

Huawei RH5885H V3 Rack Server

— High Stability, Enhanced Performance



Professional • Trusted • Future-oriented

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Huawei RH5885H V3 Rack Server

Fault-tolerant design to ensure stable system operation

- Chip-level fault-tolerant features, such as automatic recovery for processors and links, ensure stable system operation.
- Memory mirroring and memory sparing prevent system shutdown caused by memory hardware faults.
- Full redundancy and hot swap maintenance are supported for key components, such as PSUs, fan modules, and hard disks, without the need for opening the chassis cover. These features facilitate quick replacement for faulty components during normal system operation, ensuring high system reliability.
- Some PCIe slots support hot swap without the need for opening the chassis cover. This ensures that there are no interruptions to the system operation during PCIe device replacement.
- The integrated intelligent management (iMana) software monitors system operation, triggers warnings, and rectifies faults.
- A diagnosis panel facilitates fault location, which reduces the time required to rectify faults.

Double the performance compared with our previous-generation product

- The RH5885H V3 supports four Intel® Xeon® E7-4800 v2 processors. The maximum number of cores per processor is increased from 10 to 15, and the maximum cache capacity increased from 30 MB to 37.5 MB.
- To maximize the concurrent processing capability, up to 60 cores and 120 concurrent threads are supported.
- The overall performance is increased by 100% compared with the previous-generation Westmere-EX (E7-4800).
- A maximum of 96 DIMMs can be configured in the RH5885H V3. Using 64 GB DIMMs, the RH5885H V3 supports a maximum memory capacity of 6 TB, which meets large memory requirements for virtualization. In addition, the RH5885H V3 supports DIMMs at 1.5 times the normal height to provide higher cost effectiveness.
- Configured with Huawei ES series PCIe solid-state drives (SSDs), the RH5885H V3 provides excellent input/output (I/O) performance, eliminating disk performance bottlenecks.
- The RH5885H V3 supports up to four dual-slot GPUs, greatly improving floating-point computing and graphics processing performance.

Outstanding scalability for various application scenarios

- Supporting PCIe 3.0, the RH5885H V3 offers a data throughput rate of 8 Gbit/s, with a rate increase of 60% compared with PCIe 2.0.
- A maximum of 16 full-height, full-length PCIe cards can be configured. Four of the PCIe cards are hot swappable and can be maintained without



RH5885H V3

The Huawei RH5885H V3 (RH5885H V3 for short) is a standard 4U 4-socket rack server and supports Intel® Xeon® E7-4800 v2 processors. To meet the requirements of mission-critical applications such as databases, virtualization, business intelligence (BI), and high-performance computing (HPC), the RH5885H V3 provides up to 60 computing cores and a memory capacity of up to 6 TB.

the need for opening the chassis cover.

- The RH5885H V3 supports eight or twenty-three 2.5" hard disks, which allows flexible configuration of the local storage capacity. This applies to distributed databases and big data analysis.
- Two built-in USB ports are provided for preinstalling an OS or encryption certificate.
- A plug-in NIC is used to provide LAN on motherboard (LOM). GE or 10GE ports can be flexibly configured.

Optimized energy efficiency to reduce OPEX

- Power capping is adopted to increase the server deployment density without the need for changing the equipment room design.
- The dynamic energy-saving technology adjusts the processor frequency and voltage according to the processor usage, reducing energy consumption.
- Platinum PSUs offer power efficiency of up to 94% at 50% loads.

Technical Specifications

Form factor	4U rack server
Number of processors	2 or 4
Processor model	Intel® Xeon® E7-4800 v2 processors, with an L3 cache capacity of 37.5 MB maximum
Maximum memory capacity	96 DDR3 DIMMs, up to 6 TB (using 64 GB DIMMs)
Maximum local storage	8 or 23 x 2.5" SAS/SATA HDDs or SSDs
RAID support	RAID 0, 1, 10, 5, and 6 RAID cache: up to 1 GB Power-off protection: BBU or supercapacitor
LOM network port	2 or 4 x GE ports, or 2 x 10GE ports
Expansion slot	A maximum of 16 PCIe slots
USB port	6 (front: 2; rear: 2; built-in: 2)
Fan module	5 hot-swappable, counter-rotating fan modules in N+1 redundancy mode
PSU	Hot-swappable, redundant PSUs
Management	Integrated BMC that supports the following: IPMI 2.0, SNMPv3, SNMP Trap v1, CIM, and WS-MAN SOL, KVM over IP, WebUI, CLI, IPMI tool, and virtual media Black box function
Operating systems supported	Microsoft Windows Server Red Hat Enterprise Linux SUSE Linux Enterprise Server Oracle Enterprise Linux Debian CentOS Kylin Linux Oracle Server VM Citrix XenServer VMware ESXi
Power supply	110 V/220 V AC or –48 V DC
Operating temperature	5°C – 40°C
Dimensions	Height: 175 mm (6.89 in.) Width: 447 mm (17.60 in.) Depth: 790 mm (31.10 in.)