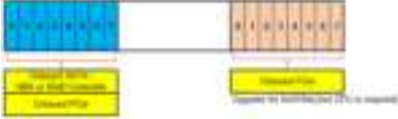
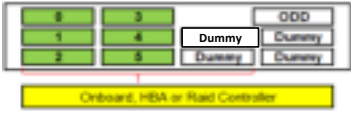
		SAS/SATA	SAS/SATA with expander	NVMe
Rack version for 19" racks with 2 height units No PSU included in base unit Basic unit is without CPU and Memory For an orderable basic unit first CPU and one memory = first memory has to be selected Basic units LFF with 10x 3.5" bays PYR2547R3N Without SAS expander No Rear Bay option possible! [Thermal Restriction] Refer to Thermal Rule	 Front Type 1-1: Onboard SATA Type 1-2: PRAID CP500i / CP600i * / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot) <i>*: will be available in 2024/03</i> No Rear Bay option ! Cable kit for Onboard SATA PYBCBT013 ! Cable kit for 8ch RAID/HBA controller PYBCBS103  Front Type 1-3: PSAS CP600i or PRAID EP540i / EP580i / EP680i / EP740i * or PSAS CP 2200-16i ** or PRAID EP 3258-16i (in internal RAID slot) <i>*: will be available in 2024/07</i> <i>**: will be available in 2024/03</i> No Rear Bay option ! Cable Kit for 16ch RAID/HBA controller PYBCBS104 Please select one of " ! " options with PYR2547R3N, according to your configuration.			
12x 3.5" bays PYR2547RAN Including SAS expander 4x rear SFF option 2x rear SFF option (required 4x rear SFF option) [Thermal Restriction] Refer to Thermal Rule	 Front Type 2-5: PRAID CP500i ** / CP600i * / EP520i ** / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot) <i>*: will be available in 2024/03</i> <i>**: will be available in 2023/12</i> Rear Bay option  Type 2-6: 4x, 2x SAS/SATA: Same controller as Front via Expander  Type 2-7: 4x, 2x NVMe: Max 2x Separate Retimer (in PCIe slot 8, 2) 2nd CPU is required for Rear NVMe bay  Type 2-8: 4x NVMe: Separate PRAID EP680i NVMe / EP740i NVMe * or PSAS CP 2200-16i NVMe ** or PRAID EP 3258-16i NVMe *** (in PCIe slot 6) 2nd CPU is required for Rear NVMe bay			

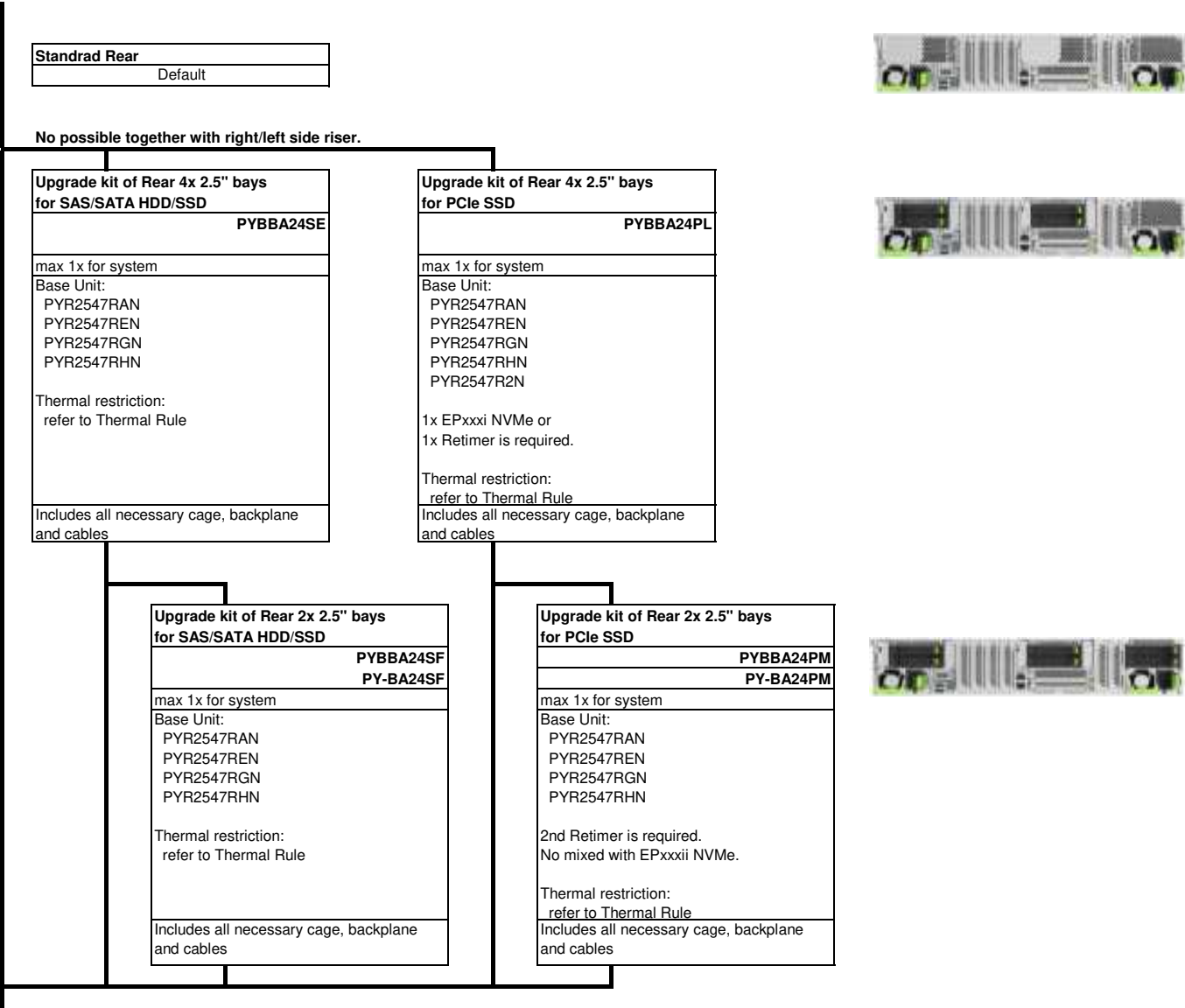
Basic units SFF with 16x 2.5" bays w/o expander Without SAS expander 4x rear SFF option [Thermal Restriction] Refer to Thermal Rule	PYR2547R2N	Upgrade kit for Front bays (Default Configuration)	
			Front Type 3-1: Onboard SATA
			Rear Bay option Type 3-5: 4x NVMe: Separate PRAID EP680i NVMe / EP740i NVMe * or PSAS CP 2200-16i NVMe ** or PRAID EP 3258-16i NVMe *** (in PCIe slot 6) 2nd CPU is required for Rear NVMe bay *: will be available in 2024/07 **: will be available in 2024/03 ***: will be available in 2023/10
			Front Type 3-2: PRAID CP500i / CP600i * / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot) *: will be available in 2024/03
			Front Type 3-3: PSAS CP600i or PRAID EP540i / EP580i / EP680i / EP740i * or PSAS CP 2200-16i ** or PRAID EP 3258-16i (in internal RAID slot) *: will be available in 2024/07 **: will be available in 2024/03
			Rear Bay option Type 3-9: 4x NVMe: Separate PRAID EP680i NVMe / EP740i NVMe * or PSAS CP 2200-16i NVMe ** or PRAID EP 3258-16i NVMe *** (in PCIe slot 6) 2nd CPU is required for Rear NVMe bay *: will be available in 2024/07 **: will be available in 2024/03 ***: will be available in 2023/10
		! Cable kit for Onboard SATA PYBCBT013	
		! Cable kit for 8ch RAID/HBA controller PYBCBS103	
		! Cable Kit for 16ch RAID/HBA controller PYBCBS104	
		! Upgrade kit for dual RAID SAS/SATA HDD/SSD PYBCBS092	
			Front Type 3-4: 2x PRAID CP500i / CP600i * / EP520i / EP640i or 2x PSAS CP 2100-8i or 2x PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot, PCIe slot 1) No mixed cards *: will be available in 2024/03
		Please select one of " ! " options with PYR2547R2N, according to your configuration.	
16x 2.5" bays w/ expander Including SAS expander [Thermal Restriction] Refer to Thermal Rule	PYR2547RBN	Upgrade kit for Front bays (Default Configuration)	
			Front Type 3-11: PRAID CP500i ** / CP600i * / EP520i ** / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot) *: will be available in 2024/03 **: will be available in 2023/12

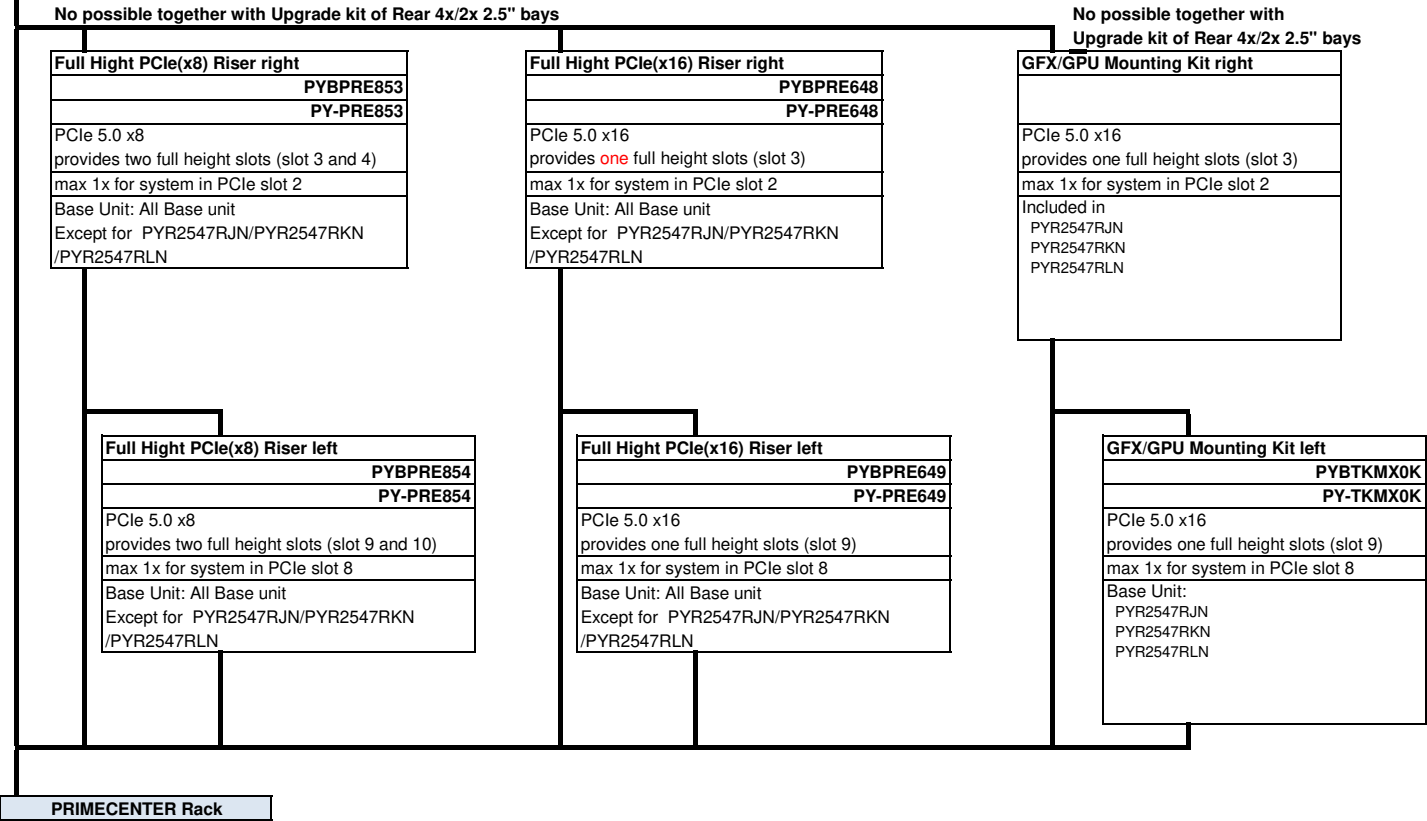
8x 2.5" SAS/SATA/NVMe mixed + 8x NVMe Without SAS expander [Thermal Restriction] Refer to Thermal Rule	PYR2547RCN (Default Configuration)		Front 8x2.5" SAS/SATA/NVMe mixed Type 6-1: Onboard SATA + Onboard PCIe Type 6-2: PRAID CP500i / CP600i * / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in PCIe slot 1) + Onboard PCIe *: will be available in 2024/03
		! Cable kit for Onboard SATA ! Cable kit for 8ch RAID/HBA controller Please select one of " ! " options with PYR2547RCN, according to your configuration.	PYBCBT013 PYBCBS103
	Upgrade kit 8x NVMe		PYBBA28P8 Front 8x2.5" SAS/SATA/NVMe mixed + 8x NVMe Type 6-8: Onboard SATA, Onboard PCIe Type 6-9: PRAID CP500i / CP600i * / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in PCIe slot 1), Onboard PCIe 2nd CPU is required *: will be available in 2024/03
		! Cable kit for Onboard SATA ! Cable kit for 8ch RAID/HBA controller Please select one of " ! " options with PYR2547RCN and PYBBA28P8, according to your configuration.	PYBCBT013 PYBCBS103
8x 2.5" SAS/SATA + 4x NVMe Without SAS expander [Thermal Restriction] Refer to Thermal Rule	PYR2547RDN (Default Configuration)		Front 8x2.5" SAS/SATA + 4x NVMe Type 6-4: Onboard SATA, PRAID EP680i NVMe / EP740i NVMe * or PSAS CP 2200-16i NVMe ** or PRAID EP 3258-16i NVMe *** (in PCIe slot 1) Type 6-5: PRAID CP500i / CP600i ** / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot), PRAID EP680i NVMe / EP740i NVMe * or PSAS CP 2200-16i NVMe ** or PRAID EP 3258-16i NVMe *** (in PCIe slot 1) *: will be available in 2024/07 **: will be available in 2024/03 ***: will be available in 2023/10
		! Cable kit for Onboard SATA ! Cable kit for 8ch RAID/HBA controller Please select one of " ! " options with PYR2547RDN, according to your configuration.	PYBCBT013 PYBCBS103
	Upgrade kit 4x NVMe		PYBBA24PN Front 8x2.5" SAS/SATA + 8x NVMe Type 6-6: Onboard SATA, 2x PRAID EP680i NVMe / EP740i NVMe * or 2x PSAS CP 2200-16i NVMe ** or 2x PRAID EP 3258-16i NVMe *** (in PCIe slot 1, 6) Type 6-7: PRAID CP500i / CP600i ** / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot), 2x PRAID EP680i NVMe / EP740i NVMe * or 2x PSAS CP 2200-16i NVMe ** or 2x PRAID EP 3258-16i NVMe *** (in PCIe slot 1, 6) No mixed 1st and 2nd NVMe card 2nd CPU is required *: will be available in 2024/07 **: will be available in 2024/03 ***: will be available in 2023/10
		! Cable kit for Onboard SATA ! Cable kit for 8ch RAID/HBA controller Please select one of " ! " options with PYR2547RDN and PYBBA24PN, according to your configuration.	PYBCBT013 PYBCBS103

24x 2.5" bays	PYR2547REN	Upgrade kit for Front bays	
Without SAS expander 4x rear SFF option 2x rear SFF option (required 4x rear SFF option) [Thermal Restriction] Refer to Thermal Rule		(Default Configuration) 	Front Type 4-1: 3x PRAID CP500i / CP600i * / EP520i / EP640i or 3x PSAS CP 2100-8i or 3x PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot, PCIe slot 1, 5) No mixed cards 2nd CPU is required *: will be available in 2024/03
		! Cable kit for 8ch RAID/HBA controller PYBCBS103 	No Rear Bay option Front Type 4-2: 2x PSAS CP600i or 2x PRAID EP540i / EP580i / EP680i / EP740i * or 2x PSAS CP 2200-16i ** or 2x PRAID EP 3258-16i (in internal RAID slot, PCIe slot 6) No mixed cards 2nd CPU is required *: will be available in 2024/07 **: will be available in 2024/03
		! Cable kit for 16ch RAID/HBA controller PYBCBS104 	Rear Bay Option  Type 4-3: 4x, 2x SAS/SATA: Same controller as Front (2nd card)  Type 4-4: 4x, 2x NVMe: Max 2x Separate Retimer (in PCIe slot 8, 2) 2nd CPU is required for Rear NVMe bay
		Please select one of " ! " options with PYR2547REN, according to your configuration.	
24x 2.5" bays high performance RAID	PYR2547RFN		
Without SAS expander [Thermal Restriction] Refer to Thermal Rule Will be released in 2024.7		Front Type 4-20: PRAID EP781i FH * (in PCIe slot 3), Onboard PCIe Full Hight PCIe(x16) Riser right is required 2nd CPU is required *: will be available in 2024/07	

24x 2.5" bays	PYR2547RGN	Upgrade kit for Front bays (Default Configuration)	 ! Cable kit for 8ch RAID/HBA controller PYBCBS103	Front Type 4-12: PRAID CP500i ** / CP600i * / EP520i ** / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot) *: will be available in 2024/03 **: will be available in 2023/12 Rear Bay option  Type 4-13: 4x, 2x SAS/SATA: Same controller as Front via expander  Type 4-16: 4x, 2x NVMe: Max 2x Separate Retimer (in PCIe slot 8, 2) 2nd CPU is required for Rear NVMe bay Front Type 4-12: PSAS CP600i or PRAID EP540i *** / EP580i *** / EP680i / EP740i * or PSAS CP 2200-16i ** or PRAID EP 3258-16i (in internal RAID slot) *: will be available in 2024/07 **: will be available in 2024/03 ***: will be available in 2023/12 Rear Bay option  Type 4-13: 4x, 2x SAS/SATA: Same controller(EP5x0i) as Front via expander Type 4-15: 4x, 2x SAS/SATA: Same controller(except for EP5x0i) as Front Please select one of " ! " options with PYR2547RGN, according to your configuration.
24x 2.5" NVMe bays	PYR2547RHN	Upgrade kit for Front bays (Default Configuration)	 ! Cable kit for 16ch RAID/HBA controller PYBCBS104	Front Type 5-1: Front NVMe: Onboard PCIe via PCIe SW 2nd CPU is required Rear Bay option  Type 5-2: 4x, 2x SAS/SATA: Separate PRAID CP500i / CP600i * / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in PCIe slot 6) *: will be available in 2024/03  Type 5-3: 4x, 2x NVMe: Max 2x Separate Retimer (in PCIe slot 8, 2)

Basic units for best graphics applications		
16x 2.5" bays w/ expander for graphics Including SAS expander Including GFX/GPU Mounting Kit right for 1st GPU card [Thermal Restriction] Refer to Thermal Rule	PYR2547RJN	 Front Type 3-11: PRAID CP500i ** / CP600i * / EP520i ** / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot) *: will be available in 2024/03 **: will be available in 2023/12
8x 2.5" SAS/SATA/NVMe mixed for graphics Without SAS expander Including GFX/GPU Mounting Kit right for 1st GPU card [Thermal Restriction] Refer to Thermal Rule	PYR2547RKN (Default Configuration)	 Front 8x2.5" SAS/SATA/NVMe mixed Type 6-1: Onboard SATA + Onboard PCIe Type 6-2: PRAID CP500i / CP600i * / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in PCIe slot 1) + Onboard PCIe *: will be available in 2024/03 ! Cable kit for Onboard SATA PYBCBT013 ! Cable kit for 8ch RAID/HBA controller PYBCBS103 Please select one of " ! " options with PYR2547RKN, according to your configuration.
	Upgrade kit 8x NVMe	 Front 8x2.5" SAS/SATA/NVMe mixed + 8x NVMe Type 6-8: Onboard SATA, Onboard PCIe Type 6-9: PRAID CP500i / CP600i * / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in PCIe slot 1), Onboard PCIe 2nd CPU is required *: will be available in 2024/03 ! Cable kit for Onboard SATA PYBCBT013 ! Cable kit for 8ch RAID/HBA controller PYBCBS103 Please select one of " ! " options with PYR2547RKN and PYBBA28P8, according to your configuration.
6x 3.5" bays for graphics Without SAS expander Including GFX/GPU Mounting Kit right for 1st GPU card [Thermal Restriction] Refer to Thermal Rule	PYR2547RLN	 Front Type 1-1: Onboard SATA Type 1-2: PRAID CP500i / CP600i * / EP520i / EP640i or PSAS CP 2100-8i or PRAID EP 3252-8i / EP 3254-8i (in internal RAID slot) *: will be available in 2024/03 ! Cable kit for Onboard SATA PYBCBT013 ! Cable kit for 8ch RAID/HBA controller PYBCBS103 Please select one of " ! " options with PPYR2547RLN, according to your configuration.





Chapter 2 - Rack architecture

PRIMECENTER Rack

Rack Architecture			Remark		
No RMK	1x	Only with loose server order	S26361-F2735-E111	n/a	no mounting in rack
Rack Mount Kit	1x	RMK for server w/max. 2U	PYBRR0B	PY-RR0B	precondition
Rack Mount Kit, slide-in rail	1x	Slide-in rail for server w/max. 2U	PYBRRS8S	PY-RRS8S	CMA is not supported.
Rack Cable Arm 2U	1x	Cable mgmt. arm for 2U or higher	PYBRA05	PY-RA05	No possible together with 1600W PSU HVDC.
Rack installation ex works	1x	Rack will be delivered completely premounted and tested ex factory	S26361-F1647-E302	n/a	to be ordered 1x per installed rack server

B

Chapter 3 - CPU

B

There are 2 processor sockets available. Please configure 1 or 2 Processors.
>> All processors have to be the same type.
>> With **one** processor OCPv3, iRMC, 2x PCIe low profile slots Internal RAID card slot and 16x DIMM slots are available
>> With **two** processors all 32x DIMM slots, 6x PCIe low profile slots are available.
>> To configure 2nd CPU an additional cooler kit is required.
**Xeon Bronze 3408U, Xeon Gold 5412U and Xeon Gold 6414U are not allowed to configure 2nd CPU.

** Liquid cooling is required.

CPU Group for Thermal condition				10x3.5" /12x3.5" /16x2.5" /24x2.5"
Xeon Bronze 34xx - Mainline, 1 socket configuration only (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4000 MT/s				
Xeon Bronze 3408U 8C 1.8GHz 125W	PYBCP65XR	-		A
Xeon Silver 44xx - Mainline, 2 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4000 MT/s & UPI Bus (2UPI) @ 16 GT/s				
Xeon Silver 4410Y 12C 2.0GHz 150W Speed Select Technology	PYBCP66XG	PY-CP66XG		A
Xeon Silver 4416+ 20C 2.0GHz 165W	PYBCP66XH	PY-CP66XH		B
Xeon Gold 54xx - Mainline/Performance Optimized, 1 socket configuration only (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4400 MT/s				
Xeon Gold 5412U 24C 2.1GHz 185W	PYBCP65XS	-		B
Xeon Gold 54xx - Mainline/Performance Optimized, 2 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4400 MT/s & UPI Bus (3UPI) @ 16 GT/s				
Xeon Gold 5415+ 8C 2.9GHz 150W	PYBCP65XT	PY-CP65XT		A
Xeon Gold 5418Y 24C 2.0GHz 185W Speed Select Technology	PYBCP65XW	PY-CP65XW		B
Xeon Gold 5420+ 28C 2.0GHz 205W	PYBCP65XX	PY-CP65XX		B
Xeon Gold 64xx - Mainline/Performance Optimized, 1 socket configuration only (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s				
Xeon Gold 6414U 32C 2.0GHz 250W	PYBCP65X1	-		C
Xeon Gold 64xx - Mainline/Performance Optimized, 2 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s & UPI Bus (3UPI) @ 16 GT/s				
Xeon Gold 6426Y 16C 2.5GHz 185W Speed Select Technology	PYBCP66X2	PY-CP66X2		B
Xeon Gold 6430 32C 2.1GHz 270W (DDR5 @ 4400(1DPC/2DPC))	PYBCP65X2	PY-CP65X2		D
Xeon Gold 6434 8C 3.7GHz 195W	PYBCP66X4	PY-CP66X4		D
Xeon Gold 6438Y+ 32C 2.0GHz 205W Speed Select Technology	PYBCP66X8	PY-CP66X8		D
Xeon Gold 6442Y 24C 2.6GHz 225W Speed Select Technology	PYBCP66X9	PY-CP66X9		C
Xeon Gold 6444Y 16C 3.5GHz 270W Speed Select Technology	PYBCP66XA	PY-CP66XA		D
Xeon Gold 6448Y 32C 2.1GHz 225W Speed Select Technology	PYBCP66XC	PY-CP66XC		C
Xeon Platinum 84xx - Mainline/Performance, 2 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s & UPI Bus (4UPI) @ 16 GT/s				
Xeon Platinum 8462Y+ 32C 2.8GHz 300W Speed Select Technology	PYBCP66XE	PY-CP66XE		D
Xeon Platinum 8452Y 36C 2.0GHz 300W Speed Select Technology	PYBCP65X8	PY-CP65X8		D
Xeon Platinum 8460Y+ 40C 2.0GHz 300W Speed Select Technology	PYBCP65XE	PY-CP65XE		D
Xeon Platinum 8468 48C 2.1GHz 350W	PYBCP65XF	PY-CP65XF		D
Xeon Platinum 8470 52C 2.0GHz 350W	PYBCP65XK	PY-CP65XK		D
Xeon Platinum 8480+ 56C 2.0GHz 350W	PYBCP65XN	PY-CP65XN		D
Xeon Platinum 84xxH - IMDB/Analytics Workload Optimized, 8 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s & UPI Bus (4UPI) @ 16 GT/s				
Xeon Platinum 8490H 60C 1.9GHz 350W	PYBCP65XP	PY-CP65XP		D
Xeon - Cloud Optimized, 2 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s & UPI Bus (3UPI) @ 16 GT/s				
Xeon Gold 6438M 32C 2.2GHz 205W Speed Select Technology	PYBCP66X6	PY-CP66X6		B
Xeon Platinum 8468V 48C 2.4GHz 330W Speed Select Technology	PYBCP65XJ	PY-CP65XJ		D
Xeon Platinum 8458P 44C 2.7GHz 350W Speed Select Technology	PYBCP65XB	PY-CP65XB		D
Xeon - Network Optimized, 2 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s & UPI Bus (3UPI) @ 16 GT/s				
Xeon Gold 5418N 24C 1.8GHz 165W (DDR5 @ 4000(1DPC/2DPC)) Speed Select Technology	PYBCP65XV	PY-CP65XV		B
Xeon Gold 6428N 32C 1.8GHz 185W (DDR5 @ 4000(1DPC/2DPC)) Speed Select Technology	PYBCP66X3	PY-CP66X3		B
Xeon Gold 6438N 32C 2.0GHz 205W Speed Select Technology	PYBCP66X7	PY-CP66X7		B
Xeon Platinum 8470N 52C 1.7GHz 300W Speed Select Technology	PYBCP65XL	PY-CP66X7		D
Xeon - Storage & HCI Workload Optimized, 2 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s & UPI Bus (3UPI) @ 16 GT/s				
Xeon Gold 5416S 16C 2.0GHz 150W (DDR5 @ 4400(1DPC/2DPC)) Speed Select Technology	PYBCP65XU	PY-CP65XU		A
Xeon Gold 6454S 32C 2.2GHz 270W Speed Select Technology	PYBCP65X3	PY-CP65X3		D
Xeon - Long-Life Use (IOT) Workload Optimized, 2 socket scalability (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4000 MT/s & UPI Bus (2UPI) @ 16 GT/s				
Xeon Silver 4410T 10C 2.7GHz 150W Speed Select Technology	PYBCP66XF	PY-CP66XF		A
Xeon - HBM HPC Workload Optimize, 2 socket scalability, 3UPI (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s & UPI Bus (3UPI) @ 16 GT/s				
Xeon Max 9462 32C 2.7GHz 350W	PYBCP66XJ	PY-CP66XJ		E
Xeon Max 9460 40C 2.2GHz 350W	PYBCP66XK	PY-CP66XK		E
Xeon - HBM HPC Workload Optimize, 2 socket scalability, 4UPI (BTO) (Loose delivery)				
64-bit Intel Xeon processor supporting HT*, DDR5 @ 4800(1DPC) / 4400(2DPC) MT/s & UPI Bus (4UPI) @ 16 GT/s				
Xeon Max 9468 48C 2.1GHz 350W Speed Select Technology	PYBCP66XL	PY-CP66XL		E

Will be available 3Q.CY2023

Will be available 3Q.CY2023

Will be available 3Q.CY2023

Will be available 3Q.CY2023

For configuring a 2nd CPU, please order the required cooling kit with this order code.

Cooler Kit		
Cooling Kit 2nd CPU	S26361-F3849-E100	-
Cooling kit including 2U heat sink for the configuration without GFX/GPU mounting kit	-	PY-TKCP91
Cooling kit including 1U EVAC heatsink for the graphics base unit PYR2547RJN/PYR2547JKN/PYR2547RLN	-	PY-TKCP90
Cooling kit 1U EVAC heatsink and air duct for CPU A (Required for rear Bay with KIOXIA NVMe for 3.5" base unit)	PYBTKCPCA2	
Cooling kit 1U EVAC heatsink and air duct for CPU B (Required for rear Bay with KIOXIA NVMe for 3.5" base unit)	PYBTKCPCA3	-

C

Chapter 4 - DDR5 System memory

C

Each CPU offers 16 Slots for DDR5 Memory Modules organised in 2 Banks and 8 Channels with 4 Memory Controllers (2 Channels each).
If you need more than 32 Slots you have to configure 2nd CPU.
Depending on the amount of memory configured you can decide Normal Memory RAS mode or Mirroing Memory RAS Mode.

There are different kinds of DDR5 Memory Modules available: RDIMM x4, RDIMM x8 and RDIMM 3DS x4
Mix of these different kind of memories is not allowed.

Supported memory capacities per CPU:
Up to 4TB using DDR5 RDIMM (16x 256GB DDR5 RDIMM 3DS)

Supported memory capacities per System (with 2CPU configuration):
Up to 8TB using DDR5 RDIMM (32x 256GB DDR5 RDIMM 3DS)

The memory speed depends on configuration restricted by the CPU SKU (max. 4800 MT/s).
DDR5 memory is operated at 1.2V

Memory Mode : either one of follwoig memory modes must be selected.

Normal Mode	Requires 1, 2, 4, 6, 8, 12 or 16 memory Module per CPU	1x per CPU	PYBMMMD2	
Normal Mode required to be the best performance. ADDDC Sparing is available in case system configured by DDR5xRx4 DIMM only.				
Mirroring Mode	Requires 8 or 16 memory Module per CPU	1x per CPU	PYBMMC4	
BIOS preconfiguration for Mirroring mode. 8x identical memory modules are always equipped on same bank across all channel to use the mirrored channel mode. Half of the modules contain active data, the remaining modules contain mirrored data.				
HBM-ONLY Mode	Requires HBM CPU, no memory needed	1x per CPU	PYBMMH1	Will be available 3Q.CY2023
HBM CPUs can work as memory with memory less configuration. If you order HBM SKUs with no DIMMs, you should order HBM-ONLY Mode.				
HBM Cache Mode	Requires HBM CPU, 1, 2, 4, 8 or 16 memory Module per CPU	1x per CPU	PYBMMHC1	Will be available 3Q.CY2023
HBM works as cache of memory under BIOS preconfiguration. Additional DIMM is needed				
HBM Cache+Mirroring Mode	Requires HBM CPU, 8 or 16 memory Module per CPU	1x per CPU	PYBMMHCM1	Will be available 3Q.CY2023
HBM works as cache of memory under BIOS preconfiguration.8x identical memory modules are always equipped on same bank across all channel to use the mirrored channel mode. Half of the modules contain active data, the remaining modules contain mirrored data.				
HBM Flat Mode	Requires HBM CPU, 1, 2, 4, 8 or 16 memory Module per CPU	1x per CPU	PYBMMHF1	Will be available 3Q.CY2023
In this Mode, DDR can be added for a high capacity, HBM&DDR exposed as separete regions. Higher performing than Cache mode.				
HBM Flat+Mirroring Mode	Requires HBM CPU, 8 or 16 memory Module per CPU	1x per CPU	PYBMMHFM1	Will be available 3Q.CY2023
In this Mode, DDR can be added for a high capacity, HBM&DDR exposed as separete regions.8x identical memory modules are always equipped on same bank across all channel to use the mirrored channel mode. Half of the modules contain active data, the remaining modules contain mirrored data.				
min/max 1x per CPU; max 2x for System				

DDR5 DIMM ony configuration section

Min 1x DIMM per CPU is required. Any Mix of RDIMMx8, RDIMMx4 and RDIMM 3DS is not coniugred.

DDR5 Registered DIMM 4800MHz 1R/2R x8			
16GB (1x16GB) 1Rx8 DDR5-4800 R ECC	max 16x per CPU	PYBME16SL	PY-ME16SL
32GB (1x32GB) 2Rx8 DDR5-4800 R ECC	max 16x per CPU	PYBME32SL	PY-ME32SL
max 16x per CPU; max 32x for System			
DDR5 Registered DIMM 4800MHz 1R/2R x4			
32GB (1x32GB) 1Rx4 DDR5-4800 R ECC	max 16x per CPU	PYBME32SL2	PY-ME32SL2
64GB (1x64GB) 2Rx4 DDR5-4800 R ECC	max 16x per CPU	PYBME64SL	PY-ME64SL
max 16x per CPU; max 32x for System			
DDR5 Registered DIMM 4800MHz 3DS 4R/8R x4			
128GB (1x128GB) 4Rx4 DDR5-4800 R 3DS ECC	max 16x per CPU	PYBME12SL	PY-ME12SL
256GB (1x256GB) 8Rx4 DDR5-4800 R 3DS ECC	max 16x per CPU	PYBME25SL	PY-ME25SL
max 16x per CPU; max 32x for System			

Will be available 2Q.CY2023
Will be available 2Q.CY2023

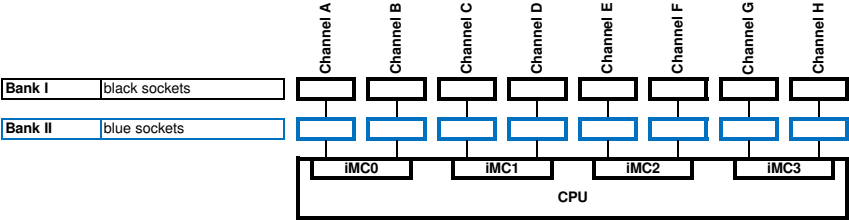
D

Detailed information

RAS feature	Memory Mode	RDIMM	RDIMM	BIOS setting
			LRDIMM	
ECC	Normal Mode/Mirroring Mode	yes	yes	always enabled.
SDDC	Normal Mode/Mirroring Mode	no	yes	always enabled in case x4 DIMM configued.
ADDDC Sparing	Normal Mode	no	yes	disabled as default.
Mirroring channel	Mirroring Mode	yes	yes	enabled in case Mirroring Mode ordered.

	Configuration		Available Capacity	
	DIMM	CPU	Normal Mode	Mirroring Mode
Min. Memory	1 Module / CPU	with one CPU	16GB: 16GB x1	-
	8 Module / CPU	with one CPU	-	64GB: 16GBx8x50%
Max. Memory per CPU	16 Modules / CPU	with two CPU	4TB: 256GB x16	2TB: 256GBx16x50%
Max. Memory per System	32 Modules / System	with two CPU	8TB: 256GB x32	4TB: 256GBx32x50%

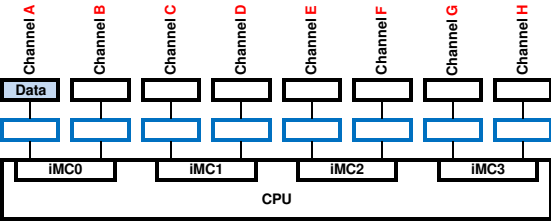
The memory sockets on the Systemboards are color coded



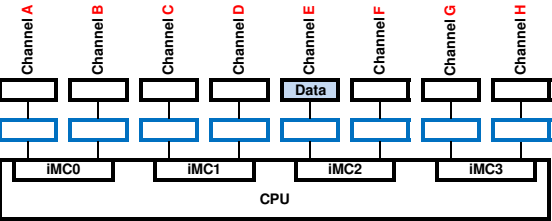
Normal Mode population DDR5 DIMM only

Normal Mode requires 1x, 2x, 4x, 6x, 8x, 12x or 16x DIMM configuration per CPU.
for 2x or more than 2x DIMM configuration,
Between Channel A-E/C-G/B-F/D-H, balanced configuration is required. same bank of each chanel need to be populatd.
Between Channel A-C-E-G/B-D-F-H, each channel capacity need to be same if DIMM populated in each Channel.

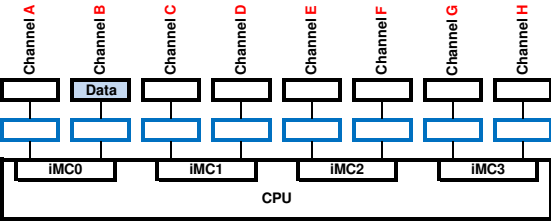
1 DIMMs for 1CPU



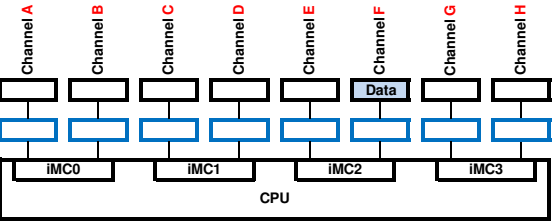
1 DIMMs for 1CPU



1 DIMMs for 1CPU

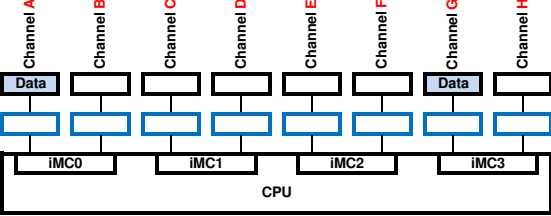


1 DIMMs for 1CPU



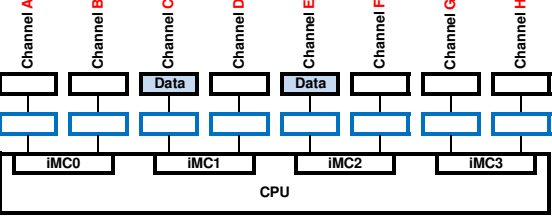
2 DIMMs for 1CPU

2x identical memory modules need to be populated.



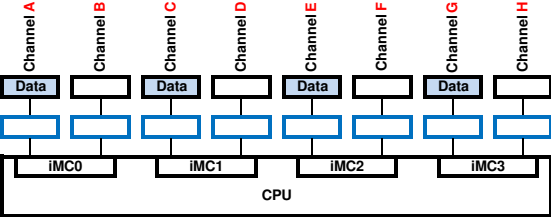
2 DIMMs for 1CPU

2x identical memory modules need to be populated.



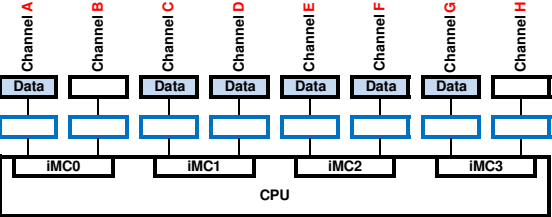
4 DIMMs for 1CPU

4x identical memory modules need to be populated.



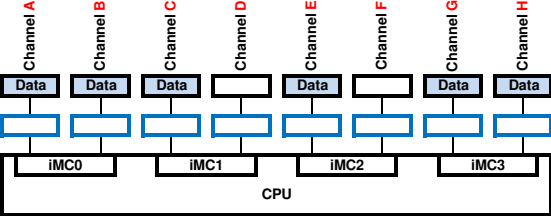
6 DIMMs for 1CPU

6x identical memory modules need to be populated.



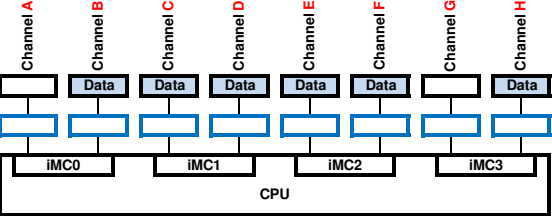
6 DIMMs for 1CPU

6x identical memory modules need to be populated.



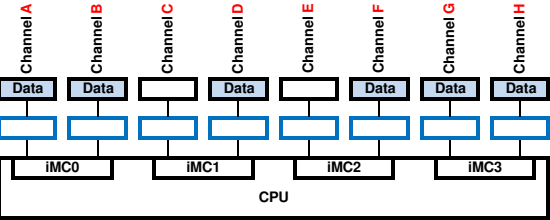
6 DIMMs for 1CPU

6x identical memory modules need to be populated.



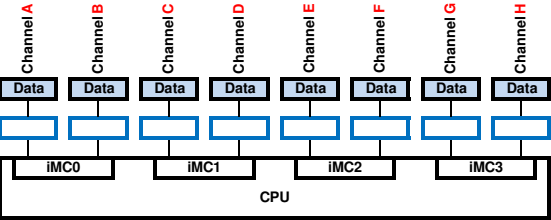
6 DIMMs for 1CPU

6x identical memory modules need to be populated.



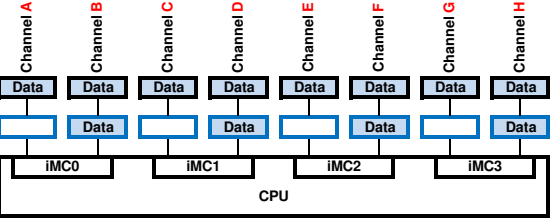
8 DIMMs for 1CPU

4x identical memory modules need to be populated.



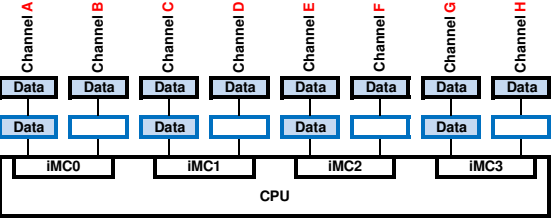
12 DIMMs for 1CPU

12x identical memory modules need to be populated.



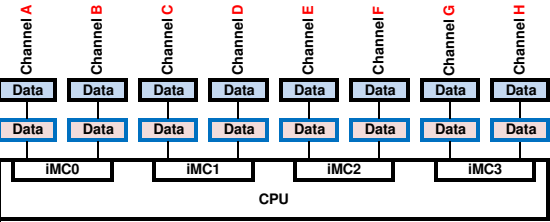
12 DIMMs for 1CPU

12x identical memory modules need to be populated.



16 DIMMs for 1CPU

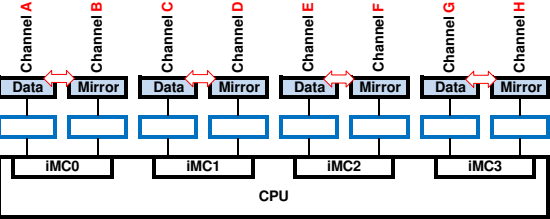
8x identical memory modules need to be populated.



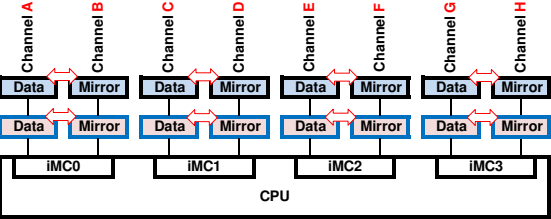
Mirroring Mode population DDR5 DIMM only

Mirroring Mode requires 8x or 16x DIMM configuration per CPU.
in addition to Normal Mode Memory population rules,
Between Chanel A-B/C-D/E-F/G-H, identical DIMM need to be populated in same bank.

8 DIMMs for 1CPU



16 DIMMs for 1CPU







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Chapter 6 - Drive cage and PCIe riser options

F

Detailed PCIe slot description:

Slot 10 PCIe-5 x8, max. 270mm @ CPU2	full-height slot
Slot 9 PCIe-5 x8, max. 270mm @ CPU2	full-height slot
Slot 8 PCIe-5 x16, max. 198mm @ CPU2 <i>Possibility to install PCIe riser with x8 Slot for 1st Retimer card</i>	low-profile slot
Slot 7 PCIe-5 x16, max. 198mm @ CPU2	low-profile slot
Slot 6 PCIe-5 x8, max. 198mm @ CPU2 <i>Preferred slot for 3rd modular RAID-Controller (3x configuration) Preferred slot for 2nd modular RAID-Controller (2x configuration)</i>	low-profile slot
Slot 5 PCIe-5 x8, max. 198mm @ CPU2 <i>Preferred slot for 2nd modular RAID-Controller (3x configuration)</i>	low-profile slot
Slot 4 PCIe-5 x8, max. 270mm @ CPU1	full-height slot
Slot 3 PCIe-5 x8, max. 270mm @ CPU1	full-height slot
Slot 2 PCIe-5 x16, max. 198mm @ CPU1 <i>Possibility to install PCIe riser with x8 Slot for 2nd Retimer card</i>	low-profile slot
Slot 1 PCIe-5 x16, max. 198mm @ CPU1	low-profile slot

G

Chapter 7 - SAS / RAID Controller

Ffor combination and max number of controllers please see folder base / HD_cage

onboard SATA controller with SW-RAID

onboard controller for SATA HDD or SSD drives available from 2023/09					
6Gb/s SATA	Intel VROC (SATA RAID) based on chipset	No Cache	SW-RAID 0, 1, 10	2x	onboard, included

OS support matrix:	
Windows Server 2022	testing
Windows Server 2019	testing
Red Hat Enterprise Linux 9 GA, 9.1	testing
Red Hat Enterprise Linux 8.6	testing
SUSE Linux Enterprise Server 15 SP4	testing
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 2024/03	No Cache	RAID 0, 1, 10	3x	PYBSR4FAL	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 LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3808					
PSAS CP600i LP	No Cache	HBA, no RAID	2x	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 LP	No Cache	RAID 0, 1, 10, 5, 50	3x	PYBSR3FBL	PY-SR3FB
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander supports SED (Self Encrypting Drives) requires 1x LP PCIe 3.0 x8 (int.) slot, based on LSI SAS3408					

internal RAID / HBA controllers for SAS, SATA HDD or SSD drives					
PSAS CP 2200-16i LP available from 2024/03	No Cache	HBA + RAID 0, 1, 10, 5	2x	PYBSC4MA1L	PY-SC4MA1
16 ports 6, 12 & 24Gb/s SAS/SATA HDD/SSD, supports up to 16 SAS/SATA drives without expander (the configuration for up to 4 x4 NVMe drives requires a different order number, please see below) supports SED (Self Encrypting Drives) requires 1x LP PCIe 4.0 x8 (int.) slot (FYI: PYBSC4MA1L and PYBSC4MA2L are identical products. The 2nd Order number was only introduced for explicite ordering and cabling)					
PSAS CP 2100-8i LP	No Cache	HBA + RAID 0, 1, 10, 5	3x	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					
PSAS CP 2100-8i LP for vSAN	No Cache	HBA, no RAID	3x	PYBSC3MAWL	-
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, released for VMWare vSAN / vSphere in PYR2547R3N / PYR2547RAN / PYR2547R2N / PYR2547RBN / PYR2547REN / PYR2547RGN / PYR2547RJN / PYR2547RKN					

internal RAID / HBA controllers for PCIe SSD drives					
PSAS CP 2200-16i NVMe LP available from 2024/03	No Cache	HBA + RAID 0, 1, 10, 5	2x	PYBSC4MA2L	PY-SC4MA1
for Chassis Variant PYR2547RAN, PYR2547R2N and PYR2547RDN up to 4 x4 NVMe drives are supported. (the configuration for SAS/SATA only requires a different order number, please see above) requires 1x LP PCIe 4.0 x8 (int.) slot (FYI: PYBSC4MA1L and PYBSC4MA2L are identical products. The 2nd Order number was only introduced for explicite ordering and cabling)					

internal RAID controller with 2nd Level cache

internal RAID controllers for SAS, SATA HDD or SSD drives					
PRAID EP781i FH High Performance	8GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	1x	PYBSR4C73	PY-SR4C73
available from 2024/07 for Chassis Variant PYR2547RFN 16 ports 6, 12 & 24Gb/s SAS/SATA HDD/SSD, supports up to 16 drives without expander supports SED (Self Encrypting Drives) requires 1x FH PCIe 4.0 x16 (int.) slot, based on LSI SAS4116W					
PRAID EP740i LP available from 2024/07	4GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	2x	PYBSR4C71L	PY-SR4C71
16 ports 6, 12 & 24Gb/s SAS/SATA HDD/SSD, supports up to 16 SAS/SATA drives without expander (the configuration for up to 4 x4 NVMe drives requires a different order number, please see below) supports SED (Self Encrypting Drives) requires 1x LP PCIe 4.0 x8 (int.) slot, based on LSI SAS4116 (FYI: PYBSR4C71L and PYBSR4C72L are identical products. The 2nd Order number was only introduced for explicite ordering and cabling)					
internal RAID controllers for SAS, SATA HDD or SSD drives					
PRAID EP640i LP	4GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	3x	PYBSR4C63L	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 LP PCIe 4.0 x8 (int.) slot, based on LSI SAS3908					
PRAID EP680i LP	8GB Cache	RAID 0, 1, 10, 5, 50, 6, 60	2x	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) supports SED (Self Encrypting Drives) 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 SAS, SATA HDD or SSD drives					
PRAID EP520i LP	2GB Cache	RAID 0, 1, 1E, 10, 5, 50, 6, 60	3x	S26361-F4042-E202	S26361-F4042-L502
8 ports 3, 6 & 12Gb/s SAS/SATA HDD/SSD, supports up to 8 drives without expander supports SED (Self Encrypting Drives) requires 1x LP PCIe 3.0 x8 (int.) slot, based on LSI SAS3516					
PRAID EP540i LP	4GB Cache	RAID 0, 1, 1E, 10, 5, 50, 6, 60	2x	S26361-F4042-E214	S26361-F4042-L514
PRAID EP580i LP	8GB Cache	RAID 0, 1, 1E, 10, 5, 50, 6, 60	2x	S26361-F4042-E208	S26361-F4042-L508
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 LP PCIe 3.0 x8 (int.) slot, based on LSI SAS3516					
optional Flash Backup Unit (FBU)					
FBU option for PRAID EP5xx / EP6xx / EP7xx in internal RAID slot: Supercap securing the power supply of the RAID controller in case of power failure including cable with 75cm length			1x	PYBFBR19	PY-FBR19
FBU option for PRAID EP5xx / EP6xx / EP7xx in internal RAID slot: Supercap securing the power supply of the RAID controller in case of power failure including cable with 55cm length (for Base Units for graphics)			1x	S26361-F4042-E155	S26361-F4042-L110
FBU option for PRAID EP5xx / EP6xx / EP7xx in rear PCIe slot: Supercap securing the power supply of the RAID controller in case of power failure including cable with 55cm length			1x	S26361-F4042-E155	S26361-F4042-L110

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Chapter 8 - ODD optical disk drives

The base units with 12x 3.5" or 8x 2.5" or 24x 2.5" HDD do not offer 1x 9.5mm optical drive bay!

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Config with 1x 9.5mm bay



S26361-F3778-E1 S26361-F3778-L1 DVD-RW supermulti ultra slim all formats, DUAL/DL, DVD-RAM only W2K, W3K and Linux 9.5mm, black bezel max. 1x per system	S26361-F3641-E6 S26361-F3641-L6 Blu-ray Triple Writer ultra slim 6x BD-RW, 8x DVD, 24x CD, BD DL and all CD/DVD formats 9.5mm, black bezel max. 1x per system	S26361-F3718-E2 S26361-F3718-L2 DVD-ROM ultra slim 16x DVD; 48x CD-ROM 9.5mm black bezel max. 1x per system
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Chapter 11 - LAN Components

OCPv3 LoM Adapter

Broadcom 1GbE BASE-T for OCPv3				
PLAN CP N41T 4X 1000BASE-T OCPv3 PT	1x	Broadcom, 1GTx4port	PYBLA284U	PY-LA284U
max. 1 adapters per system				
Intel 1GbE BASE-T for OCPv3				
PLAN CP I350-T4 4X 1000BASE-T OCPv3 PT	1x	Intel, 1GTx4port	PYBLA274U	PY-LA274U
max. 1 adapters per system				
Intel 10GbE BASE-T for OCPv3				
PLAN EP X710-T2L 2X 10GBASE-T OCPv3 PT	1x	Intel, 10GTx2port	PYBLA342U	PY-LA342U
PLAN EP X710-T4L 4X 10GBASE-T OCPv3 PT	1x	Intel, 10GTx4port	PYBLA344U	PY-LA344U
max. 1 adapters per system				
Intel 10GbE for OCPv3				
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 can install the same Parts Number of optical module.				
PLAN EP X710-DA2 2X 10G SFP+ OCPv3 PT	1x	Intel, 10Gx2port	PYBLA352U	PY-LA352U
PLAN EP X710-DA4 4X 10G SFP+ OCPv3 PT	1x	Intel, 10Gx4port	PYBLA354U	PY-LA354U
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/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. 1 adapters per system				
Broadcom 25GbE for OCPv3				
Each cage consumes 1x optical SFP28				
All ports on this card can install the same Parts Number of optical module. 10G SFP BTO is not available for 25G cards, please select L parts.				
PLAN EP N225P 25Gb 2p SFP28 OCPv3	1x	Broadcom, 25Gx2port	PYBLA3G2U	PY-LA3G2U
Optional, 25Gb SFP28 optical transceiver module, select one per cage				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
SFP28 25G LR E25GSFP28LRX LC	2x	Intel, 25G LR SFP28	PYBSFPL09	PY-SFPL09
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. 1 adapters per system				
NVIDIA 25GbE for OCPv3				
Each cage consumes 1x optical SFP28				
All ports on this card can 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 OCPv3	1x	NVIDIA, 25Gx2port	PYBLA402U4	PY-LA402U4
Optional, 25Gb SFP28 optical transceiver module, select one per cage				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
SFP28 25G LR E25GSFP28LRX LC	2x	Intel, 25G LR SFP28	PYBSFPL09	PY-SFPL09
SFP28 Optical Transceiver 25G SR MMA2P00-AS LC	2x	NVIDIA, 25G SR SFP28	S26361-F4054-E701	S26361-F4054-L701
SFP28 25G LR MMA2L20-AR LC	2x	NVIDIA, 25G LR SFP28	PYBSFPL10	PY-SFPL10
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. 1 adapters per system				
Intel 25GbE for OCPv3				
Each cage consumes 1x optical SFP28 or SFP+ transceiver per port.				
All ports on this card can 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 2X 25G SFP28 OCPv3 PT	1x	Intel, 25Gx2port	PYBLA402U	PY-LA402U
PLAN EP E810-XXVDA4 4X 25G SFP28 OCPv3 PT	1x	Intel, 25Gx4port	PYBLA404U	PY-LA404U
Optional, 25Gb SFP28 optical transceiver module, select one per cage				
SFP28 25G SR E25GSFP28SRX LC	4x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
SFP28 25G LR E25GSFP28LRX LC	4x	Intel, 25G LR SFP28	PYBSFPL09	PY-SFPL09
max. 1x per port				
Optional, 10Gb SFP+ optical transceiver module, select one per cage				
SFP+ Optical Transceiver 10G/1G Dual Rate SR	4x	Intel, 1G/10G SR SFP+		S26361-F3986-L5
SFP+ Optical Transceiver 10G/1G Dual Rate LR	4x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
max. 1x per port				
max. 1 adapters per system				

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Will be available from 4Q,CY2023

Will be available from 4Q,CY2023

Will be available from 4Q,CY2023

Broadcom 100GbE for OCPv3				
Each cage consumes 1x optical QSFP28				
The QSFP will not ship on the card because it will interfere with the shipping box.				
All ports on this card can install the same Parts Number of optical module.				
PLAN EP N2100G 100Gb 2p QSFP56 OCPv3	1x	Broadcom, 100Gx2port	PYBLA452U	PY-LA452U
Optional, 100Gb QSFP28 Optical Transceiver module				
QSFP28 100G SR4 E100GQSFP28SRX MPO	2x	Intel, 100G SR4 QSFP28	PYBSFPS54	PY-SFPS54
QSFP28 100G LR4 FTLC1154RDPL LC	2x	II-VI, 100G LR4 QSFP28	PYBSFPL08	PY-SFPL08
QSFP28 100G SR4 MPO 850nm 100m MMA1B00-C100D	2x	NVIDIA, 100G SR4 QSFP28	S26361-F4052-E701	S26361-F4052-L701
QSFP28 100G LR4 MMA1L10-CR LC	2x	NVIDIA, 100G LR4 QSFP28	PYBSFPL11	PY-SFPL11
max. 1x per port				
max. 1x per system				
Intel 100GbE for OCPv3				
Each cage consumes 1x optical QSFP28				
The QSFP will not ship on the card because it will interfere with the shipping box.				
All ports on this card can install the same Parts Number of optical module.				
PLAN EP E810-CQDA2 2X 100G QSFP28 OCPv3 PT	1x	Intel, 100Gx2port	PYBLA432U	PY-LA432U
Optional, 100Gb QSFP28 Optical Transceiver module				
QSFP28 100G SR4 E100GQSFP28SRX MPO	2x	Intel, 100G SR4 QSFP28	PYBSFPS54	PY-SFPS54
QSFP28 100G LR4 FTLC1154RDPL LC	2x	II-VI, 100G LR4 QSFP28	PYBSFPL08	PY-SFPL08
max. 1x per port				
max. 1x per system				
NVIDIA 100GbE for OCPv3				
Each cage consumes 1x optical QSFP28				
The QSFP will not ship on the card because it will interfere with the shipping box.				
All ports on this card can install the same Parts Number of optical module.				
PLAN EP MCX6-DX 2X 100G QSFP28 OCPv3PT	1x	NVIDIA, 100Gx2port *cannot be selected with IB.	PYBLA412U	PY-LA412U
Optional, 100Gb QSFP28 Optical Transceiver module				
QSFP28 100G SR4 MPO 850nm 100m MMA1B00-C100D	2x	NVIDIA, 100G SR4 QSFP28	S26361-F4052-E701	S26361-F4052-L701
QSFP28 100G LR4 MMA1L10-CR LC	2x	NVIDIA, 100G LR4 QSFP28	PYBSFPL11	PY-SFPL11
max. 1x per port				
max. 1x per system				
PCIe Adapter				
Broadcom 1GbE BEASE-T for PCIe				
Dual speed support, auto-sense: supports 1Gbps and 100Mbps line rate per-port.				
PLAN CP BCM5719-4P 4X 1000BASE-T PCIe FH	2x	Broadcom, 1GTx4port	PYBLA284	PY-LA284
PLAN CP BCM5719-4P 4X 1000BASE-T PCIe LP	2x		PYBLA284L	
max. 2x adapters per system				
Intel 1GbE BEASE-T for PCIe				
PLAN CP 4x1Gbit Cu Intel I350-T4 FH	4x	Intel, 1GTx4port	S26361-F4610-E4	S26361-F4610-L504
PLAN CP 4x1Gbit Cu Intel I350-T4 LP	4x		S26361-F4610-E204	
max. 4x adapters per system				
Broadcom 10GbE BEASE-T for PCIe				
Dual speed support, auto-sense: supports 10Gbps and 1Gbps line rate per-port.				
PLAN EP P210TP 2X 10GBASE-T PCIe FH	2x	Broadcom P210TP	PYBLA3K2	PY-LA3K2
PLAN EP P210TP 2X 10GBASE-T PCIe LP	4x		PYBLA3K2L	
max. 4x adapters per server system				
Intel 10GbE BEASE-T for PCIe				
PLAN EP X710-T2L 2X 10GBASE-T FH	4x	Intel, 10GTx2port	PYBLA342	PY-LA342
PLAN EP X710-T2L 2X 10GBASE-T LP	4x		PYBLA342L	
PLAN EP X710-T4L 4X 10GBASE-T FH	4x	Intel, 10GTx4port	PYBLA344	PY-LA344
PLAN EP X710-T4L 4X 10GBASE-T LP	4x		PYBLA344L	
max. 4x adapters per 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 can install the same Parts Number of optical module.				
PLAN EP P210P 2x10Gb SFP PCIe FH	2x	Broadcom, 10Gx2port	PYBLA3J2	PY-LA3J2
PLAN EP P210P 2x10Gb SFP PCIe LP	4x		PYBLA3J2L	
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/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. 4x adapters per server 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 can install the same Parts Number of optical module.				
PLAN EP X710-DA2 2x10Gb SFP+ FH	4x	Intel, 10Gx2port	S26361-F3640-E2	S26361-F3640-L502
PLAN EP X710-DA2 2x10Gb SFP+ LP	4x		S26361-F3640-E202	
PLAN EP X710-DA4 4x10Gb SFP+ FH	4x	Intel, 10Gx4port	S26361-F3640-E4	S26361-F3640-L504
PLAN EP X710-DA4 4x10Gb SFP+ LP	4x		S26361-F3640-E204	
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/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. 4x adapters per system				

Will be available from 4Q,CY2023
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Will be available from 4Q,CY2023

Broadcom 25GbE for PCIe				
Each cage consumes 1x optical SFP28.				
All ports on this card can 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	4x	Broadcom, 25Gx2port	PYBLA3H2	PY-LA3H2
PLAN EP P225P 25Gb 2p SFP28 PCIe LP	6x		PYBLA3H2L	
Optional, 25Gb SFP28 optical transceiver module, select one per cage				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
SFP28 25G LR E25GSFP28LRX LC	2x	Intel, 25G LR SFP28	PYBSFPL09	PY-SFPL09
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	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
max. 1x per port				
max. 6x adapters per system				
NVIDIA 25GbE for PCIe				
Each cage consumes 1x optical SFP28.				
All ports on this card can install the same Parts Number of optical module.				
10G SFP BTO is not available for 25G cards, please select L parts.				
Ethernet Network Adapters				
PLAN EP MCX6-LX 25Gb 2p SFP28 PCIe FH	4x	NVIDIA, 25Gx2port	PYBLA4024	PY-LA4024
PLAN EP MCX6-LX 25Gb 2p SFP28 PCIe LP	6x		PYBLA402L4	
Optional, 25Gb SFP28 optical transceiver module, select one per cage				
SFP28 25G SR E25GSFP28SRX LC	2x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
SFP28 25G LR E25GSFP28LRX LC	2x	Intel, 25G LR SFP28	PYBSFPL09	PY-SFPL09
SFP28 Optical Transceiver 25G SR MMA2P00-AS LC	2x	NVIDIA, 25G SR SFP28	S26361-F4054-E701	S26361-F4054-L701
SFP28 25G LR MMA2L20-AR LC	2x	NVIDIA, 25G LR SFP28	PYBSFPL10	PY-SFPL10
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	2x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
max. 1x per port				
max. 6x adapters per system				
Intel 25GbE for PCIe				
Each cage consumes 1x optical SFP28.				
All ports on this card can 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 2X 25G SFP28 FH	4x	Intel, 25Gx2port	PYBLA402	PY-LA402
PLAN EP E810-XXVDA2 2X 25G SFP28 LP	6x		PYBLA402L	
PLAN EP E810-XXVDA4 4X 25G SFP28 LP	6x	Intel, 25Gx4port	PYBLA404L	PY-LA404
Optional, 25Gb SFP28 optical transceiver module, select one per cage				
SFP28 25G SR E25GSFP28SRX LC	4x	Intel, 25G SR SFP28	PYBSFPS56	PY-SFPS56
SFP28 25G LR E25GSFP28LRX LC	4x	Intel, 25G LR SFP28	PYBSFPL09	PY-SFPL09
max. 1x per port				
Optional, 10Gb SFP+ optical transceiver module, select one per cage				
SFP+ Optical Transceiver 10G/1G Dual Rate SR	4x	Intel, 1G/10G SR SFP+		S26361-F3986-L5
SFP+ Optical Transceiver 10G/1G Dual Rate LR	4x	Intel, 1G/10G LR SFP+		S26361-F3986-L6
max. 1x per port				
max. 6x adapters per server system				
Broadcom 100GbE for PCIe				
Each cage consumes 1x optical QSFP28				
All ports on this card can install the same Parts Number of optical module.				
PLAN EP P2100G 100Gb 2p QSFP56 PCIe LP	6x	Broadcom, 100Gx2port	PYBLA442L	PY-LA442
Optional, 100Gb QSFP28 Optical Transceiver module				
QSFP28 100G SR4 E100GQSFP28SRX MPO	2x	Intel, 100G SR4 QSFP28	PYBSFPS54	PY-SFPS54
QSFP28 100G LR4 FTLC1154RDPL LC	2x	II-VI, 100G LR4 QSFP28	PYBSFPL08	PY-SFPL08
QSFP28 100G SR4 MPO 850nm 100m MMA1B00-C100D	2x	NVIDIA, 100G SR4 QSFP28	S26361-F4052-E701	S26361-F4052-L701
QSFP28 100G LR4 MMA1L10-CR LC	2x	NVIDIA, 100G LR4 QSFP28	PYBSFPL11	PY-SFPL11
max. 1x per port				
max. 6x adapters per system				
Intel 100GbE for PCIe				
Each cage consumes 1x optical QSFP28.				
The QSFP will not ship on the card because it will interfere with the shipping box.				
All ports on this card need to install the same Parts Number of optical module.				
PLAN EP E810-CQDA2 2X 100G QSFP28 LP	6x	Intel, 100Gx2port	PYBLA432L	PY-LA432
Optional, 100Gb QSFP28 Optical Transceiver module				
QSFP28 100G SR4 E100GQSFP28SRX MPO	2x	Intel, 100G SR4 QSFP28	PYBSFPS54	PY-SFPS54
QSFP28 100G LR4 FTLC1154RDPL LC	2x	II-VI, 100G LR4 QSFP28	PYBSFPL08	PY-SFPL08
max. 1x per port				
max. 6x adapters per server system				
NVIDIA 100GbE for PCIe				
Each cage consumes 1x optical QSFP28.				
The QSFP will not ship on the card because it will interfere with the shipping box.				
All ports on this card need to install the same Parts Number of optical module.				
PLAN EP MCX6-DX 2X 100G QSFP28 LP	6x	NVIDIA, 100Gx2port *cannot be selected with IB.	PYBLA412L	PY-LA412
Optional, 100Gb QSFP28 Optical Transceiver module				
QSFP28 100G SR4 MPO 850nm 100m MMA1B00-C100D	2x	NVIDIA, 100G SR4 QSFP28	S26361-F4052-E701	S26361-F4052-L701
QSFP28 100G LR4 MMA1L10-CR LC	2x	NVIDIA, 100G LR4 QSFP28	PYBSFPL11	PY-SFPL11
max. 1x per port				
max. 6x adapters per server system				

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Chapter 12 - Fibre Channel Controller

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64G Fibre Channel adapters with LC interface for 50µm optical cables (OM4 or OM3)

PFC EP LPe36000 1X 64GFC PCIe v4	4x	Broadcom, 64GFCx1port	PYBFC441	PY-FC441
PFC EP LPe36000 1X 64GFC PCIe v4 LP	6x		PYBFC441L	
PFC EP LPe36002 2X 64GFC PCIe v4	4x	Broadcom, 64GFCx2port	PYBFC442	PY-FC442
PFC EP LPe36002 2X 64GFC PCIe v4 LP	6x		PYBFC442L	
PFC EP QLE2870 1X 32GFC PCIe v4	4x	Marvell, 64GFCx1port	PYBFC431	PY-FC431
PFC EP QLE2870 1X 32GFC PCIe v4 LP	6x		PYBFC431L	
PFC EP QLE2872 2X 32GFC PCIe v4	4x	Marvell, 64GFCx2port	PYBFC432	PY-FC432
PFC EP QLE2872 2X 32GFC PCIe v4 LP	6x		PYBFC432L	

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32G Fibre Channel adapters with LC interface for 50µm optical cables (OM4 or OM3)

PFC EP LPe35000 1X 32GFC PCIe v4	4x	Broadcom, 32GFCx1port	PYBFC421	PY-FC421
PFC EP LPe35000 1X 32GFC PCIe v4 LP	6x		PYBFC421L	
PFC EP LPe35002 2X 32GFC PCIe v4	4x	Broadcom, 32GFCx2port	PYBFC422	PY-FC422
PFC EP LPe35002 2X 32GFC PCIe v4 LP	6x		PYBFC422L	
PFC EP QLE2770 1X 32GFC PCIe v4	4x	Marvell, 32GFCx1port	PYBFC411	PY-FC411
PFC EP QLE2770 1X 32GFC PCIe v4 LP	6x		PYBFC411L	
PFC EP QLE2772 2X 32GFC PCIe v4	4x	Marvell, 32GFCx2port	PYBFC412	PY-FC412
PFC EP QLE2772 2X 32GFC PCIe v4 LP	6x		PYBFC412L	

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Will be available from 3Q,CY2023
Will be available from 3Q,CY2023
Will be available from 3Q,CY2023

16Gb Fibre Channel adapter with LC interface for 50µm optical cables (OM4 or OM3)

PFC EP LPe31000 1x 16Gb FH	4x	Broadcom, 16GFCx1port	S26361-F5596-E1	S26361-F5596-L501
PFC EP LPe31000 1x 16Gb LP	6x		S26361-F5596-E201	
PFC EP LPe31002 2x 16Gb FH	4x	Broadcom, 16GFCx2port	S26361-F5596-E2	S26361-F5596-L502
PFC EP LPe31002 2x 16Gb LP	6x		S26361-F5596-E202	
PFC EP QLE2690 1x 16Gb FH	4x	Marvell, 16GFCx1port	S26361-F5580-E1	S26361-F5580-L501
PFC EP QLE2690 1x 16Gb LP	6x		S26361-F5580-E201	
PFC EP QLE2692 2x 16Gb FH	4x	Marvell, 16GFCx2port	S26361-F5580-E2	S26361-F5580-L502
PFC EP QLE2692 2x 16Gb LP	6x		S26361-F5580-E202	

max. 7 Controller per system (mixed configurations are supported)

Chapter 13 - Infiniband Controllers

S26361-F5756-L102

S26361-F5756-E102

IB HCA 200Gb 1channel HDR
200Gbit 1channel Infiniband Controller HDR technology (8.0GT/s) with PCI short riser
*cannot be selected with PLAN EP MCX4-LX
25Gb[S26361-F4054-L502/S26361-F4054-E2/S26361-F4054-E202]/PLAN EP MCX6-DX 2X 100G[PY-LA412/PYBLA412/PYBLA412L]/PLAN EP MCX4-LX 25Gb OCPv3[PY-LA3F2U/PYBLA3F2U]/PLAN EP MCX6-DX 2X 100G OCPv3[PY-LA412U/PYBLA412U]
**AOC cannot be supported
1x Q-SFP+ connector
PCIe Gen4 x16 LP Card, 170mm
max. 4x per system

PY-HC402

PYBHC402

IB HCA 200Gb 2channel HDR
200Gbit 2channel Infiniband Controller HDR technology (8.0GT/s)
*cannot be selected with PLAN EP MCX4-LX
25Gb[S26361-F4054-L502/S26361-F4054-E2/S26361-F4054-E202]/PLAN EP MCX6-DX 2X 100G[PY-LA412/PYBLA412/PYBLA412L]/PLAN EP MCX4-LX 25Gb OCPv3[PY-LA3F2U/PYBLA3F2U]/PLAN EP MCX6-DX 2X 100G OCPv3[PY-LA412U/PYBLA412U]
**AOC cannot be supported
2x Q-SFP+ connector
PCIe Gen4 x16 LP Card, 170mm
max. 4x per system

PY-HC541

PYBHC541

IB HCA 400Gb 1channel HDR
400Gbit 1channel Infiniband Controller HDR technology (8.0GT/s) with PCI short riser
*cannot be selected with PLAN EP MCX4-LX
25Gb[S26361-F4054-L502/S26361-F4054-E2/S26361-F4054-E202]/PLAN EP MCX6-DX 2X 100G[PY-LA412/PYBLA412/PYBLA412L]/PLAN EP MCX4-LX 25Gb OCPv3[PY-LA3F2U/PYBLA3F2U]/PLAN EP MCX6-DX 2X 100G OCPv3[PY-LA412U/PYBLA412U]
**AOC cannot be supported
1x O-SFP connector
PCIe Gen5 x16 LP Card, 170mm
max. 4x per system

PY-HC521

PYBHC521

IB HCA 200Gb 1channel HDR
200Gbit 1channel Infiniband Controller HDR technology (8.0GT/s) with PCI short riser
*cannot be selected with PLAN EP MCX4-LX
25Gb[S26361-F4054-L502/S26361-F4054-E2/S26361-F4054-E202]/PLAN EP MCX6-DX 2X 100G[PY-LA412/PYBLA412/PYBLA412L]/PLAN EP MCX4-LX 25Gb OCPv3[PY-LA3F2U/PYBLA3F2U]/PLAN EP MCX6-DX 2X 100G OCPv3[PY-LA412U/PYBLA412U]
**AOC cannot be supported
1x O-SFP+ connector
PCIe Gen5 x16 LP Card, 170mm
max. 4x per system

For loose delivery and in Rack customizing

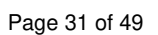
Cables for Mellanox 200Gbit Controller:

S26361-F5747-L671
MELLANOX COP. CABLE, 200GB/S, QSFP, LSZH, 1M
S26361-F5747-L672
MELLANOX COP. CABLE, 200GB/S, QSFP, LSZH, 2M

Network Components, Controller and cables for later upgrade

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RX2540 M7 offers 1.6" bay for accessible drive for basic units with 16x 2.5" HDD only!



Chapter 10 - storage drives

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SATA drives can be connected to the onboard Controller (max. 8x), or require a dedicated SAS / RAID Controller.
SAS drives require a dedicated SAS / RAID Controller.
PCIe-SSDs can be connected to the onboard Controller, or require a dedicated RAID Controller or PCIe retimer/switch card.
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.
DWPDP: 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) SAS and SATA SSD

available in CQ3'23

SSD SAS 2.5" Write Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on Kioxia PM7 drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
800GB	2.5" (SFF)	SAS 24Gb/s	Write Intensive	10		PYBSS80NGF	PY-SS80NGF
1.6TB	2.5" (SFF)	SAS 24Gb/s	Write Intensive	10		PYBSS16NGF	PY-SS16NGF
800GB	2.5" (SFF)	SAS 24Gb/s	Write Intensive	10	SED FIPS	PYBSS80NGG	PY-SS80NGG
1.6TB	2.5" (SFF)	SAS 24Gb/s	Write Intensive	10	SED FIPS	PYBSS16NGG	PY-SS16NGG
max. 30x - depending on base unit & configuration							

SED : will be available in October for APAC region

SSD SAS 2.5" Write Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on Seagate Nytro3732/3750 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. 30x - depending on base unit & configuration							

available in CQ3'23

SSD SAS 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray							
based on Kioxia PM7 drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
1.6TB	2.5" (SFF)	SAS 24Gb/s	Mixed Use	3		PYBSS16NPM	PY-SS16NPM
3.2TB	2.5" (SFF)	SAS 24Gb/s	Mixed Use	3		PYBSS32NPM	PY-SS32NPM
6.4TB	2.5" (SFF)	SAS 24Gb/s	Mixed Use	3		PYBSS64NPM	PY-SS64NPM
max. 30x - depending on base unit & configuration							

SSD SAS 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray							
based on Seagate Nytro3532/3550 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. 30x - depending on base unit & configuration							

available in CQ3'23

SSD SAS 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on Kioxia PM7 drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
1.92TB	2.5" (SFF)	SAS 24Gb/s	Read Intensive	1		PYBSS19NNM	PY-SS19NNM
3.84TB	2.5" (SFF)	SAS 24Gb/s	Read Intensive	1		PYBSS38NNL	PY-SS38NNL
7.68TB	2.5" (SFF)	SAS 24Gb/s	Read Intensive	1		PYBSS76NNM	PY-SS76NNM
15.36TB	2.5" (SFF)	SAS 24Gb/s	Read Intensive	1		PYBSS15NNL	PY-SS15NNL
7.68TB	2.5" (SFF)	SAS 24Gb/s	Read Intensive	1	SED FIPS	PYBSS76NNN	PY-SS76NNN
15.36TB	2.5" (SFF)	SAS 24Gb/s	Read Intensive	1	SED FIPS	PYBSS15NNM	PY-SS15NNM
max. 30x - depending on base unit & configuration							

SSD SAS 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on Seagate Nytro3332/3350 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. 30x - depending on base unit & configuration							
max. 30x - 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. 30x - depending on base unit & configuration							

SSD SATA 2.5" Mixed Use (SFF) Enterprise with hot plug/hot replace tray							
based on Micron 5300/5400 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		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. 30x - 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. 30x - depending on base unit & configuration							

SSD SATA 2.5" Read Intensive (SFF) Enterprise with hot plug/hot replace tray							
based on Micron 5300/5400 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		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. 30x - depending on base unit & configuration							

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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. 30x - depending on base unit & configuration

SED : will be available in October for APAC region

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	PYBSH301EU	PY-SH301EU
600GB	10 000	SAS 12Gb/s	512n	PYBSH601EU	PY-SH601EU
1.2TB	10 000	SAS 12Gb/s	512n	PYBSH121EU	PY-SH121EU

max. 30x - depending on base unit & configuration

SED : will be available in October for APAC region

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
1.8TB	10 000	SAS 12Gb/s	512e	PYBSH181DU	PY-SH181DU
2.4TB	10 000	SAS 12Gb/s	512e	S26361-F5582-E124	S26361-F5582-L124

max. 30x - depending on base unit & configuration

HDD SAS 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	SAS 12Gb/s	512n	S26361-F5600-E100	S26361-F5600-L100
2TB	7 200	SAS 12Gb/s	512n	S26361-F5600-E200	S26361-F5600-L200

max. 30x - 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. 30x - depending on base unit & configuration

3.5" (LFF) SAS and SATA SSD

available in CQ3'23

SSD SAS 3.5" Write Intensive (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace traybased on **Kioxia PM7** drives

Capacity	Formfactor	Interface	Endurance	DWPD	order code E-part	order code L-part
800GB	3.5" (LFF)	SAS 24Gb/s	Write Intensive	10	PYBTS80NGC	PY-TS80NGC
1.6TB	3.5" (LFF)	SAS 24Gb/s	Write Intensive	10	PYBTS16NGC	PY-TS16NGC

max. 12x - depending on base unit & configuration

SSD SAS 3.5" Write Intensive (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace traybased on **Seagate Nytro3732/3750** drives

Capacity	Formfactor	Interface	Endurance	DWPD	order code E-part	order code L-part
400GB	3.5" (LFF)	SAS 12Gb/s	Write Intensive	10	PYBTS40NG9	PY-TS40NG9
800GB	3.5" (LFF)	SAS 12Gb/s	Write Intensive	10	PYBTS80NG9	PY-TS80NG9
1.6TB	3.5" (LFF)	SAS 12Gb/s	Write Intensive	10	PYBTS16NG9	PY-TS16NG9

max. 12x - depending on base unit & configuration

available in CQ3'23

SSD SAS 3.5" Mixed Use (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace traybased on **Kioxia PM7** drives

Capacity	Formfactor	Interface	Endurance	DWPD	order code E-part	order code L-part
1.6TB	3.5" (LFF)	SAS 24Gb/s	Mixed Use	3	PYBTS16NPJ	PY-TS16NPJ
3.2TB	3.5" (LFF)	SAS 24Gb/s	Mixed Use	3	PYBTS32NPJ	PY-TS32NPJ
6.4TB	3.5" (LFF)	SAS 24Gb/s	Mixed Use	3	PYBTS64NPJ	PY-TS64NPJ

max. 12x - depending on base unit & configuration

SSD SAS 3.5" Mixed Use (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace traybased on **Seagate Nytro3532/3550** drives

Capacity	Formfactor	Interface	Endurance	DWPD	order code E-part	order code L-part
800GB	3.5" (LFF)	SAS 12Gb/s	Mixed Use	3	PYBTS80NPF	PY-TS80NPF
1.6TB	3.5" (LFF)	SAS 12Gb/s	Mixed Use	3	PYBTS16NPF	PY-TS16NPF
3.2TB	3.5" (LFF)	SAS 12Gb/s	Mixed Use	3	PYBTS32NPF	PY-TS32NPF

max. 12x - depending on base unit & configuration

available in CQ3'23

SSD SAS 3.5" Read Intensive (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace tray							
based on Kioxia PM7 drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
1.92TB	3.5" (LFF)	SAS 24Gb/s	Read Intensive	1		PYBTS19NNH	PY-TS19NNH
3.84TB	3.5" (LFF)	SAS 24Gb/s	Read Intensive	1		PYBTS38NNH	PY-TS38NNH
7.68TB	3.5" (LFF)	SAS 24Gb/s	Read Intensive	1		PYBTS76NNJ	PY-TS76NNJ
15.36TB	3.5" (LFF)	SAS 24Gb/s	Read Intensive	1		PYBTS15NN	PY-TS15NN
7.68TB	3.5" (LFF)	SAS 24Gb/s	Read Intensive	1	SED FIPS	PYBTS76NNK	PY-TS76NNK
15.36TB	3.5" (LFF)	SAS 24Gb/s	Read Intensive	1	SED FIPS	PYBTS15NN2	PY-TS15NN2
max. 12x - depending on base unit & configuration							

SSD SAS 3.5" Read Intensive (LFF) 2.5" SSD Enterprise with 3.5" hot plug/hot replace tray							
based on Seagate Nytro3332/3350 drives							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
960GB	3.5" (LFF)	SAS 12Gb/s	Read Intensive	1		PYBTS96NNE	PY-TS96NNE
1.92TB	3.5" (LFF)	SAS 12Gb/s	Read Intensive	1		PYBTS19NNE	PY-TS19NNE
3.84TB	3.5" (LFF)	SAS 12Gb/s	Read Intensive	1		PYBTS38NNE	PY-TS38NNE
7.68TB	3.5" (LFF)	SAS 12Gb/s	Read Intensive	1		PYBTS76NNE	PY-TS76NNE
max. 12x - depending on base unit & configuration							

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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 5300/5400 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		S26361-F5775-E480	S26361-F5775-L480
960GB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		S26361-F5775-E960	S26361-F5775-L960
1.92TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	5,0		S26361-F5775-E192	S26361-F5775-L192
3.84TB	2.5" (SFF)	SATA 6Gb/s	Mixed Use	3,5		S26361-F5775-E384	S26361-F5775-L384
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 5300/5400 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		S26361-F5782-E240	S26361-F5782-L240
480GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		S26361-F5782-E480	S26361-F5782-L480
960GB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		S26361-F5782-E960	S26361-F5782-L960
1.92TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,5		S26361-F5782-E192	S26361-F5782-L192
3.84TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	1,2		S26361-F5782-E384	S26361-F5782-L384
7.68TB	2.5" (SFF)	SATA 6Gb/s	Read Intensive	0,6		S26361-F5782-E768	S26361-F5782-L768
max. 12x - depending on base unit & configuration							

3.5" (LFF) Hard drives

HDD SAS 3.5" 15K (LFF) 2.5" HDD Enterprise Mission Critical with 3.5" 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-F5726-E530	S26361-F5726-L530
600GB	15 000	SAS 12Gb/s	512n		S26361-F5726-E560	S26361-F5726-L560
900GB	15 000	SAS 12Gb/s	512n		S26361-F5532-E590	S26361-F5532-L590

max. 12x - depending on base unit & configuration

HDD SAS 3.5" 10K 512n (LFF) 2.5" HDD Enterprise Mission Critical with 3.5" 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-F5728-E130	S26361-F5728-L130
600GB	10 000	SAS 12Gb/s	512n		S26361-F5728-E160	S26361-F5728-L160
1.2TB	10 000	SAS 12Gb/s	512n		S26361-F5728-E112	S26361-F5728-L112

max. 12x - depending on base unit & configuration

HDD SAS 3.5" 10K 512e (LFF) 2.5" HDD Enterprise Mission Critical with 3.5" 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-F5731-E118	S26361-F5731-L118
2.4TB	10 000	SAS 12Gb/s	512e		S26361-F5569-E124	S26361-F5569-L124

max. 12x - depending on base unit & configuration

SED : will be available in October for APAC region

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
12TB	7 200	SAS 12Gb/s	512e		PYBCHCT7B7	PY-CHCT7B7
14TB	7 200	SAS 12Gb/s	512e		PYBCHET7B6	PY-CHET7B6
16TB	7 200	SAS 12Gb/s	512e		S26361-F5571-E160	S26361-F5571-L160
18TB	7 200	SAS 12Gb/s	512e		PYBCHJT7B2	PY-CHJT7B2
20TB	7 200	SAS 12Gb/s	512e	available in CQ4' 2023	PYBCHLT7B	PY-CHLT7B
12TB	7 200	SAS 12Gb/s	512e	SED	PYBCHCT7BW	PY-CHCT7BW
14TB	7 200	SAS 12Gb/s	512e	SED	PYBCHET7BV	PY-CHET7BV
16TB	7 200	SAS 12Gb/s	512e	SED	S26361-F5624-E160	S26361-F5624-L160
18TB	7 200	SAS 12Gb/s	512e	SED	PYBCHJT7BT	PY-CHJT7BT
20TB	7 200	SAS 12Gb/s	512e	FIPS available in CQ4' 2023	PYBCHLT7BS	PY-CHLT7BS

max. 12x - depending on base unit & configuration

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
1TB	7 200	SATA 6Gb/s	512n		PYBBH1T7B9	PY-BH1T7B9
2TB	7 200	SATA 6Gb/s	512n		PYBBH2T7B9	PY-BH2T7B9
4TB	7 200	SATA 6Gb/s	512n		PYBBH4T7B9	PY-BH4T7B9

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
12TB	7 200	SATA 6Gb/s	512e		PYBBHCT7E4	PY-BHCT7E4
14TB	7 200	SATA 6Gb/s	512e		PYBBHET7E4	PY-BHET7E4
16TB	7 200	SATA 6Gb/s	512e		S26361-F3904-E160	S26361-F3904-L160
18TB	7 200	SATA 6Gb/s	512e		PYBBHJT7E2	PY-BHJT7E2

max. 12x - depending on base unit & configuration

L

L

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

M.2 Riser Kit

PYBPREM02

PY-PREM02

provides two M.2 Connectors

max 1x for system

No mixed with PDUAL CP100 and CP300

SSD SATA M.2 drive for booting, non hot-plug, for VMware ESXi

based on Micron 5300/5400 PRO drives

Capacity	Formfactor	Interface		Category		order code E-part	order code L-part
240GB	M.2	SATA 6Gb/s	1,5	Boot		S26361-F5816-E240	S26361-F5816-L240

M.2 drive is designed for use as a VMware ESXi boot drive.

max. 1x per Server; M.2 Riser Kit is required. (please see folder "description"). VMware ESXi is only supported.

2x M.2 drives required; in case M.2 drives are used with PDUAL CP100 or CP300.

SSD SATA M.2 drive for booting, non hot-plug

based on Micron 5300/5400 PRO drives (960GB is 5400 only)

Capacity	Formfactor	Interface	DWPD	Category		order code E-part	order code L-part
240GB	M.2	SATA 6Gb/s	1,5	Boot		S26361-F5787-E240	S26361-F5787-L240
480GB	M.2	SATA 6Gb/s	1,5	Boot		S26361-F5787-E480	S26361-F5787-L480
960GB	M.2 2280	SATA 6Gb/s	1,5	Boot		PYBMF96YN	PY-MF96YN

M.2 drive is designed for use as a boot drive with the Endurance Spec. above.

max. 1x per Server; M.2 Riser Kit is required. (please see folder "description"). VMware is not supported.

2x M.2 drives required; in case M.2 drives are used with PDUAL CP100 or 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; M.2 Riser Kit is required. (please see folder "description").

2x M.2 drives required; in case M.2 drives are used with PDUAL CP300.

Dual M.2

PDUAL CP100, PDUAL CP300 and M.2 drive in M.2 Riser Kit 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 of 2x SSD SATA M.2 drives, which offers RAID1 with the 2x SSD M.2 drives.

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 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. (S26361-F5787- E240/L240/E480/L480, PY*MF96YN or S26361-F5816-E240/L240)

max. 1x per Server, requires 2x SSD SATA M.2 drives.

PDUAL CP100, PDUAL CP300 and M.2 drive in M.2 Riser Kit cannot be mixed

PDUAL CP300, dual M.2 for booting, non hot-plug available from 2023/11

Capacity	Formfactor	Interface		Category		order code E-part	order code L-part
n/a	AIC	PCIe		Boot	LP	PYBDMCP35L	PY-DMCP35

PDUAL CP300 is a carrier of 2x SSD SATA or PCIe M.2 drives, which offers RAID1 with the 2x SSD M.2 drives.

PDUAL CP300 is designed for use as a hardware-mirrored (RAID1) boot device for Hypervisor, which cannot be supported by M.2 via the onboard chipset Software RAID.

Supported RAID levels : RAID1 and 0 (optional), 2x same type of SSD M.2 drives need to be ordered separately.

Supported M.2 drives : SSD SATA M.2 240GB/480GB/960GB or 240GB for VMware ESXi. (S26361-F5787- E240/L240/E480/L480, PY*MF96YN or S26361-F5816-E240/L240) or

SSD PCIe M.2 480GB/960GB. (PY*BS48PEA/PY*BS96PEA)

max. 1x per Server, requires 2x SSD M.2 drives.

2.5" (SFF) PCIe-SSD

hot plug support : supported with VMD

PCIe-SSD 2.5" P5800X (SFF) Enterprise with hot plug/hot replace tray							
Capacity	Formfactor	Interface	Endurance	DWPD		order code E-part	order code L-part
400GB	2.5" (SFF)	PCIe4.0 x4	Write Intensive	100		PYBBS40PF	PY-BS40PF
800GB	2.5" (SFF)	PCIe4.0 x4	Write Intensive	100		PYBBS80PF	PY-BS80PF
1.6TB	2.5" (SFF)	PCIe4.0 x4	Write Intensive	100		PYBBS16PF	PY-BS16PF

max. 30x - depending on base unit & configuration

will be available in October

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

max. 30x - depending on base unit & configuration, not allow for PYR2547RAN

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. 30x - depending on base unit & configuration, not allow for PYR2547RAN

will be available in October

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

max. 30x - depending on base unit & configuration, not allow for PYR2547RAN

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		PYBBS96PE0	PY-BS96PE0
1.92TB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS19PE0	PY-BS19PE0
3.84TB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS38PE0	PY-BS38PE0
7.68TB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS76PE0	PY-BS76PE0
15.36TB	2.5" (SFF)	PCIe4.0 x4	Read Intensive	1		PYBBS15PE0	PY-BS15PE0

max. 30x - depending on base unit & configuration, not allow for PYR2547RAN

M

Chapter 14 - Power supply unit, power cable, certifications, region kits

O

Power supply unit

modular redundant Power Supply

2nd PSU for redundancy

occupies hot plug PSU slot, min. 1 / max. 2x per system

input nominal voltage (AC): 100V-240V, max: 90V-264V; input dropout 10ms/100% load, 47Hz-63Hz

500W platinum PSU	94% eff.	Connector type: C13, APAC/JAPAN region only, Not support ATD40/45	PYBPU501	PY-PU501
500W titanium PSU	96% eff.	Connector type: C13, nom. 220-240V, max. 180-264V, Not support ATD40/45	PYBPU503	PY-PU503
900W platinum PSU	94% eff.	Connector type: C13, APAC/JAPAN region only	PYBPU902	PY-PU902
900W titanium PSU	96% eff.	Connector type: C13, nom. 220-240V, max. 180-264V	PYBPU901	PY-PU901
1600W platinum PSU	94% eff.	Connector type: C13, APAC/JAPAN region only	PYBPU163	PY-PU163
1600W titanium PSU	96% eff.	Connector type: C13, nom. 220-240V, max. 180-264V	PYBPU165	PY-PU165
2200W platinum PSU	94% eff.	Connector type: C19, APAC/JAPAN region only	PYBPU221	PY-PU221
2400W Titanium PSU	96% eff.	Connector type: C19, nom. 220-240V, max. 180-264V	PYBPU243	PY-PU243

DC PSU

1300W PSU DC	94% eff.	48V DC, powercode see below	PYBPU131D	PY-PU131D
1600W PSU HVDC	94% eff.	380V DC, Connector type: Anderson Power Products Saf-D-Grid® Plug type APAC/JAPAN region only	PYBPU163D	PY-PU163D

Dummy module instead PSU

Dummy module for closing the 2nd PSU hole, in case only 1 PSU is equipped, max. 1x per system	PYBDMP03	
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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 (Taiwan), 1.8m, rack or wall	T26139-Y1757-E10	T26139-Y1757-L10
Cable powercord -48V DC, 3m, black	PYBCBPDC4	PY-CBPDC4
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
Power cord 16A IEC320 C19->C20, 3.5m for 2200W/2400W PSU	S26361-F3151-E300	S26361-F3151-L300
Power cord IEC320 C19 -> US NEMA L6-20p, 4m for 2200W/2400W PSU	S26361-F3151-E500	S26361-F3151-L500
Power cord 16A IEC320 C19->CEE 7/7, 2.5m for 2200W/2400W PSU		S26361-F3151-L100
no power cord	T26139-Y3850-E10	

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 need to be included always into the order from EU and EFTA (Sales region for EMEA only)	S26361-F1452-E140	
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 Kit China for CCC systems, Contains warranty sheet and safety instructions for China, need to be included always into the order from China country (Sales region for APAC only)	S26361-F1452-E101	

Certifications, Made in Germany Sticker, optional 1x per system

Certification for China, (CCC), Reduced component selection possible, only with no power cord option	S26361-F3301-E120	
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P

Chapter 15 - Accessories

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graph TD; Q[Q] --- R[R]; Q --- S[S]; Q --- T[T]; R --- U[USB Optical Disc Drive]; R --- V[External Ultra Slim Portable DVD Writer (Hitachi-LG)]; U --- W[S26341-F103-L142]
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<http://www.fujitsu.com/fts/products/computing/peripheral/accessories/index-facts.html>

O

will be expired after 2024-1-11

S26361-F3301-E541
RX2540 Mx E-Star Fam1
Limits configuration in accordance
with Energy Star requirements for systems with 1 CPU
max. 1x per system

1 CPU Variant	limitations for E-Star Fam1 certification
not allowed are:	
- 2 CPU configuration	
- CPU Xeon Bronze 3408U	
- 2x internal HBA/RAID cards configuration (1x internal HBA/RAID card is ok)	

will be expired after 2024-1-11

S26361-F3301-E542
RX2540 Mx E-Star Fam2
Limits configuration in accordance
with Energy Star requirements for systems with 2 CPU
max. 1x per system

2 CPU Variant	limitations for E-Star Fam2 certification
not allowed are:	
- 1 CPU configuration	
- CPU Xeon Bronze 3408U	
- 2x internal HBA/RAID cards configuration (1x internal HBA/RAID card is ok)	

will be effective after 2024-1-2

TBD
RX2540 Mx E-Star Fam1
Limits configuration in accordance
with Energy Star requirements for systems with 1 CPU
max. 1x per system

1 CPU Variant	limitations for E-Star Fam1 certification
not allowed are:	
- 2 CPU configuration	
- CPU Xeon Bronze 3408U	
- CPU Xeon Silver 4410Y	
- CPU Xeon Silver 4410T	
- more than 12 HDD/SSD/M.2 when PCIe slot is inserted by add-in card for CPU Xeon Silver 4416+	
- CPU Xeon Gold 5415+	
- Add-in card (internal RAID slot is ok) for CPU Xeon Gold 5416S	
- CPU Xeon Gold 6434	
- 900W platinum PSU	
- 1600W platinum PSU	
- 2200W platinum PSU	

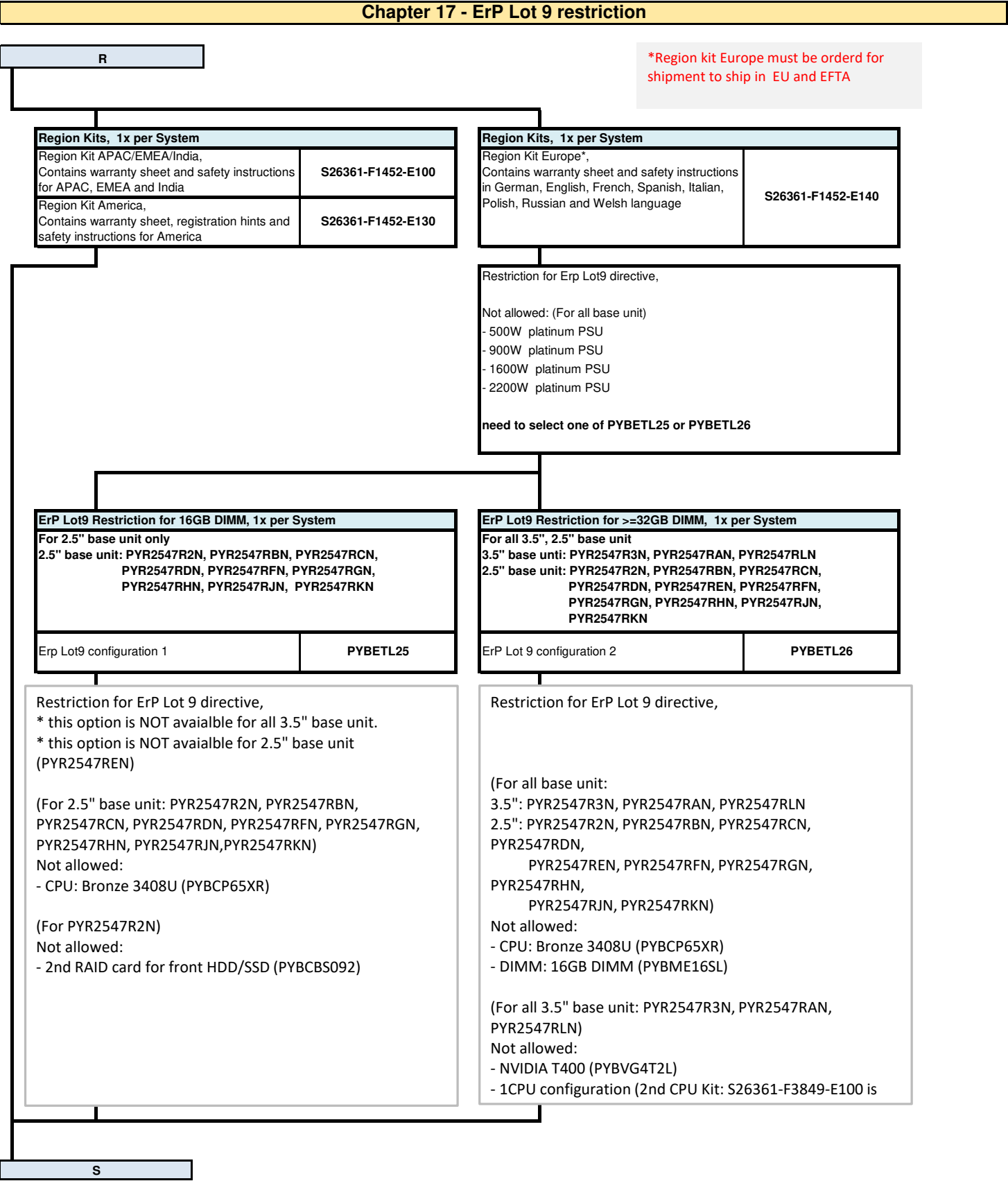
will be effective after 2024-1-2

TBD
RX2540 Mx E-Star Fam2
Limits configuration in accordance
with Energy Star requirements for systems with 2 CPU
max. 1x per system

2 CPU Variant	limitations for E-Star Fam2 certification
not allowed are:	
- 1 CPU configuration	
- CPU Xeon Bronze 3408U	
- CPU Xeon Silver 4410Y	
- CPU Xeon Silver 4410T	
- CPU Xeon Gold 5415+	
- Add-in card (internal RAID slot is ok) for CPU Xeon Gold 5416S	
- CPU Xeon Gold 6434	
- 900W platinum PSU	
- 1600W platinum PSU	
- 2200W platinum PSU	

ENERGY STAR-configurations with one CPU will be labeled: PRIMERGY RX2540 M7 E-Star Fam1
ENERGY STAR-configurations with two CPU will be labeled: PRIMERGY RX2540 M7 E-Star Fam2
non ENERGY STAR-configurations will be labeled: PRIMERGY RX2540 M7

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Chapter 18 - Thermal Rule

Q

For CPU group, refere to Chapter3- CPU

3.5" base unit (not including Nvidia A2/L4, high Level PCIe card, high Tier OCP, Rear Bay)

CPU		Memory Type	Front drive bay		Nvidia A2/L4	Option Card			Ambient
		DDR5	10x3.5"	12x3.5"		LP PCIe	FH PCIe	OCP	Temp.
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-6	Front: 0-6	0	Level1-4	Level1-4	Tier1-8	35C
	CPU B		7-10**	7-12**					
	CPU C		Rear: 0	Rear: 0					
	CPU A	16GB - 256GB	Front: 0-6	Front: 0-6	0	Level1-5	Level1-5	Tier1-9	30C *
	CPU B		7-10**	7-12**					
	CPU C		Rear: 0	Rear: 0					
	CPU D								
	CPU E	Not support							

* Need to select Configuration Thermal Design 30°C(PYBETA1)

** Need to select Configuration Thermal Design 3.5"HDD(PYBETA2) for more than 6 drives.

3.5" base unit (including Nvidia A2/L4, high Level PCIe Card, high Tier OCP card)

CPU		Memory Type	Front drive bay		Nvidia A2/L4	Option Card			Ambient Temp.		
		DDR5	10x3.5"	12x3.5"		LP PCIe	FH PCIe	OCP			
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-6	Front: 0-6	1-6	Level1-7	Level1-8	Tier1-10	30C *		
	CPU B		Rear: 0	Rear: 0							
	CPU C										
	CPU D										
	CPU E										

* Need to select Configuration Thermal Design 30°C(PYBETA1)

** For CPU D, Need Special Release request and to select Configuration Thermal Design 25°C(PYBET21)

Update 3.5" base unit (including Rear bay ***)

CPU		Memory Type	Front / Rear drive bay		Nvidia A2/L4	Option Card			Ambient Temp.					
		DDR5	12x3.5"			LP PCIe	FH PCIe	OCP						
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-6		0	Level1-4	Level1-4	Tier1-8	30C *					
	CPU B		7-12**											
	CPU C		Rear : 1-6											
	CPU D	Not support												
	CPU E													

* Need to select Configuration Thermal Design 30°C(PYBETA1)

** Need to select Configuration Thermal Design 3.5"HDD(PYBETA2) for more than 6 drives.

*** Not allow Kioxia PCIe SSD

PYBBS16PD6/PYBBS32PD6/PYBBS64PD6/PYBBS12PD6/PYBBS96PE6/PYBBS19PE6/PYBBS38PE6/PYBBS76PE6/PYBBS15PE6

Update 3.5" base unit (including KIOXIA NVME SSD Rear bay ***)

CPU		Memory Type	Front / Rear drive bay		Nvidia A2/L4	Option Card			Ambient Temp.			
		DDR5	12x3.5"			LP PCIe	FH PCIe	OCP				
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-6	7-12**	0	Level1-4	Level1-4	Tier1-8	30C *			
	CPU B									25C ****		
	CPU C	Not support										
	CPU D											
	CPU E											

* Need to select Cooling kit 1U EVAC heatsink and air duct for CPU A(PYBTKCPA2)

** Need to select Configuration Thermal Design 3.5"HDD(PYBETA2) for more than 6 drives.

*** can allow Kioxia PCIe SSD

PYBBS16PD6/PYBBS32PD6/PYBBS64PD6/PYBBS12PD6/PYBBS96PE6/PYBBS19PE6/PYBBS38PE6/PYBBS76PE6/PYBBS15PE6

**** Need to select Cooling kit 1U EVAC heatsink and air duct for CPU B(PYBTKCPA3)

3.5" base unit (ATD40)

CPU		Memory Type	Front drive bay		Nvidia A2/L4	Option Card			Ambient Temp.					
		DDR5	10x3.5"	12x3.5"		LP PCIe	FH PCIe	OCP						
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-6	Front: 0-6	0	Level1-3	Level1-3	Tier1-7	40C					
	CPU B		Rear: 0	Rear: 0										
	CPU C													
	CPU D	Not support												
	CPU E													

3.5" base unit (ATD45)

CPU		Memory Type	Front drive bay		Nvidia A2/L4	Option Card			Ambient Temp.					
		DDR5	10x3.5"	12x3.5"		LP PCIe	FH PCIe	OCP						
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-6	Front: 0-6	0	Level1-2	Level1-2	Tier1-6	45C					
	CPU B		Rear: 0	Rear: 0										
	CPU C													
	CPU D	Not support												
	CPU D													

2.5" base unit (not including Nvidia A2/L4, Rear drive bay)

CPU		Memory Type	Front / Rear drive bay		Nvidia A2/L4	Option Card			Ambient Temp.
		DDR5	8x/16x2.5"	24x2.5"		LP PCIe	FH PCIe	OCF	
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-16	Front: 0-24	0	Level1-6	Level1-7	Tier1-12	35C
	CPU B		Rear:0	Rear:0					
	CPU C								
	CPU D								
	CPU E								
	CPU A	16GB - 256GB	Front: 0-16	Front: 0-24	0	Level1-7	Level1-8	Tier1-12	30C *
	CPU B		Rear:0	Rear:0					
	CPU C								
	CPU D								
	CPU E								

* Need to select Configuration Thermal Design 30°C(PYBETA1)

2.5" base unit (including Nvidia A2/L4)

CPU		Memory Type	Front / Rear drive bay		Nvidia A2/L4	Option Card			Ambient Temp.
		DDR5	8x/16x2.5"	24x2.5"		LP PCIe	FH PCIe	OCF	
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-16	Front: 0-24	1-6	Level1-6	Level1-7	Tier1-10	30C *
	CPU B		Rear:0	Rear:0					
	CPU C								
	CPU D								
	CPU E								
		Not Support							

* Need to select Configuration Thermal Design 30°C(PYBETA1)

** For CPU D, Need Special Release request and to select Configuration Thermal Design 25°C(PYBET21)

2.5" base unit(including Rear drive bay)**

CPU		Memory Type	Front / Rear drive bay		Nvidia A2/L4	Option Card			Ambient Temp.
		DDR5	8x/16x2.5"	24x2.5"		LP PCIe	FH PCIe	OCF	
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-16	Front: 0-24	0	Level1-6	Level1-6	Tier1-12 **, ***	30C *
	CPU B		Rear:1-6	Rear:1-6					
	CPU C								
	CPU D								
	CPU E								

* Need to select Configuration Thermal Design 30°C(PYBETA1)

** For PYR2547R2N/PYR2547REN/PYR2547RFN/PYR2547RGN

Kioxia PCIe SSD not allow CPU E and Tier12 OCP cards.

(PYBBS16PD6/PYBBS32PD6/PYBBS64PD6/PYBBS12PD6/PYBBS96PE6/PYBBS19PE6/PYBBS38PE6/PYBBS76PE6/PYBBS15PE6)

*** For PYR2547RHN

Rear bay not allow CPU E and Tier12 OCP cards.

2.5" base unit(including Kioxia SSD Rear drive bay)

CPU		Memory Type	Front / Rear drive bay		Nvidia A2/L4	Option Card			Ambient Temp.
		DDR5	8x/16x2.5"	24x2.5"		LP PCIe	FH PCIe	OCF	
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-16	Front: 0-24	0	Level1-6	Level1-6	Tier1-11	30C *
	CPU B		Rear:1-6	Rear:1-6					
	CPU C								
	CPU D								
	CPU E								

* Need to select Configuration Thermal Design 30°C(PYBETA1)

2.5" base unit (ATD40)

CPU		Memory Type	Front / Rear drive bay		Nvidia A2/L4	Option Card			Ambient Temp.
		DDR5	8x/16x2.5"	24x2.5"		LP PCIe	FH PCIe	OCF	
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-16	Front: 0-24	0	Level1-5	Level1-5	Tier1-9	40C
	CPU B		Rear:0	Rear:0					
	CPU C								
	CPU D								
	CPU E								

2.5" base unit (ATD45)

CPU		Memory Type	Front / Rear drive bay		Nvidia A2/L4	Option Card			Ambient Temp.
		DDR5	8x/16x2.5"	24x2.5"		LP PCIe	FH PCIe	OCF	
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-16	Front: 0-24	0	Level1-4	Level1-4	Tier1-8	45C
	CPU B		Rear:0	Rear:0					
	CPU C								
	CPU D								
	CPU E								

2.5"/3.5" base unit for Graphics

CPU		Memory Type	Front drive bay		Nvidia A2/L4	Option Card			Ambient Temp.
		DDR5	6x3.5"	8x/16x2.5"		LP PCIe	FH PCIe	OCF	
2CPU/1CPU configuration	CPU A	16GB - 256GB	Front: 0-6	Front: 0-16	0	Level1-6	**	Tier1-9	30C *
	CPU B		Rear: 0	Rear: 0					
	CPU C								
	CPU A	16GB - 256GB	Front: 0-6	Front: 0-16	0	Level1-7	**	Tier1-10	25C ***
	CPU B		Rear: 0	Rear: 0					
	CPU C								
	CPU D								
CPU E		Not support							

* Need to select Configuration Thermal Design 30°C(PYBETA1)

** Only GFX/GPU cards are supported

*** Need to select Configuration Thermal Design 25°C(PYBET21)

Card	Product Number	LP	PCIe Level	
RAID/SAS	PDUAL CP100 PRAID CP500i RAID Contr. PRAID EP520i RAID Contr. LP PRAID EP540i RAID LP PRAID EP580i RAID LP PSAS CP600e FH / LP PSAS CP600i LP PSAS CP600i LP for LTO PRAID CP600i LP PRAID EP640i LP PRAID EP680i LP / NVMe LP PRAID EP680e RAID Contr. FH/LP PSAS CP2100-8i LP PSAS CP2200-16i LP / NVMe LP PSAS CP2200-16i for LTO PRAID EP3252-8i LP PRAID EP3254-8i LP PRAID EP3258-16i LP / NVMe LP PRAID EP740i LP / NVMe LP PRAID EP781i FH High Performance	PYBDMCP24L PYBSR3FBL S26361-F4042-E202 S26361-F4042-E214 S26361-F4042-E208 PYBSC4FAE PYBSC4FAEL PYBSC4FAL PYBSC4FA2L PYBSR4FAL PYBSR4C63L PYBSR4C6L / PYBSR4C62L PYBSR4C6EL PYBSC3MA2L / PYBSC3MAWL PYBSC4MA1L / PYBSC4MA2L PYBSC4MA3L PYBSR4MA1L PYBSR4MA2L PYBSR4MA3L / PYBSR4MA4L (TBD) (TBD)	Level4 Level3 Level4 Level4 Level4 Level3 Level3 Level3 Level3 Level3 Level3 Level4 Level4 Level4 Level4 Level4 Level4 Level4 Level4	
FC	PFC EP LPe31000 1x 16Gb FH / LP PFC EP LPe31002 2x 16Gb FH / LP PFC EP LPe35000 1X 32GFC PCIe v4 / LP PFC EP LPe35002 2X 32GFC PCIe v4 / LP PFC EP LPe36000 1X 64GFC PCIe v4 / LP PFC EP LPe36002 2X 64GFC PCIe v4 / LP PFC EP QLE2690 1x 16Gb FH / LP PFC EP QLE2692 2x 16Gb FH / LP PFC EP QLE2770 1X 32GFC PCIe v4 / LP PFC EP QLE2772 2X 32GFC PCIe v4 / LP PFC EP QLE2870 1X 32GFC PCIe v4 / LP PFC EP QLE2872 2X 32GFC PCIe v4 / LP	S26361-F5596-E1 S26361-F5596-E2 PYBFC421 PYBFC422 PYBFC441 PYBFC442 S26361-F5580-E1 S26361-F5580-E2 PYBFC411 PYBFC412 PYBFC431 PYBFC432	S26361-F5596-E201 S26361-F5596-E202 PYBFC421L PYBFC422L PYBFC441L PYBFC442L S26361-F5580-E201 S26361-F5580-E202 PYBFC411L PYBFC412L PYBFC431L PYBFC432L	Level3 Level3 Level4 Level4 Level4 Level4 Level3 Level3 Level4 Level4 Level4 Level4
IB	PIB EP 200Gb 1 port HDR ConnectX-6 PIB EP 200Gb 2 port HDR ConnectX-6 1 port 200Gb infiniband NDR200 (ConnectX-7) 1 port 400Gb infiniband NDR (ConnectX-7)		S26361-F5756-E102 PYBHC402 PYBHC521 PYBHC541	Level6 Level7 Level7 Level7
LAN	PLAN CP 4x1Gbit Cu Intel I350-T4 FH / LP PLAN EP E810-CQDA2 2X 100G QSFP28 LP PLAN EP E810-XXVDA2 2X 25G SFP28 FH / LP PLAN EP E810-XXVDA4 4X 25G SFP28 LP PLAN EP MCX6-DX 100Gb 2p QSFP28 LP PLAN EP X710-DA2 2x10Gb SFP+ FH / LP PLAN EP X710-DA4 4x10Gb SFP+ FH / LP PLAN EP X710-T2L 2X 10GBASE-T FH / LP PLAN EP X710-T4L 4X 10GBASE-T FH / LP PLAN CP BCM5719-4P 4X 100GBASE-T PCIe FH / LP PLAN EP P210P 2x10Gb SFP FH / LP PLAN EP P210TP 2X 10GBASE-T PCIe FH / LP PLAN EP MCX6-LX 25Gb 2p SFP28 PCIe FH / LP PLAN EP P225P 25Gb 2p SFP28 PCIe FH / LP PLAN EP P2100G 100Gb 2p QSFP56 PCIe LP	S26361-F4610-E4 PYBLA402 S26361-F3640-E2 S26361-F3640-E4 PYBLA342 PYBLA344 PYBLA284 PYBLA3J2 PYBLA3K2 PYBLA4024 PYBLA3H2	S26361-F4610-E204 PYBLA432L PYBLA402L PYBLA404L PYBLA412L S26361-F3640-E202 S26361-F3640-E204 PYBLA342L PYBLA344L PYBLA284L PYBLA3J2L PYBLA3K2L PYBLA402L4 PYBLA3H2L PYBLA442L	Level1 Level7 Level5 Level7 Level7 Level1 Level3 Level2 Level3 Level1 Level3 Level5 Level5 Level3 Level5
GFX	PGRA CP NVIDIA T400 4GB LP		PYBVG4T2L	Level3

Card	Product Number	OCF Tier
OCVPv3	PLAN CP I350-14 4X 1000BASE-T OCPv3 PT	Tier1
	PLAN EP E810-CQDA2 2X 100G QSFP28 OCPv3 PT	Tier11
	PLAN EP E810-XXVDA2 2X 25G SFP28 OCPv3 PT	Tier8
	PLAN EP E810-XXVDA4 4X 25G SFP28 OCPv3 PT	Tier11
	PLAN EP MCX6-DX 100Gb 2p QSFP28 OCPv3 PT	Tier12
	PLAN EP X710-DA2 2X 10G SFP+ OCPv3 PT	Tier2
	PLAN EP X710-DA4 4X 10G SFP+ OCPv3 PT	Tier8
	PLAN EP X710-T2L 2X 10GBASE-T OCPv3 PT	Tier2
	PLAN EP X710-T4L 4X 10GBASE-T OCPv3 PT	Tier4
	PLAN CP N41T 4X 1000BASE-T OCPV3 PT	Tier2
	PLAN EP N210P 2X 10G SFP+ OCPV3 PT	Tier2
	PLAN EP N210TP 2X 10GBASE-T OCPV3 PT	Tier5
	PLAN EP MCX6-LX 25Gb 2p SFP28 OCPV3	Tier6
	PLAN EP N225P 25Gb 2p SFP28 OCPv3	Tier3
	PLAN EP N2100G 100Gb 2p QSFP56 OCPv3	Tier8

S

Chapter 19 - others

O

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

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

Advanced Thermal design cannot be combined
with the Flash backup unit of the RAID controllers

S26361-F3776-E440
Cool-safe ® Advanced Thermal design 40°C
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

S26361-F3776-E445
Cool-safe ® Advanced Thermal design 45°C
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

PYBETA1
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.
Refer to Chapter15-Thermal Rule
this setting can be activated ex factory only
max. 1x per system

PYBET21
Configuration Thermal Design 25°C(CTD25)
Sets the PRIMERGY server to support temperatures of up to 25 ° C in operating mode for the configuration with thermal restriction.
Refer to Chapter15-Thermal Rule
this setting can be activated ex factory only
max. 1x per system

PYBETA2
Configuration Thermal Design 3.5"HDD
Configuration Thermal Design 3.5"HDD is required for more than 6 front drives with 3.5" base unit.
Refer to Thermal Rule
Only for EMEA/APAC region
max. 1x per system

PYBTPM14 PY-TPM14 TPM 2.0 Module SPI required for Microsoft Windows Server 2022 (host OS) max. 1x per system	PYBNTPM No TPM for WINSVR Either PYBTPM14 or PYBNTPM is required in ordering Windows Server 2022 OEM max. 1x per system
PYBCOM10 PY-COM10 Serial Port Option for a RS-232-C Serial Port Interface occupy PCI slot not allowed for Triple RAID configuration(PYR2547REN with PYBCBS103) max. 1x per system	
PYBFOP21 PY-FOP21 2U Front Bezel max. 1x per system	
Your Server is ready	

Date of change	Configurator revision	Folder / order code / description	What has been changed / comment	Name
31.08.2023	1,44	base	Remove the limitation about KIOKIA NVMe from PYR2547RAN	S. Fujita
30.08.2023	1,43	GFX	NVIDIA Subscription License is EOL	M. Takoaka
24.08.2023	1,42	GFX	Update RTX 6000 sechedule	M. Takoaka
24.08.2023	1,41	Thermal Rule, LAN_FC_IB	Adding MCX6-LX and P(N)225P, P(N)2100G on Thermal Rule, Adding E810-XXVDA2 FH on LAN_FC_IB	F. Kanega
08.08.2023	1.40	base, RAID	updated availability schedule	T. Sudou
07.08.2023	1,39	Energy Star	Add ES 4.0	J. ZHAO
04.08.2023	1,38	CPU	added Gold 6434(PYBCP66X4/PY-CP66X4)	S. Fujita
02.08.2023	1.37	HDD_SSD	added PDUAL CP300 PYBDMCP35L, PY-DMCP35	T. Sudou
01.08.2023	1,36	GFX	Add new perGPU NVIDIA AI Enterprise Subscription License and Support to GFX sheet	J.Liu
01.08.2023	1.35	Thermal Rule	added 'Update 3.5" base unit (including KIOXIA NVME SSD Rear bay ***)'	S. Fujita
01.08.2023	1,35	CPU	added PYBTKCPCA2/PYBTKCPCA3	S. Fujita
31.07.2023	1,34	HDD_SSD	revised the order codes for Kioxia CM7 15.36TB	Y.Sugiyama
31.07.2023	1,33	HDD_SSD	added the PCIe-SSD "Kioxia CM7 series" updated availability schedule for SED drives	Y.Sugiyama
21.07.2023	1,32	base	Revice release date for PYR2547RFN	S. Fujita
21.07.2023	1,32	RAID	Add "PRAID CP500i / PRAID EP520i / PRAID EP540i / PRAID EP580i" into PY-CBS108	S. Fujita
07.07.2023	1,31	GFX	Change the riser card for L4/A2	M. Takoaka
20.07.2023	1,3	LAN_FC_IB	Adding Broadcom 25/100G cards. Adding NVIDIA 25G cards. Updating to latest condition	F. Kanega
12.07.2023	1.29	base, RAID	updated availability schedule	T. Sudou
07.07.2023	1,28	GFX	Add RTX 6000	M. Takoaka
04.07.2023	1,27	RAM	Add memory Mode for HBM CPUs	J. ZHAO
30.06.2023	1,26	others	No TPM for WINSVR added	K. Nishihara
23.06.2023	1.25	PSU	Added the restriction of ATD option to 500W PSU.	J.Sugiyama
22.06.2023	1.24	Thermal Rule LAN_FC_IB	changed level for PRAID CP500i, EP520i, EP540i, EP580i level accroding to updated information Revised "PFC EP LPe36000/36002 2X 32GFC PCIe v4 LP" to "PFC EP LPe36000/36002 2X 64GFC PCIe v4 LP"	J. ZHAO
21.06.2023	1.23	RAID, Thermal Rule	added PSAS CP 2100-8i for vSAN PYBSC3MAWL	T. Sudou
16.06.2023	1,22	LAN_FC_IB	Change max adapter number of Broadcom 10G, P210P/P210TP. Low profile can be 4 and max num in total is 4 as well.	F.Kanega
13.06.2023	1.21	RAM	add Memory less Mode option	J. ZHAO
12.06.2023	1.20	base	Corrected description of PYBPRE648	J.Sugiyama
09.06.2023	1,19	LAN_FC_IB	Change target date of X710-T4L OCPv3 from 2Q to 3Q	F. Kanega
07.06.2023	1.18	GFX	L4/L40/H100 was released	M.Takaoka
06.06.2023	1.17	base	updated availability schedule	T. Sudou
05.06.2023	1.16	RAID	added Intel VROC (SATA RAID) added Intel VROC Upgrade Key PYBRLVR02, PY-RLVR02 updated availability schedule	T. Sudou
02.06.2023	1,15	HDD_SSD	updated the availability schedules	Y. Sugiyama
22.05.2023	1,14	HDD_SSD	removed the BC-SATA 20TB due to release cancel	Y. Sugiyama
18.05.2023	1.13	LAN_FC_IB	Change max number of Broadcom 1/10G PCIe cards from 4 to 2 due to no test of T50 configuration. This will be returned	F.Kanega
18.05.2023	1.12	GFX	The schedule for L40 and L4 is the correct one. In July	T. Sasaki
17.05.2023	1.11	GFX	Modified A2 and L4.	T. Sasaki
16.05.2023	1.10	RAM	Revised mistake on population of "12 DIMMs for 1CPU"	J. ZHAO
15.05.2023	1.09	backup, HDD_SSD	updated availability schedule	T. Sudou
11.05.2023	1.08	Thermal Rule	added PRAID CP500i, EP520i, EP540i, EP580i to PCIe card thermal level table.	J. Sugiyama
11.05.2023	1.08	base	updated PYR2547RGN for the rear bay connection of 16ch controller .	J. Sugiyama
11.05.2023	1.07	base, RAID	added PRAID CP500i, EP520i, EP540i, EP580i updated availability schedule	T. Sudou

10.05.2023	1.06	CPU	updated MCC CPU availability. (remove "will be available in 2Q.2023") updated HBM CPU/8470N availability. (add "will be available in 3Q.2023")	A. Iwata
24.04.2023	1.05	base	updated the diagram of HBA/RAID controller connection.	J. Sugiyama
21.04.2023	1.04	HDD_SSD	revised the max qty from 2x to 1x for M.2 SATA/M.2 PCIe. (when VROC is available, the max qty will be updated)	Y. Sugiyama
19.04.2023	1.03	RAID, HDD_SSD	updated availability schedules	T. Sudou
06.04.2023	1.02	Cover/RAM	corrected wrong description	Y. Narita
03.04.2023	1.01	HDD_SSD	added the description "available in CQ3 '23" for all SED drives due to dropping from 1st T50.	Y. Sugiyama
03.04.2023	1.0		1st release	J. Sugiyama