

9008 V5 Configuration Help

1. **Notice:**The V5 servers which install VMware system should avoid using the Intel X710/XL710 NIC, should configure and use the NIC which is in the compatibility list configuration except X7xx/XL7xx serial NIC. The reason is detailed in the warning notice:

<http://support.huawei.com/enterprise/en/bulletins-product/NEWS2000000641>

Notice:The V5 servers which install VMware system should avoid using the Intel X710/XL710 NIC, should configure and use the NIC which is in the compatibility list configuration except X7xx/XL7xx serial NIC. The reason is detailed in the warning notice: <http://support.huawei.com/enterprise/en/bulletins-product/NEWS2000000641>

2. **===Mode===**

- 2.1 **Default system mode**

1.For single system mode, only one type of CPU is configured and each CPU occupies the same type and number of DIMM. This mode supports and could switch to certain physical partition mode on site.

2.For physical partition mode, the types of CPUs and DIMMs occupied by each CPU in different physical partitions may be different, hence it cannot switch to single system mode or other physical partition mode.

- 2.2 **On site physical partition**

Recommend at least 1 RAID controller card for each physical partition with local storage.

3. **Please confirm whether the customer's ambient environment could match**

The product has high requirements on ambient environment and supports only certain upper-layer software versions.

Before formal order placing, check whether the customer's ambient environment meet the requirements

and whether the customer's upper-layer software is supported according to the 9008 V5 Mission Critical Server Ambient Environment and Application Information

Checklist to identify risks in advance and make countermeasures.

<http://3ms.huawei.com/mm/docMaintain/mmMaintain.do?method=showMMDetail&fid=SV180910580119523>

4. **Please check the customer's ambient environment**

- 4.1 **Check whether Huawei cabinet delivery is adopted.**

The 9008 supports both Huawei cabinet delivery and non-Huawei cabinet (third-party cabinet) delivery.

- **4.2 For non-Huawei cabinet (third-party cabinet) delivery, perform the following ambient environment checks**
 - **4.2.1 Check whether the customer's ambient environment meets the requirements for non-Huawei cabinet delivery**

For details, see the KunLun Mission Critical Server Ambient Environment and Application Information Checklist.

- **4.3 For Huawei cabinet delivery, perform the following ambient environment checks**
 - **4.3.1 Check whether a preassembled cabinet can be pushed from the unloading place to the installation position in the equipment room.**

1.If the preassembled cabinet cannot be pushed from the unloading place to the installation position in the equipment room and the customer does not want to optimize the environment,

extra fees must be paid for disassembled shipment and onsite installation.

2.It refer the separate shipment service, please confirm it carefully. If not configure and customer need the separate shipment, it need contract change otherwise could not deliver.

- **4.3.2 The Length of Single Power Cable of PDU in Cabinet(m)**

The power cable configuration depends on the actual requirements.

- **4.3.3 The Length of Grounding Cable of Cabinet(m)**

The power cable configuration depends on the actual requirements.

- **4.3.4 Check whether the customer's ambient environment meets the requirements for Huawei cabinet delivery**

For details, see the KunLun Mission Critical Server Ambient Environment and Application Information Checklist.

5. check the application information

- **5.1 Required OS versions in compatibility list**

Server Compatibility Checker:

<http://support.huawei.com/onlinetoolsweb/ftca/index?serise=6>

6. ===9008 V5 Base Configuration===

- **6.1 Number of local partition management module (LPMs)**

1. The default value is Single-system mode, and at least one HFC is required, which is to be installed in LPM 2.
2. High-speed cables or 10GE optical transceivers are required for each LPM, and two multi-mode optical transceivers are recommended.

- **6.2 Rack rail for compute enclosure**



Guide Rail: 4U

Static Rail Kit(21240817)

- **6.3 Rack rail for management and compute enclosure**



Guide Rail: 4U

Static Rail Kit(21240817)

- **6.4 Rack rail for management, compute and expansion enclosure**



Guide Rail: 4U

Static Rail Kit(21240142)



Guide Rail: 4U

Static Rail Kit(21240817)

- 6.5 **M.2 SSD type**

M.2 SSD 240G

- 6.6 **Number of M.2 SSDs**

Two M.2 SSD are configured by default.

- 6.7 **M.2 Module in Physical Partition 1**

M.2 SSD 240G

- 6.8 **Number of M.2 SSDs in Physical Partition 1**

Two M.2 SSD are configured by default.

- 6.9 **M.2 Module in Physical Partition 2**

M.2 SSD 240G

- 6.10 **Number of M.2 SSDs in Physical Partition 2**

Two M.2 SSD are configured by default.

7. **===CPU===**

- 7.1 **CPU type**

Actual maximum frequency:

Intel 4100 and 5100 series: 2400 MHz

Intel 6100 and 8100 series: 2666 MHz

8. **===DIMM===**

- 8.1 **memory mirroring advanced RAS features**

Memory mirroring Advanced RAS Features Help Description:

Improve memory reliability and significantly reduce downtime caused by memory UCE

Non-logical partitioning scenes All Memory Address Mirroring Configuration: reliability

is significantly enhanced, available memory capacity is halved compared to physical memory capacity, solving most of the downtime problems caused by memory UCE Logical partitioning scenarios support Key Memory Address Mirroring Configuration: enhanced reliability, protection of critical processes, CPU0 available memory capacity is halved compared to physical memory capacity

- **8.2 Number of DIMMs**

Minimum: 1

Maximum: 12*Number of CPUs

9. **===Type B Compute Module, Maximum 1 In Each Physical Partition and Support 4*2.5 Inch SAS HDD/SSD===**

- **9.1 Number of hard disks of the first type**

The number of SATA/SAS HDDs/SSDs in the SCMs must be an integer multiple of the number of SCM-Bs (including 0).

- **9.2 RAID controller card**

A RAID controller card must be configured for each SCM-B when the number of SATA/SAS HDDs/SSDs is not 0.

10. **===Type C Compute Module, Maximum 8, Support 4*2.5 Inch NVMe SSD and Doesn't Support RAID===**

- **10.1 Number of NVMe SSDs**

Then number of NVMe SSDs in the SCMs must be an integer multiple of the number of SCM-Cs (including 0).

11. **===Hard Disk Module-FIO===**

- **11.1 FIO type**

1. The total number of FIO-Bs and FIO-Ds is 0 or 1.

2. An FIO-B provides 24 SAS/SATA disk slots. 1 or 2 RAID controller cards can be installed for the single system mode when more than 1 SAS/SATA disk is installed. 3. An FIO-D provides 8 SAS/NVMe slots. Install SAS disks from slot HDD0 and then install NVMe SSDs. 1 or 2 RAID controller cards can be installed for the single system mode when more than 1 SAS/SATA disk is installed.

- **11.2 Number of hard disks of the first type**

The number of disks is 0 to 24 in FIO-B or 0 to 8 in FIO-D.

- **11.3 Number of hard disks of the second type**

The number of disks is 0 to 24 in FIO-B or 0 to 8 in FIO-D.

- **11.4 Number of hard disks of the third type**

The number of disks is 0 to 24 in FIO-B or 0 to 8 in FIO-D.

- **11.5 RAID controller card**

RAID controller cards must be configured when the number of NVMe SSDs is less than 8.

- **11.6 Number of NVMe SSDs**

The number of NVMe SSDs in FIO-D should be between 0 and 8.

12. ===PCIe Card (Non-Hot-Pluggable,in BIO)===

- **12.1 PCIe card in PCIe slot 3**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **12.2 PCIe card in PCIe slot 4**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **12.3 PCIe card in PCIe slot 5**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **12.4 PCIe card in PCIe slot 6**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **12.5 PCIe card in PCIe slot 7**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **12.6 PCIe card in PCIe slot 8**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

13. **===PCIe Card (Hot-Pluggable, in BIO)===**

○ 13.1 **PCIe card in PCIe slot 1**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

○ 13.2 **PCIe card in PCIe slot 2**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

○ 13.3 **PCIe card in PCIe slot 9**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

○ 13.4 **PCIe card in PCIe slot 10**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

14. **===PCIe Card (Hot-Pluggable, in BIO)===**

○ 14.1 **PCIe card in PCIe slot 1**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

○ 14.2 **PCIe card in PCIe slot 2**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

○ 14.3 **PCIe card in PCIe slot 3**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

○ 14.4 **PCIe card in PCIe slot 4**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

○ 14.5 **PCIe card in PCIe slot 5**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **14.6 PCIe card in PCIe slot 6**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **14.7 PCIe card in PCIe slot 7**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **14.8 PCIe card in PCIe slot 8**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

15. ===Optical Transceiver and High Speed Cable===

- **15.1 Optical Transceiver-SFP+-850nm-10Gb/s-LC-Multimode-0.3km**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **15.2 Optical Transceiver-SFP+-1310nm-10Gb/s-LC-Singlemode-10km**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **15.3 1m Passive SFP+ High-speed Cable-include Interface Module**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **15.4 3m Passive SFP+ High-speed Cable-include Interface Module**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **15.5 1m IB FDR High-speed Passive Cable(DAC)-Include Interface Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **15.6 3m IB FDR High-speed Passive Cable(DAC)-Include Interface Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **15.7 5m IB FDR High-speed Cable-Include 56Gb/s QSFP+ Optical Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **15.8 10m IB FDR High-speed Cable-Include 56Gb/s QSFP+ Optical Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **15.9 Optical Transceiver-SFP28-850nm-25Gb/s-LC-Multimode-0.1km**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **15.10 1m Passive SFP28 High-speed Cable-include Interface Module**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **15.11 3m Passive SFP28 High-speed Cable-include Interface Module**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

16. ===CPU===

- **16.1 CPU type**

Actual maximum frequency:

Intel 4100 and 5100 series: 2400 MHz

Intel 6100 and 8100 series: 2666 MHz

17. ===Type B Compute Module, Maximum 1 In Each Physical Partition and Support 4*2.5 Inch SAS HDD/SSD===

- **17.1 Number of hard disk of the first type**

The number of SATA/SAS HDDs/SSDs in the SCMs must be an integer multiple of the number of SCM-Bs (including 0).

- **17.2 Number of hard disks of the second type**

The number of SATA/SAS HDDs/SSDs in the SCMs must be an integer multiple of the number of SCM-Bs (including 0).

- **17.3 RAID controller type**

A RAID controller card must be configured for each SCM-B when the number of SATA/SAS HDDs/SSDs is not 0.

18. Type C Compute Module, Maximum 8, Support 4*2.5 Inch NVMe SSD and Doesn't Support RAID

- **18.1 Number of NVMe SSDs**

The number of NVMe SSDs in the SCMs must be an integer multiple of the number of SCM-Cs (including 0).

19. DIMM

- **19.1 memory mirroring advanced RAS features**

Memory mirroring Advanced RAS Features Help Description: Improve memory reliability and significantly reduce downtime caused by memory UCE
Non-logical partitioning scenes All Memory Address Mirroring Configuration: reliability is significantly enhanced, available memory capacity is halved compared to physical memory capacity, solving most of the downtime problems caused by memory UCE
Logical partitioning scenarios support Key Memory Address Mirroring Configuration: enhanced reliability, protection of critical processes, CPU0 available memory capacity is halved compared to physical memory capacity

- **19.2 Number of DIMMs**

Minimum: 1

Maximum: 12*Number of CPUs

20. Hard Disk Module-FIO

- **20.1 FIO type**

1. The total number of FIO-Bs and FIO-Ds is 0 or 1.

2. An FIO-B provides 24 SAS/SATA disk slots. 1 or 2 RAID controller cards can be installed for the single system mode when more than 1 SAS/SATA disk is installed. 3. An FIO-D provides 8 SAS/NVMe slots. Install SAS disks from slot HDD0 and then

install NVMe SSDs. 1 or 2 RAID controller cards can be installed for the single system mode when more than 1 SAS/SATA disk is installed.

- **20.2 Number of hard disks**

The number of disks is 0 to 24 in FIO-B or 0 to 8 in FIO-D.

- **20.3 Number of hard disks of the second type**

The number of disks is 0 to 24 in FIO-B or 0 to 8 in FIO-D.

- **20.4 Number of hard disks of the third type**

The number of disks is 0 to 24 in FIO-B or 0 to 8 in FIO-D.

- **20.5 RAID controller card**

RAID controller cards must be configured when the number of NVMe SSDs is less than 8.

- **20.6 Number of NVMe SSDs**

The number of NVMe SSDs in FIO-D should be between 0 and 8.

21. ===HDD in Expansion Enclosure===

- **21.1 Number of hard disks of the first type**

Support 12 hard disks at most.

- **21.2 Number of hard disks of the second type**

Support 12 hard disks at most.

- **21.3 Number of hard disks of the third type**

Support 12 hard disks at most.

22. ===PCIe Card (Non-Hot-Pluggable,in BIO)===

- **22.1 PCIe card in PCIe slot 3**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **22.2 PCIe card in PCIe slot 4**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 22.3 **PCIe card in PCIe slot 5**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 22.4 **PCIe card in PCIe slot 6**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 22.5 **PCIe card in PCIe slot 6**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 22.6 **PCIe card in PCIe slot 7**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 22.7 **PCIe card in PCIe slot 8**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

23. **===PCIe Card (Hot-Pluggable, in BIO)===**

- 23.1 **PCIe card in PCIe slot 1**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 23.2 **PCIe card in PCIe slot 2**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 23.3 **PCIe card in PCIe slot 9**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 23.4 **PCIe card in PCIe slot 10**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

24. **===PCIe Card (Hot-Pluggable, in BIO)===**

- **24.1 PCIe card in PCIe slot 1**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **24.2 PCIe card in PCIe slot 2**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **24.3 PCIe card in PCIe slot 3**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **24.4 PCIe card in PCIe slot 4**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **24.5 PCIe card in PCIe slot 5**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **24.6 PCIe card in PCIe slot 6**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **24.7 PCIe card in PCIe slot 7**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **24.8 PCIe card in PCIe slot 8**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

25. ===PCIe Card in Expansion Enclosure(Hot-plug,In BIO Module)===

- **25.1 PCIe card in the 1st PCIe slot(X16)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.2 PCIe card in the 2nd PCIe slot(X16)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.3 PCIe card in the 3rd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.4 PCIe card in the 4th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.5 PCIe card in the 5th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.6 PCIe card in the 6th PCIe slot(X16)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.7 PCIe card in the 7th PCIe slot(X16)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.8 PCIe card in the 8th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.9 PCIe card in the 9th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **25.10 PCIe card in the 10th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

26. ===PCIe Card in Expansion Enclosure(Non-hot-plug,In BIO Module)===

- **26.1 PCIe card in the 1st PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.2 PCIe card in the 2nd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.3 PCIe card in the 3rd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.4 PCIe card in the 4th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.5 PCIe card in the 5th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.6 PCIe card in the 6th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.7 PCIe card in the 7th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.8 PCIe card in the 8th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.9 PCIe card in the 9th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.10 PCIe card in the 10th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.11 PCIe card in the 11th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.12 PCIe card in the 12th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.13 PCIe card in the 13th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.14 PCIe card in the 14th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.15 PCIe card in the 15th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.16 PCIe card in the 16th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.17 PCIe card in the 17th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.18 PCIe card in the 18th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.19 PCIe card in the 19th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.20 PCIe card in the 20th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.21 PCIe card in the 21th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.22 PCIe card in the 22th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.23 PCIe card in the 23th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.24 PCIe card in the 24th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.25 PCIe card in the 25th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.26 PCIe card in the 26th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.27 PCIe card in the 27th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.28 PCIe card in the 28th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.29 PCIe card in the 29th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **26.30 PCIe card in the 30th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

27. ===Optical Transceiver and High Speed Cable===

- **27.1 Optical Transceiver-SFP+-850nm-10Gb/s-LC-Multimode-0.3km**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **27.2 Optical Transceiver-SFP+-1310nm-10Gb/s-LC-Singlemode-10km**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **27.3 1m Passive SFP+ High-speed Cable-include Interface Module**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **27.4 3m Passive SFP+ High-speed Cable-include Interface Module**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **27.5 1m IB FDR High-speed Passive Cable(DAC)-Include Interface Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **27.6 3m IB FDR High-speed Passive Cable(DAC)-Include Interface Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **27.7 5m IB FDR High-speed Cable-Include 56Gb/s QSFP+ Optical Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **27.8 10m IB FDR High-speed Cable-Include 56Gb/s QSFP+ Optical Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **27.9 Optical Transceiver-SFP28-850nm-25Gb/s-LC-Multimode-0.1km**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **27.10 1m Passive SFP28 High-speed Cable-include Interface Module**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **27.11 3m Passive SFP28 High-speed Cable-include Interface Module**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

28. ===Physical Partition 1===

- **28.1 Logic partition**

In physical partition mode, two physical partitions do not support configuring different packages, so the overall configuration principle is:

1. physical partition 1 and physical partition 2 only support the same configuration
2. physical partition 1 can be configured with logical partition or logical partition + key memory address mirroring configuration or all memory address mirroring configuration or no config when physical partition 1 is not configured with any package, and vice versa

- 28.2 **===CPU===**

- 28.2.1 **CPU type**

Actual maximum frequency:

Intel 4100 and 5100 series: 2400 MHz

Intel 6100 and 8100 series: 2666 MHz

- 28.3 **===Type B Compute Module, Maximum 1 In Each Physical Partition and Support 4*2.5 Inch SAS HDD/SSD===**

- 28.3.1 **Number of hard disk of the first type**

The number of SATA/SAS HDDs/SSDs in the SCMs must be an integer multiple of the number of SCM-Bs (including 0).

- 28.3.2 **Number of hard disks of the second type**

The number of SATA/SAS HDDs/SSDs in the SCMs must be an integer multiple of the number of SCM-Bs (including 0).

- 28.3.3 **RAID controller type**

A RAID controller card must be configured for each SCM-B when the number of SATA/SAS HDDs/SSDs is not 0.

- 28.4 **===Type C Compute Module, Maximum 4, Support 4*2.5 Inch NVMe SSD and Doesn't Support RAID===**

- 28.4.1 **Number of NVMe SSDs**

Then number of NVMe SSDs in the SCMs must be an integer multiple of the number of SCM-Cs (including 0).

- 28.5 **===DIMM===**

- 28.5.1 **memory mirroring advanced RAS features in physical partition 1**

Memory mirroring Advanced RAS Features Help Description: Improve memory reliability and significantly reduce downtime caused by memory UCE

Non-logical partitioning scenes All Memory Address Mirroring Configuration: reliability is significantly enhanced, available memory capacity is halved compared to physical memory capacity, solving most of the downtime problems caused by memory UCE

Logical partitioning scenarios support Key Memory Address Mirroring Configuration:

enhanced reliability, protection of critical processes, CPU0 available memory capacity is halved compared to physical memory capacity

In physical partition mode, two physical partitions do not support configuring different

packages, so the overall configuration principle is:

1. physical partition 1 and physical partition 2 only support the same configuration
2. physical partition 1 can be configured with logical partition or logical partition + key memory address mirroring configuration or all memory address mirroring configuration or no config when physical partition 1 is not configured with any package, and vice versa

- **28.5.2 Number of DIMMs**

Minimum: 1

Maximum: 12*Number of CPUs

- **28.6 ===Hard Disk Module-FIO===**

- **28.6.1 Number of hard disk types**

1. The total number of FIO-Bs and FIO-Ds is 0 or 1.
2. An FIO-B provides 24 SAS/SATA disk slots. An FIO-D provides 8 SAS/NVMe slots. 1 RAID controller cards can be installed when more than 1 SAS/SATA disk is installed.

- **28.6.2 Number of hard disks of the first type**

The number of disks is 1 to 12 in FIO-B or 0 to 4 in FIO-D.

- **28.6.3 Number of hard disks of the second type**

The number of disks is 1 to 12 in FIO-B or 0 to 4 in FIO-D.

- **28.6.4 Number of hard disks of the third type**

The number of disks is 1 to 12 in FIO-B or 0 to 4 in FIO-D.

- **28.6.5 Number of RAID controller cards**

RAID controller cards must be configured when the number of NVMe SSDs is less than 4.

- **28.6.6 Number of NVMe SSDs**

The number of disks is 0 to 4.

- **28.7 ===HDD in Expansion Enclosure===**

- **28.7.1 Number of hard disks of the first type**

The number of disks is 0 to 6.

- **28.7.2 Number of hard disks of the second type**

The number of disks is 0 to 6.

- **28.7.3 Number of hard disks of the third type**

The number of disks is 0 to 6.

- **28.8 ===PCIe Card (Non-Hot-Pluggable,in BIO)===**

- **28.8.1 PCIe card in PCIe slot 6**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.8.2 PCIe card in PCIe slot 6**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.8.3 PCIe card in PCIe slot 7**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.8.4 PCIe card in PCIe slot 8**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.9 ===PCIe Card (Hot-Pluggable, in BIO)===**

- **28.9.1 PCIe card in PCIe slot 9**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.9.2 PCIe card in PCIe slot 10**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.10 ===PCIe Card (Hot-Pluggable, in BIO)===**

- **28.10.1 PCIe card in PCIe slot 5**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.10.2 PCIe card in PCIe slot 6**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.10.3 PCIe card in PCIe slot 7**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.10.4 PCIe card in PCIe slot 8**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.11 ===PCIe Card in Expansion Enclosure(Hot-plug,In BIO Module)===**

- **28.11.1 PCIe card in the 1st PCIe slot(X16)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.11.2 PCIe card in the 2nd PCIe slot(X16)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.11.3 PCIe card in the 3rd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.11.4 PCIe card in the 4th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.11.5 PCIe card in the 5th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12 ===PCIe Card in Expansion Enclosure(Non-hot-plug,In BIO Module)===**

- **28.12.1 PCIe card in the 1st PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.2 PCIe card in the 2nd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.3 PCIe card in the 3rd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.4 PCIe card in the 4th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.5 PCIe card in the 5th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.6 PCIe card in the 6th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.7 PCIe card in the 7th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.8 PCIe card in the 8th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.9 PCIe card in the 9th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.10 PCIe card in the 10th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.11 PCIe card in the 11th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.12 PCIe card in the 12th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.13 PCIe card in the 13th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.14 PCIe card in the 14th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.12.15 PCIe card in the 15th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **28.13 ===Optical Transceiver and High Speed Cable===**

- **28.13.1 Optical Transceiver-SFP+-850nm-10Gb/s-LC-Multimode-0.3km**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **28.13.2 Optical Transceiver-SFP+-1310nm-10Gb/s-LC-Singlemode-10km**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **28.13.3 1m Passive SFP+ High-speed Cable-include Interface Module**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **28.13.4 3m Passive SFP+ High-speed Cable-include Interface Module**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **28.13.5 1m IB FDR High-speed Passive Cable(DAC)-Include Interface Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **28.13.6 3m IB FDR High-speed Passive Cable(DAC)-Include Interface Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **28.13.7 5m IB FDR High-speed Cable-Include 56Gb/s QSFP+ Optical Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **28.13.8 10m IB FDR High-speed Cable-Include 56Gb/s QSFP+ Optical Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **28.13.9 Optical Transceiver-SFP28-850nm-25Gb/s-LC-Multimode-0.1km**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **28.13.10 1m Passive SFP28 High-speed Cable-include Interface Module**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **28.13.11 3m Passive SFP28 High-speed Cable-include Interface Module**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **28.14 ===Operating System In Physical Partition 1===**

- **28.14.1 Operating System type**

- **28.14.2 Operating System**

1. SUSE Linux, Red Hat Linux, and Windows Server 2008/2012 OSs are licensed based on the number of CPUs. 2. Windows Server 2016 is licensed based on the number of CPU cores. Additional license files are required when there are more than 16 CPU cores. 3. According to the operating system manufacturer's life cycle strategy, entering the version(eg: suse 12.2) of the LTSS cycle requires an additional purchase of LTSS expand maintenance. Please confirm the customer's operating system version before placing the order. If the LTSS version is involved, the customer needs to purchase it from the operating system manufacturer separately. 4. According to the operating system manufacturer's life cycle strategy, entering the version(eg: redhat 7.2) of the EUS/ELS cycle requires an additional purchase of EUS/ELS expand maintenance. Please confirm the customer's operating system version before placing the order. If the EUS/ELS version is involved, the customer needs to purchase it from the operating system manufacturer separately.

- **28.14.3 Windows Server 2016 Additional 16 Core,English,Standard,x86,64bit,General OEM,COA Lic,No DVD,No Product Service,No CAL**

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **28.14.4 Windows Server 2016 Additional 16 Core,Chinese,Standard,x86,64bit,General OEM,COA Lic,No DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **28.14.5 Windows Server 2016 Additional 4
Core,English,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports four cores.

- **28.14.6 Windows Server 2016 Additional 4
Core,Chinese,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2. Each additional license file supports four cores.

- **28.14.7 Windows Server 2016 Additional 2
Core,English,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports two cores.

- **28.14.8 Windows Server 2016 Additional 2
Core,Chinese,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2. Each additional license file supports two cores.

- **28.14.9 Windows Server 2016 Additional 16
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **28.14.10 Windows Server 2016 Additional 16
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **28.14.11 Windows Server 2016 Additional 4
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2. Each additional license file supports four cores.

- **28.14.12 Windows Server 2016 Additional 4
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2. Each additional license file supports four cores.

- **28.14.13 Windows Server 2016 Additional 2
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2. Each additional license file supports two cores.

- **28.14.14 Windows Server 2016 Additional 2
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2. Each additional license file supports two cores.

- **28.14.15 Client Access License (CAL),1 device,for Windows
Server 2016/2012/2012R2,Chinese,General OEM,without
product services**

1. Windows Server 2016-Chinese-Additional device CAL; 2. Each additional license file supports access to one device.

- **28.14.16 Client Access License (CAL),1 device,for Windows
Server 2016/2012/2012R2,English,General OEM,without
product services**

1. Windows Server 2016-English-Additional device CAL; 2. Each additional license file supports access to one device.

- **28.14.17 Client Access License (CAL),10 device,for Windows
Server 2016/2012/2012R2,Chinese,General OEM,without
product services**

1. Windows Server 2016-Chinese-Additional device CAL; 2. Each additional license file supports access to 10 devices.

- **28.14.18 Client Access License (CAL),10 device,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional device CAL; 2. Each additional license file supports access to 10 devices.

- **28.14.19 Client Access License (CAL),1 User,for Windows Server 2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional user CAL; 2. Each additional license file supports access by one user.

- **28.14.20 Client Access License (CAL),1 User,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional user CAL; 2. Each additional license file supports access by one user.

- **28.14.21 Client Access License (CAL),10 User,for Windows Server 2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional user CAL; 2. Each additional license file supports access by 10 users.

- **28.14.22 Client Access License (CAL),10 User,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional user CAL; 2. Each additional license file supports access by 10 users.

- **28.14.23 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 4. The purchasing quantity is subject to actual requirements.

- **28.14.24 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 5. The purchasing quantity is subject to actual requirements.

- **28.14.25 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 6. The purchasing quantity is subject to actual requirements.

- **28.14.26 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 7. The purchasing quantity is subject to actual requirements.

- **28.14.27 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 8. The purchasing quantity is subject to actual requirements.

- **28.14.28 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 9. The purchasing quantity is subject to actual requirements.

- **28.14.29 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,Chinese,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 10. The purchasing quantity is subject to actual requirements.

- **28.14.30 Operating System Software,Remote Desktop Services
Client Access License For Windows Server
2012/2012R2,English,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 11. The purchasing quantity is subject to actual requirements.

- **28.14.31 Operating System Software,Remote Desktop Services
Client Access License For Windows Server
2012/2012R2,Chinese,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 12. The purchasing quantity is subject to actual requirements.

- **28.14.32 Operating System Software,Remote Desktop Services
Client Access License For Windows Server
2012/2012R2,English,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 13. The purchasing quantity is subject to actual requirements.

- **28.14.33 Operating System Software,Remote Desktop Services
Client Access License For Windows Server
2012/2012R2,Chinese,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 14. The purchasing quantity is subject to actual requirements.

- **28.14.34 Operating System Software,Remote Desktop Services
Client Access License For Windows Server
2012/2012R2,English,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 15. The purchasing quantity is subject to actual requirements.

29. ===Physical Partition 2===

- 29.1 Logic partition

In physical partition mode, two physical partitions do not support configuring different packages, so the overall configuration principle is:

1. physical partition 1 and physical partition 2 only support the same configuration
2. physical partition 1 can be configured with logical partition or logical partition + key memory address mirroring configuration or all memory address mirroring configuration or no config when physical partition 1 is not configured with any package, and vice versa

- **29.2 ===CPU===**

- **29.2.1 CPU type**

Actual maximum frequency: Intel 4100 and 5100 series: 2400 MHz Intel 6100 and 8100 series: 2666 MHz

- **29.3 ===Type B Compute Module, Maximum 1 In Each Physical Partition and Support 4*2.5 Inch SAS HDD/SSD===**

- **29.3.1 Number of hard disk of the first type**

The number of SATA/SAS HDDs/SSDs in the SCMs must be an integer multiple of the number of SCM-Bs (including 0).

- **29.3.2 Number of hard disks of the second type**

The number of SATA/SAS HDDs/SSDs in the SCMs must be an integer multiple of the number of SCM-Bs (including 0).

- **29.3.3 RAID controller type**

A RAID controller card must be configured for each SCM-B when the number of SATA/SAS HDDs/SSDs is not 0.

- **29.4 ===Type C Compute Module, Maximum 4, Support 4*2.5 Inch NVMe SSD and Doesn't Support RAID===**

- **29.4.1 Number of NVMe SSDs**

Then number of NVMe SSDs in the SCMs must be an integer multiple of the number of SCM-Cs (including 0).

- **29.4.2 Number of NVMe SSDs**

Then number of NVMe SSDs in the SCMs must be an integer multiple of the number of SCM-Cs (including 0).

- **29.5 ===DIMM===**

- **29.5.1 memory mirroring advanced RAS features in physical partition 2**

Memory mirroring Advanced RAS Features Help Description: Improve memory reliability and significantly reduce downtime caused by memory UCE

Non-logical partitioning scenes All Memory Address Mirroring Configuration: reliability is significantly enhanced, available memory capacity is halved compared to physical memory capacity, solving most of the downtime problems caused by memory UCE

Logical partitioning scenarios support Key Memory Address Mirroring Configuration: enhanced reliability, protection of critical processes, CPU0 available memory capacity is halved compared to physical memory capacity

In physical partition mode, two physical partitions do not support configuring different packages, so the overall configuration principle is:

1. physical partition 1 and physical partition 2 only support the same configuration
2. physical partition 1 can be configured with logical partition or logical partition + key memory address mirroring configuration or all memory address mirroring configuration or no config when physical partition 1 is not configured with any package, and vice versa

- **29.5.2 Number of DIMMs**

Minimum: 1

Maximum: 12*Number of CPUs

- **29.6 ===Hard Disk Module-FIO==**

- **29.6.1 Number of hard disk types**

1. The total number of FIO-Bs and FIO-Ds is 0 or 1.
2. An FIO-B provides 24 SAS/SATA disk slots. An FIO-D provides 8 SAS/NVMe slots. 1 RAID controller cards can be installed when more than 1 SAS/SATA disk is installed.

- **29.6.2 Number of hard disks of the first type**

The number of disks is 1 to 12 in FIO-B or 0 to 4 in FIO-D.

- **29.6.3 Number of hard disks of the second type**

The number of disks is 1 to 12 in FIO-B or 0 to 4 in FIO-D.

- **29.6.4 Number of hard disks of the third type**

The number of disks is 1 to 12 in FIO-B or 0 to 4 in FIO-D.

- **29.6.5 Number of RAID controller cards**

RAID controller cards must be configured when the number of NVMe SSDs is less than 4.

- **29.6.6 Number of NVMe SSDs**

The number of disks is 0 to 4.

- **29.7 ===HDD in Expansion Enclosure===**

- **29.7.1 Number of hard disks of the first type**

The number of disks is 0 to 6.

- **29.7.2 Number of hard disks of the second type**

The number of disks is 0 to 6.

- **29.7.3 Number of hard disks of the third type**

The number of disks is 0 to 6.

- **29.8 ===PCIe Module-BIO===**

- **29.8.1 BIO type**

The BIO module in the second physical partition is the same with that in the first physical partition.

- **29.9 ===PCIe Card (Non-Hot-Pluggable,in BIO)===**

- **29.9.1 PCIe card in PCIe slot 3**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.9.2 PCIe card in PCIe slot 4**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.9.3 PCIe card in PCIe slot 5**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.9.4 PCIe card in PCIe slot 5**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.10 **===PCIe Card (Hot-Pluggable, in BIO)===**

- 29.10.1 **PCIe card in PCIe slot 1**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.10.2 **PCIe card in PCIe slot 2**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.11 **===PCIe Card (Hot-Pluggable, in BIO)===**

- 29.11.1 **PCIe card in PCIe slot 1**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.11.2 **PCIe card in PCIe slot 2**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.11.3 **PCIe card in PCIe slot 3**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.11.4 **PCIe card in PCIe slot 4**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.12 **===PCIe Card in Expansion Enclosure(Hot-plug,In BIO Module)===**

- 29.12.1 **PCIe card in the 1st PCIe slot(X16)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.12.2 **PCIe card in the 2nd PCIe slot(X16)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- 29.12.3 **PCIe card in the 3rd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.12.4 PCIe card in the 4th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.12.5 PCIe card in the 5th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13 ===PCIe Card in Expansion Enclosure(Non-hot-plug,In BIO Module)===**

- **29.13.1 PCIe card in the 1st PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.2 PCIe card in the 2nd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.3 PCIe card in the 3rd PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.4 PCIe card in the 4th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.5 PCIe card in the 5th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.6 PCIe card in the 6th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.7 PCIe card in the 7th PCIe slot(X8)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.8 PCIe card in the 8th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.9 PCIe card in the 9th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.10 PCIe card in the 10th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.11 PCIe card in the 11th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.12 PCIe card in the 12th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.13 PCIe card in the 13th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.14 PCIe card in the 14th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.13.15 PCIe card in the 15th PCIe slot(X4)**

You need to select one or two optical transceivers or SFP+ high speed cable interface modules if you select a NIC without optical transceivers.

- **29.14 ===Optical Transceiver and High Speed Cable===**

- **29.14.1 Optical Transceiver-SFP+-850nm-10Gb/s-LC-Multimode-0.3km**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **29.14.2 Optical Transceiver-SFP+-1310nm-10Gb/s-LC-Singlemode-10km**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **29.14.3 1m Passive SFP+ High-speed Cable-include Interface Module**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **29.14.4 3m Passive SFP+ High-speed Cable-include Interface Module**

1. Used for LPM slots and 10GE SFP+ NICs. The total number of SFP+ cables and optical transceivers cannot exceed that of 10GE ports.

2. The SFP+ cable comes with an interface module, and no additional optical transceiver or optical cable is required.

- **29.14.5 1m IB FDR High-speed Passive Cable(DAC)-Include Interface Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **29.14.6 3m IB FDR High-speed Passive Cable(DAC)-Include Interface Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **29.14.7 5m IB FDR High-speed Cable-Include 56Gb/s QSFP+ Optical Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **29.14.8 10m IB FDR High-speed Cable-Include 56Gb/s QSFP+ Optical Module**

The IB FDR cable comes with a QSFP+ optical transceiver and optical cable. You do not need to configure an additional optical cable.

- **29.14.9 Optical Transceiver-SFP28-850nm-25Gb/s-LC-Multimode-0.1km**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **29.14.10 1m Passive SFP28 High-speed Cable-include Interface Module**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **29.14.11 3m Passive SFP28 High-speed Cable-include Interface Module**

This optical transceiver is used for a 25GE QSFP+ NIC. The total number of QSFP+ cables and optical transceivers cannot exceed that of 25GE ports.

- **29.15 ===Operating System In Physical Partition 2===**

- **29.15.1 Operating System type**
- **29.15.2 Operating System**

1. SUSE Linux, Red Hat Linux, and Windows Server 2008/2012 OSs are licensed based on the number of CPUs. 2. Windows Server 2016 is licensed based on the number of CPU cores. Additional license files are required when there are more than 16 CPU cores. 3. According to the operating system manufacturer's life cycle strategy, entering the version(eg: suse 12.2) of the LTSS cycle requires an additional purchase of LTSS expand maintenance. Please confirm the customer's operating system version before placing the order. If the LTSS version is involved, the customer needs to purchase it from the operating system manufacturer separately. 4. According to the

operating system manufacturer's life cycle strategy, entering the version(eg: redhat 7.2) of the EUS/ELS cycle requires an additional purchase of EUS/ELS expand maintenance. Please confirm the customer's operating system version before placing the order. If the EUS/ELS version is involved, the customer needs to purchase it from the operating system manufacturer separately.

- **29.15.3 Windows Server 2016 Additional 16
Core,English,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **29.15.4 Windows Server 2016 Additional 16
Core,Chinese,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **29.15.5 Windows Server 2016 Additional 4
Core,English,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports four cores.

- **29.15.6 Windows Server 2016 Additional 4
Core,Chinese,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2. Each additional license file supports four cores.

- **29.15.7 Windows Server 2016 Additional 2
Core,English,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports two cores.

- **29.15.8 Windows Server 2016 Additional 2
Core,Chinese,Standard,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL**

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2.
Each additional license file supports two cores.

- **29.15.9 Windows Server 2016 Additional 16**
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2.
Each additional license file supports 16 cores.

- **29.15.10 Windows Server 2016 Additional 16**
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2.
Each additional license file supports 16 cores.

- **29.15.11 Windows Server 2016 Additional 4**
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2.
Each additional license file supports four cores.

- **29.15.12 Windows Server 2016 Additional 4**
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2.
Each additional license file supports four cores.

- **29.15.13 Windows Server 2016 Additional 2**
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2.
Each additional license file supports two cores.

- **29.15.14 Windows Server 2016 Additional 2**
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No
DVD,No Product Service,No CAL

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2.
Each additional license file supports two cores.

- **29.15.15 Client Access License (CAL),1 device,for Windows Server 2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional device CAL; 2. Each additional license file supports access to one device.

- **29.15.16 Client Access License (CAL),1 device,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional device CAL; 2. Each additional license file supports access to one device.

- **29.15.17 Client Access License (CAL),10 device,for Windows Server 2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional device CAL; 2. Each additional license file supports access to 10 devices.

- **29.15.18 Client Access License (CAL),10 device,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional device CAL; 2. Each additional license file supports access to 10 devices.

- **29.15.19 Client Access License (CAL),1 User,for Windows Server 2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional user CAL; 2. Each additional license file supports access by one user.

- **29.15.20 Client Access License (CAL),1 User,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional user CAL; 2. Each additional license file supports access by one user.

- **29.15.21 Client Access License (CAL),10 User,for Windows Server 2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional user CAL; 2. Each additional license file supports access by 10 users.

- **29.15.22 Client Access License (CAL),10 User,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional user CAL; 2. Each additional license file supports access by 10 users.

- **29.15.23 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 4. The purchasing quantity is subject to actual requirements.

- **29.15.24 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 5. The purchasing quantity is subject to actual requirements.

- **29.15.25 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 6. The purchasing quantity is subject to actual requirements.

- **29.15.26 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 7. The purchasing quantity is subject to actual requirements.

- **29.15.27 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 8. The purchasing quantity is subject to actual requirements.

- **29.15.28 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 9. The purchasing quantity is subject to actual requirements.

- **29.15.29 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,Chinese,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 10. The purchasing quantity is subject to actual requirements.

- **29.15.30 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,English,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 11. The purchasing quantity is subject to actual requirements.

- **29.15.31 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,Chinese,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 12. The purchasing quantity is subject to actual requirements.

- **29.15.32 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,English,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 13. The purchasing quantity is subject to actual requirements.

- **29.15.33 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,Chinese,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 14. The purchasing quantity is subject to actual requirements.

- **29.15.34 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,English,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 15. The purchasing quantity is subject to actual requirements.

30. ===Switch===

- **30.1 Switch**

1. Two switches are mandatory with two or more logic partitions.
2. One PSU is included in each switch, thus C13 power cords (not included in the chassis) are needed with switches.

31. ===PSU===

- **31.1 PSU**

1. For more accurate power information, use the power calculator at <http://support.huawei.com/onlinetoolsweb/ftpa/en>

2. The rated voltage ranges of the PSUs are listed as follows and the rated power varies with the input voltage.
2000 W Titanium PSUs: The rated voltage 100-240 V AC or 192-288 V DC. The maximum power is 800 W with 100-130 V AC input; the maximum power is 1800 W with 200-219 V AC or 192-204 V DC input.
3000 W Platinum PSUs: The rated voltage is 100-240 V AC or 192-288 V DC. The maximum power is 1200 W with 100-130 V AC input; the maximum power is 2500 W with 200-219 V AC or 192-204 V DC input.

3. If the requirements cannot be met after PSU derating, replace the PSU or consult the product contact person (Wang Jiangtao, employee ID: 00257293).

4. Altitude limit: 750 W Titanium AC, 1500 W Platinum AC, and 2000 W Titanium AC PSUs cannot be used at an altitude higher than 5000 m, and the other PSUs cannot be used at an altitude higher than 3000 m.

- **31.2 C13 AC power cord**

1.Power Cable recommend Wall Plug and PDU Style, if the use condition is clear, it could select the Wall Plug or PDU Style.

2.2000W and below power supply use C13 power cable, PDU power cable is 12A in Japan, other countries is 10A; wall plug cable is 12A in Japan, other countries is 10A.

3.If use the wall plug, please select power cable by select Area model(C13 to C13 Wall plug, normal extension cord);

4.If use the PDU plug, please select C13 PDU power cable(C13 to C14 PDU plug, PDU extension cord).



PDU-IEC plug



PDU

Wall plug for



Normal wall plug

○ 31.3 C13 wall plug power cord

1.Power Cable recommend Wall Plug and PDU Style, if the use condition is clear, it could select the Wall Plug or PDU Style.

2.2000W and below power supply use C13 power cable, PDU power cable is 12A in Japan, other countries is 10A; wall plug cable is 12A in Japan, other countries is 10A.

3.If use the wall plug, please select power cable by select Area model(C13 to C13 Wall plug, normal extension cord);

4.If use the PDU plug, please select C13 PDU power cable(C13 to C14 PDU plug, PDU extension cord).



Denmark C13-C13



Korea C13-C13



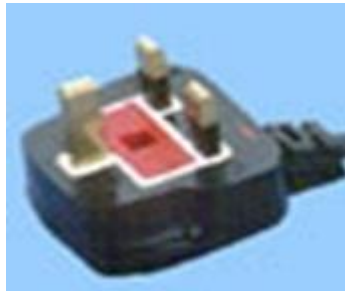
Argentina C13-C13



Australia C13-C13



Brazil C13-C13



Britain C13-C13



China C13-C13



Europe C13-C13



South Africa C13-C13



India C13-C13



Italy C13-C13



Japan C13-C13



North America C13-C13



Switzerland C13-C13

o 31.4 C13 PDU power cord

1. Power Cable recommend Wall Plug and PDU Style, if the use condition is clear, it could select the Wall Plug or PDU Style.
2. 2000W and below power supply use C13 power cable, PDU power cable is 12A in Japan, other countries is 10A; wall plug cable is 12A in Japan, other countries is 10A.
3. If use the wall plug, please select power cable by select Area model (C13 to C13 Wall plug, normal extension cord);
4. If use the PDU plug, please select C13 PDU power cable (C13 to C14 PDU plug, PDU extension cord).



China(PDU) C13-14

○ 31.5 **C19 AC power cord**

- 1.Power Cable recommend Wall Plug and PDU Style, if the use condition is clear, it could select the Wall Plug or PDU Style;
- 2.3000W power supply can not use Britain style Wall Plug that 13A can make power failure, it must use PDU plug; if need the Britain style Wall Plug, please use 2000W power supply;
- 3.If use the wall plug, please select power cable by select Area model(C19 to C19 wall plug, normal extension cord);
- 4.If use the PDU plug, please select C19 PDU power cable(C19 to C20 PDU plug, PDU extension cord).



PDU-IEC plug



PDU

Wall plug for



Normal wall plug

○ 31.6 **C19 wall plug power cord**

- 1.Power Cable recommend Wall Plug and PDU Style, if the use condition is clear, it could select the Wall Plug or PDU Style;
- 2.3000W power supply can not use Britain style Wall Plug that 13A can make power failure, it must use PDU plug; if need the Britain style Wall Plug, please use 2000W power supply;
- 3.If use the wall plug, please select power cable by select Area model(C19 to C19 wall plug, normal extension cord);
- 4.If use the PDU plug, please select C19 PDU power cable(C19 to C20 PDU plug, PDU extension cord).



Australia C19-C19



Brazil C19-C19



China C19-C19



Europe C19-C19



South Africa C19-C19



New India C19-C19



Japan C19-C19



North America C19-C19

○ 31.7 **C19 PDU power cord**

- 1.Power Cable recommend Wall Plug and PDU Style, if the use condition is clear, it could select the Wall Plug or PDU Style;
- 2.3000W power supply can not use Britain style Wall Plug that 13A can make power failure, it must use PDU plug; if need the Britain style Wall Plug, please use 2000W power supply;
- 3.If use the wall plug, please select power cable by select Area model(C19 to C19 wall plug, normal extension cord);
- 4.If use the PDU plug, please select C19 PDU power cable(C19 to C20 PDU plug, PDU extension cord).



World general (besides Japan, Taiwan, Australia)

C19-C20

32. ===Operating System===

- 32.1 **Operating System type**
- 32.2 **Operating System**

1. SUSE Linux, Red Hat Linux, and Windows Server 2008/2012 OSs are licensed based on the number of CPUs. 2. Windows Server 2016 is licensed based on the number of CPU cores. Additional license files are required when there are more than 16 CPU cores. 3. According to the operating system manufacturer's life cycle strategy, entering the version (eg: suse 12.2) of the LTSS cycle requires an additional purchase of LTSS expand maintenance. Please confirm the customer's operating system version before placing the order. If the LTSS version is involved, the customer needs to purchase it from the operating system manufacturer separately. 4. According to the operating system manufacturer's life cycle strategy, entering the version (eg: redhat 7.2) of the EUS/ELS cycle requires an additional purchase of EUS/ELS expand maintenance. Please confirm the customer's operating system version before placing the order. If the EUS/ELS version is involved, the customer needs to purchase it from the operating system manufacturer separately.

- 32.3 **Windows Server 2016 Additional 16 Core, English, Standard, x86, 64bit, General OEM, COA Lic, No DVD, No Product Service, No CAL**

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- 32.4 **Windows Server 2016 Additional 16 Core, Chinese, Standard, x86, 64bit, General OEM, COA Lic, No DVD, No Product Service, No CAL**

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **32.5 Windows Server 2016 Additional 4**
Core,English,Standard,x86,64bit,General OEM,COA Lic,No DVD,No Product Service,No CAL

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports four cores.

- **32.6 Windows Server 2016 Additional 4**
Core,Chinese,Standard,x86,64bit,General OEM,COA Lic,No DVD,No Product Service,No CAL

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2. Each additional license file supports four cores.

- **32.7 Windows Server 2016 Additional 2**
Core,English,Standard,x86,64bit,General OEM,COA Lic,No DVD,No Product Service,No CAL

1. Windows Server 2016-English-Standard-License for additional CPU cores; 2. Each additional license file supports two cores.

- **32.8 Windows Server 2016 Additional 2**
Core,Chinese,Standard,x86,64bit,General OEM,COA Lic,No DVD,No Product Service,No CAL

1. Windows Server 2016-Chinese-Standard-License for additional CPU cores; 2. Each additional license file supports two cores.

- **32.9 Windows Server 2016 Additional 16**
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No DVD,No Product Service,No CAL

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **32.10 Windows Server 2016 Additional 16**
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No DVD,No Product Service,No CAL

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2. Each additional license file supports 16 cores.

- **32.11 Windows Server 2016 Additional 4
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No DVD,No
Product Service,No CAL**

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2. Each additional license file supports four cores.

- **32.12 Windows Server 2016 Additional 4
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No DVD,No
Product Service,No CAL**

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2. Each additional license file supports four cores.

- **32.13 Windows Server 2016 Additional 2
Core,English,DataCenter,x86,64bit,General OEM,COA Lic,No DVD,No
Product Service,No CAL**

1. Windows Server 2016-English-DataCenter-License for additional CPU cores; 2. Each additional license file supports two cores.

- **32.14 Windows Server 2016 Additional 2
Core,Chinese,DataCenter,x86,64bit,General OEM,COA Lic,No DVD,No
Product Service,No CAL**

1. Windows Server 2016-Chinese-DataCenter-License for additional CPU cores; 2. Each additional license file supports two cores.

- **32.15 Client Access License (CAL),1 device,for Windows Server
2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional device CAL; 2. Each additional license file supports access to one device.

- **32.16 Client Access License (CAL),1 device,for Windows Server
2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional device CAL; 2. Each additional license file supports access to one device.

- **32.17 Client Access License (CAL),10 device,for Windows Server
2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional device CAL; 2. Each additional license file supports access to 10 devices.

- **32.18 Client Access License (CAL),10 device,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional device CAL; 2. Each additional license file supports access to 10 devices.

- **32.19 Client Access License (CAL),1 User,for Windows Server 2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional user CAL; 2. Each additional license file supports access by one user.

- **32.20 Client Access License (CAL),1 User,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional user CAL; 2. Each additional license file supports access by one user.

- **32.21 Client Access License (CAL),10 User,for Windows Server 2016/2012/2012R2,Chinese,General OEM,without product services**

1. Windows Server 2016-Chinese-Additional user CAL; 2. Each additional license file supports access by 10 users.

- **32.22 Client Access License (CAL),10 User,for Windows Server 2016/2012/2012R2,English,General OEM,without product services**

1. Windows Server 2016-English-Additional user CAL; 2. Each additional license file supports access by 10 users.

- **32.23 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 4. The purchasing quantity is subject to actual requirements.

- **32.24 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 5. The purchasing quantity is subject to actual requirements.

- **32.25 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 6. The purchasing quantity is subject to actual requirements.

- **32.26 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 7. The purchasing quantity is subject to actual requirements.

- **32.27 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,Chinese,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 8. The purchasing quantity is subject to actual requirements.

- **32.28 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2016,English,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 9. The purchasing quantity is subject to actual requirements.

- **32.29 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,Chinese,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 10. The purchasing quantity is subject to actual requirements.

- **32.30 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,English,1 Device,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 11. The purchasing quantity is subject to actual requirements.

- **32.31 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,Chinese,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 12. The purchasing quantity is subject to actual requirements.

- **32.32 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,English,5 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 13. The purchasing quantity is subject to actual requirements.

- **32.33 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,Chinese,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 14. The purchasing quantity is subject to actual requirements.

- **32.34 Operating System Software,Remote Desktop Services Client Access License For Windows Server 2012/2012R2,English,1 User,without Service,General OEM**

1. Optional 2. One server is configured with one RDS CAL license. 3. The standard edition and data center edition are not distinguished. 15. The purchasing quantity is subject to actual requirements.

33. ===Enhanced Software===

- **33.1 Enhanced RAS feature kit (ECC, eMCA2, SDDC, PFA)**

Dedicated for operators outside China except Brazilian operators.

- **33.2 Memory expansion kit**

Dedicated for operators outside China except Brazilian operators.

- **33.3 Hard disk expansion kit**

Dedicated for operators outside China except Brazilian operators.

- **33.4 Integrated network features(NC-SI)**

Dedicated for operators outside China except Brazilian operators.

- **33.5 Firmware upgrade (remote batch upgrade of BIOC, BIOS, CPLD, and other firmware)**

Brazil-specific software.

- **33.6 Serial port redirection (SOL) (redirecting system serial data originally output from a local serial cable to a network device, and receiving data from the remote network devices for easy remote maintenance)**

Brazil-specific software.

- **33.7 Hard disk pre-diagnostic tools**

Brazil-specific software.

- **33.8 Virtual KVM (virtual local keyboard, monitor, and mouse to the remote device tool)**

Brazil-specific software.

- **33.9 Virtual media (including virtual CD-ROM drive, virtual folder, virtual floppy drive, and other virtual media)**

Brazil-specific software.

- **33.10 Intelligent energy management (including power capping, historical power statistics, and dynamic energy saving technology)**

Brazil-specific software.