



PRIMEQUEST 3800E2

System Configuration Guide

July. 2019 Ver. 2.0

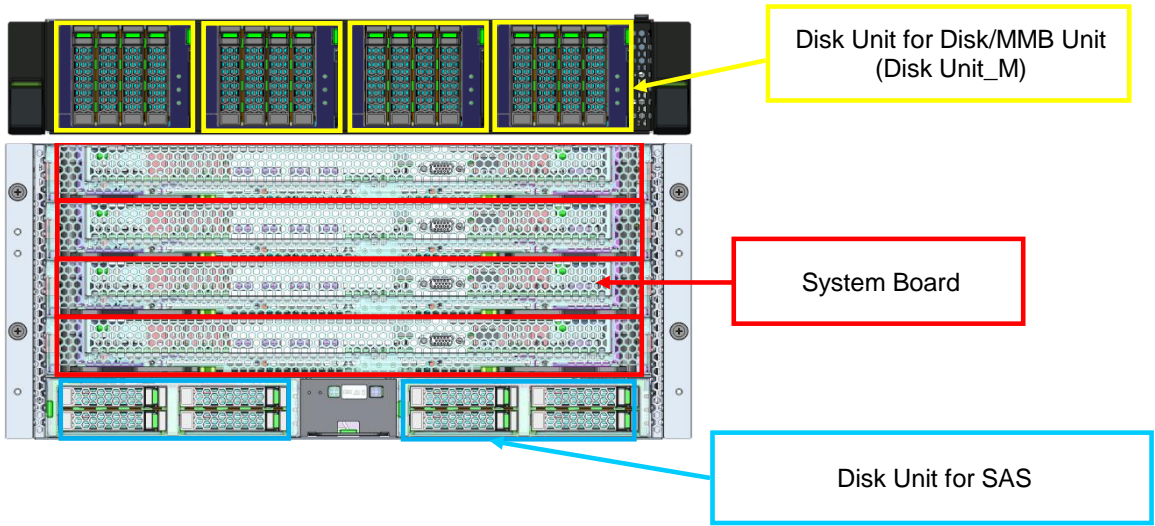
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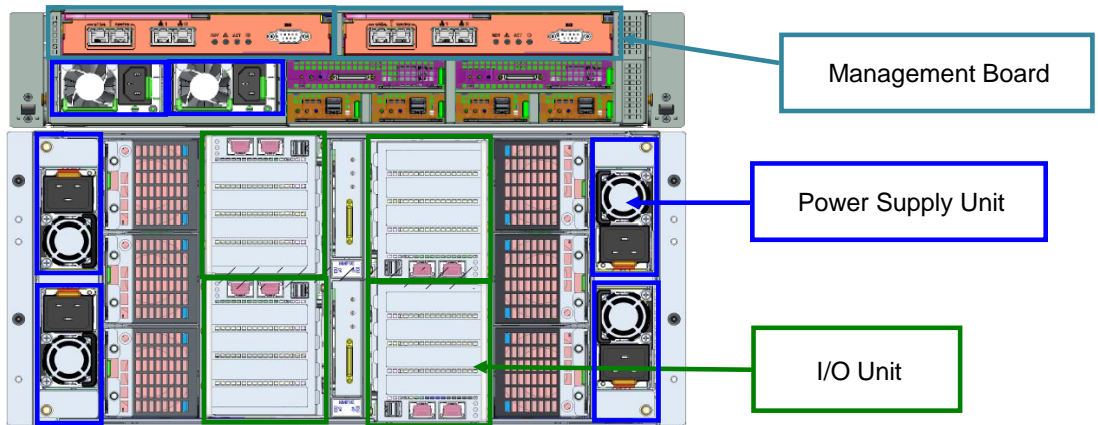
1. Overview

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Front side

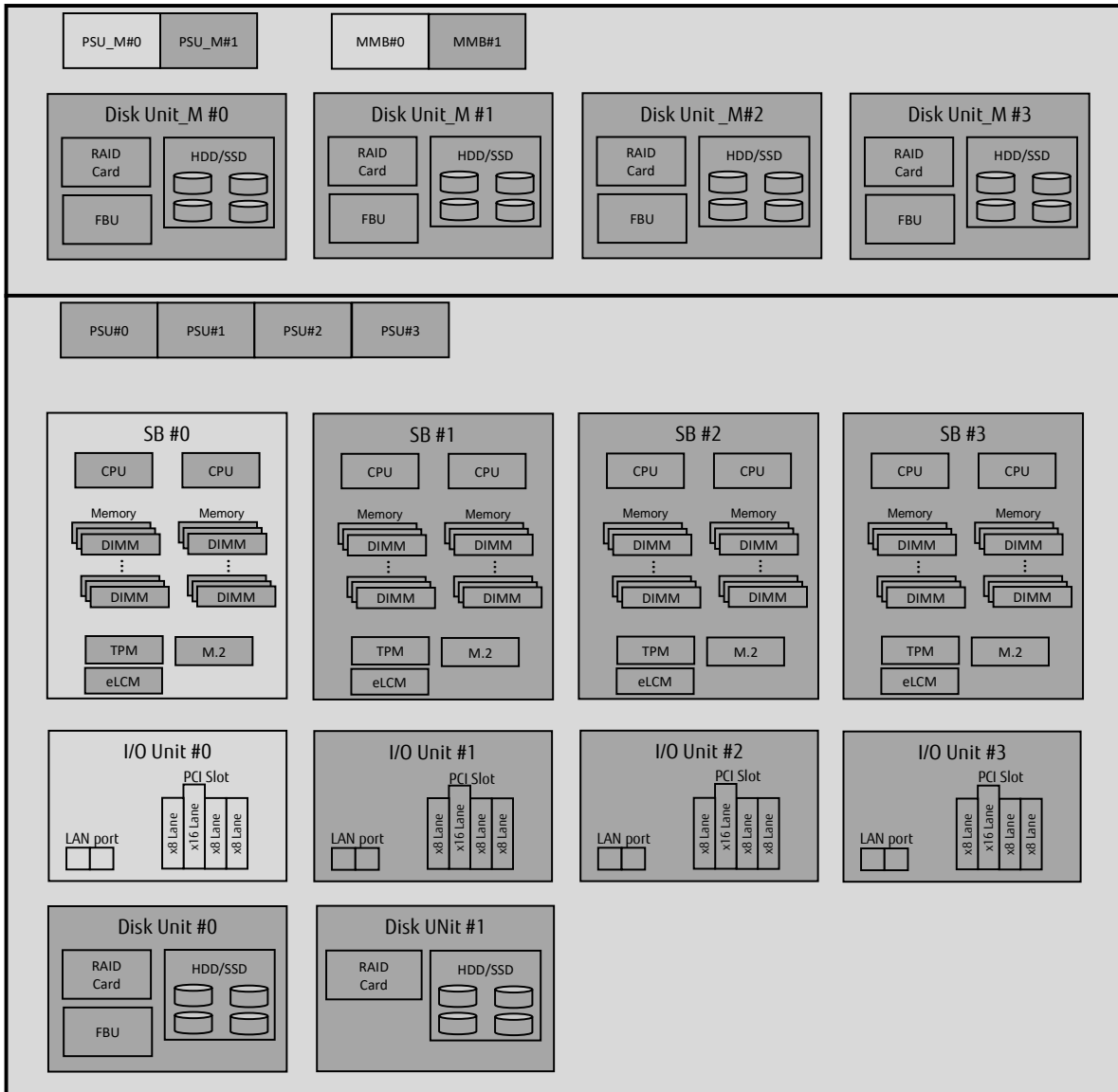



Rear side




Configuration Diagram

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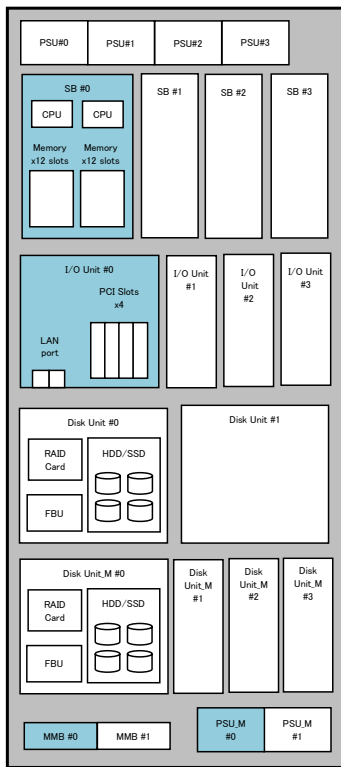


 Light gray color components Included in Base Unit.

 Dark gray color components are optional.

2.Base Unit

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Part Numbers Legend:

Part numbers:

MX_***** is a Build-to-Order (BTO) option to be assembled with Base Unit

MCX***** is an option to be shipped separately from Base Unit (Loose Delivery)

The following options are NOT included in the Base Unit.
 - CPU, Memory, PSU, power cord

The following components are included in the Base Unit.
 - 1x System Board
 - 1x I/O Unit
 - 1x PSU_M
 - 1x Rack Mount Kit
 - 1x MMB

PRIMEQUEST 3800E2 Base Unit
MCK3AC111

- Rack mount type
- 1x System Board is included in the Base Unit, Max. 4x System Boards can be mounted.
- 1x I/O Unit is included in the Base Unit, Max. 4x I/O Units can be mounted.
- Max. 4 x PCI Boxes can be connected.
- 1 x MMB is included. An additional MMB can be mounted for redundancy.
- 2 x LAN ports per MMB
- PSUs need to be ordered, Max. 4x PSUs can be mounted.
- 1x PSU_M is included in the Base Unit, Max. 2x PSU_Ms can be mounted.
- Power cords need to be ordered. The quantity is equal to the quantity of PSUs and PSU_Ms.
- Rack space : 7U

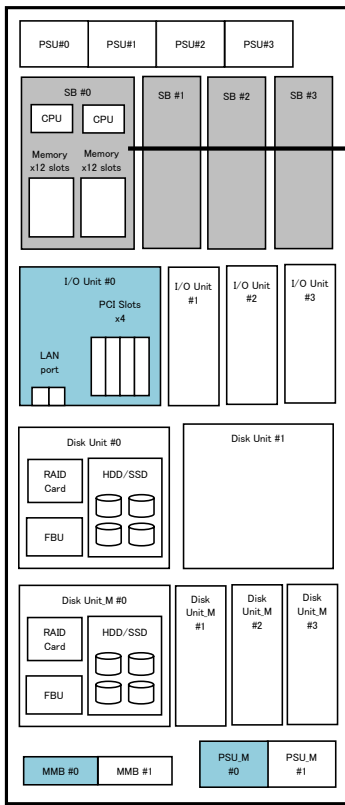
Advanced Thermal Design Option
MC-0PTH2
 Operating temperature of up to 40°C

When this option is selected, CPUs exceeding 165W can not be installed.

→ System Board

3. System Board (SB)

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1x System Board is included in the Base Unit.
Max. 4x System Board can be mounted per Base Unit.

System Board
MC-3HSBD1 / MCX3HSBD1 (LD)

- Min. 1 x SB needs to be mounted. Max. 4 x SB can be mounted per Base Unit.
- The System Board does not include a security chip called TPM.
- Neither CPU nor memory module is included. CPU and memory need to be ordered separately.
- Min. 2 x CPU and 2 x memory module need to be mounted on each System Board.
- Max. 12 x memory modules (24 x DIMMs) can be mounted.

The following options can be installed only in System Board #0.

eLCM Activation License (no load)
MC-6KMA11 / MCX6KMA11 (LD)

- For PRIMEQUEST 3800E2
- One License per system

The following functions are NOT available for the System Board with TPM.

- Reserved SB

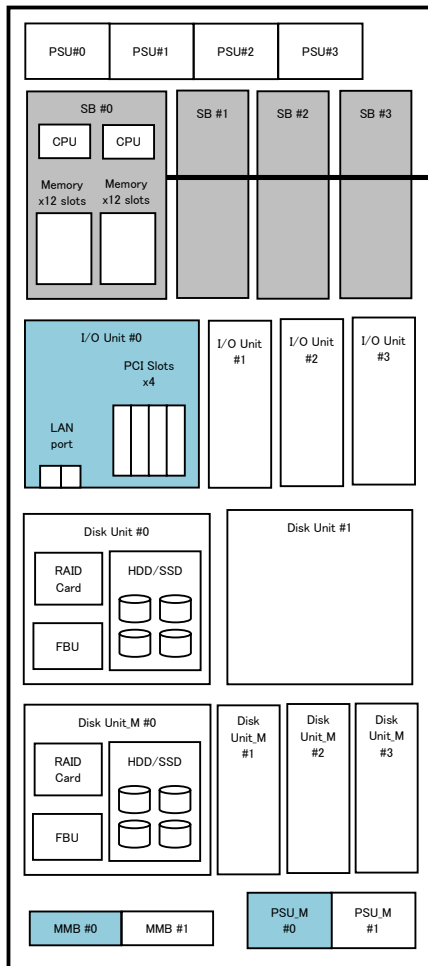
TPM module V2.0
MC-6HTP31 / MCX6HTP31(LD)

- Available except for China
- One for System Board

→ **USB Flash Device & M.2 Flash Device**

USB Flash Device & M.2 Flash Device

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Only one type of the following options can be installed on each System Board.

USB Flash Device 64GB Dual
MC-5FA411 / MCX5FA411(LD)
 - 2x 64GB micro SD card, HW mirrored
 - Cannot be mounted with MC*5FB751

M.2 Flash Device (VMware, 240GB)
MC-5FB741 / MCX5FB741 (LD)
 - M.2 SATA 240GB for VMware boot only
 - 1 x M.2 Flash Devices can be mounted.
 - DWPD : 1.5

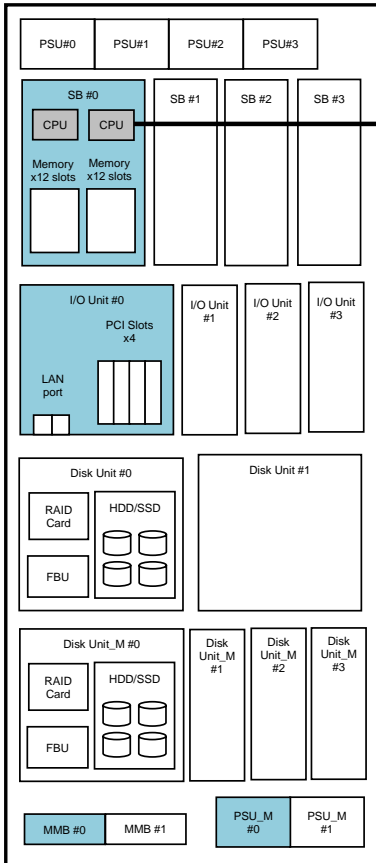
M.2 Flash Device 480GB
MC-5FB771 / MCX5FB771 (LD)
 - M.2 SATA 480GB except VMware
 - Max 2 x M.2 Flash Device can be mounted.
 - DWPD : 1.5
 - Cannot be mounted with MC*5FA411

M.2 Flash Device 240GB (except ESXI)
MC-5FB751 / MCX5FB751 (LD)
 - M.2 SATA 240GB except VMware
 - Max 2 x M.2 Flash Device can be mounted.
 - DWPD : 1.5
 - Cannot be mounted with MC*5FA411

→ CPU

4.CPU

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- 2x CPUs required for one System board except PPAR with 1SB.
- Combinatios of PPAR is only "SB#0 and SB#1" or "SB#2 and SB#3" when Gold 62xx is mounted on SB.
- Can not mix different CPUs in one partition.
- CPUs with number 'xxxxL' support up to 4.5TB of memory.
- CPUs with number 'xxxxM' support up to 2TB of memory.

*(Number of cores / Frequency / Max. memory per CPU / TDP)

CPU mounting condition

| # of SBs in one PPAR | # of CPUs in one PPAR |
|----------------------|-----------------------|
| 1SB | 1 or 2 |
| 2SB | 4 |
| 3SB | 6 |
| 4SB | 8 |

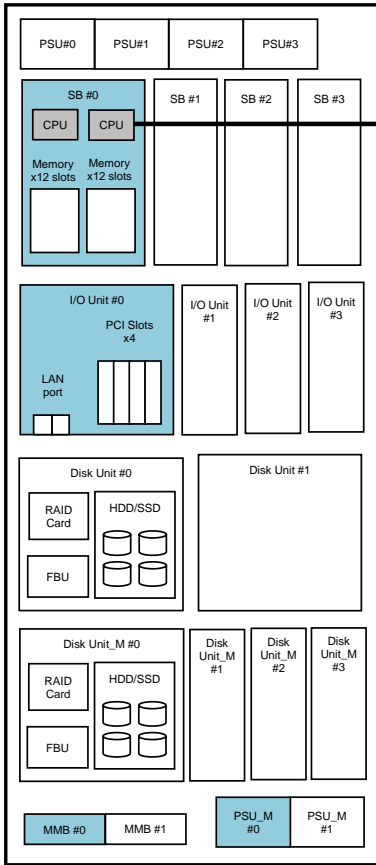
- 1 CPU/SB can be configured PPAR that has 1SB only.
- 1CPU/PPAR can be connected IOU0 and/or IOU1 only.
- Only the same kind of CPU can be installed in the partition.
- Different types of CPUs can be installed in the different partitions.

| | |
|---|--|
| Intel Xeon Platinum 8280L Processor (28C/2.7GHz/4.5TB/205W) | |
| MC-3BJA41 / MCX3BJA41 (LD) | |
| Intel Xeon Platinum 8280M Processor (28C/2.7GHz/2TB/205W) | |
| MC-3BJA21 / MCX3BJA21 (LD) | |
| Intel Xeon Platinum 8280 Processor (28C/2.7GHz/1TB/205W) | |
| MC-3BJA11 / MCX3BJA11 (LD) | |
| Intel Xeon Platinum 8276L Processor (28C/2.2GHz/4.5TB/165W) | |
| MC-3BKA41 / MCX3BKA41 (LD) | |
| Intel Xeon Platinum 8276M Processor (28C/2.2GHz/2TB/165W) | |
| MC-3BKA21 / MCX3BKA21 (LD) | |
| Intel Xeon Platinum 8276 Processor (28C/2.2GHz/1TB/165W) | |
| MC-3BKA11 / MCX3BKA11 (LD) | |
| Intel Xeon Platinum 8270 Processor (26C/2.7GHz/1TB/205W) | |
| MC-3BKB11 / MCX3BKB11 (LD) | |
| Intel Xeon Platinum 8268 Processor (24C/2.9GHz/1TB/205W) | |
| MC-3BJC11 / MCX3BJC11 (LD) | |
| Intel Xeon Platinum 8260L Processor (24C/2.4GHz/4.5TB/165W) | |
| MC-3BKC41 / MCX3BKC41 (LD) | |
| Intel Xeon Platinum 8260M Processor (24C/2.4GHz/2TB/165W) | |
| MC-3BKC21 / MCX3BKC21 (LD) | |
| Intel Xeon Platinum 8260 Processor (24C/2.4GHz/1TB/165W) | |
| MC-3BKC11 / MCX3BKC11 (LD) | |
| Intel Xeon Platinum 8253 Processor (16C/2.2GHz/1TB/125W) | |
| MC-3BKG11 / MCX3BKG11 (LD) | |
| Intel Xeon Platinum 8256 Processor (4C/3.8GHz/1TB/105W) | |
| MC-3BKN11 / MCX3BKN11 (LD) | |

CPU(2)

4.CPU

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- 2x CPUs required for one System board except PPAR with 1SB.
- Combinatios of PPAR is only "SB#0 and SB#1" or "SB#2 and SB#3" when Gold 62xx is mounted on SB.
- Can not mix different CPUs in one partition.
- CPUs with number 'xxxxL' support up to 4.5TB of memory.
- CPUs with number 'xxxxM' support up to 2TB of memory.

*(Number of cores / Frequency / Max. memory per CPU / TDP)

CPU mounting condition

| # of SBs in one PPAR | # of CPUs in one PPAR |
|----------------------|-----------------------|
| 1SB | 1 or 2 |
| 2SB | 4 |
| 3SB | 6 |
| 4SB | 8 |

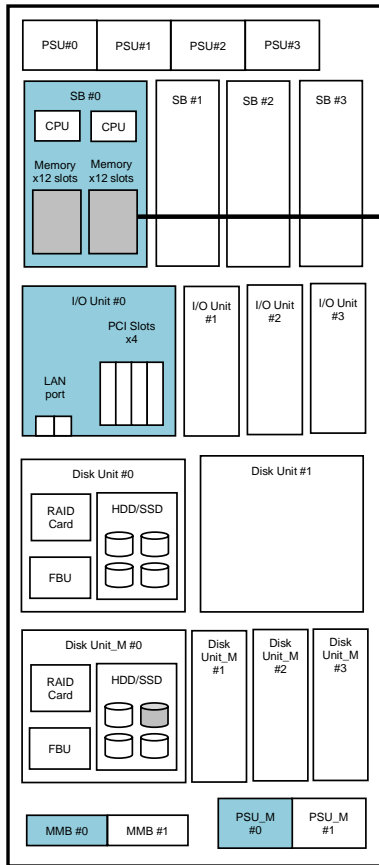
- 1 CPU/SB can be configured PPAR that has 1SB only.
- 1CPU/PPAR can be connected IOU0 and/or IOU1 only.
- Only the same kind of CPU can be installed in the partition.
- Different types of CPUs can be installed in the different partitions.

| | |
|---|--|
| Intel Xeon Gold 6262V Processor (24C/1.9GHz/1TB/135W) | |
| MC-3BRC11 / MCX3BRC11 (LD) | |
| Intel Xeon Gold 6254 Processor (18C/3.1GHz/1TB/200W) | |
| MC-3BMF11 / MCX3BMF11 (LD) | |
| Intel Xeon Gold 6252 Processor (24C/2.1GHz/1TB/150W) | |
| MC-3BNC11 / MCX3BNC11 (LD) | |
| Intel Xeon Gold 6248 Processor (20C/2.5GHz/1TB/150W) | |
| MC-3BNE11 / MCX3BNE11 (LD) | |
| Intel Xeon Gold 6246 Processor (12C/3.3GHz/1TB/165W) | |
| MC-3BSJ11 / MCX3BSJ11 (LD) | |
| Intel Xeon Gold 6244 Processor (8C/3.6GHz/1TB/150W) | |
| MC-3BNL11 / MCX3BNL11 (LD) | |
| Intel Xeon Gold 6242 Processor (16C/2.8GHz/1TB/150W) | |
| MC-3BNG11 / MCX3BNG11 (LD) | |
| Intel Xeon Gold 6240L Processor (18C/2.6GHz/4.5TB/150W) | |
| MC-3BNF41 / MCX3BNF41 (LD) | |
| Intel Xeon Gold 6240M Processor (18C/2.6GHz/2TB/150W) | |
| MC-3BNF21 / MCX3BNF21 (LD) | |
| Intel Xeon Gold 6240 Processor (18C/2.6GHz/1TB/150W) | |
| MC-3BNF11 / MCX3BNF11 (LD) | |
| Intel Xeon Gold 6238L Processor (22C/2.1GHz/4.5TB/140W) | |
| MC-3BND41 / MCX3BND41 (LD) | |
| Intel Xeon Gold 6238M Processor (22C/2.1GHz/2TB/140W) | |
| MC-3BND21 / MCX3BND21 (LD) | |
| Intel Xeon Gold 6238 Processor (22C/2.1GHz/1TB/140W) | |
| MC-3BND11 / MCX3BND11 (LD) | |
| Intel Xeon Gold 6234 Processor (8C/3.3GHz/1TB/130W) | |
| MC-3BPL11 / MCX3BPL11 (LD) | |
| Intel Xeon Gold 6230 Processor (20C/2.1GHz/1TB/125W) | |
| MC-3BRE11 / MCX3BRE11 (LD) | |
| Intel Xeon Gold 6226 Processor (12C/2.7GHz/1TB/125W) | |
| MC-3BNJ11 / MCX3BNJ11 (LD) | |
| Intel Xeon Gold 6222V Processor (20C/1.8GHz/1TB/115W) | |
| MC-3BPE11 / MCX3BPE11 (LD) | |

Memory

5.Memory

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- At least one set of memory (2 DIMMs) must be installed for each CPU.
- Max 6 sets of memory (12 DIMMs) can be installed for each CPU.

| | |
|---|--|
| 32GB Memory (16GB 1Rx4 DDR4 RDIMM x2) MC-3CE611 / MCX3CE611 (LD) | |
| 64GB Memory (32GB 2Rx4 DDR4 RDIMM x2) MC-3CE711 / MCX3CE711 (LD) | |
| 128GB Memory (64GB 2Rx4 DDR4 RDIMM x2) MC-3CE811 / MCX3CE811 (LD) | |
| 128GB Memory (64GB 4Rx4 DDR4 LRDIMM x2) MC-3CE821 / MCX3CE821 (LD) | |
| 256GB Memory (128GB 8Rx4 DDR4 LRDIMM 3DS x2) MC-3CE911 / MCX3CE911 (LD) | |
| 512GB Memory (256GB 8Rx4 DDR4 LRDIMM 3DS x2) MC-3CEA11 / MCX3CEA11 (LD) | |
| * 256GB 8R LRDIMM can not be installed on a CPU with a memory limit of 1TB. | |
| 128GB DDR-T DCPMM(NVM/LRDIMM) Special Release | |
| 256GB DDR-T DCPMM(NVM/LRDIMM) Special Release | |
| 512GB DDR-T DCPMM(NVM/LRDIMM) Special Release | |

If configuration of PRIMEQUEST3800E2 includes a DCPMM, it is necessary to check validity of DCPMM installation. For request of configuration check, please submit request to the contact point for PRIMEQUEST.

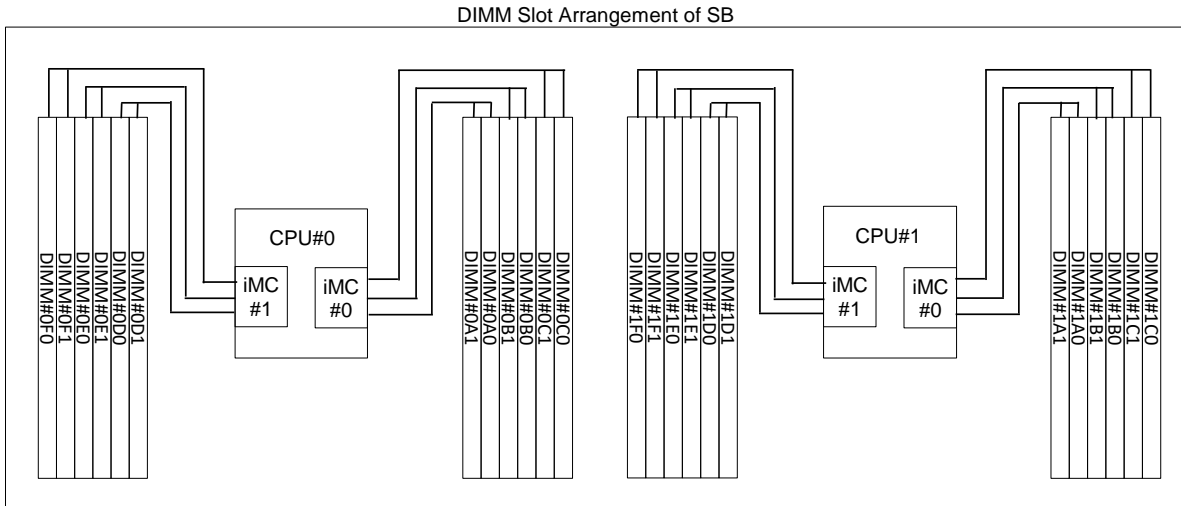
→ Memory Mounting

Memory Mounting

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1. Memory and DIMM slots

- (1) Memory module for PRIMEQUEST is composed of 2 x DIMMs.
- (2) At least 2 DIMMs have to be installed in one CPU (4 DIMMs in one SB) in Normal mode and Spare mode, 4 DIMMs have to be installed in one CPU (8 DIMMs in one SB) in Mirror mode.
- (3) Up to 12 DIMMs can be installed in each CPU.
- (4) DIMM Slot Arrangement of SB is shown below.
 DIMM#xx0 is farther Slots and DIMM#xx1 is nearer Slots among the six DIMM Slots connected to the iMC.



MSC : Memory Scale-up Controller on MSB
 iMC : Memory Controller

2. Memory Mounting Conditions

- (1) A mixture of different type of memory is not possible in the system.
 The exception is a combination of 16GB RDIMM and 32GB RDIMM, which is possible to mix in the system.
- (2) Units of memory expansions : One set (2 DIMMs) for one CPU in Normal Mode and Spare Mode, 2 sets (4 DIMMs) for one CPU in Mirror Mode.

3. Memory Support for Operating Systems of PRIMEQUEST 3800E2

| Operating System | Max. Memory Capacity (TB) |
|---|---------------------------|
| Microsoft® Windows Server® 2016 (Standard / Datacenter) Microsoft® Hyper-V Server 2016 | 3 |
| Microsoft® Windows Server® 2019 (Standard / Datacenter) Microsoft® Hyper-V Server 2019 | 3 |
| Red Hat® Enterprise Linux® 7 | 12 |
| SUSE® Linux Enterprise Server 12 | 24 |
| SUSE® Linux Enterprise Server 15 | 24 |
| VMware vSphere® 6.5 | 4 |
| VMware vSphere® 6.7 | 4 |



Memory Mounting 2

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DIMM mounting order on System Board

At least one AEP DIMMs have to be installed in one CPU.

DDR4 DIMM installation order

The order of DIMM installation is shown in the following table. DIMMs are installed in order from one with small number.

| Memory Mode | Lockstep | CPU#0 | | | | | | CPU#1 | | | | | | Remark |
|---|-------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|--------|
| | | iMC#0 | | | iMC#1 | | | iMC#0 | | | iMC#1 | | | |
| | | 0A0 | 0B0 | 0C0 | 0D0 | 0E0 | 0F0 | 1A0 | 1B0 | 1C0 | 1D0 | 1E0 | 1F0 | |
| Normal | Disabled | 1 | 2 | 4(*1), 8 | 1 | 2 | 4(*1), 8 | 1 | 3 | 5(*1), 9 | 1 | 3 | 5(*1), 9 | (*3) |
| | | 6 | 6(*2) | 10 | 6 | 6(*2) | 10 | 7 | 7(*2) | 11 | 7 | 7(*2) | 11 | |
| | Enabled | 1 | 4 | 8 | 2 | 6 | 10 | 1 | 5 | 9 | 3 | 7 | 11 | (*3) |
| | | 1 | 4 | 8 | 2 | 6 | 10 | 1 | 5 | 9 | 3 | 7 | 11 | |
| Spare | Disabled | 1 | 4 | 8 | 2 | 6 | 10 | 1 | 5 | 9 | 3 | 7 | 11 | (*3) |
| | | 1 | 4 | 8 | 2 | 6 | 10 | 1 | 5 | 9 | 3 | 7 | 11 | |
| | Enabled | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | - | - | - | - | - | - | - | - | - | - | - | - | |
| Full Mirror/ Address Range Mirror | Disabled | 1 | 1 | 4 | 1 | 1 | 4 | 1 | 1 | 5 | 1 | 1 | 5 | |
| | | 2 | 2 | 4 | 2 | 2 | 4 | 3 | 3 | 5 | 3 | 3 | 5 | |
| | Disabled (768GB CPU) | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 1 | 1 | 3 | (*4) |
| | | - | - | - | - | - | - | - | - | - | - | - | - | |
| | Enabled | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | - | - | - | - | - | - | - | - | - | - | - | - | |

(*1)(*2) In the case of four DIMMs in iMC, remove DIMM installed in (*1) slot and then install DIMM to (*2) slot.

(*3) When the CPU which memory capacity is 768GB is installed, 128GB DIMM can be installed up to number 5 and cannot be installed after number 6.

(*4) Only when the CPU which memory capacity is 768GB and 128GB DIMM are installed together, this installation order is applied.

Memory Mixed Condition

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Which size of DIMM can be installed together in a DDR CH or an SB are shown in the following tables.

The type of the DIMM mixed installation condition for each DIMM.

| | 16GB 1R RDIMM | 32GB 2R RDIMM | 64GB 2R RDIMM | 64GB 4R LRDIMM | 128GB 8R LRDIMM (3DS) | 256GB 8R LRDIMM (3DS) |
|----------------------|---------------|---------------|---------------|----------------|-----------------------|-----------------------|
| 16GB 1R RDIMM | - | YES (*1) | YES (*1) | | | |
| 32GB 2R RDIMM | YES (*1) | - | YES (*1) | | | |
| 64GB 2R RDIMM | YES (*1) | YES (*1) | - | | | |
| 64GB 4R LRDIMM | | | | - | | |
| 128GB 8R LRDIMM(3DS) | | | | | - | YES |
| 256GB 8R LRDIMM(3DS) | | | | | YES | - |

YES: Mixable in DDR CH/SB/Partition

Blank: Not Mixable in DDR CH/SB/Partition

"-": Same DIMM

(*1) When RDIMM or LRDIMM other than 3DS with different rank number is populated together within a DDR channel, the DIMM with largest rank number must be populated at far side and the DIMM with smallest rank number must be populated at near side.

Mixable conditions

| | Yes (Mixable in DDR CH) | "-" (Mixable in DDR CH) | Blank (Not Mixable in Partition) |
|-----------|----------------------------|----------------------------|-------------------------------------|
| DDR CH | YES | YES | |
| SB | YES | YES | |
| Partition | YES | YES | |
| System | YES | YES | YES |

YES: Mixable in DDR CH/SB/Partition

Blank: Not mixable in DDR CH/SB/Partition

Memory Mixed Installation Condition

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DIMM mixed installation conditions are shown in the following table.
 Same symbols mean that same DIMMs can be installed which is defined in the table below.
 Different symbols mean that different DIMMs can be mixed.

DIMM mixed installation condition.

| Memory Mode | Lockstep | CPU#0 | | | | | | CPU#1 | | | | | |
|---|----------|---------------|-----|-----|-------|-----|-----|-------|-----|-----|-------|-----|-----|
| | | iMC#0 | | | iMC#1 | | | iMC#0 | | | iMC#1 | | |
| | | 0A0 | 0B0 | 0C0 | 0D0 | 0E0 | 0F0 | 0A0 | 0B0 | 0C0 | 0D0 | 0E0 | 0F0 |
| | | 0A1 | 0B1 | 0C1 | 0D1 | 0E1 | 0F1 | 0A1 | 0B1 | 0C1 | 0D1 | 0E1 | 0F1 |
| Normal | Disabled | □ | △ | ○ | ☆ | ▽ | ◇ | ■ | ▲ | ● | ★ | ▼ | ◆ |
| | | ♠ | ♥ | ♣ | ♠ | ♠ | ♠ | ♠ | ♠ | ♣ | ♠ | ♠ | ♠ |
| | Enabled | □ | △ | ○ | ☆ | ▽ | ◇ | ■ | ▲ | ● | ★ | ▼ | ◆ |
| | | ♠ | ♥ | ♣ | ♠ | ♠ | ♠ | ♠ | ♠ | ♣ | ♠ | ♠ | ♠ |
| Sparing | Disabled | □ | △ | ○ | ☆ | ▽ | ◇ | ■ | ▲ | ● | ★ | ▼ | ◆ |
| | | ♠ | ♥ | ♣ | ♠ | ♠ | ♠ | ♠ | ♠ | ♣ | ♠ | ♠ | ♠ |
| | Enabled | Not Supported | | | | | | | | | | | |
| Full Mirror (Mirror Keep) / Address Range Mirror | Disabled | □ | □ | □ | △ | △ | △ | ■ | ■ | ■ | ▲ | ▲ | ▲ |
| | | ○ | ○ | ○ | ☆ | ☆ | ☆ | ● | ● | ● | ★ | ★ | ★ |
| | Enabled | Not Supported | | | | | | | | | | | |
| Full Mirror (Capacity Keep) | Disabled | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| | | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| | Enabled | Not Supported | | | | | | | | | | | |

Mixing condition shown contains installation conditions about near side and far side in DDR CH.
 When RDIMM or LRDIMM other than 3DS with different rank number is populated together within a DDR channel, the DIMM with largest rank number must be populated at far side and the DIMM with smallest rank number must be populated at near side.

DCPMM(NVM/LRDIMM) installation pattern

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At least one DCPMMs have to be installed in one CPU.

Up to 6 DCPMMs can be installed in one CPU.

DCPMM increment unit is one unit. If DCPMM is installed, DDR4 DIMM increment unit is one unit.

The following table shows the installation pattern of DDR4 DIMMs and DCPMMs.

DCPMM installation pattern within CPU

| Mode | Pattern | CPU#0 | | | | | | Remark |
|-------|---------|--------|--------|--------|--------|--------|--------|-------------------------|
| | | iMC#0 | | | iMC#1 | | | |
| | | 0A0 | 0B0 | 0C0 | 0D0 | 0E0 | 0F0 | |
| | | 0A1 | 0B1 | 0C1 | 0D1 | 0E1 | 0F1 | |
| AD | 2-2-2 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | (*1) Symmetric |
| | | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | Any DRAM |
| MM | 2-2-2 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | (*1) Symmetric |
| | | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | Any DRAM |
| AD+MM | 2-2-2 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | (*1) Symmetric |
| | | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | DCPMM1 | Except for 3DS LRDIMM |
| AD | 2-1-1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | (*1) Symmetric |
| | | DCPMM1 | - | - | DCPMM1 | - | - | Any DRAM |
| MM | 2-1-1 | DRAM2 | DRAM2 | DRAM2 | DRAM2 | DRAM2 | DRAM2 | (*1) Symmetric |
| | | DCPMM1 | - | - | DCPMM1 | - | - | RDIMM only (16 or 32GB) |
| AD+MM | 2-1-1 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | (*1) Symmetric |
| | | DCPMM1 | - | - | DCPMM1 | - | - | Except for 3DS LRDIMM |
| AD | 2-2-1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | (*1) Symmetric |
| | | DCPMM1 | DCPMM1 | - | DCPMM1 | DCPMM1 | - | Any DRAM |
| MM | 2-2-1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | DRAM1 | (*1) Symmetric |
| | | DCPMM1 | DCPMM1 | - | DCPMM1 | DCPMM1 | - | Any DRAM |
| AD+MM | 2-2-1 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | DRAM3 | (*1) Symmetric |
| | | DCPMM1 | DCPMM1 | - | DCPMM1 | DCPMM1 | - | Except for 3DS LRDIMM |

| Mode | DDR4 Type | Capacity |
|--------|------------|--------------|
| DRAM1 | RDIMM | Any Capacity |
| | 3DS LRDIMM | |
| | LRDIMM | |
| | 3DS LRDIMM | |
| DRAM2 | RDIMM | 16GB or 32GB |
| | - | |
| | - | |
| | - | |
| DRAM3 | RDIMM | Any Capacity |
| | 3DS LRDIMM | |
| | LRDIMM | |
| | - | |
| DCPMM1 | - | Any Capacity |

AD: App Direct Mode

MM: Memory Mode (100%)

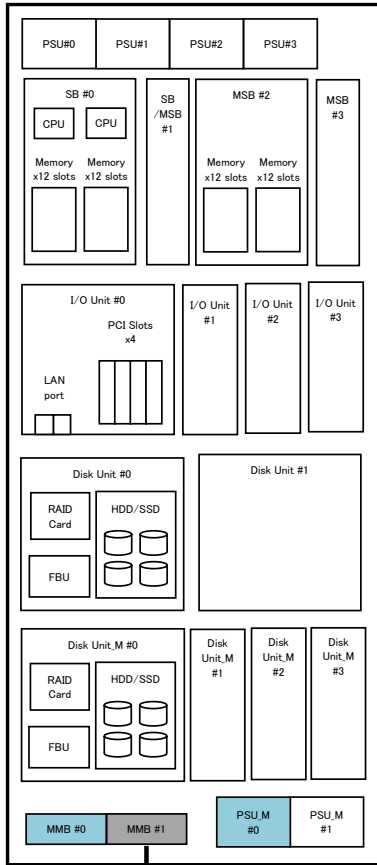
AD+MM: Memory Mode (Except for 100%)

(*1) Symmetric Population across all CPU.

If configuration of PRIMEQUEST3800E2 includes a DCPMM, it is necessary to check validity of DCPMM installation. For request of configuration check, please submit request to the contact point for PRIMEQUEST.

6.Management Board (MMB)

July 2019, Ver.2.0



1x MMB is included in the Base Unit.
Max. 2x MMBs can be mounted in a Base unit.

Management Board (MMB)

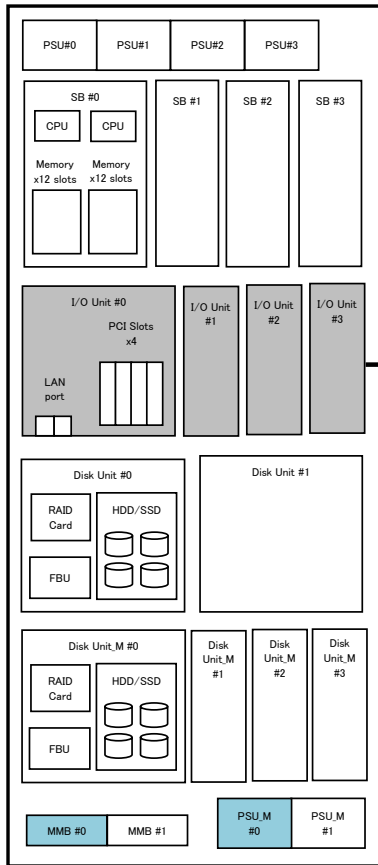
MC-5HMM41 / MCX5HMM41 (LD)

- Max. 2 x MMBs can be mounted.
- 1 x MMB is included in the Base Unit.
- An additional MMB can be mounted as an option.
- MMB can be redundant with 2 x MMB configuration.
- Each MMB has 4 x LAN ports for server administration and maintenance.
(2 x user ports, 1 x REMCS port and 1 x maintenance port)

I/O Unit

7.I/O UNIT

July 2019, Ver.2.0



1x I/O Unit is included in the Base Unit.
Max. 4x I/O Units can be mounted per Base Unit.

I/O Unit
MC-5HUX71 / MCX5HUX71 (LD)

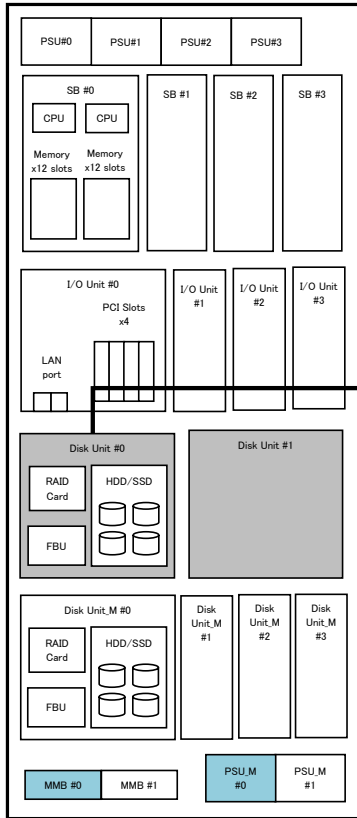
- 1x I/O Unit is included in the Base Unit.
- Max. 4 x I/O Units can be mounted.
- 2 x 10GBASE-T LAN ports per I/O Unit.
- 4x Low Profile PCIe slots per I/O Unit.
- PCI Express 3.0 x16 Lane x1 slot, x8 Lane x3 slots
- 12 PCIe slots in the PCI Box are available using PCI Box connection card.
- PCI hot plug is not supported. PCI hot plug is available on PCI Box.

With PSU 2 + n configuration, IOU can only be installed with a maximum of 2 units.
Please refer to 'Power Supply Unit' for details.

→ **Disk Unit**

8.Disk Unit

July 2019, Ver.2.0



Disk Unit

- Max. 2 of the following Disk Units can be mounted on the Base Unit.
- In order to mount Disk Unit #1, I/O Unit #1 is required.

Disk Unit for SAS (SAS3.0)
MC-5HDU71 / MCX5HDU71 (LD)
 - Max. 2x Disk Units per Base Unit.
 - 1x RAID Controller card per Disk Unit needs to be mounted.
 - Max 4x HDD/SSD can be mounted per Disk Unit.

Option for Disk Unit SAS (SAS3.0)

SAS RAID Controller Card (EP420i)
MC-0JSRA1 / MCX0JSRA1 (LD)
 - One RAID Controller card enables to mount 4x disk drives such as HDD or SSD.
 - 12Gbps for each disk drive. 2GB of cache memory
 - RAID 0/1/1E/5/6/10 and hot spare supported

Flash Back-up Unit
MC-0JFB61 / MCX0JFB61 (LD)
 - Flash Backup Unit for RAID Controller EP420i with cache memory.

RAID Advanced Software Options
MC-0KLA51 / MCX0KLA51 (LD)
 License Activation Key for CacheCade 2.0 for PRAID EP420i / 420e

- Connection between I/O Unit and Disk Unit

| I/O Unit | Disk Unit |
|-------------|--------------|
| I/O Unit #0 | Disk Unit #0 |
| I/O Unit #1 | Disk Unit #1 |

SAS RAID Controller Card (EP540i)
MC-0JSR71 / MCX0JSR71 (LD)
 - One RAID Controller card enables to mount 4x disk drives such as HDD or SSD.
 - 12Gbps for each disk drive. 4GB of cache memory
 - RAID 0/1/1E/5/6/10 and hot spare supported

Flash Back-up Unit for EP5x0i
MC-0JFB41 / MCX0JFB41 (LD)
 - Flash Backup Unit for RAID Controller EP540i/EP580i with cache memory.

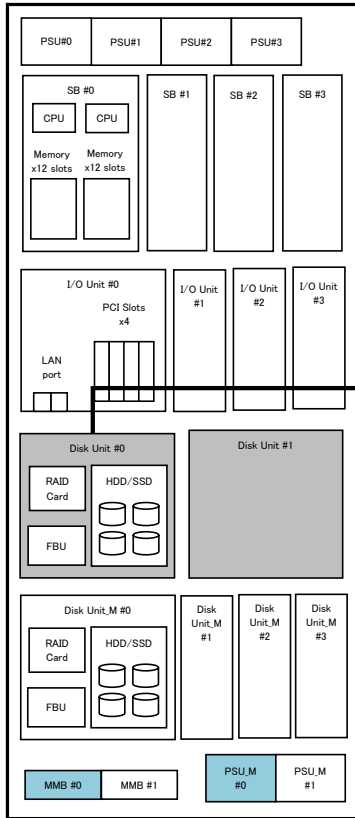
SAS RAID Controller Card (EP580i)
MC-0JSR81 / MCX0JSR81 (LD)
 - One RAID Controller card enables to mount 4x disk drives such as HDD or SSD.
 - 12Gbps for each disk drive. 8GB of cache memory
 - RAID 0/1/1E/5/6/10 and hot spare supported

Flash Back-up Unit for EP5x0i
MC-0JFB41 / MCX0JFB41 (LD)
 - Flash Backup Unit for RAID Controller EP540i/EP580i with cache memory.

→ Disk Unit for PCIe SFF

8.Disk Unit

July 2019, Ver.2.0



Disk Unit

- Max. 2 of the following Disk Units can be mounted on the Base Unit.
- In order to mount Disk Unit #1, I/O Unit #1 is required.

Disk Unit for PCIe SFF (DU_PCIEA)
MC-5HDU61 / MCX5HDU61 (LD)
 - Max. 2x Disk Units per Base Unit.
 - 1x RAID Controller card per Disk Unit needs to be mounted.
 - Max 4x PCIe-SSD SFFs can be mounted per Disk Unit.

SAS RAID Controller Card (EP540i)
MC-0JSR71 / MCX0JSR71 (LD)
 - One RAID Controller card enables to mount
 Max 4x PCIe-SSD SFFs
 - 12Gbps for each disk drive. 4GB of cache memory
 - RAID 0/1/1E/5/6/10 and hot spare supported

SAS RAID Controller Card (EP580i)
MC-0JSR81 / MCX0JSR81 (LD)
 - One RAID Controller card enables to mount
 Max 4x PCIe-SSD SFFs
 - 12Gbps for each disk drive. 8GB of cache memory
 - RAID 0/1/1E/5/6/10 and hot spare supported

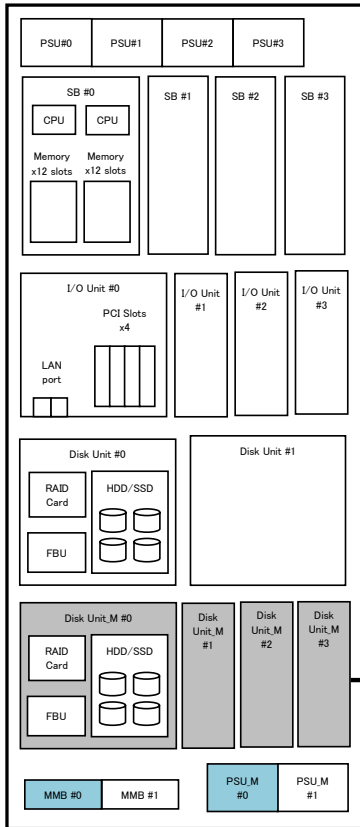
- Connection between I/O Unit and Disk Unit

| I/O Unit | Disk Unit |
|-------------|--------------|
| I/O Unit #0 | Disk Unit #0 |
| I/O Unit #1 | Disk Unit #1 |

→ Disk Unit for DMBU(Disk/MMB Unit) (DU_M)

Disk Unit for DMBU(Disk/MMB Unit) (DU_M)

July 2019, Ver.2.0



Disk Unit for DMBU(Disk/MMB Unit) (DU_M)

- Max. 4 Disk Units can be mounted on the Disk/MMB Unit
 - In order to mount Disk Unit #1, #2 and #3, I/O Unit #1, #2 and #3 is required respectively.

Disk Unit for DMBU(Disk/MMB Unit) (DU_M)
MC-5HDU51 / MCX5HDU51 (LD)
 - Max. 4x Disk Units per Disk/MMB Unit.
 - 1x RAID Controller card is required per Disk Unit.
 - Max 4x SAS HDD/SSD can be mounted per Disk Unit.

SAS RAID Controller Card (EP420i)
MC-0JSRA1 / MCX0JSRA1 (LD)
 - One RAID Controller card allows mounting of 4x disk drives such as HDD or SSD.
 - 12Gbps for each disk drive. 2GB of cache memory
 - RAID 0/1/1E/5/6/10 and hot spare supported

RAID Advanced Software Options
MC-0KLA51 / MCX0KLA51 (LD)
 License Activation Key for CacheCade 2.0

Flash Back-up Unit
MC-0JFB61 / MCX0JFB61 (LD)
 - Flash Backup Unit for RAID Controller (2GB Cache)

- Connection between I/O Unit and Disk Unit_M

| I/O Unit | Disk Unit |
|-------------|---------------|
| I/O Unit #0 | Disk Unit_M#0 |
| I/O Unit #1 | Disk Unit_M#1 |
| I/O Unit #2 | Disk Unit_M#2 |
| I/O Unit #3 | Disk Unit_M#3 |

SAS RAID Controller Card (EP540i)
MC-0JSR71 / MCX0JSR71 (LD)
 - One RAID Controller card allows mounting of 4x disk drives such as HDD or SSD.
 - 12Gbps for each disk drive. 4GB of cache memory
 - RAID 0/1/5/6/10 and hot spare supported
 - No RAID Software License required.

Flash Back-up Unit for EP5x0i
MC-0JFB41 / MCX0JFB41 (LD)
 - Flash Backup Unit for RAID Controller

SAS RAID Controll Card (8GB Cache)
MC-0JSR81 / MCX0JSR81 (LD)
 - One RAID Controller card allows mounting of 4x disk drives such as HDD or SSD.
 - 12Gbps for each disk drive. 8GB of cache memory
 - RAID 0/1/5/6/10 and hot spare supported
 - No RAID Software License required.

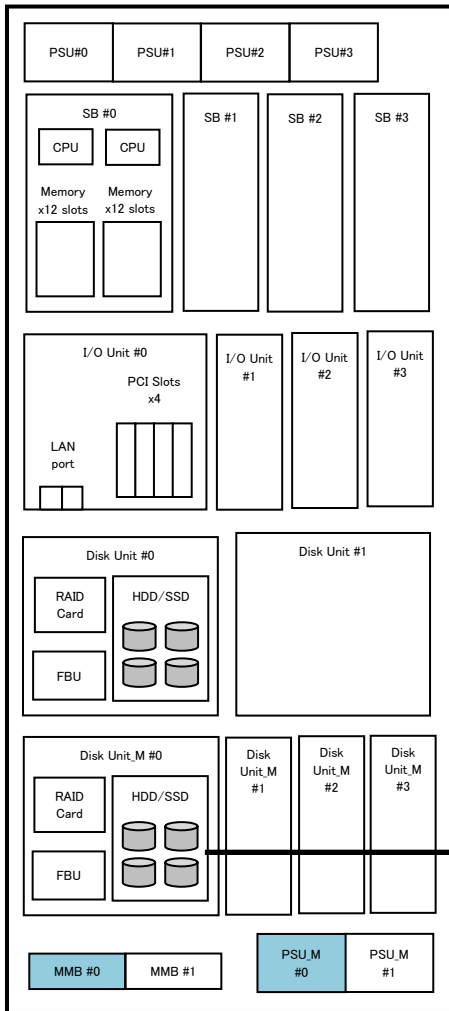
Flash Back-up Unit for EP5x0i
MC-0JFB41 / MCX0JFB41 (LD)
 - Flash Backup Unit for RAID Controller

→ HDD

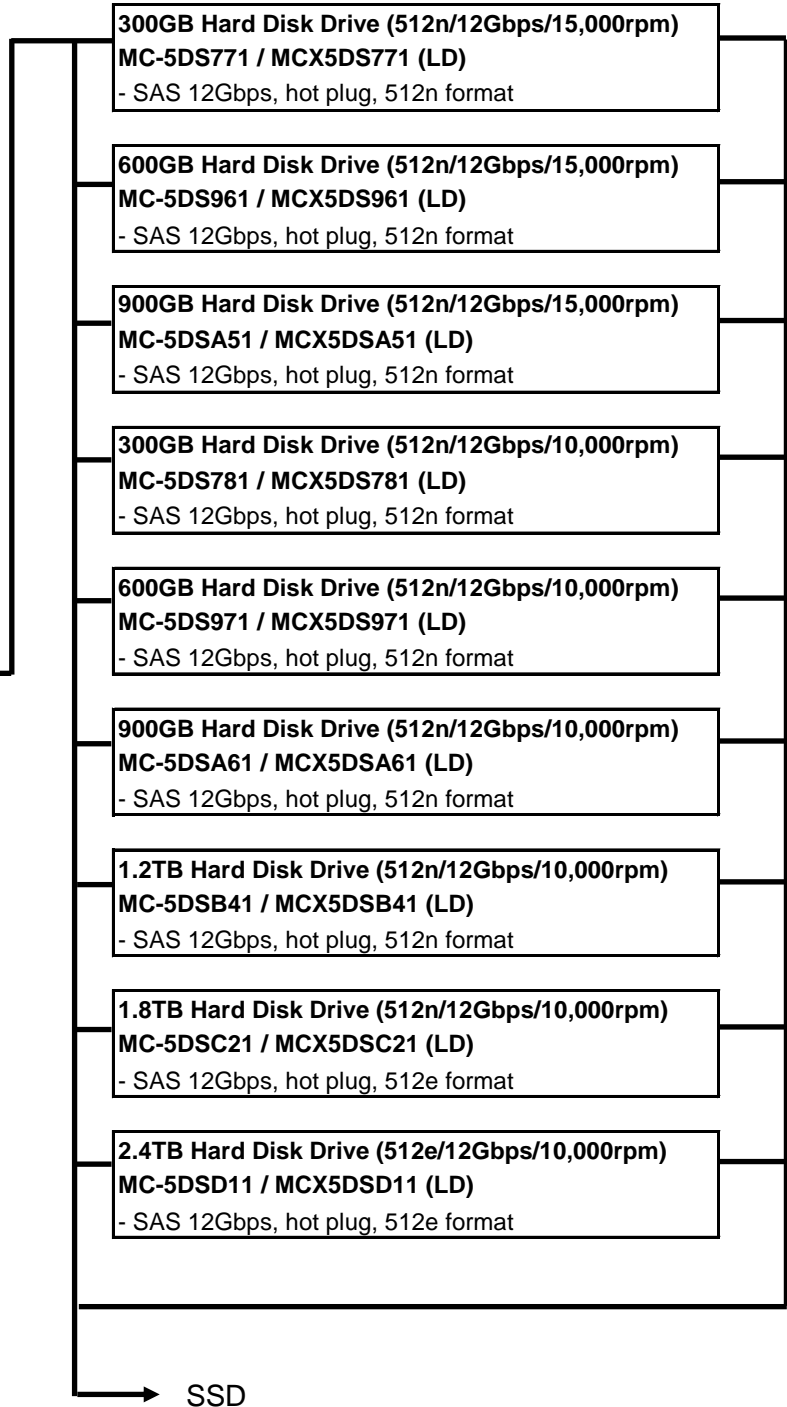
9.HDD

July 2019, Ver.2.0

Max. 4 pcs of HDD/SSD can be mounted per the Disk Unit or the Disk Unit for DMBU(Disk/MMB Unit) (DU_M).

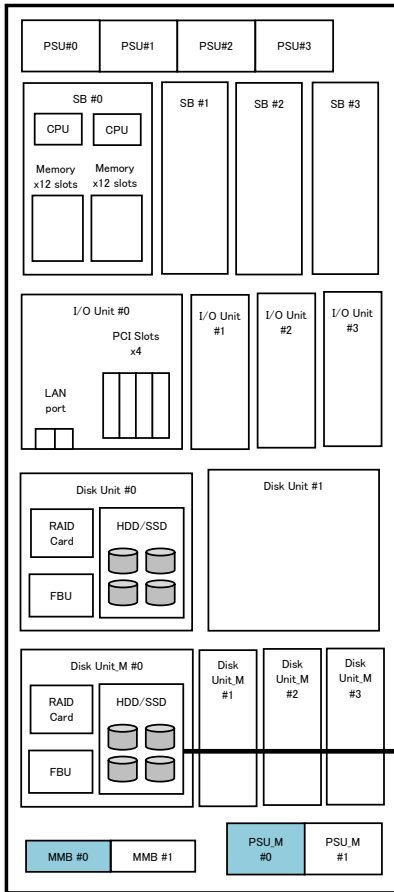


HDD



9.SSD

July 2019, Ver.2.0



Max. 4 pcs of HDD/SSD can be mounted per the Disk Unit or the Disk Unit for DMBU(Disk/MMB Unit) (DU_M).

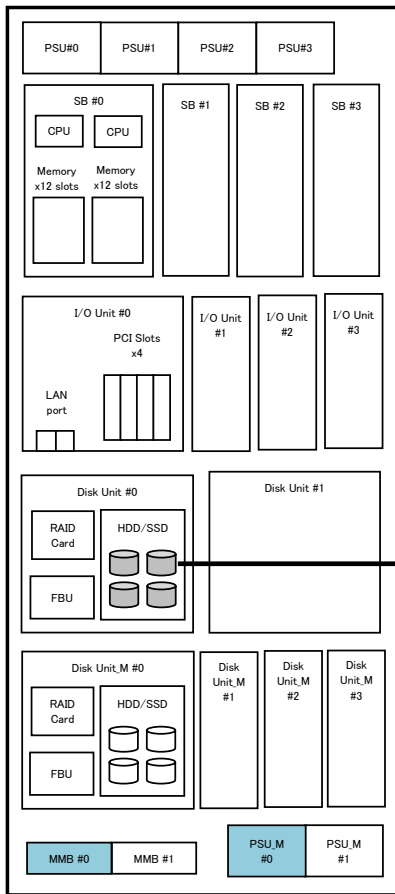
- 400GB Solid State Drive (512n / 12Gbps / 10DWPD)**
MC-5DG821 / MCX5DG821 (LD)
 - SAS 12Gbps, MLC, hot plug, DWPD: 10
- 800GB Solid State Drive (512n / 12Gbps / 10DWPD)**
MC-5DG921 / MCX5DG921 (LD)
 - SAS 12Gbps, MLC, hot plug, DWPD: 10
- 1.6TB Solid State Drive (512n / 12Gbps / 10DWPD)**
MC-5DGA21 / MCX5DGA21 (LD)
 - SAS 12Gbps, MLC, hot plug, DWPD: 10
- 400GB Solid State Drive (512n / 12Gbps / 3DWPD)**
MC-5DH821 / MCX5DH821 (LD)
 - SAS 12Gbps, MLC, hot plug, DWPD: 3
- 800GB Solid State Drive (512n / 12Gbps / 3DWPD)**
MC-5DH921 / MCX5DH921 (LD)
 - SAS 12Gbps, MLC, hot plug, DWPD: 3
- 1.6TB Solid State Drive (512n / 12Gbps / 3DWPD)**
MC-5DHA21 / MCX5DHA21 (LD)
 - SAS 12Gbps, MLC, hot plug, DWPD: 3
- 3.2TB Solid State Drive (512n / 12Gbps / 3DWPD)**
MC-5DHB21 / MCX5DHB21 (LD)
 - SAS 12Gbps, MLC, hot plug, DWPD: 3
- 6.4TB Solid State Drive (512n / 12Gbps / 3DWPD)**
MC-5DKG21 / MCX5DKG21 (LD)
 - SAS 12Gbps, MLC, hot plug, DWPD: 3

As flash memory cells are wearing parts, an SSD can only tolerate a limited number of write jobs. DWPD (Drive Write Per Day) is an indicator which specifies write endurance of an SSD. Depending on how the product is used, the number of writing times may reach the end of write endurance within the product lifespan. Product status can be confirmed by management tools such as iRMC Web-UI and Server View RAID Manager (SVRM).

→ PCIe-SSD

9.PCIE-SSD

July 2019, Ver.2.0



Max. 4 pcs of PCIe-SSD can be mounted per the Disk Unit for PCIe SFF.

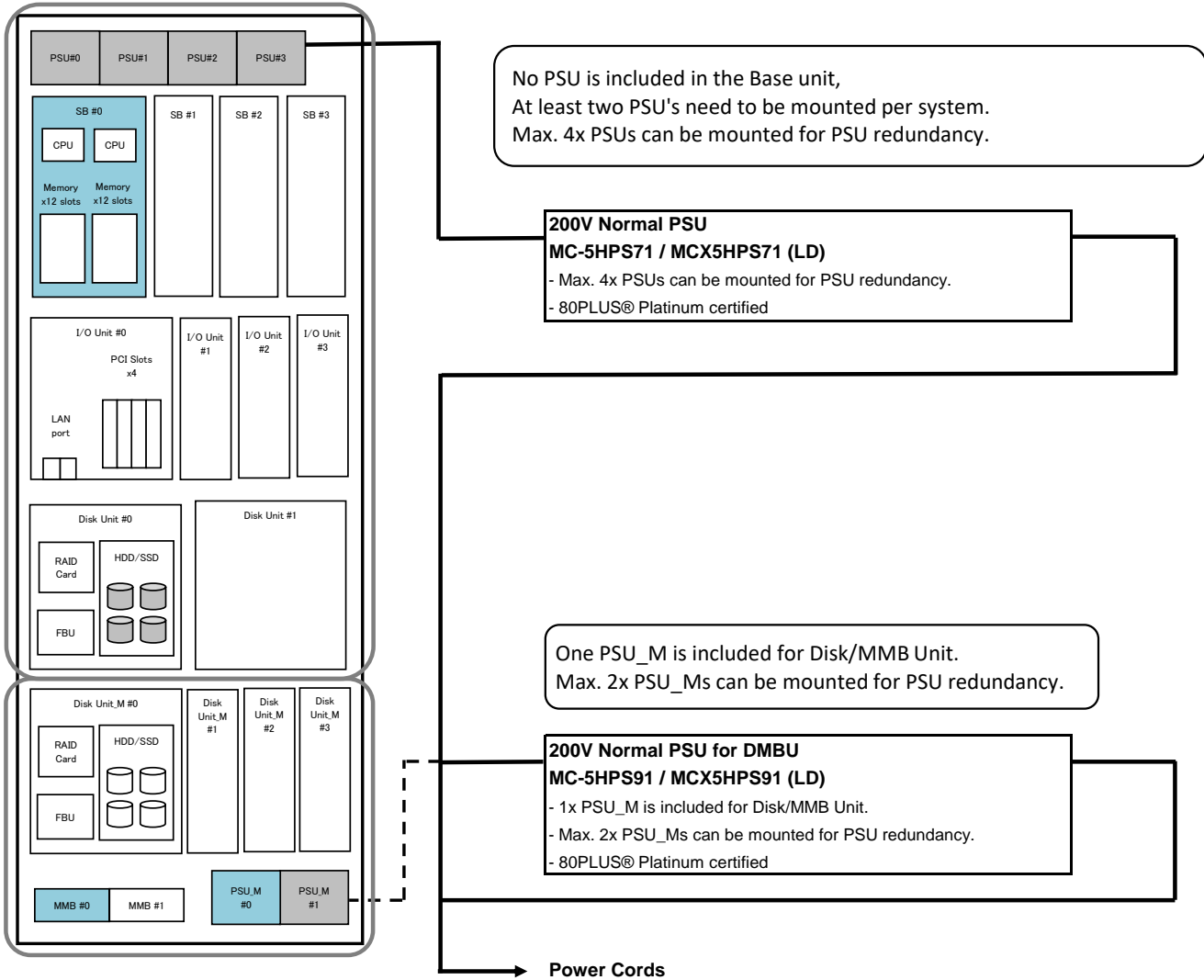
- 1.6TB Solid State Drive**
PCIe-SSD SFF 1.6TB 3DWP
MC-5DKD21 / MCX5DKD21 (LD)
- 3.2TB Solid State Drive**
PCIe-SSD SFF 3.2TB 3DWP
MC-5DKE21 / MCX5DKE21 (LD)
- 6.4TB Solid State Drive**
PCIe-SSD SFF 6.4TB 3DWP
MC-5DKF21 / MCX5DKF21 (LD)

As flash memory cells are wearing parts, an SSD can only tolerate a limited number of write jobs. DWPD (Drive Write Per Day) is an indicator which specifies write endurance of an SSD. Depending on how the product is used, the number of writing times may reach the end of write endurance within the product lifespan. Product status can be confirmed by management tools such as iRMC Web-UI and Server View RAID Manager (SVRM).

→ Power Supply Unit (PSU)

10. Power Supply Unit (PSU)

July 2019, Ver.2.0



No PSU is included in the Base unit,
At least two PSU's need to be mounted per system.
Max. 4x PSUs can be mounted for PSU redundancy.

200V Normal PSU
MC-5HPS71 / MCX5HPS71 (LD)
- Max. 4x PSUs can be mounted for PSU redundancy.
- 80PLUS® Platinum certified

One PSU_M is included for Disk/MMB Unit.
Max. 2x PSU_Ms can be mounted for PSU redundancy.

200V Normal PSU for DMBU
MC-5HPS91 / MCX5HPS91 (LD)
- 1x PSU_M is included for Disk/MMB Unit.
- Max. 2x PSU_Ms can be mounted for PSU redundancy.
- 80PLUS® Platinum certified

Power Cords

| AC Power input | # of components | | | | # of PSUs | | Dual Power feed |
|----------------|-----------------|----------------------|-----|---------|-------------------------|----------------|-----------------|
| | CPU (W) | DIMM | IOU | PCIeSSD | PSU | PSU_M | |
| 240V | >=200 | 96 slots (Max. 12TB) | 4 | 8 | 3 + 1 (*1) | 1 + 1 (*1) | No |
| | <=165 | | 4 | 8 | 3 + 1 (*1) | 1 + 1 (*1) | No |
| | >=200 | | 2 | 2 | 2 + 1 (*2) / 2 + 2 (*3) | 1 + 1 (*2, *3) | Yes |
| | <=165 | | 2 | 2 | 2 + 1 (*2) / 2 + 2 (*3) | 1 + 1 (*2, *3) | Yes |

- *1: At least 3 PSUs and 1 PSU_M are required. No installation restriction of components.
4 PSUs and 2 PSU_Ms configuration is resistant to failure of one power supply unit. Dual power feed is not possible.
- *2: At least 2 PSUs and 1 PSU_M are required. The maximum number of I/O unit is 2.
3 PSUs and 2 PSU_Ms configuration is resistant to failure of one power supply unit.
- *3: At least 2 PSUs and 1 PSU_M are required. The maximum number of I/O unit is 2.
4 PSUs and 2 PSU_Ms configuration is dual power feed configuration.
Dual power feed configuration is resistant to one data center power feed failure and PSU failure.

If the number of IOU or PCIe SSD exceed the above limit in the PSU 2 + n configuration (*2, *3), it is necessary to check the power consumption of the configuration.
For request of configuration check, please submit request to the contact shown below
fj-mktg-pq@dl.jp.fujitsu.com

10. Power Cords for APAC and Americas

July 2019, Ver.2.0



power cord

* The same quantity of Power Cords need to be ordered as that of PSU.

IEC AC 200V Cable(3m)
MC-0HCB13 / MCX0HCB13 (LD)
 - IEC60320 C20, 3m
 - power cord x 1

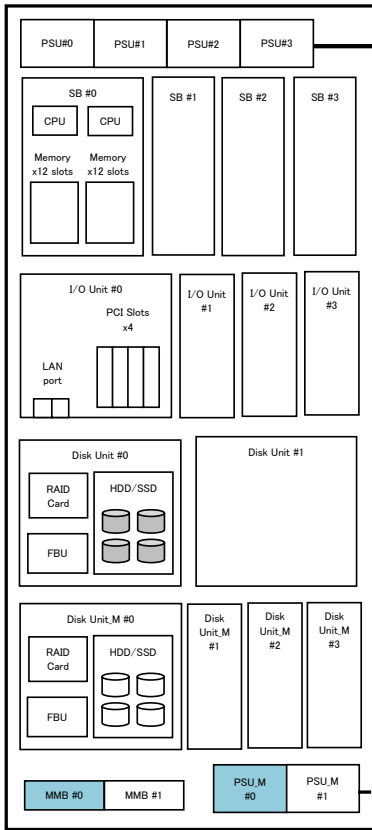
IEC AC 200V Cable(1m)
MC-0HCB11 / MCX0HCB11 (LD)
 - IEC60320 C20, 1m
 - power cord x 1

* The same quantity of Power Cords need to be ordered as that of PSU_M.

IEC AC 200V Cable (3m) for PCI Box and DMBU
MC-0HCB43 / MCX0HCB43 (LD)
 - IEC60320 C20, 3m
 - power cord x 1

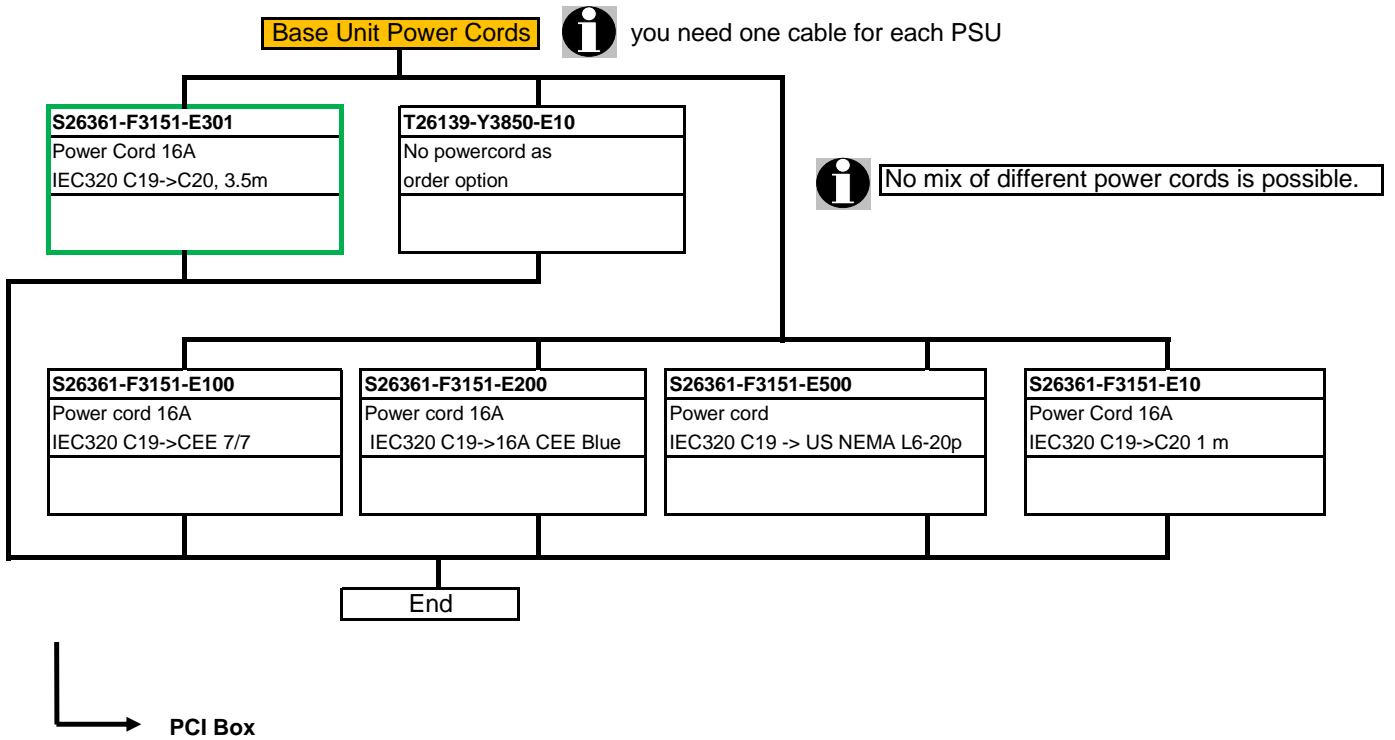
IEC AC 200V Cable (1m) for PCI Box and DMBU
MC-0HCB41 / MCX0HCB41 (LD)
 - IEC60320 C20, 1m
 - power cord x 1

Power Cords



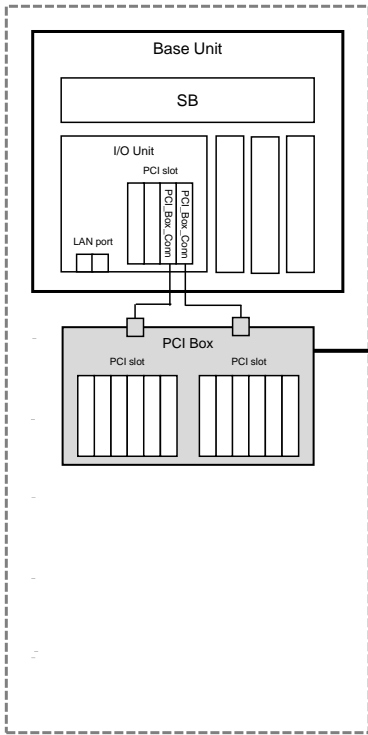
10.Power Cords for EMEA & India

July 2019, Ver.2.0



11.PCI Box

July 2019, Ver.2.0



To connect a PCI Box, a PCI Box Connection Card needs to be ordered and mounted in an I/O Unit. 1 x PCI Box cannot be connected to 2 different Base Units of PRIMEQUEST.

PCI Box
MC-0HPB32

- 1 x PCI Box has 2 x connection ports to connect to PCI Box Connection Cards. 1 x connection port is used to support 6 x PCI Cards. If 2 x connection ports are used to connect 2 x PCI Box Connection Cards, max. 12 x PCI Cards can be mounted.
- 1 x PCI Box can be connected to two different I/O units or one I/O unit with 2x connection ports.
- No PSU is included. Min. 1 x PSU for PCI Box needs to be mounted.
- Fans are mounted with redundant configuration as default configuration.
- Rack space : 4U
- PCI cards are hot pluggable.
- 12 x PCI Card Cassettes are included.
- PCI Cards with Full Height bracket need to be chosen.

PSU for PCI Box
MC-0HPS51 / MCX0HPS51 (LD)

- 1 x PSU is included.
- Max. 2 x PSUs can be mounted per PCI Box for redundancy.

PCI Box Connection Card
MC-0JPC21 / MCX0JPC21 (LD)

- PCI Slots with Low Profile bracket are supported.
- 6 x PCI Cards in a PCI Box can be supported per connection port.
- 1 x PCI Box Connection Cable (2m long) is included.
- Max. 8 x PCI Box Connection Cards can be mounted per Base Unit.

→ next page

Base Units and PCI Boxes need to have the same power supply condition.

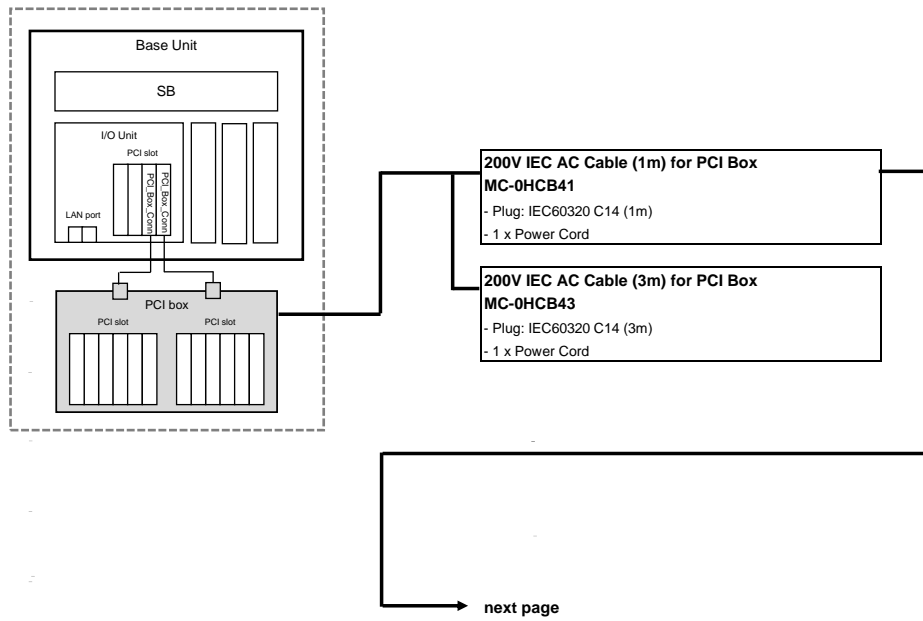
| Input voltage | Power feed | Redundancy | # of PSU | Required quantity | |
|---------------|------------|----------------|----------|-------------------|------------|
| | | | | PSU | Power cord |
| AC 200V | Single | Not available | 1 | 1 | 1 |
| | | Available (*1) | 1+1 | 2 | 2 |
| | Dual | Available (*2) | 1x2 | 2 | 2 |
| | | | | | |

(*1) Single power feed configuration will help to supply power even in the event of PSU failure.

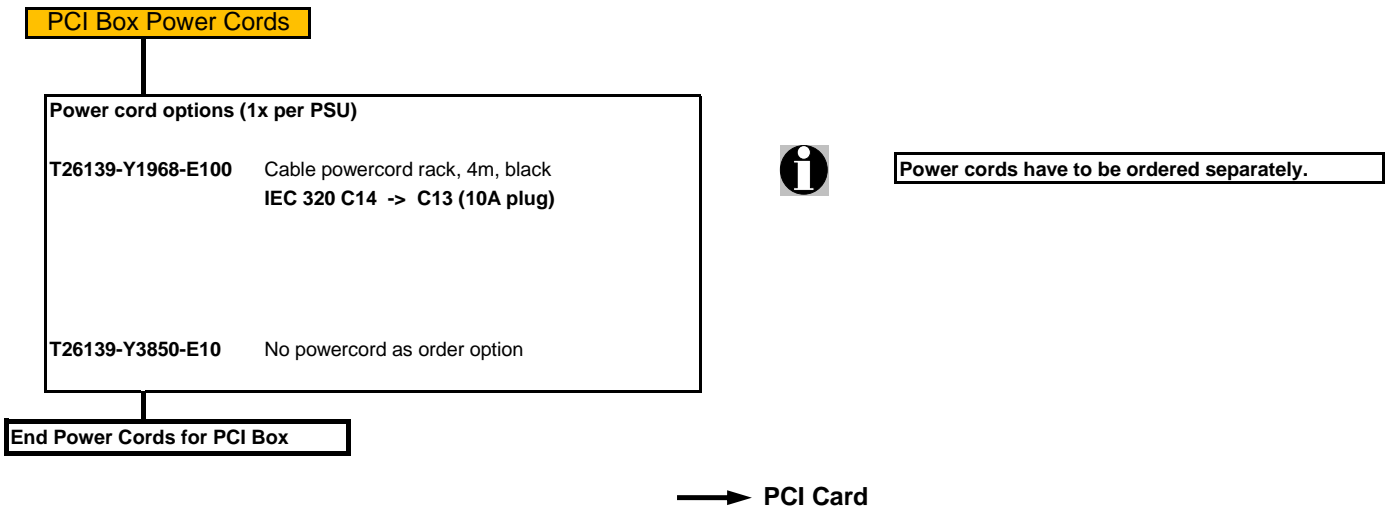
(*2) Dual power feed configuration will help to supply power even in the event of one Power feed failure or PSU failure.

Power Cords for PCI Box for APAC and Americas

July 2019, Ver.2.0

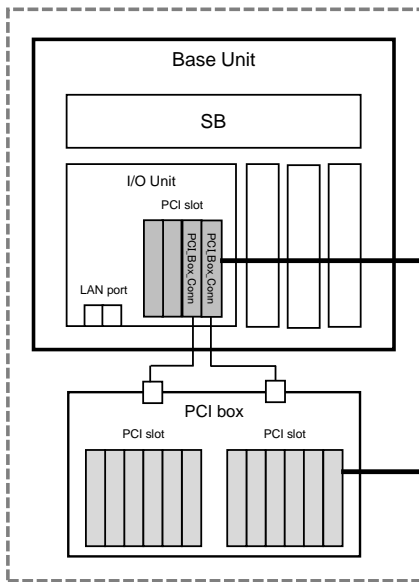


Power Cords for PCI Box for EMEA & India



12.PCI Cards

July 2019, Ver.2.0



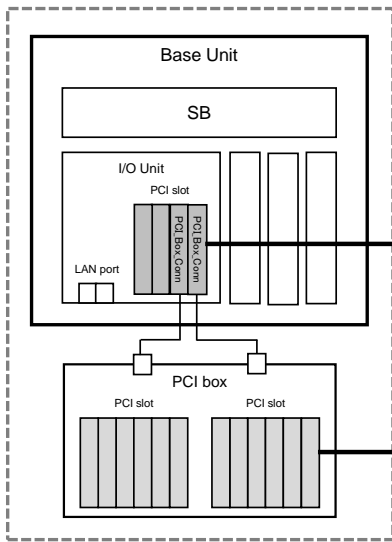
Max. 56 PCI cards(excluding PCI Box Connection Cards) can be mounted in I/O Units and PCI Boxes.
 I/O Unit : Max. 4 cards can be mouted per I/O Unit
 - 1x PCIe x16 (Low Profile)
 - 3x PCIe x8 (Low Profile)
 PCI Box : Max. 12 cards can be mouted per PCI Box
 - 12x PCIe x8 (Full Height, hotpluggable slots)

- PFC EP LPe31000 1x 16Gb Emulex**
 MC-OJFCF1 (Low Profile)
 MC-OJFCF2 (Full Height)
 MCXOJFCF1 (LD, LP/FH)
 Single Channel 16Gbps Fibre Channel Card
- PFC EP LPe31002 2x 16Gb Emulex**
 MC-OJFCG1 (Low Profile)
 MC-OJFCG2 (Full Height)
 MCXOJFCG1 (LD, LP/FH)
 Dual Channel 16Gbps Fibre Channel Card
- PFC EP LPe32000 1x 32Gb Broadcom**
 MC-OJFCM1 (Low Profile)
 MC-OJFCM2 (Full Height)
 MCXOJFCM1 (LD, LP/FH)
 Single Channel 32Gbps Fiber Channel Card
- PFC EP LPe32002 2x 32Gb Broadcom**
 MC-OJFCN1 (Low Profile)
 MC-OJFCN2 (Full Height)
 MCXOJFCN1 (LD, LP/FH)
 Dual Channel 32Gbps Fiber Channel Card
- PFC EP QLE2690 1x 16Gb Qlogic**
 MC-OJFCP1 (Low Profile)
 MC-OJFCP2 (Full Height)
 MCXOJFCP1 (LD, LP/FH)
 Single Channel 16Gbps Fibre Channel Card
- PFC EP QLE2692 2x 16Gb Qlogic**
 MC-OJFCQ1 (Low Profile)
 MC-OJFCQ2 (Full Height)
 MCXOJFCQ1 (LD, LP/FH)
 Dual Channel 16Gbps Fibre Channel Card
- PFC EP QLE2740 1x 32Gb Cavium**
 MC-OJFCJ1 (Low Profile)
 MC-OJFCJ2 (Full Height)
 MCXOJFCJ1 (LD, LP/FH)
 Dual Channel 32Gbps Fibre Channel Card
- PFC EP QLE2742 2x 32Gb Cavium**
 MC-OJFCL1 (Low Profile)
 MCXOJFCL1 (LD, LP)
 Dual Channel 32Gbps Fibre Channel Card

→ PCI Cards 2

PCI Cards 2

July 2019, Ver.2.0



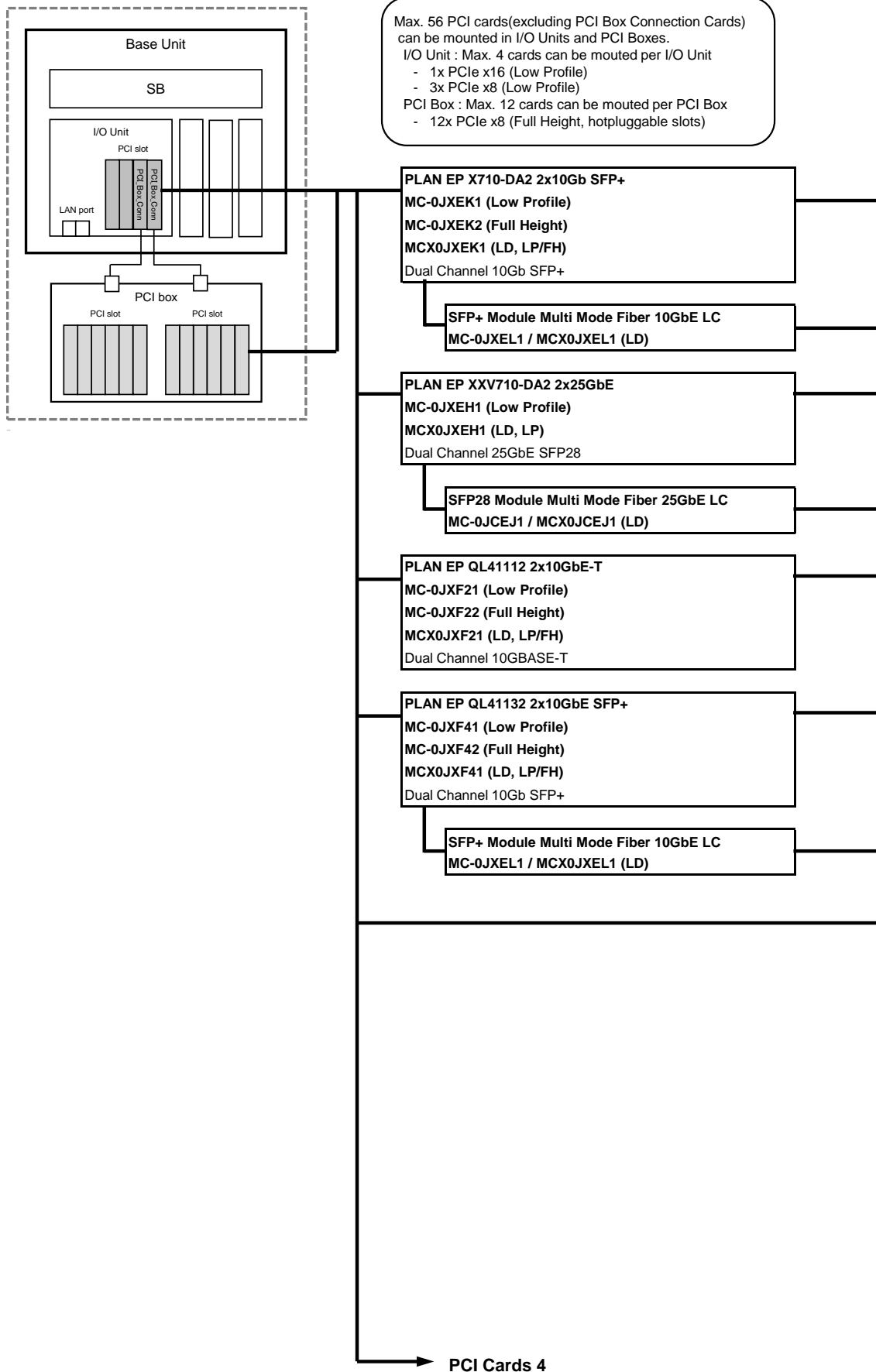
Max. 56 PCI cards(excluding PCI Box Connection Cards) can be mounted in I/O Units and PCI Boxes.
 I/O Unit : Max. 4 cards can be mouted per I/O Unit
 - 1x PCIe x16 (Low Profile)
 - 3x PCIe x8 (Low Profile)
 PCI Box : Max. 12 cards can be mouted per PCI Box
 - 12x PCIe x8 (Full Height, hotpluggable slots)

| | |
|---|--|
| <p>PLAN CP 2x1Gbit Cu Intel I350-T2 LP MC-0JGEC1 (Low Profile) MC-0JGEC2 (Full Height) MCX0JGEC1 (LD, LP/FH) Dual Channel 1000BASE-T</p> | |
| <p>PLAN CP 4x1Gbit Cu Intel I350-T4 LP MC-0JGED1 (Low Profile) MC-0JGED2 (Full Height) MCX0JGED1 (LD, LP/FH) Quad Channel 1000BASE-T</p> | |
| <p>PLAN EP X550-T2 2x10GBASE-T MC-0JXEJ1 (Low Profile) MC-0JXEJ2 (Full Height) MCX0JXEJ1 (LD, LP/FH) Dual Channel 1000BASE-T</p> | |
| <p>PLAN EP X710-T4 4x10GBASE-T LP MC-0JXF11(Low Profile) MCX0JXF11 (LD, LP/FH) Quad Channel 1000BASE-T</p> | |

→ **PCI Cards 3**

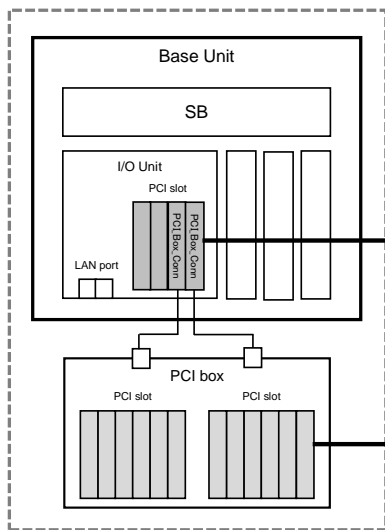
PCI Cards 3

July 2019, Ver.2.0

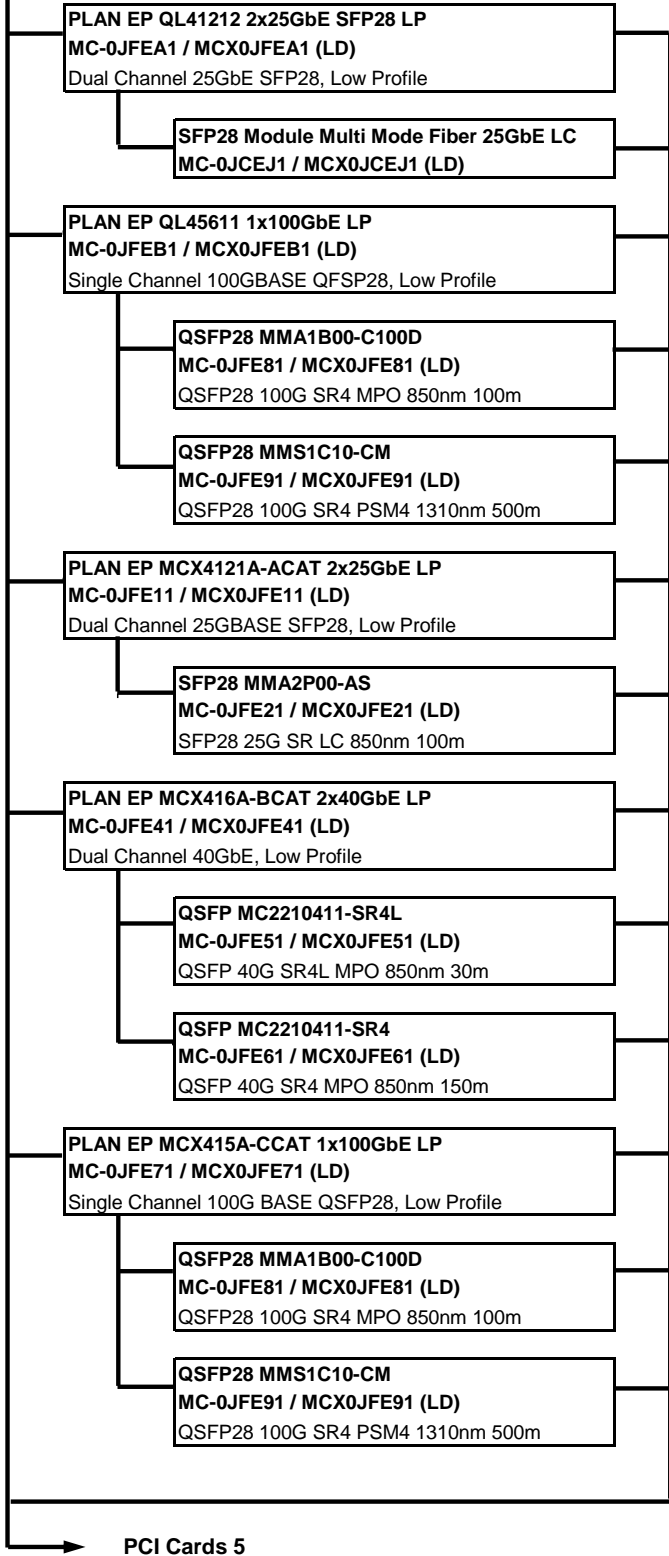


PCI Cards 4

July 2019, Ver.2.0

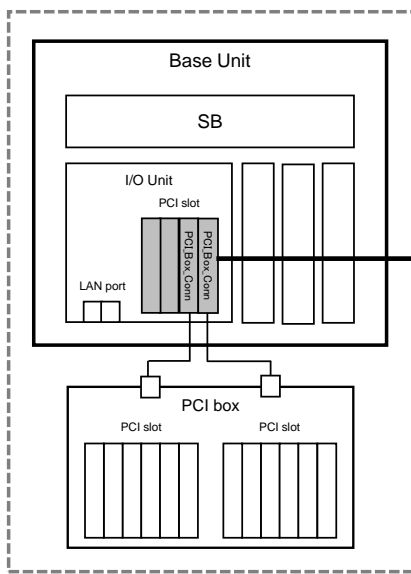


Max. 56 PCI cards(excluding PCI Box Connection Cards) can be mounted in I/O Units and PCI Boxes.
 I/O Unit : Max. 4 cards can be mounted per I/O Unit
 - 1x PCIe x16 (Low Profile)
 - 3x PCIe x8 (Low Profile)
 PCI Box : Max. 12 cards can be mounted per PCI



PCI Cards 5

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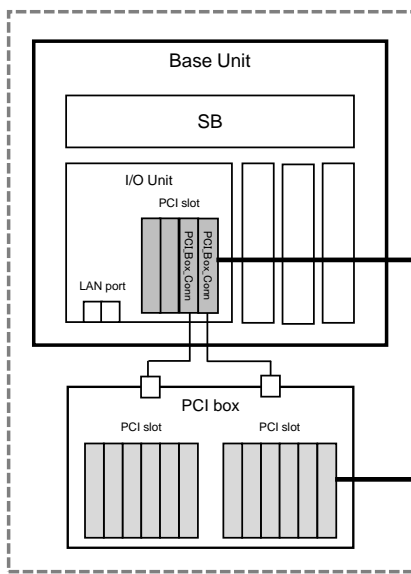
Max. 56 PCI cards(excluding PCI Box Connection Cards) can be mounted in I/O Units and PCI Boxes.
 I/O Unit : Max. 4 cards can be mouted per I/O Unit
 - 1x PCIe x16 (Low Profile)
 - 3x PCIe x8 (Low Profile)
 PCI Box : Max. 12 cards can be mouted per PCI Box
 - 12x PCIe x8 (Full Height, hotpluggable slots)

- PCIe-SSD 2TB P4600 (3DWPD)
 MC-0JSDG1 / MCX0JSDG1 (LD)
 PCIe-SSD P4600 AIC, Low Profile
- PCIe-SSD 4TB P4600 (3DWPD)
 MC-0JSDH1 / MCX0JSDH1 (LD)
 PCIe-SSD P4600 AIC, Low Profile

→ PCI Cards 6

PCI Cards 6

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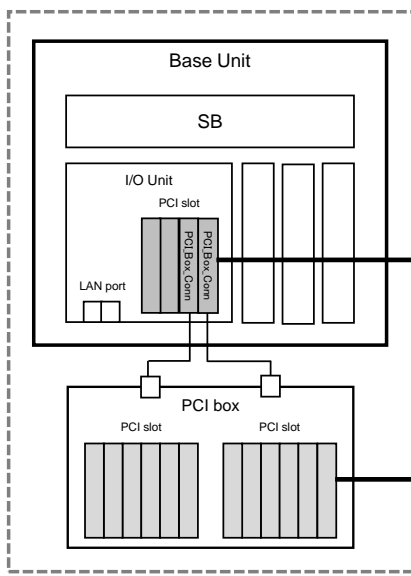


Max. 56 PCI cards(excluding PCI Box Connection Cards) can be mounted in I/O Units and PCI Boxes.
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 - 3x PCIe x8 (Low Profile)
 PCI Box : Max. 12 cards can be mouted per PCI Box
 - 12x PCIe x8 (Full Height, hotpluggable slots)

- PRAID EP420e**
MC-0JSRB1 (Low Profile)
MC-0JSRB2 (Full Height)
MCX0JSRB1 (LD, LP/FH)
 Dual Channel 12Gbps SAS RAID
 - RAID Advanced SW Option CacheCade**
MC-0KLA51 / MCX0KLA51 (LD)
 License Activation Key for CacheCade 2.0 for PRAID EP420e
 One license is required for one RAID card.
 - FBU Mounting kit for IOUE2 EP420e**
MC-0HCKC1 / MCX0HCKC1 (LD)
 FBU Mounting Kit for I/O Unit
 - Max. 4 FBU can be mounted.
 - FBU can be connected only to the card in slot#0 of each I/O Unit.
 - RAID Ctrl FBU option with 25cm cable**
MC-0JFB51 / MCX0JFB51 (LD)
 Max. 4 FBU can be mounted in FBU Mounting Kit.
 - PSAS CP400e**
MC-0JSS41 (Low Profile)
MC-0JSS42 (Full Height)
MCX0JSS41 (LD, LP/FH)
 Dual Channel SAS card (8 port) for external Backup Cabinet.
- **PCI Cards 7**

PCI Cards 7

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Max. 56 PCI cards(excluding PCI Box Connection Cards) can be mounted in I/O Units and PCI Boxes.
 I/O Unit : Max. 4 cards can be mouted per I/O Unit
 - 1x PCIe x16 (Low Profile)
 - 3x PCIe x8 (Low Profile)
 PCI Box : Max. 12 cards can be mouted per PCI Box
 - 12x PCIe x8 (Full Height, hotpluggable slots)

PRAID EP540e
MC-0JSRC1(Low Profile)
MC-0JSRC2 (Full Height)
MCX0JSRC1 (LD, LP/FH)
 Dual Channel 12Gbps(4GBcash) SAS RAID

FBU kit E EP540e
MC-0HCKB1 / MCX0HCKB1 (LD)
 FBU Kit
 - Max. 4 FBU can be mounted.
 - FBU can be connected only to the card in slot#0 of each I/O Unit.

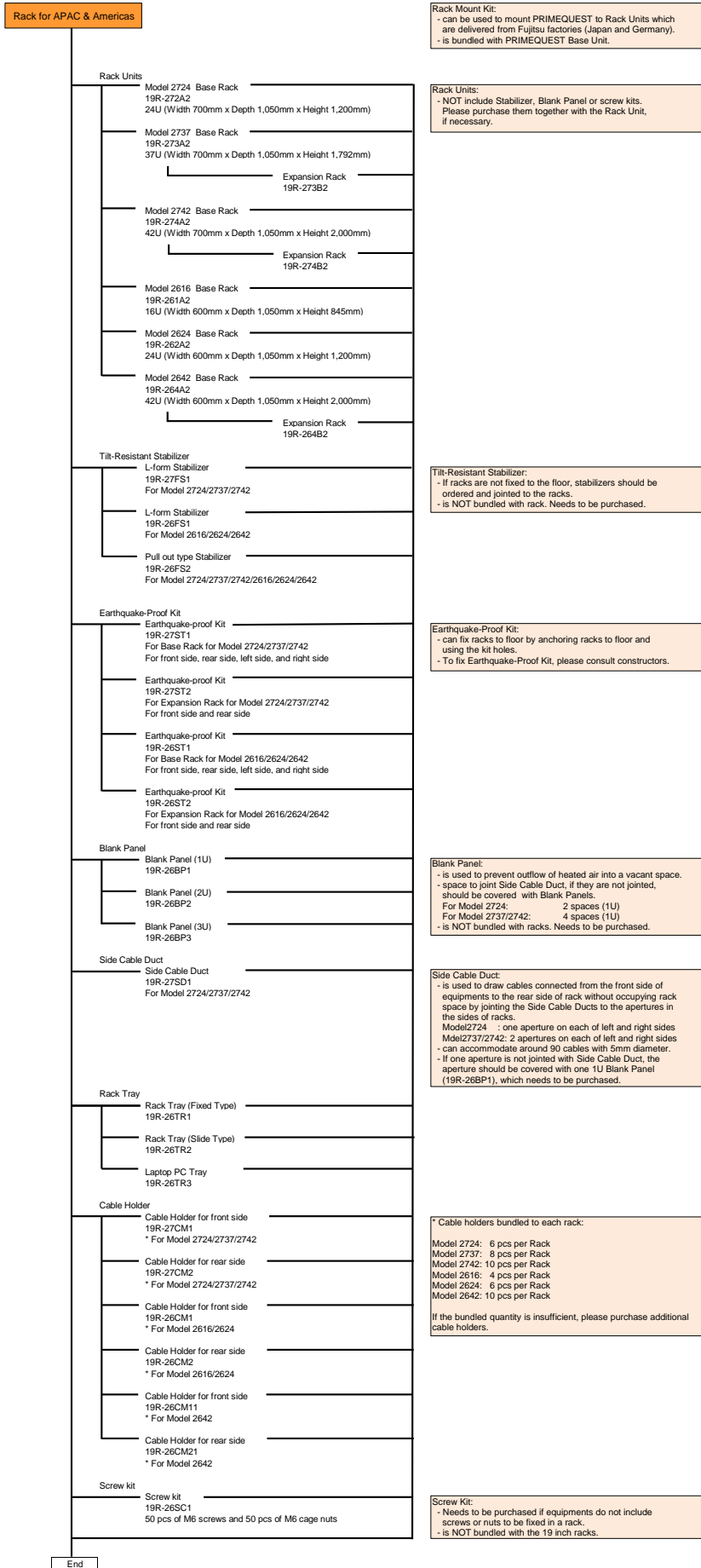
RAID Ctrl FBU option with 25cm cable
MC-0JFB81 / MCX0JFB81 (LD)
 Max. 4 FBU can be mounted in FBU Mounting Kit.

→ **Rack Installation**

13.Rack Installation for APAC and Americas

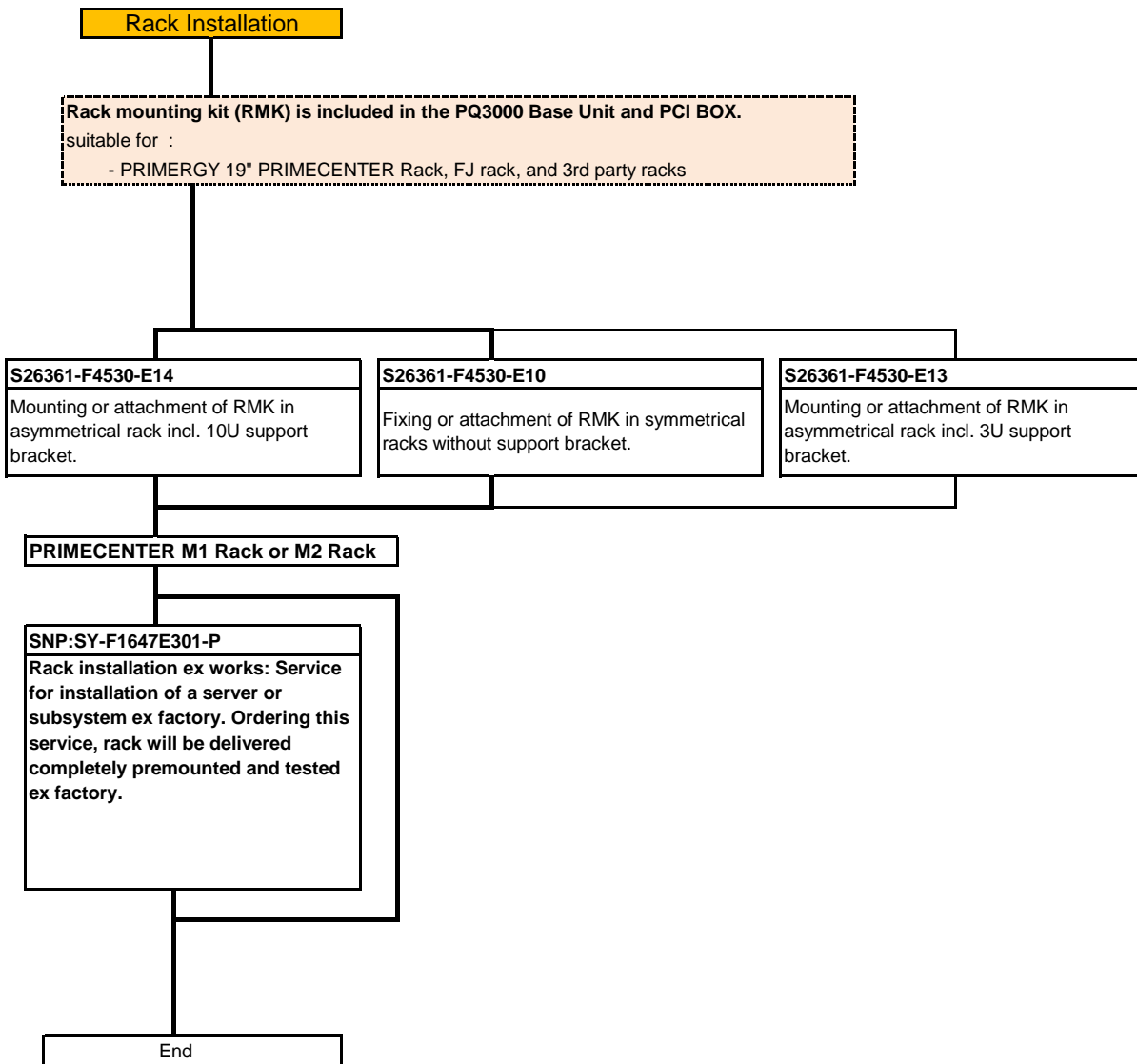
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For the details of rack products, please refer to "19 inch Rack Handbook".
<https://globalpartners.ts.fujitsu.com/sites/primeweb/services/servers/primequest/document/Pages/dc-h-guide.aspx>



13.Rack Installation for EMEA and India

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For more configuration information, RACK COMPONENTS, PDU & KVM please see:
<http://globalsp.ts.fujitsu.com/dmsp/Publications/public/cnfgPCM1rack.pdf>

14. Maximum Quantity of PCIe Cards

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Maximum Quantity of PCI Cards that can be mounted.

per Partition / per System

| Product Name | | | Order Number | | | Max. Qty | |
|-----------------------------------|------------------------|----------|--------------|-----------------|-----------|-----------|-------------|
| | | | BTO | BTO for PCI Box | LD | 3800E | ESXi *6 |
| SAS RAID controller card (EP420i) | PRAID EP420i | *6 *7 | MC-0JSRA1 | Not mountable | MCX0JSRA1 | | |
| SAS RAID controller card (EP540i) | PRAID EP540i | *6 *7 | MC-0JSR71 | Not mountable | MCX0JSR71 | 6c / 6c | |
| RAID controller card (EP580i) | PRAID EP580i | *6 *7 | MC-0JSR81 | Not mountable | MCX0JSR81 | | total 2 |
| PRAID EP420e | PRAID EP420e | *6 | MC-0JSRB1 | MC-0JSRB2 | MCX0JSRB1 | 2c / 4c | |
| PRAID EP540e | PRAID EP540e | *6 | MC-0JSRC1 | MC-0JSRC2 | MCX0JSRC1 | 2c / 4c | |
| PSAS CP400e | PSAS CP400e | *6 | MC-0JSS41 | MC-0JSS42 | MCX0JSS41 | 4c / 8c | 2 |
| PFC EP LPe31000 1x 16Gb Emulex | Broadcom LPe31000 | *1 *2 *6 | MC-0JFCF1 | MC-0JFCF2 | MCX0JFCF1 | 16p / 24c | |
| PFC EP LPe31002 2x 16Gb Emulex | Broadcom LPe31002 | *1 *2 *6 | MC-0JFCG1 | MC-0JFCG2 | MCX0JFCG1 | | total 8 |
| PFC EP LPe32000 1x 32Gb Broadcom | Broadcom LPe32000 | *1 *2 *6 | MC-0JFCM1 | MC-0JFCM2 | MCX0JFCM1 | 8p / 16c | |
| PFC EP LPe32002 2x 32Gb Broadcom | Broadcom LPe32002 | *1 *2 *6 | MC-0JFCN1 | MC-0JFCN2 | MCX0JFCN1 | | |
| PFC EP QLE2690 1x 16Gb Qlogic | Qlogic QLE2690 | *1 *6 | MC-0JFCP1 | MC-0JFCP2 | MCX0JFCP1 | 16p / 24c | |
| PFC EP QLE2690 2x 16Gb Qlogic | Qlogic QLE2692 | *1 *6 | MC-0JFCQ1 | MC-0JFCQ2 | MCX0JFCQ1 | 16p / 12c | |
| PFC EP QLE2740 1x 32Gb Cavium | Qlogic QLE2740 | *1 *6 | MC-0JFCK1 | MC-0JFCK2 | MCX0JFCK1 | 8p / 16c | total 8 |
| PFC EP QLE2742 2x 32Gb Cavium | Qlogic QLE2742 | *1 *6 | MC-0JFCL1 | Not mountable | MCX0JFCL1 | | |
| PLAN CP 2x1Gbit Cu Intel I350-T2 | Intel i350-T2 | | MC-0JGEC1 | MC-0JGEC2 | MCX0JGEC1 | 16c / 24c | 8 |
| PLAN CP 4x1Gbit Cu Intel I350-T4 | Intel i350-T4 | | MC-0JGED1 | MC-0JGED2 | MCX0JGED1 | | 4 |
| PLAN EP X550-T2 2x10GBASE-T | Intel X550-T2 | | MC-0JXEJ1 | MC-0JXEJ2 | MCX0JXEJ1 | 16c / 24c | 8 |
| PLAN EP X710-DA2 2x10Gb SFP+ | Intel X710-DA2 | *3 | MC-0JXEK1 | MC-0JXEK2 | MCX0JXEK1 | 8c / 24c | 4 |
| PLAN EP X710-T4 4x10GbE-T | Intel X710-T4 | | MC-0JXF11 | Not mountable | MCX0JXF11 | 8c / 16c | 4 |
| PLAN EP XXV710-DA2 2x 25GbE | Intel XXV710-DA2 | | MC-0JXEH1 | Not mountable | MCX0JXEH1 | 8c / 8c | 2 |
| PLAN EP QL41112 2x10GbE-T | Qlogic QL41112 | | MC-0JXF21 | MC-0JXF22 | MCX0JXF21 | | 8 |
| PLAN EP QL41132 2x10GbE SFP+ | Qlogic QL41132 | | MC-0JXF41 | MC-0JXF42 | MCX0JXF41 | 16c / 24c | 4 |
| PLAN EP QL41212 2x25GbE SFP28 | Qlogic QL41212 | | MC-0JFEA1 | Not mountable | MCX0JFEA1 | 4c / 16c | 4 |
| PLAN EP QL45611 1x100GbE LP | Qlogic QL45611 | | MC-0JFEB1 | Not mountable | MCX0JFEB1 | 4c / 4c | 2 |
| PLAN EP MCX4121A-ACAT 2x25GbE | Mellanox MCX4121A-ACAT | *6 | MC-0JFE11 | Not mountable | MCX0JFE11 | 4c / 8c | |
| PLAN EP MCX416A-BCAT 2x40GbE | Mellanox MCX416A-BCAT | *6 | MC-0JFE41 | Not mountable | MCX0JFE41 | 4c / 4c | total 4 |
| PLAN EP MCX415A-CCAT 1x100GbE | Mellanox MCX415A-CCAT | *6 | MC-0JFE71 | Not mountable | MCX0JFE71 | 4c / 4c | |
| PCIe-SSD 2TB P4600 (3DWPD) | Intel P4600, 3DWPD | *4 | MC-0JSDG1 | Not mountable | MCX0JSDG1 | | |
| PCIe-SSD 4TB P4600 (3DWPD) | Intel P4600, 3DWPD | *4 | MC-0JSDH1 | Not mountable | MCX0JSDH1 | 8c / 8c | 8 |
| PCI Box connection card | | *5 | MC-0JPC21 | Not mountable | MCX0JPC21 | | See note *5 |

Notes:

Max. Qty : must satisfy the both limits of partition and system.

Mc / Nc max. M cards can be mounted per partition. / total N cards can be mounted in the system including PCI Boxes.

Pp / Qc the total number of ports of the same kind of cards is allowed up to P ports. / total Q cards can be mounted in the system including PCI Boxes.

*1) Broadcom Fibre Channel Cards and Qlogic Fibre Channel Cards CANNOT be used in the same partition.

*2) Max total ports number of "Broadcom Fibre Channel Cards" and "LAN cards" per partition is 16 ports.

*3) Max number of "PLAN EP X710-DA2 2x10Gb SFP+" [MC-0JXEK1/MC-0JXEK2] per partition is 8. [Restriction] Max. number for these products per system is 24.

*4) Max. number depends on the configuration of CPU and PSU. Please refer 'Power Supply Unit' for details.

*5) Two connect cards are mountable per I/O units. Max. four connect cards are mountable to two I/O units as the maximum number of I/O units in a system.

*6) EP420i and EP420e, or EP540i/580i and EP420e/EP540e are supported with a total of up to 2 cards by ESXi.

Emulex FC (LPe3100x, LPe3200x) is supported with a total of up to 8 cards by ESXi.

Qlogic FC (QLE2690, QLE2692, QLE2740, QLE2742) is supported with a total of up to 8 cards by ESXi.

Mellanox PLANs(25/40/100Gb) are supported with a total of up to 4 ports by ESXi.

Up to 16 10Gb ports are supported by ESXi 6.7.

Refer to the following documents for restriction on VMware vSphere.

<https://configmax.vmware.com/home>

*6) Mixing of Mellanox 25G/40G/100G LAN card and 100G Infiniband HCA card is not allowed.

*7) EP420i and EP540i/580i are not allowed to be populated together in a partition.

15. Available OS (1)

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| Product name | Order number | OS | | | | | | | | | |
|---|-----------------|----------------|-----------------|----------------|---------------|---------------|-------------|----------|------------|------------|------------|
| | | Build to Order | ITO For PCI Box | Loose Delivery | (1) Microsoft | (2) Microsoft | (3) Red Hat | (4) SUSE | (5) VMware | (6) Oracle | (7) Oracle |
| PRIMEQUEST 3800E2 Base Unit | MCK3AC111 | NA | | | A | p | A | A | A | NA | NA |
| Advanced Thermal Design Option | MC-0PTH2 | | | | - | - | - | - | - | - | - |
| System Board | MC-3HSBD1 | | | | MCX3HSBD1 | A | p | A | A | A | NA |
| TPM Module(v2.0) | MC-6HTP31 | | | | MCX6HTP31 | NA | NA | A | A | A | NA |
| eLClM Activation License (no load) | MC-6KMA21 | | | | MCX6KMA21 | - | - | - | - | - | - |
| USB Flash Device 64GB Dual | MC-SFA411 | | | | MCX5FA411 | NA | NA | NA | NA | A | NA |
| M.2 Flash Device (VMware, 240GB) | MC-SFB741 | | | | MCX5FB741 | NA | NA | NA | NA | 6.7U2 | NA |
| M.2 Flash Device 480GB (except ESX) | MC-SFB771 | | | | MCX5FB771 | A | A | A | A | NA | NA |
| M.2 Flash Device 240GB (except ESX) | MC-SFB751 | | | | MCX5FB751 | A | A | A | A | NA | NA |
| Intel Xeon Platinum 8280L Processor (28C/2.7GHz/4.5TB/205W) | MC-3BJA41 | | | | MCX3BJA41 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8280M Processor (28C/2.7GHz/2TB/205W) | MC-3BJA21 | | | | MCX3BJA21 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8280 Processor (28C/2.7GHz/1TB/205W) | MC-3BJA11 | | | | MCX3BJA11 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8276L Processor (28C/2.2GHz/4.5TB/165W) | MC-3BKA41 | | | | MCX3BKA41 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8276M Processor (28C/2.2GHz/2TB/165W) | MC-3BKA21 | | | | MCX3BKA21 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8276 Processor (28C/2.2GHz/1TB/165W) | MC-3BKA11 | | | | MCX3BKA11 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8270 Processor (28C/2.7GHz/1TB/205W) | MC-3BKB11 | | | | MCX3BKB11 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8268 Processor (24C/2.9GHz/1TB/205W) | MC-3BJC11 | | | | MCX3BJC11 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8265L Processor (24C/2.4GHz/4.5TB/165W) | MC-3BKC41 | | | | MCX3BKC41 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8265M Processor (24C/2.4GHz/2TB/165W) | MC-3BKC21 | | | | MCX3BKC21 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8265 Processor (24C/2.4GHz/1TB/165W) | MC-3BKC11 | | | | MCX3BKC11 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8256 Processor (4C/3.8GHz/1TB/105W) | MC-3BKN11 | | | | MCX3BKN11 | A | A | A | A | A | NA |
| Intel Xeon Platinum 8253 Processor (16C/2.2GHz/1TB/125W) | MC-3BKG11 | | | | MCX3BKG11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6282V Processor (24C/1.9GHz/1TB/135W) | MC-3BRC11 | | | | MCX3BRC11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6254 Processor (18C/3.1GHz/1TB/200W) | MC-3BMF11 | | | | MCX3BMF11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6252 Processor (24C/2.1GHz/1TB/150W) | MC-3BNC11 | | | | MCX3BNC11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6248 Processor (20C/2.5GHz/1TB/150W) | MC-3BNE11 | | | | MCX3BNE11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6246 Processor (12C/3.3GHz/1TB/165W) | MC-3BSJ11 | | | | MCX3BSJ11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6244 Processor (8C/3.6GHz/1TB/150W) | MC-3BNL11 | | | | MCX3BNL11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6242 Processor (16C/2.8GHz/1TB/150W) | MC-3BNG11 | | | | MCX3BNG11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6240L Processor (18C/2.5GHz/4.5TB/150W) | MC-3BNF41 | | | | MCX3BNF41 | A | A | A | A | A | NA |
| Intel Xeon Gold 6240M Processor (18C/2.5GHz/2TB/150W) | MC-3BNF21 | | | | MCX3BNF21 | A | A | A | A | A | NA |
| Intel Xeon Gold 6240 Processor (18C/2.5GHz/1TB/150W) | MC-3BNF11 | | | | MCX3BNF11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6238L Processor (22C/2.1GHz/4.5TB/140W) | MC-3BND41 | | | | MCX3BND41 | A | A | A | A | A | NA |
| Intel Xeon Gold 6238M Processor (22C/2.1GHz/2TB/140W) | MC-3BND21 | | | | MCX3BND21 | A | A | A | A | A | NA |
| Intel Xeon Gold 6238 Processor (22C/2.1GHz/1TB/140W) | MC-3BND11 | | | | MCX3BND11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6234 Processor (8C/3.3GHz/1TB/130W) | MC-3BRL11 | | | | MCX3BRL11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6230 Processor (20C/2.1GHz/1TB/125W) | MC-3BRE11 | | | | MCX3BRE11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6226 Processor (12C/2.9GHz/1TB/125W) | MC-3BNJ11 | | | | MCX3BNJ11 | A | A | A | A | A | NA |
| Intel Xeon Gold 6222V Processor (20C/1.9GHz/1TB/115W) | MC-3BPE11 | | | | MCX3BPE11 | A | A | A | A | A | NA |
| 32GB Memory (16GB 1Rx4 DDR4 RDIMM x2) | MC-3CE611 | | | | MCX3CE611 | A | A | A | A | A | NA |
| 64GB Memory (32GB 2Rx4 DDR4 RDIMM x2) | MC-3CE711 | | | | MCX3CE711 | A | A | A | A | A | NA |
| 128GB Memory (64GB 2Rx4 DDR4 RDIMM x2) | MC-3CE811 | | | | MCX3CE811 | A | A | A | A | A | NA |
| 128GB Memory (64GB 4Rx4 DDR4 LRDIMM x2) | MC-3CEB21 | | | | MCX3CEB21 | A | A | A | A | A | NA |
| 256GB Memory (128GB 8Rx4 DDR4 LRDIMM 3DS x2) | MC-3CE911 | | | | MCX3CE911 | A | A | A | A | A | NA |
| 512GB Memory (256GB 8Rx4 DDR4 LRDIMM 3DS x2) | MC-3CEA11 | | | | MCX3CEA11 | A | A | A | A | A | NA |
| 128GB DDR-T DCPMM(NV/MLRDIMM) | Special Release | | | | | A | A | A | A | A | NA |
| 256GB DDR-T DCPMM(NV/MLRDIMM) | Special Release | | | | | A | A | A | A | A | NA |
| 512GB DDR-T DCPMM(NV/MLRDIMM) | Special Release | | | | | A | A | A | A | A | NA |
| Management Board | MC-3HMM41 | | | | MCX3HMM41 | A | A | A | A | A | NA |
| I/O Unit E | MC-3SHU71 | | | | MCX3SHU71 | A | A | A | A | A | NA |
| Disk Unit for SAS (SAS3.0) | MC-3SHDU71 | | | | MCX3SHDU71 | A | A | A | A | A | NA |
| Disk Unit for PCIe SFF(DU, PCIeA) | MC-3SHDU61 | | | | MCX3SHDU61 | A | A | A | A | A | NA |
| Disk Unit for DMBU(Disk/MBMS Unit) (DU, M) | MC-3SHDU51 | | | | MCX3SHDU51 | A | A | A | A | A | NA |
| SAS RAID controller card (EP420) | MC-0JSRA1 | | | | MCX0JSRA1 | A | A | A | A | A | NA |
| SAS RAID controller card (EP540) | MC-0JSR71 | | | | MCX0JSR71 | A | A | A | A | A | NA |
| RAID controller card (EP580) | MC-0JSR81 | | | | MCX0JSR81 | A | A | A | A | A | NA |
| RAID controller card (EP540e) | MC-0JSRC1 | | | | MCX0JSRC1 | A | A | p | 15 | 6.7U2 | NA |
| Flash Back-up Unit for EP420 | MC-0JFB61 | | | | MCX0JFB61 | - | - | - | - | - | - |
| Flash Back-up Unit for EP540 | MC-0JFB41 | | | | MCX0JFB41 | - | - | - | - | - | - |
| Flash Back-up Unit for EP540e | MC-0JFB81 | | | | MCX0JFB81 | - | - | - | - | - | - |
| RAID Advanced Software Options | MC-OKLA51 | | | | MCXOKLA51 | A | A | A | A | A | NA |
| 300GB Hard Disk Drive (512v/12Gbps/15,000rpm) | MC-5DS771 | | | | MCX5DS771 | A | A | A | A | A | NA |
| 600GB Hard Disk Drive (512v/12Gbps/15,000rpm) | MC-5DS961 | | | | MCX5DS961 | A | A | A | A | A | NA |
| 900GB Hard Disk Drive (512v/12Gbps/15,000rpm) | MC-5DSA51 | | | | MCX5DSA51 | A | A | A | A | A | NA |
| 300GB Hard Disk Drive (512v/12Gbps/10,000rpm) | MC-5DS781 | | | | MCX5DS781 | A | A | A | A | A | NA |
| 600GB Hard Disk Drive (512v/12Gbps/10,000rpm) | MC-5DS971 | | | | MCX5DS971 | A | A | A | A | A | NA |
| 900GB Hard Disk Drive (512v/12Gbps/10,000rpm) | MC-5DSA61 | | | | MCX5DSA61 | A | A | A | A | A | NA |
| 1.2TB Hard Disk Drive (512v/12Gbps/10,000rpm) | MC-5DSB41 | | | | MCX5DSB41 | A | A | A | A | A | NA |
| 1.8TB Hard Disk Drive (512v/12Gbps/10,000rpm) | MC-5DSC21 | | | | MCX5DSC21 | A | A | A | A | A | NA |
| 2.4TB Hard Disk Drive (512v/12Gbps/10,000rpm) | MC-5DSD11 | | | | MCX5DSD11 | A | A | A | A | A | NA |
| 400GB Solid State Drive (512v/12Gbps/10DWPDP) | MC-5DGB21 | | | | MCX5DGB21 | A | A | A | A | A | NA |
| 800GB Solid State Drive (512v/12Gbps/10DWPDP) | MC-5DGB21 | | | | MCX5DGB21 | A | A | A | A | A | NA |
| 1.6TB Solid State Drive (512v/12Gbps/10DWPDP) | MC-5DGA21 | | | | MCX5DGA21 | A | A | A | A | A | NA |
| 400GB Solid State Drive (512v/12Gbps/3WPD) | MC-5DHE21 | | | | MCX5DHE21 | A | A | A | A | A | NA |
| 800GB Solid State Drive (512v/12Gbps/3WPD) | MC-5DHE21 | | | | MCX5DHE21 | A | A | A | A | A | NA |
| 1.6TB Solid State Drive (512v/12Gbps/3DWPDP) | MC-5DHA21 | | | | MCX5DHA21 | A | A | A | A | A | NA |
| 3.2TB Solid State Drive (512v/12Gbps/3DWPDP) | MC-5DHB21 | | | | MCX5DHB21 | A | A | A | A | A | NA |
| 6.4TB Solid State Drive (512v/12Gbps/3DWPDP) | MC-5DKG21 | | | | MCX5DKG21 | A | A | A | A | A | NA |
| 1.6TB Solid State Drive (SFF/3DWPDP) | MC-5DKD21 | | | | MCX5DKD21 | A | A | p | 15 | 6.7U2 | NA |
| 3.2TB Solid State Drive (SFF/3DWPDP) | MC-5DKK21 | | | | MCX5DKK21 | A | A | p | 15 | 6.7U2 | NA |
| 6.4TB Solid State Drive (SFF/3DWPDP) | MC-5DKF21 | | | | MCX5DKF21 | A | A | p | 15 | 6.7U2 | NA |
| 200V Normal PSU | MC-3HPS71 | | | | MCX3HPS71 | - | - | - | - | - | - |
| 200V Normal PSU for DMBU | MC-3HPS91 | | | | MCX3HPS91 | - | - | - | - | - | - |
| IEC AC(200V) Cable (1m) | MC-0HCB11 | | | | MCX0HCB11 | - | - | - | - | - | - |
| IEC AC(200V) Cable (3m) | MC-0HCB13 | | | | MCX0HCB13 | - | - | - | - | - | - |
| IEC AC(200V) Cable (1m) for PCI Box and DMBU | MC-0HCB41 | | | | MCX0HCB41 | - | - | - | - | - | - |
| IEC AC(200V) Cable (3m) for PCI Box and DMBU | MC-0HCB43 | | | | MCX0HCB43 | - | - | - | - | - | - |
| PCI Box | MC-0HPB32 | | | | MCX0HPB32 | A | A | A | A | A | NA |
| PSU for PCI Box | MC-0HPS51 | | | | MCX0HPS51 | - | - | - | - | - | - |
| PCI Box Connection Card | MC-0JPC21 | | | | MCX0JPC21 | A | A | A | A | A | NA |

- (1) Microsoft® Windows Server® 2016 (Standard/Datacenter)
- (2) Microsoft® Windows Server® 2019 (Standard /Datacenter)
- (3) Red Hat® Enterprise Linux® 7.6 / 8.0
- (4) SUSE® Linux Enterprise Server 12 SP4 / 15
- (5) VMware vSphere® 6.7 U1 / 6.7U2
- (6) Oracle® Linux 7
- (7) Oracle® VM 3.4

A : Available
 NA : Not Available
 p : planned

15.Avalalbe OS (2)

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| Product name | Order number | | | OS | | | | | | | |
|--|----------------|-----------------|----------------|-------------|-------------|-------------|----------|------------|------------------|---------------|---|
| | Build to Order | BT0 for PCI Box | Loose Delivery | Windows (1) | Windows (2) | Red Hat (3) | SUSE (4) | VMware (5) | Oracle Linux (6) | Oracle VM (7) | |
| PFC EP LPe31000 1x 16Gb Emulex | MC-0JFCF1 | MC-0JFCF2 | MCX0JFCF1 | A | p | A | A | A | NA | NA | (1) Microsoft® Windows Server® 2016 (Standard/Datacenter) |
| PFC EP LPe31002 2x 16Gb Emulex | MC-0JFCG1 | MC-0JFCG2 | MCX0JFCG1 | A | p | A | A | A | NA | NA | (2) Microsoft® Windows Server® 2019 (Standard / Datacenter) |
| PFC EP LPe32000 1x 32Gb Broadcom | MC-0JFCM1 | MC-0JFCM2 | MCX0JFCM1 | A | p | A | A | A | NA | NA | (3) Red Hat® Enterprise Linux® 7.6 / 8.0 |
| PFC EP LPe32002 2x 32Gb Broadcom | MC-0JFCN1 | MC-0JFCN2 | MCX0JFCN1 | A | p | A | A | A | NA | NA | (4) SUSE® Linux Enterprise Server 12 SP4 / 15 |
| PFC EP QLE2690 1x 16Gb Qlogic | MC-0JFCP1 | MC-0JFCP2 | MCX0JFCP1 | A | p | p | p | A | NA | NA | (5) VMware vSphere® 6.7 U1 / 6.7U2 |
| PFC EP QLE2692 2x 16Gb Qlogic | MC-0JFCQ1 | MC-0JFCQ2 | MCX0JFCQ1 | A | p | p | p | A | NA | NA | (6) Oracle® Linux 7 |
| PFC EP QLE2740 1x 32Gb Cavium | MC-0JFCK1 | MC-0JFCK2 | MCX0JFCK1 | A | p | p | p | A | NA | NA | (7) Oracle® VM 3.4 |
| PFC EP QLE2742 2x 32Gb Cavium | MC-0JFCL1 | | MCX0JFCL1 | A | p | p | p | A | NA | NA | * Broadcom LPe31000 |
| PLAN CP 2x1Gbit Cu Intel I350-T2 | MC-0JGEC1 | MC-0JGEC2 | MCX0JGEC1 | A | p | A | A | A | NA | NA | * Broadcom LPe31002 |
| PLAN CP 4x1Gbit Cu Intel I350-T4 | MC-0JGED1 | MC-0JGED2 | MCX0JGED1 | A | p | A | A | A | NA | NA | * Broadcom LPe32000 |
| PLAN EP X550-T2 2x10GBASE-T | MC-0JXEJ1 | MC-0JXEJ2 | MCX0JXEJ1 | A | p | A | p | A | NA | NA | * Broadcom LPe32002 |
| PLAN EP X710-DA2 2x10Gb SFP+ | MC-0JXEK1 | MC-0JXEK2 | MCX0JXEK1 | A | p | A | p | A | NA | NA | * Qlogic QLE2690 |
| PLAN EP X710-T4 4x10GBASE-T LP | MC-0JXF11 | | MCX0JXF11 | p | p | A | p | 6.7U2 | NA | NA | * Qlogic QLE2740 |
| SFP+ Module Multi Mode Fiber 10GbE LC | MC-0JXEL1 | | MCX0JXEL1 | - | - | - | - | - | - | - | * Qlogic QLE2740 |
| PLAN EP XXV710-DA2 2x 25GbE | MC-0JXEH1 | | MCX0JXEH1 | A | p | A | p | A | NA | NA | * Intel I350-T2 |
| SFP28 Module Multi Mode Fiber 25GbE LC | MC-0JCEJ1 | | MCX0JCEJ1 | - | - | - | - | - | - | - | * Intel I350-T4 |
| PLAN EP QL41112 2x10GbE-T | MC-0JXF21 | MC-0JXF22 | MCX0JXF22 | A | p | p | 15 | A | NA | NA | * Intel X550-T2 |
| PLAN EP QL41132 2x10GbE SFP+ | MC-0JXF41 | MC-0JXF42 | MCX0JXF41 | A | p | p | 15 | A | NA | NA | * Intel X710-DA2 |
| PLAN EP QL41212 2x25GbE SFP28 | MC-0JFEA1 | | MCX0JFEA1 | A | p | p | 15 | A | NA | NA | * Intel X710-T4 |
| PLAN EP QL45611 1x100Gb | MC-0JFEB1 | | MCX0JFEB1 | A | p | p | 15 | A | NA | NA | * Intel XXV710-DA2 |
| PLAN EP MCX4121A-ACAT 2x25GbE | MC-0JFE11 | | MCX0JFE11 | A | A | 7.6 | 15 | 6.7U2 | NA | NA | * Cavium QL4112HLRJ |
| SFP28 MMA2P00-AS | MC-0JFE21 | | MCX0JFE21 | - | - | - | - | - | - | - | * Cavium QL41132HLCU |
| PLAN EP MCX416A-BCAT 2x40GbE | MC-0JFE41 | | MCX0JFE41 | A | A | 7.6 | 15 | 6.7U2 | NA | NA | * Cavium QL41212 |
| QSFP MC2210411-SR4L | MC-0JFE51 | | MCX0JFE51 | - | - | - | - | - | - | - | * Cavium QL45611HLCU |
| QSFP MC2210411-SR4 | MC-0JFE61 | | MCX0JFE61 | - | - | - | - | - | - | - | * Mellanox MCX4121A-ACAT |
| PLAN EP MCX415A-CCAT 1x100GbE | MC-0JFE71 | | MCX0JFE71 | A | A | 7.6 | 15 | 6.7U2 | NA | NA | * Mellanox MCX416A-BCAT |
| QSFP28 MMA1B00-C100D | MC-0JFE81 | | MCX0JFE81 | - | - | - | - | - | - | - | * Mellanox MCX415A-CCAT |
| QSFP28 MMS1C10-CM | MC-0JFE91 | | MCX0JFE91 | - | - | - | - | - | - | - | |
| PCIe-SSD 2TB P4600 (3DWPD) | MC-0JSDG1 | | MCX0JSDG1 | A | p | p | p | 6.7U1 | NA | NA | * Intel P4600 SSD AIC |
| PCIe-SSD 4TB P4600 (3DWPD) | MC-0JSDH1 | | MCX0JSDH1 | A | p | p | p | 6.7U1 | NA | NA | * Intel P4600 SSD AIC |
| PRAID EP420e | MC-0JSRB1 | MC-0JSRB2 | MCX0JSRB1 | A | A | A | 12SP4 | A | NA | NA | * EP420e |
| FBU for Ext. SAS RAID Card | MC-0JFB51 | | MCX0JFB51 | - | - | - | - | - | - | - | |
| FBU Mounting kit for IOUE2 EP420e | MC-0HCKC1 | | MCX0HCKC1 | - | - | - | - | - | - | - | |
| FBU kit B EP540e | MC-0HCKB1 | | MCX0HCKB1 | - | - | - | - | - | - | - | |
| Dual channel 12Gbps SAS Card | MC-0JSS41 | MC-0JSS42 | MCX0JSS41 | A | p | A | 12SP4 | A | NA | NA | * CP400e |

16.Restrictions

July 2019, Ver.2.0

The following functions are restricted as of July 2019.

| No. | |
|-----|---|
| 1 | Intel 10GbE LAN cards [MC*0JXEK*] (X710-DA2) can be mounted up to eight per PPAR. |
| 2 | "Intel TXT" does not work. |
| 3 | Intel 10GbE-T LAN cards [MC*0JXEJ*] (X550-T2) does not work on Windows OS with Legacy mode. |
| 4 | Please update NVM version to 6.01 when XXV710-DA2 [MC*0JXEH1] and X710-DA2 [MC*0JXEK*] are mounted to the same chassis. |
| 5 | Mellanox 25/40/100Gb LAN cards [MC*0JFE11/MC*0JFE41/MC*0JFE71], Mellanox Infiniband cards do not work in the same Partition. |
| 6 | Intel TXT function of Windows Server 2016 does not work with PRIMEQUEST. |
| 7 | In the Legacy mode, the installation of Windows OS cannot be done to the M.2 flash device [MC*5FB741/MC*5FB751]. Please use the uEFI mode. |
| 8 | TPM module does not work with Windows Server 2019. |
| 9 | The iSCSI does not work with VMware 6.5. |
| 10 | Address range mirror is not supported with VMware. |
| 11 | Secure Boot does not work with Linux OSes. |
| 12 | EP540i, EP580i [MC*0JSR71/MC*0JSR81] and EP540e don't work with Extended Partition. |
| 13 | Infiniband cards do not work with Extended Partition. |
| 14 | Don't update the firmware of QLE269x and QLE274x [MC*0JFCP*/MC*0JFCQ*/MC*0JFCK*/MC*0JFCL*] to 8.08.05 or later, if they are on PCI-BOX with Extended Partition. |
| 15 | M.2 Flash device with only SLES12 SP4 are supported. Other OSes are planned. |
| 16 | Oracle Linux/VM do not support SAN-Boot. |
| 17 | Apply the firmware PB19033 or later for the following CPUs. Intel Xeon Platinum 8260 [MC*3BKC1*/ MC*2BKC1*/ MC*1BKC11] |
| 18 | When using Extended Partitioning function with SLES15, apply the firmware PB19054 or later. |
| 19 | Quad channel LAN card (10GBASE-T) MC*0JXF11 is not supported on Windows Server. |
| 20 | When using a dual channel SAS array controller card (12 Gbps) 4 GB cache (MC*0JSRC*), apply the firmware PB19061 (BIOS 01.21 version) or later. |
| 21 | When using M.2 flash device [MC*5FB741/MC*5FB751/MC*5FB771], apply the firmware PB19043 or later. |
| 22 | When using eLCM function, apply the firmware PB19053 or later. |
| 23 | Apply the firmware PB19053 or later for the following CPUs. Intel Xeon Gold 6262V[MC*3BRC11], 6244[MC*3BNL11], 6240L[MC*3BNF41], 6240M[MC*3BNF21], 6238L[MC*3BND41], 6238M[MC*3BND21], 6238[MC*3BND11], 6234[MC*3BPL11], 6226[MC*3BNJ11], 6222V[MC*3BPE11] |

Change Report

| Date | Order number | Changes |
|-----------------|--------------|----------|
| July 2nd, 2019 | | Ver. 2.0 |
| April 2nd, 2019 | | Ver. 1.0 |
| | | |