

PRIMERGY BX2560 M2

System configurator and order-information guide

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Instructions

This document contains basic product and configuration information that will enable you to configure your system via System-Architect.

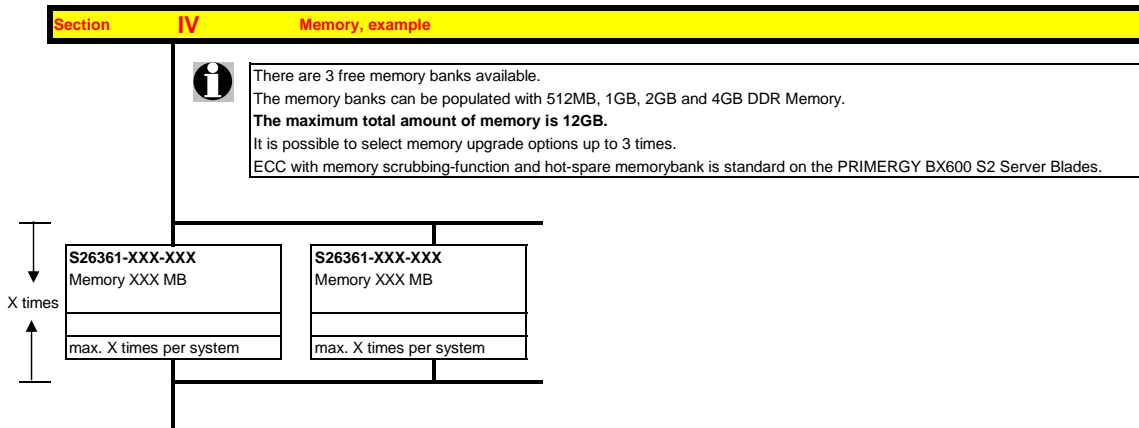
Only the tool "System-Architect" will ensure a fast and proper configuration of your PRIMERGY server or your complete PRIMERGY Rack system.

Please pay attention to the naming conventions: BX2560 M2 Dual Server Blade M2

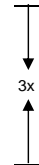
You can configure your individual PRIMERGY server in order to adjust your specific requirements.

The System configurator is divided into several chapters that are identical to the current price list and PC-/ System-Architect.

Please follow the lines. If there is a junction, you can choose which way or component you would like to take. Go through the configurator by following the lines from the top to the bottom.



In one chapter you can only select as many components (here 3x) as the arrow indicates.



Please note that there are information symbols which indicate necessary information.



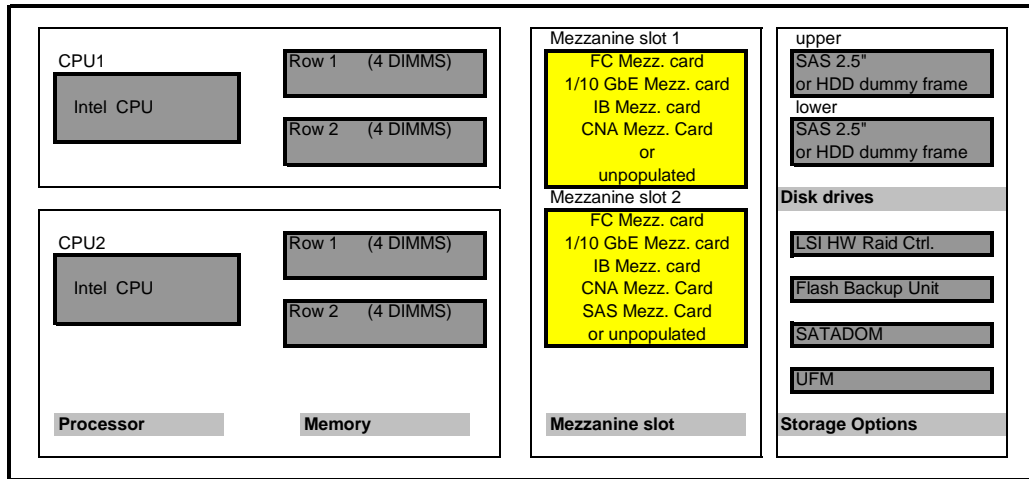
For further information see:

http://ts.fujitsu.com/products/standard_servers/index.html (internet)

https://partners.ts.fujitsu.com/com/order-supply/configurators/primergy_config/Pages/Currentconfigurators.aspx (extranet)

Prices and availability see price list and PC-/ System-Architect
Subject to change and errors excepted

Configuration diagram Dual Server Blade BX2560 M2



Key:

Included in basic unit Option

The population order for the CPU is: CPU1 first, then CPU2

The population order for the DIMMs: for each CPU, the DIMM row 1 (DIMMS 1A 1B 1C 1D) (DIMMS 1E 1F 1G 1H) first, then row 2 (DIMMs 2A 2B 2C 2D) (DIMMs 2E 2F 2G 2H)

D

Section X Dual Socket Server Blade BX2560 M2

Server Blade with:

- Dual INTEL E5-26xxv4 Processor Support
- The base units with INTEL C610 chipset
- onboard controller for SATA
- 16 DIMM sockets, organized in 2 DPC for each CPU (8 DIMMs per CPU)
- 1x Dual channel 10 Gbit Ethernet CNA controller on-board
- 2 bays for optional hot plug 2.5" SATA/ SAS HDD/ SSD or PCIe SSD
- iRMC S4 on-board
- Special connector for Y-cable (4x USB, 1 x serial 1x VGA).

The BX2560 M2 Server Blade can be installed max. 18x in the BX900 System Unit
The BX2560 M2 Server Blade can be installed max. 8x in the BX400 System Unit

18x

S26361-K1561-V200
 PY BX2560 M2 Dual Server Blade
 up to 2x 2.5" hot plug drives.
 Dual Server Blade Base Unit without CPU and without memory modules!
 For CPU and Memory configuration see below
 Max. 18x per BX900 System Unit.
 Max. 8x per BX400 System Unit.

S26361-F4478-L2
 PY BX900 Y-Cable frontside for KVM connection to Server Blade
 2x USB, 1x VGA, 1x serial

S26361-F3552-E6
 TPM 1.2 Module
 Trusted Platform Module on motherboard
 PY TPM Module
 Be aware of import restrictions!
 Max. 1x per Server Blade.

S26361-F3552-E10
 TPM 2.0 Module
 Trusted Platform Module on motherboard
 PY TPM Module
 Be aware of import restrictions!
 Max. 1x per Server Blade.

S26361-F3552-L6
 TPM 1.2 Module add-on kit for later integration (loose delivery)
 Trusted Platform Module on Motherboard

S26361-F3552-L10
 TPM 2.0 Module add-on kit for later integration (loose delivery)
 Trusted Platform Module on Motherboard

S26361-F1790-E310
 embedded Lifecycle Manager (eLCM)
 SD-Card (min. Class 10)
 SD-Card connected to iRMC to support e.g. Backup/Restore function, eLCM, etc.
 Max. 1x per Server Blade.

S26361-F3552-L23
 TPM 1.2 Module add-on kit for later integration (loose delivery)
 Trusted Platform Module on Motherboard

Following USB Components are available	
1) USB DVD SM / Blu-Ray External Blu-Ray Drive (as soon as available)	S26341-F103-L120
2) USB Mouse: Optical Wheel Mouse Tilt USB/PS2	S26381-K415-L100
3) USB Memorybird: MyUSBS A910 8GB, MLC Flash	S26391-F6048-L208
MyUSBS A910 16GB, MLC Flash	S26391-F6048-L216

S26361-F2749-E1
 Service for Server Blade installation in the System Unit.
Hereby the BX900 S1 will be delivered completely configured and tested with Server Blades integrated.
 This order number must be in the same order as the System Unit itself.
 min. 1x per System Unit; max. 18x per System Unit; max. 1x per Server Blade

S26361-F2749-E2
 Server Blade individually packed / delivered.
The Server Blade is not built in a BX900 S1, it is separately tested and delivered.
 Contains ServerStart CD
 max. 1x per Server Blade

E

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Section XI Processor

There are 2 processor sockets available.
The first socket must always be equipped with the first CPU which can be selected via configurator
Two processors with different clock frequencies are not possible

i For CPU types E5-2637v4, E5-2643v4, E5-2667v4, E5-2697v4, E5-2697Av4 and E5-2699v4 a larger heat sink is necessary for first CPU due to thermal conditions.
This leads to a limitation of CPU1's memory array to 6 DIMM modules.
This follows the memory array of a single CPU configuration is limited to 6 DIMM modules and the memory array of a dual CPU configuration is limited to 14 DIMM modules.

Max. two CPU's can be selected per basic unit	
One of following CPU's can be selected once (only as first CPU) for an orderable basic unit	
Optional second CPU has to be the same type like the first CPU	
Xeon E5-2600v4 (R) Basic - 1x 64-bit Intel Xeon (15MB Smart Cache) 1866 MHz DDR4 Bus; 6.4 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2603v4 6C/6T 1.70GHz 15MB 6.4GT/s 1866MHz 85W	S26361-F3933-E103
Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W	S26361-F3933-E109
Xeon E5-2600v4 (R) Standard - 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 8.0 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W	S26361-F3933-E120
Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W	S26361-F3933-E130
Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W	S26361-F3933-E140
Xeon E5-2600v4 (R) Advanced - 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W	S26361-F3933-E150
Xeon E5-2660v4 12C/24T 2.00GHz 30MB 9.6GT/s 2400MHz 105W	S26361-F3933-E160
Xeon E5-2680v4 14C/28T 2.40GHz 35MB 9.6GT/s 2400MHz 120W	S26361-F3933-E180
Xeon E5-2690v4 14C/28T 2.60GHz 35MB 9.6GT/s 2400MHz 135W	S26361-F3933-E190
Xeon E5-2600v4 (R) Frequency Optimized - 1x 64-bit Intel Xeon (10-20MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 8.0 & 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 105W	S26361-F3933-E123
Xeon E5-2637v4 4C/8T 3.50GHz 10MB 9.6GT/s 2400MHz 135W	S26361-F3933-E137
Xeon E5-2643v4 6C/12T 3.40GHz 15MB 9.6GT/s 2400MHz 135W	S26361-F3933-E143
Xeon E5-2667v4 8C/16T 3.20GHz 20MB 9.6GT/s 2400MHz 135W	S26361-F3933-E167
Xeon E5-2600v4 (R) High Core Count - 1x 64-bit Intel Xeon (35-40MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2683v4 16C/32T 2.10GHz 40MB 9.6GT/s 2400MHz 120W	S26361-F3933-E183
Xeon E5-2695v4 18C/36T 2.10GHz 45MB 9.6GT/s 2400MHz 120W	S26361-F3933-E195
Xeon E5-2697v4 18C/36T 2.30GHz 45MB 9.6GT/s 2400MHz 145W	S26361-F3933-E197
Xeon E5-2697Av4 16C/32T 2.60GHz 40MB 9.6GT/s 2400MHz 145W	S26361-F3933-E191
Xeon E5-2698v4 20C/40T 2.20GHz 50MB 9.6GT/s 2400MHz 135W	S26361-F3933-E198
Xeon E5-2699v4 22C/44T 2.20GHz 55MB 9.6GT/s 2400MHz 145W	S26361-F3933-E199
Xeon E5-2699Av4 22C/44T 2.40GHz 55MB 9.6GT/s 2400MHz 145W	S26361-F3933-E192
Xeon E5-2600v4 (R) Low Power - 1x 64-bit Intel Xeon (20/30MB Smart Cache); Hyper-Threading (HT); 2133/2400 MHz DDR4 Bus; 8.0/9.6 GT/s QPI Bus occupies socket for one CPU	
Xeon E5-2630Lv4 10C/20T 1.80GHz 25MB 8.0GT/s 2133MHz 55W	S26361-F3933-E131
Xeon E5-2650Lv4 14C/28T 1.70GHz 35MB 9.6GT/s 2400MHz 65W	S26361-F3933-E151



Max. DDR4 Bus Speed depends on:
- max. DDR4 Bus Speed from the CPU and
- max. DDR4 Memory Speed and
- max. memory modules on one memory channel
For CPUs which do not offer 1866 MHz support,
(Basic, Standard & Low Power class),
System Architect will not offer memory modules
supporting this frequency.

E1

E1

S26361-F3849-E100
 Cooling Kit 2nd CPU

One of following CPU's has to be selected as second CPU
 Optional second CPU has to be the same type like the first CPU

Xeon E5-2600v4 (R) Basic		
· 1x 64-bit Intel Xeon (15MB Smart Cache) 1866 MHz DDR4 Bus; 6.4 GT/s QPI Bus occupies socket for one CPU		
Xeon E5-2603v4 6C/6T 1.70GHz 15MB 6.4GT/s 1866MHz 85W		S26361-F3933-E103
Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W		S26361-F3933-E109
Xeon E5-2600v4 (R) Standard		
· 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 2133 MHz DDR4 Bus; 8.0 GT/s QPI Bus occupies socket for one CPU		
Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W		S26361-F3933-E120
Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W		S26361-F3933-E130
Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W		S26361-F3933-E140
Xeon E5-2600v4 (R) Advanced		
· 1x 64-bit Intel Xeon (25/30MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU		
Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W		S26361-F3933-E150
Xeon E5-2660v4 12C/24T 2.00GHz 30MB 9.6GT/s 2400MHz 105W		S26361-F3933-E160
Xeon E5-2680v4 14C/28T 2.40GHz 35MB 9.6GT/s 2400MHz 120W		S26361-F3933-E180
Xeon E5-2690v4 14C/28T 2.60GHz 35MB 9.6GT/s 2400MHz 135W		S26361-F3933-E190
Xeon E5-2600v4 (R) Frequency Optimized		
· 1x 64-bit Intel Xeon (10-20MB Smart Cache); Hyper-Threading (HT); 2133 & 2400 MHz DDR4 Bus; 8.0 & 9.6 GT/s QPI Bus occupies socket for one CPU		
Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 105W		S26361-F3933-E123
Xeon E5-2637v4 4C/8T 3.50GHz 10MB 9.6GT/s 2400MHz 135W		S26361-F3933-E137
Xeon E5-2643v4 6C/12T 3.40GHz 15MB 9.6GT/s 2400MHz 135W		S26361-F3933-E143
Xeon E5-2667v4 8C/16T 3.20GHz 20MB 9.6GT/s 2400MHz 135W		S26361-F3933-E167
Xeon E5-2600v4 (R) High Core Count		
· 1x 64-bit Intel Xeon (35-40MB Smart Cache); Hyper-Threading (HT); 2400 MHz DDR4 Bus; 9.6 GT/s QPI Bus occupies socket for one CPU		
Xeon E5-2683v4 16C/32T 2.10GHz 40MB 9.6GT/s 2400MHz 120W		S26361-F3933-E183
Xeon E5-2695v4 18C/36T 2.10GHz 45MB 9.6GT/s 2400MHz 120W		S26361-F3933-E195
Xeon E5-2697v4 18C/36T 2.30GHz 45MB 9.6GT/s 2400MHz 145W		S26361-F3933-E197
Xeon E5-2697Av4 16C/32T 2.60GHz 40MB 9.6GT/s 2400MHz 145W		S26361-F3933-E191
Xeon E5-2698v4 20C/40T 2.20GHz 50MB 9.6GT/s 2400MHz 135W		S26361-F3933-E198
Xeon E5-2699v4 22C/44T 2.20GHz 55MB 9.6GT/s 2400MHz 145W		S26361-F3933-E199
Xeon E5-2699Av4 22C/44T 2.40GHz 55MB 9.6GT/s 2400MHz 145W		S26361-F3933-E192
Xeon E5-2600v4 (R) Low Power		
· 1x 64-bit Intel Xeon (20/30MB Smart Cache); Hyper-Threading (HT); 2133/2400 MHz DDR4 Bus; 8.0/9.6 GT/s QPI Bus occupies socket for one CPU		
Xeon E5-2630Lv4 10C/20T 1.80GHz 25MB 8.0GT/s 2133MHz 55W		S26361-F3933-E131
Xeon E5-2650Lv4 14C/28T 1.70GHz 35MB 9.6GT/s 2400MHz 65W		S26361-F3933-E151



Separate orderable CPU upgrade kits

S26361-F3933-L603	Xeon E5-2603v4 6C/6T 1.70GHz 15MB 6.4GT/s 1866MHz 85W
S26361-F3933-L609	Xeon E5-2609v4 8C/8T 1.70GHz 20MB 6.4GT/s 1866MHz 85W
S26361-F3933-L620	Xeon E5-2620v4 8C/16T 2.10GHz 20MB 8.0GT/s 2133MHz 85W
S26361-F3933-L630	Xeon E5-2630v4 10C/20T 2.20GHz 25MB 8.0GT/s 2133MHz 85W
S26361-F3933-L640	Xeon E5-2640v4 10C/20T 2.40GHz 25MB 8.0GT/s 2133MHz 90W
S26361-F3933-L650	Xeon E5-2650v4 12C/24T 2.20GHz 30MB 9.6GT/s 2400MHz 105W
S26361-F3933-L623	Xeon E5-2623v4 4C/8T 2.60GHz 10MB 8.0GT/s 2133MHz 105W

E2

E2

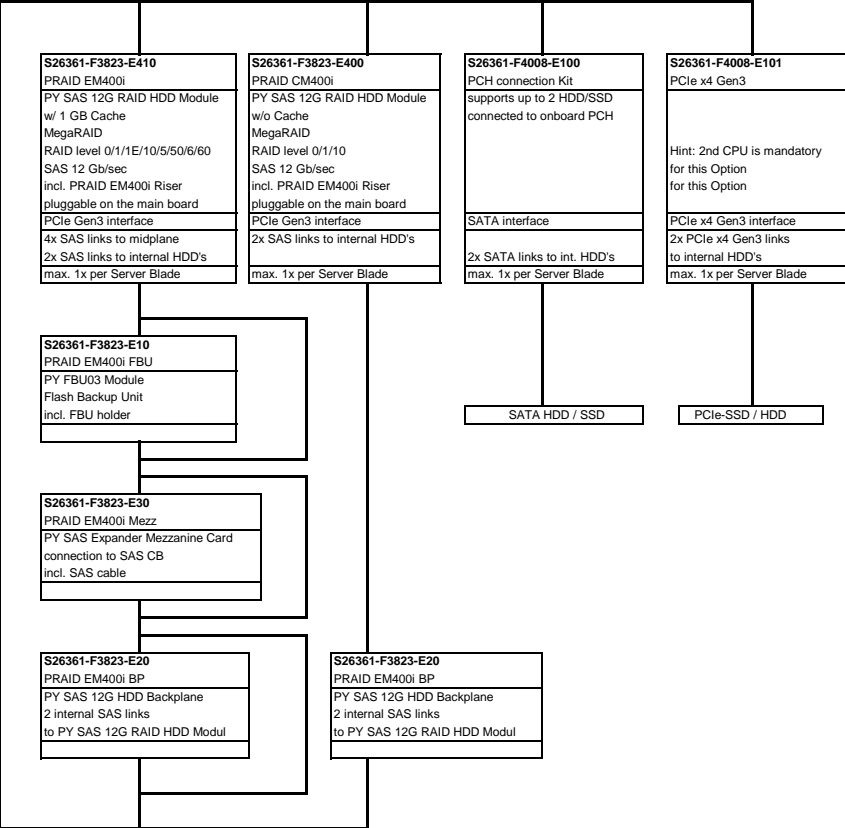
Section XII Storage / RAID Functionality on Server Blade

i One UFM can be installed independent from the disk drives
 Remark: UFM is part of the VMWare Embedded solution (S26361-F2341-E431, -E432, -E433)

i Configuration Hint - Second CPU needed for PCIe x4 Gen3 SSD/HDD Option
 The PCIe HDD/SSD Option is only supported if the second CPU is installed

i Please refer the following configuration matrix for your desired configuration.

Controller Device	int. HDD/SSD	ext. HDD/SSD	PCIe	PCH	PCH	PRAID EM400i	PRAID EM400i	PRAID EM400i	PRAID CM400i
			PCIe	SATA	SATA	SAS/SATA	SAS/SATA	SAS/SATA	SAS/SATA
BTO Device									
PRAID EM400i	S26361-F3823-E410		no	no	mandatory	mandatory	mandatory	no	
PRAID CM400i	S26361-F3823-E400		no	no	no	no	no	mandatory	
PCH connection Kit	S26361-F4008-E100		no	mandatory	mandatory	no	no	no	
PCIe x4 Gen3	S26361-F4008-E101		mandatory	no	no	no	no	no	
PRAID EM400i FBU	S26361-F3823-E10		no	no	optional	optional	optional	no	
PRAID EM400i Mezz	S26361-F3823-E30		no	no	mandatory	mandatory	no	no	
PRAID EM400i BP	S26361-F3823-E20		no	no	no	no	mandatory	mandatory	



G



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.

1 - 2x	Solid State Disk, Mainstream Endurance*		*) SSD Mainstream Endurance 10DWPD over 5y
	SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray 400GB, Enterprise Performance S26361-F5608-E400 800GB, Enterprise Performance S26361-F5608-E800 1.6TB, Enterprise Performance S26361-F5608-E160 max. 2x per system		
1 - 2x	Solid State Disk, Mixed Use*		*) SSD Mixed use (Read/Write) 3DWPD over 5y
	SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray 480GB, Mixed use (Read / Write) S26361-F5614-E480 960GB, Mixed use (Read / Write) S26361-F5614-E960 1.92TB, Mixed use (Read / Write) S26361-F5614-E192 3.84TB, Mixed use (Read / Write) S26361-F5614-E384 400GB, Mixed use (Read / Write) S26361-F5666-E400 800GB, Mixed use (Read / Write) S26361-F5666-E800 1.6TB, Mixed use (Read / Write) S26361-F5666-E160 3.2TB, Mixed use (Read / Write), 2.3DWPD (5y) S26361-F5666-E320 max. 2x per system		
1 - 2x	Solid State Disk, Read-Intensive Endurance**		*) SSD Read-Intensive Endurance 1DWPD over 5y
	SSD SAS 12Gb/s 2.5" with hot plug/hot replace tray 480GB, Read-Intensive S26361-F5617-E480 960GB, Read-Intensive S26361-F5617-E960 1.92TB, Read-Intensive S26361-F5617-E192 3.84TB, Read-Intensive S26361-F5617-E384 480GB, Read-Intensive S26361-F5670-E480 960GB, Read-Intensive S26361-F5670-E960 1.92TB, Read-Intensive S26361-F5670-E192 3.84TB, Read-Intensive S26361-F5670-E384 max. 2x per system		
1 - 2x	Solid State Disk, Mixed Use*		*) SSD Mixed use (Read/Write) 3DWPD over 5y
	SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray 240GB, Mixed use (Read / Write) S26361-F5675-E240 480GB, Mixed use (Read / Write) S26361-F5675-E480 960GB, Mixed use (Read / Write) S26361-F5588-E960 1.92TB, Mixed use (Read / Write) S26361-F5588-E192 max. 2x per system		
1 - 2x	Solid State Disk, Read-Intensive Endurance**		*) SSD Read-Intensive Endurance 0.3DWPD over 5y
	SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray 120GB, Read-Intensive S26361-F5525-E120 800GB, Read-Intensive S26361-F5525-E800 max. 2x per system		
1 - 2x	Solid State Disk, Read-Intensive Endurance**		*) SSD Read-Intensive Endurance 0.3DWPD over 5y
	SSD SATA 6Gb/s 2.5" S4600 with hot plug/hot replace tray 240GB, Mixed Use (3.1DWPD/5y) S26361-F5694-E240 480GB, Mixed Use (3.3DWPD/5y) S26361-F5694-E480 960GB, Mixed Use (3.0DWPD/5y) S26361-F5694-E960 1.92TB, Mixed Use (3.0DWPD/5y) S26361-F5694-E192 max. 2x per system		
1 - 2x	Solid State Disk, Read-Intensive Endurance**		*) SSD Read-Intensive Endurance 0.3DWPD over 5y
	SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray (H-P) 240GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E240 480GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E480 800GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E800 960GB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E960 1.2TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E120 1.6TB, Enterprise (EP), Read-Intensive (1DWPD/5y) S26361-F5632-E160 max. 2x per system		
1 - 2x	Solid State Disk, Read-Intensive Endurance**		*) SSD Read-Intensive Endurance 0.3DWPD over 5y
	SSD SATA 6Gb/s 2.5" with hot plug/hot replace tray (H-P) 240GB, Enterprise (EP), Read-Intensive (1.4DWPD/5y) S26361-F5701-E240 480GB, Enterprise (EP), Read-Intensive (0.9DWPD/5y) S26361-F5701-E480 960GB, Enterprise (EP), Read-Intensive (0.9DWPD/5y) S26361-F5701-E960 1.92TB, Enterprise (EP), Read-Intensive (0.9DWPD/5y) S26361-F5701-E192 3.84TB, Enterprise (EP), Read-Intensive (1.0DWPD/5y) S26361-F5701-E384 7.68TB, Enterprise (EP), Read-Intensive (0.5DWPD/5y) S26361-F5701-E768 max. 2x per system		
1 - 2x	PCIe3.0 Solid State Disk		*) SSD Read-Intensive Endurance 0.3DWPD over 5y
	SSD PCIe3.0 2.5" with hot plug/hot replace tray 1.6TB, NVMe, Mixed Use (3.0DWPD/5y) S26361-F5648-E160 3.2TB, NVMe, Mixed Use (3.1DWPD/5y) S26361-F5648-E320 max. 2x per system		

1x	<table border="1"> <tr> <th colspan="2">SSD SATA DOM</th> </tr> <tr> <td>64GB, 0.14 DWPD over 5y</td> <td>S26361-F5619-E64</td> </tr> <tr> <td>128GB, 0.13 DWPD over 5y</td> <td>S26361-F5619-E128</td> </tr> <tr> <td colspan="2">SATADOM is designed for use as a boot drive with the Endurance Spec. above.</td> </tr> <tr> <td colspan="2">Vmware not supported.</td> </tr> <tr> <td colspan="2">max. 1x per system</td> </tr> </table>	SSD SATA DOM		64GB, 0.14 DWPD over 5y	S26361-F5619-E64	128GB, 0.13 DWPD over 5y	S26361-F5619-E128	SATADOM is designed for use as a boot drive with the Endurance Spec. above.		Vmware not supported.		max. 1x per system																													
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1-2x	<table border="1"> <tr> <th colspan="2">HDD SATA 6Gb/s 2.5" hot plug/hot replace</th> </tr> <tr> <td>1TB 7.200rpm, <9.5ms, 64MB Cache, 512n</td> <td>S26361-F3816-E100</td> </tr> <tr> <td>2TB 7.200rpm, 128MB Cache, 512n</td> <td>S26361-F3956-E200</td> </tr> <tr> <td>1TB 7.200rpm, 128MB Cache, 512e</td> <td>S26361-F3907-E100</td> </tr> <tr> <td>2TB 7.200rpm, 128MB Cache, 512e</td> <td>S26361-F3907-E200</td> </tr> <tr> <td colspan="2">512e drives are not supported with VMware 6.0 or earlier</td> </tr> <tr> <td colspan="2">max. 2x per system</td> </tr> </table>	HDD SATA 6Gb/s 2.5" hot plug/hot replace		1TB 7.200rpm, <9.5ms, 64MB Cache, 512n	S26361-F3816-E100	2TB 7.200rpm, 128MB Cache, 512n	S26361-F3956-E200	1TB 7.200rpm, 128MB Cache, 512e	S26361-F3907-E100	2TB 7.200rpm, 128MB Cache, 512e	S26361-F3907-E200	512e drives are not supported with VMware 6.0 or earlier		max. 2x per system																											
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Section III Memory



- There are 8 memory slots per CPU for max.
512GB LRDIMM (8x 64GB 4R)
256GB RDIMM (8x 32GB 2R)
=> max. 1024GB for two CPU's (512GB per CPU), using LRDIMM
=> max. 2.048GB for two CPUs, using upcoming 8Rx4 LRDIMM technology with 128GB per module

- The memory area is divided into 4 channels per CPU with 2 slots per channel
- Slot 1 of each channel belongs to memory bank 1, slot 2 belongs to memory bank 2

Registered and Load Reduced DIMMs can be selected
No mix of registered and load reduced modules is allowed.
Memory will be operated at 1.2V.
Depending on the CPU following memory speeds will be reached:
In a single DIMM per channel configuration 21400MHz will be supported
This is also valid for dual LRDIMM configurations (2400MHz)
In a dual RDIMM configuration 2400MHz will be supported
SDDC (Chipkill) is supported for registered and load reduced x4 organized memory modules

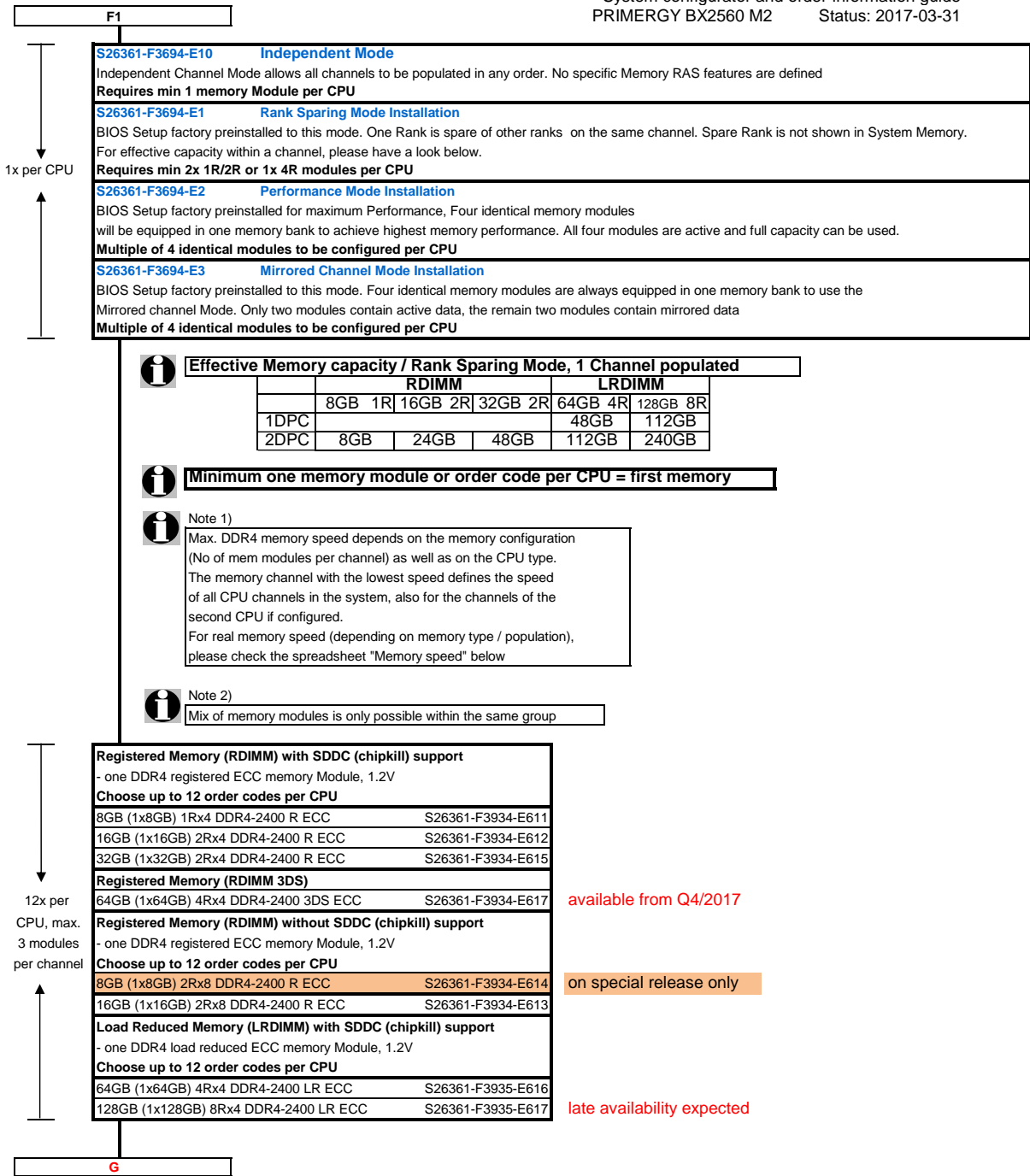
1.) In the "Independent Channel Mode" is following configuration possible
Channels can be populated in any order in Independent Channel Mode. All four channels may be populated in any order and have no matching requirements. All channels must run at the same interface frequency but individual channels may run at different DIMM timings (RAS latency, CAS latency, and so forth)
No mix of registered and load reduced modules is allowed.

2.) "Rank Sparing Mode" configuration
Within a memory channel, one rank is a spare of the other ranks.
The Spare Rank is held in reserve and is not available as system memory
For the effective memory capacity, please refer to the spreadsheet below.
The BIOS is set to the rank sparing setting.
Minimum configuration is: 2x 1R, 2x 2R or 1x4R DDR4 module per channel

3.) "Performance Mode" configuration
In this configuration, the memory module population ex factory is spread across all channels.
The BIOS is set to the max. performance for memory.
Minimum configuration is four identical modules per CPU

4.) In the "Mirrored Channel Mode" is following configuration possible
Each memory bank can optionally be equipped with four registered or load reduced DDR4 modules
In each memory bank channel A and B / C and D of CPU 1 or channel E and F / G and H of CPU 2 have to be equipped with identical modules for mirrored channel mode.
In channel B / D is always the mirrored memory of channel A / C of CPU 1
In channel F / H is always the mirrored memory of channel E / G of CPU 2
Minimum configuration is: 4x identical modules

F1



Memory Configuration PRIMERGY BX2560 M2

Each CPU offers 8 Slots for DDR4 Memory Modules organised in **2 Banks and 4 Channels**.

If you need more than 8 Slots you have to configure the 2nd CPU.

Depending on the amount of memory configured you can decide between 4 basic modes of operation (see explanation below).

There are 2 different kinds of DDR4 Memory Modules available: RDIMM and LRDIMM

Mix of RDIMM and LRDIMM is not allowed.

Mode	Configuration	RDIMM	RDIMM	Application
		x8	x4	
SDDC (chipkill) support	any	no	yes	detect multi-bit errors
Independant Channel Mode	1, 2 or 3 Modules per Bank	yes	yes	offers max. flexibility, upgradeability, capacity
Mirrored Channel Mode *)	4 identical Modules / Bank	no	yes	offers maximum security
Performance Mode	4 identical Modules / Bank	yes	yes	offers maximum performance and capacity
Rank Sparing Mode *)	min. 2 Ranks / Channel	no	yes	balances security and capacity

*) For the delivery ex works the system will be prepared with dedicated BIOS setting.

Capacity	Configuration	RDIMM	LRDIMM	Notes
Min. Memory per CPU	1 Module / CPU	1x8GB	1x64GB	with one CPU
Max. Memory per CPU	8/12 Modules / CPU	8x32GB	8x128GB	with one CPU
Max. Memory per System	16/24 Modules / System	512GB	2.048GB	if second CPU is configured

Memory-Speed:

Max. DDR4 memory speed depends on the memory configuration on one memory channel and the speed of the CPU

The memory channel with the lowest speed defines the speed of all CPU channels in the system

Mem. Speed provided by CPU	Real maximum memory-bus speed depending on CPU type, memory configuration (DPC) and voltage setting (BIOS)			
	RDIMM 2400MHz		LRDIMM 2400MHz	
	1.2V		1.2V	
Voltage setting (BIOS)	1.2V		1.2V	
	1	2	1	2
	DPC	DPC	DPC	DPC
CPU with 2400MHz DDR4 Bus	2400	2400	2400	2400
CPU with 2133MHz DDR4 Bus	2133	2133	2133	2133
CPU with 1866MHz DDR4 Bus	1866	1866	1866	1866

1R - Single Rank 4R - Quad Rank
 2R - Dual Rank 8R - Eight Rank

1DPC = 1 DIMM per Channel
 2DPC = 2 DIMM per Channel

Configuration hints:

- The memory sockets on the systemboard offer a color coding:

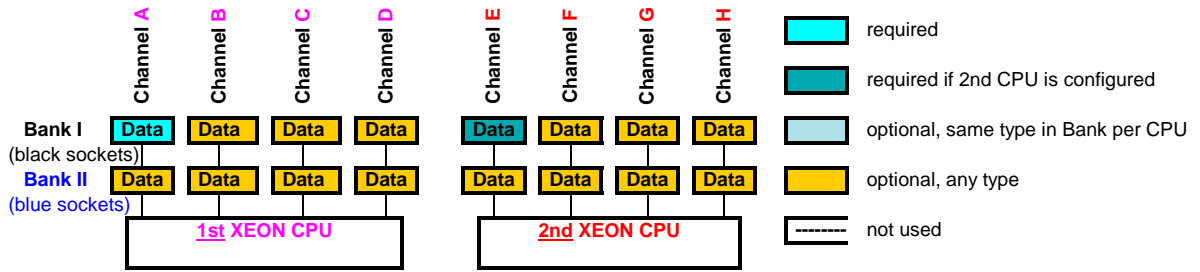
Bank I black sockets
Bank II blue sockets

- A so called Bank consists of 1 memory module on every Channel available on one CPU (examples see below)

Bank I on CPU 1/2 up to 4 memory modules connected to Channel A - H on the 1st/2nd CPU
Bank II on CPU 1/2 up to 4 memory modules connected to Channel A - E on the 1st/2nd CPU

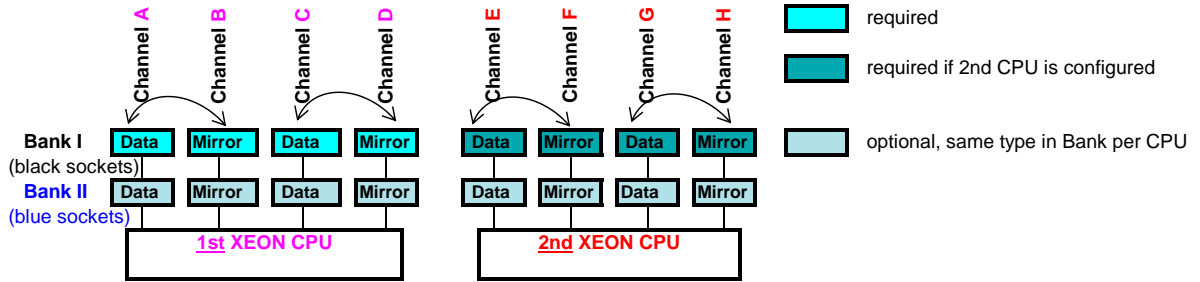
- See below and next page for a detailed descriptions of the memory configuration supported.

1. Independent Channel Mode



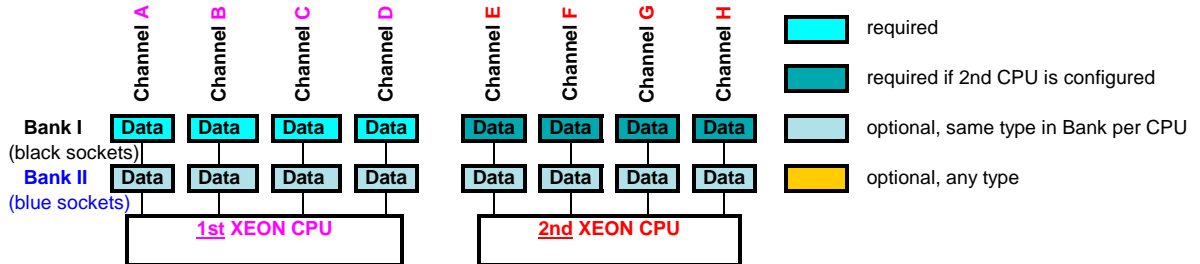
Independent Channel Mode allows all channels to be populated in any order
 Can run with differently rated DIMMs and use the settings of the slowest DIMM installed in the system

2. Mirrored Channel Mode



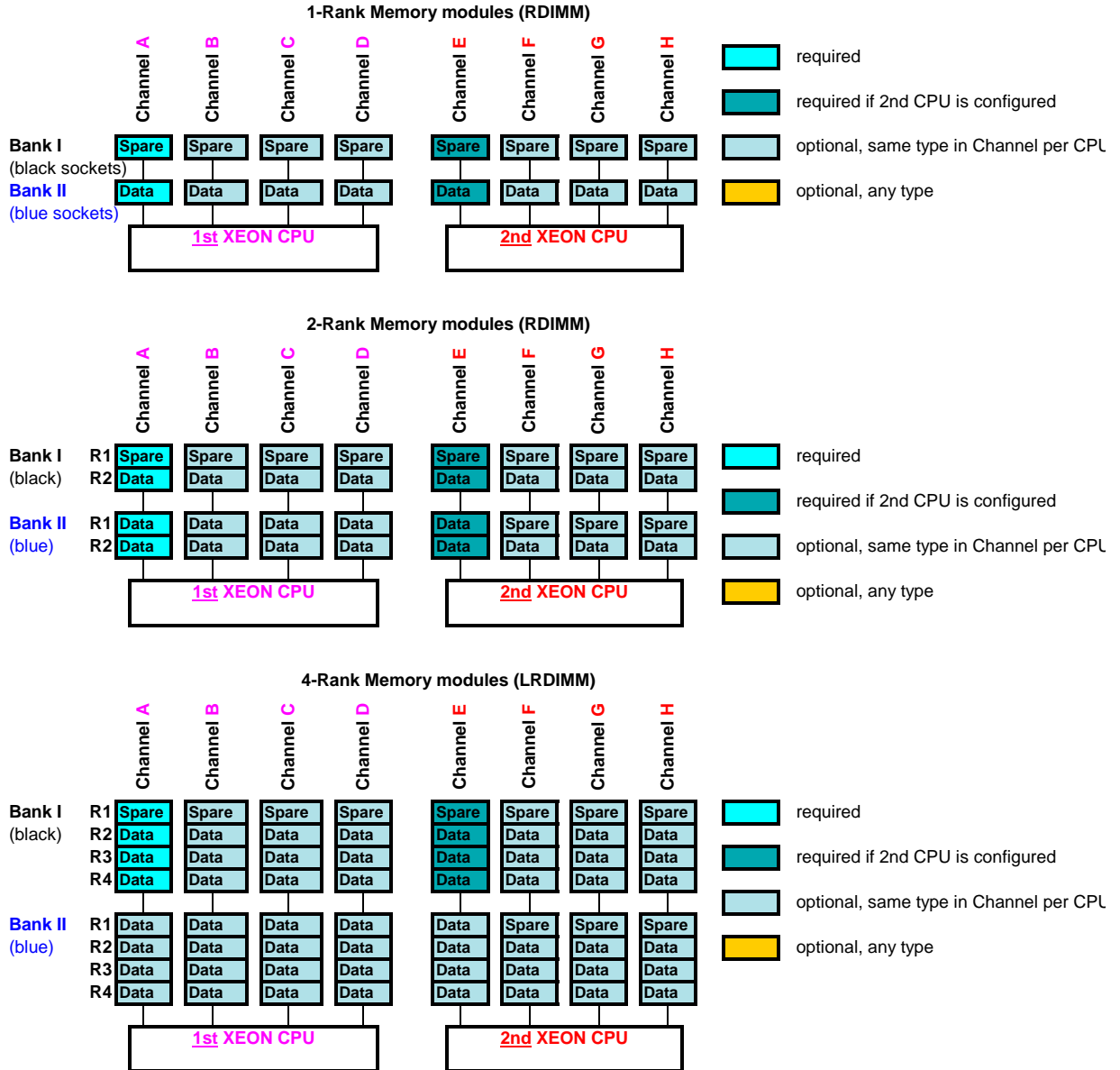
Mirrored Channel Mode requires identical modules on channel A,B, C, D (1st CPU) or channel E, F, G and H (2nd CPU)
 50% of the capacity is used for the mirror => the available memory for applications is only half of the installed memory
 If this mode is used, a multiple of 4 identical modules has to be ordered.

3. Performance Channel Mode



Performance Channel Mode requires identical modules on all channels of each Bank per CPU.
 If this mode is used, a multiple of 4 identical modules has to be ordered.

4. Rank Sparing Mode



Rank Sparing Mode requires identical modules (same capacity and technology) within the same channel.
 The available memory for applications will vary depending on configuration. Please refer to the spreadsheet above
 "Effective Memory capacity with active Rank Sparing Mode". Population rule for Rank sparing mode is to achieve max.
 available memory, e.g. 8 DIMMs will be spread across two channels, each with 4DPC

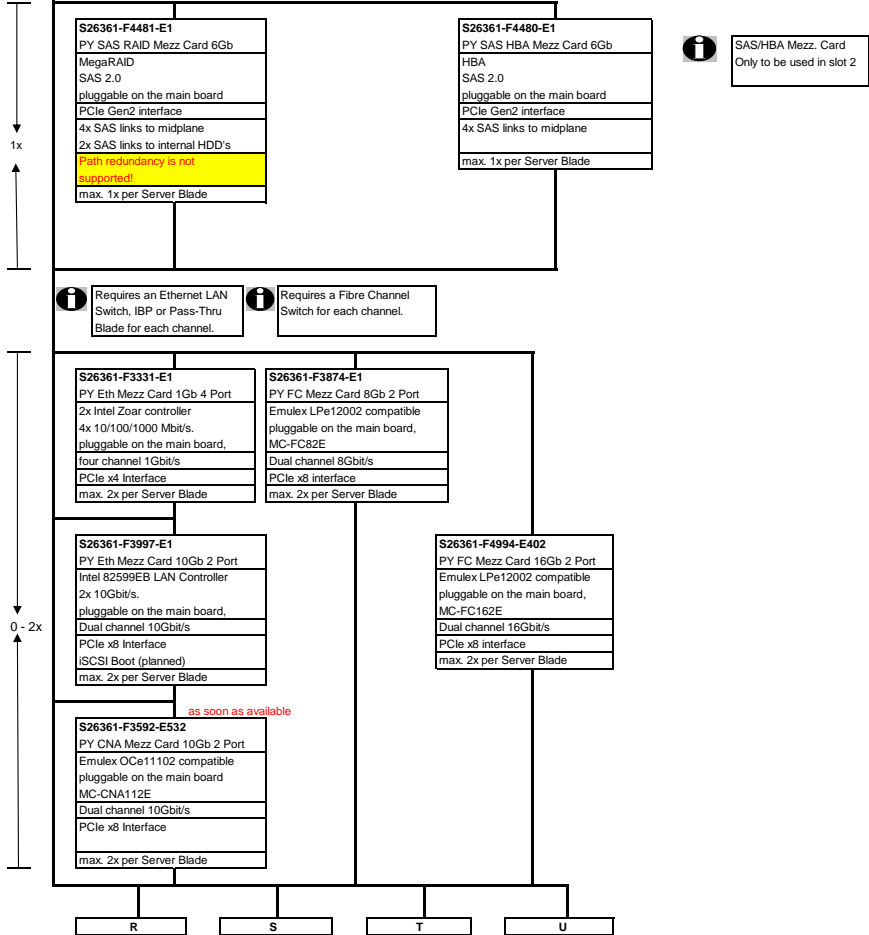
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Section XIV iRMC S4, Graphics

- i** Graphic Controller is part of the onboard Management Controller iRMC S4. Other graphics are not possible.
- i** The iRMC S4 advanced pack is included in the system delivery. A corresponding license order is not necessary.

Section XV Mezzanine cards for Dual Socket Server Blade

i The Dual Server Blade supports the following optional mezzanine cards. A Fibre Channel Switch / Pass-Thru blade, an Ethernet LAN Switch / Pass-Thru blade, respectively an InfiniBand switch is required in the system unit for this functionality.



i SAS/HBA Mezz. Card
Only to be used in slot 2

- i** Requires an Ethernet LAN Switch, IBP or Pass-Thru Blade for each channel.
- i** Requires a Fibre Channel Switch for each channel.

- i** R: see separate BX900 System Unit configurator, sheet "1 GB Ethernet"
- S: see separate BX900 System Unit configurator, sheet "10 GB Ethernet"
- T: see separate BX900 System Unit configurator, sheet "Fibre Channel"
- V: see separate BX900 System Unit configurator, sheet "CB SAS"

https://partners.is.fujitsu.com/com/order-supply/configurators/primergy_config/current/Pages/default.aspx

