Huawei FusionServer Pro

X-series High-Density Server

Bring Pervasive Intelligent Computing with Chip Innovation

HUAWEI TECHNOLOGIES CO., LTD.

HUAWEI

Huawei FusionServer Pro

X6000 High-Density Server

X6000

The Huawei FusionServer Pro X6000 is a high-density server positioned for data centers with the scale-out architecture. It has been thoroughly optimized to deliver new levels of density that addresses the space and investment restrictions of data centers, and enables better space utilization as well as cost-benefits. The FusionServer Pro X6000 is ideal for service scenarios such as cloud computing, web-based applications, and high-performance computing (HPC).

High-Density Computing and Ultimate Performance

- Supports up to four 1U half-width 2-socket server nodes in a 2U chassis, delivering 2x computing density compared with traditional 1U rack servers
- Supports up to 24 NVMe SSDs, with over 10x boost to I/O acceleration capabilities

Simplified Management and Easy O&M

- Manages multiple nodes in aggregated mode, reducing cables and improving management efficiency
- Integrates an out-of-band fault diagnosis system and expert prewarning library, enabling over 93% locating accuracy

Shared Architecture and High Energy Efficiency

- Leverages patented Dynamic Energy Management Technology (DEMT) to drive down energy consumption by an average of 15%
- Efficient, reliable liquid cooling, slashing cooling energy consumption and decreasing TCO by 30%

Form factor	2U 4-node chassis
Server nodes	Four 1U half-width 2-socket servers
Power supply units	2 hot-swappable AC PSUs (1,500 W enhanced, 2,000 W, or 3,000 W), with support for 1+1 redundancy*
Power supply	100 V to 240 V AC; 240 V DC
Fan modules	4 hot-swappable fan modules, with support for N+1 redundancy
Operating temperature	5°C–35°C (41°F–95°F)
Certification	CE, UL, FCC, CCC, VCCI, and RoHS
Dimensions (H x W x D)	Universal chassis for 1,500 W enhanced or 2,000 W PSUs: 86.1 mm x 447 mm x 805 mm (3.39 in. x 17.60 in. x 31.69 in.) Chassis for 3,000 W PSUs: 86.1 mm x 447 mm x 819 mm (3.39 in. x 17.60 in. x 32.24 in.) (2.5-inch drives) 86.1 mm x 447 mm x 867 mm (3.39 in. x 17.60 in. x 34.13 in.) (3.5-inch drives)

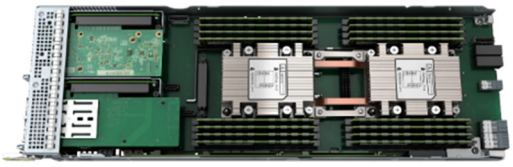
* Regarding PSUs, support for 1+1 redundancy depends on the power consumption calculated according to the actual configurations of X6000.

Huawei FusionServer Pro

XH321 V5 Server Node

XH321 V5

The FusionServer Pro XH321 V5 is a Huawei latest-generation 1U half-width 2-socket server node. Powered by Intel® Xeon® Scalable Processors, it supports up to 16 DDR4 DIMMs and is ideal for applications such as cloud computing, web-based applications, and high-performance computing (HPC).



Superior Computing Performance

- Supports up to 2 Intel® Xeon® Scalable processors with up to 205 W TDP in a 1U half-width chassis
- Supports all NVMe SSDs for acceleration, eliminating I/O bottlenecks

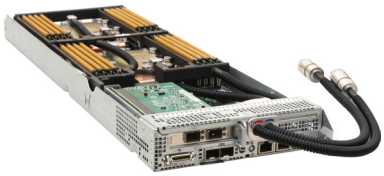
Flexible Deployment

- Supports InfiniBand EDR and Omni-path high-speed network fabric
- Supports 2 hot-plug M.2 SSDs, providing high-speed reliable OS boot disks

Form factor	1U half-width 2-socket server
Processors	1 or 2 1st Generation Intel® Xeon® Scalable processors (3100/4100/5100/6100/8100 series), up to 205 W 1 or 2 2nd Generation Intel® Xeon® Scalable processors (3200/4200/5200/6200/8200 series), up to 205 W
Memory	Supports 16 2933 MT/s DDR4 DIMMs, up to 1 TB memory capacity (configured with 64 GB DIMMs), meeting large-capacity memory application requirements Supports 4 2666 MT/s DCPMMs as volatile or non-volatile storage, which can be used together with 8 DDR4 DIMMs, offering up to 2.5 TB memory capacity (configured with 512 GB DCPMMs and 64 GB DDR4 DIMMs) to meet various workload requirements
Internal storage	Up to 6 x 2.5-inch SAS/SATA/SSD/NVMe drives or 3 x 3.5-inch SAS/SATA/SSD drives Up to 2 x M.2 2280 or 2242 SATA SSDs
RAID support	RAID 0, 1, 5, 6, 10, 50, or 60; supercapacitor for power failure protection M.2 SSDs can be used to build RAID 0 or 1
LOM network ports	2 x GE + 2 x 10GE
PCIe expansion	2 PCIe x16 half-height half-length standard expansion slots
Management	Supports standard management interfaces such as SNMP and IPMI. Provides management features such as virtual KVM, virtual media, SOL, remote control, hardware monitoring, and intelligent power supply. Supports power capping, independent management network port, and NC-SI management.
Operating systems	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Citrix XenServer, and VMware ESXi
Operating temperature	5°C to 35°C (41°F to 95°F)
Certification	CE, UL, FCC, CCC, VCCI, and RoHS
Dimensions (H x W x D)	40.5 mm x 177.9 mm x 545.5 mm (1.59 in. x 7.00 in. x 21.48 in.)

Huawei FusionServer Pro

XH321L V5 Liquid-cooled Server Node



XH321L V5

FusionServer Pro XH321L V5 is Huawei's latest 1U half-width 2-socket liquid-cooled server node. It supports liquid cooling for CPU and memory modules and 50°C warm water cooling. The heat dissipation ratio reaches 80% and the PUE is equal to or smaller than 1.1.

High Energy Efficiency and Reliability

- CPU microchannels and memory Inter-DIMM water flow design, enabling board-level liquid cooling ratio of up to 80%
- 50°C warm-water cooling enables cooling PUE ≤ 1.1 and TCO down by 30%
- Isolated design for system water flows and circuits, with status monitoring. 217 system test items, ensuring high reliability

Cabinet-level Deployment

- Fits FusionServer Pro liquid-cooled cabinets with integrated liquid cooling manifold, which can be quickly connected to the main pipe.
- Each liquid-cooled cabinet supports up to 49 kW and 64 XH321L V5 liquid-cooled nodes.

Form factor	1U half-width 2-socket liquid-cooled server
Processors	1 or 2 1st Generation Intel® Xeon® Scalable processors (6100/8100 series), up to 205 W 1 or 2 2nd Generation Intel® Xeon® Scalable processors (6200/8200 series), up to 205 W
Memory	Supports 16 2933 MT/s DDR4 DIMMs, up to 1 TB memory capacity (configured with 64 GB DIMMs), meeting large-capacity memory application requirements
Internal storage	Up to 6 x 2.5-inch SAS/SATA/SSD/NVMe drives or 3 x 3.5-inch SAS/SATA/SSD drives Up to 2 x M.2 2280 or 2242 SATA SSDs
RAID support	RAID 0, 1, 5, 6, 10, 50, or 60; supercapacitor for power failure protection M.2 SSDs can be used to build RAID 0 or 1
LOM network ports	2 x GE + 2 x 10GE
PCIe expansion	1 PCIe x16 half-height half-length standard expansion slots
Management	Supports standard management interfaces such as SNMP and IPMI. Provides management features such as virtual KVM, virtual media, SOL, remote control, hardware monitoring, and intelligent power supply. Supports power capping, independent management network port, and NC-SI management.
Operating systems	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Citrix XenServer, and VMware ESXi
Operating temperature	5°C to 35°C (41°F to 95°F)
Certification	CE, UL, FCC, CCC, VCCI, and RoHS
Dimensions (H x W x D)	40.5 mm x 177.9 mm x 545.5 mm (1.59 in. x 7.00 in. x 21.48 in.) (not include liquid cooling inlet and outlet pipes)

For more information

To learn more about Huawei servers, contact Huawei sales representatives or business partners, or visit:
http://e.huawei.com/en/products/cloud-computing-dc/servers

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Huawei FusionServer Pro

X6800 High-Density Server

X6800

FusionServer Pro X6800 is a high-density server designed for the data center scale-out architecture and fits up to four dual-slot dual-socket server nodes. It is applicable to various service scenarios, such as cloud computing, web applications, and high-performance computing, helping data centers improve space utilization and return on investment.

High-Density Computing

Fits up to four dual-slot dual-socket server nodes and supports Intel® Xeon® Scalable processors in a 4U chassis.

Massive Storage

Each server node supports up to two 2.5-inch and twelve 2.5-inch or 3.5-inch SAS/SATA HDDs/SSDs.

Simplified Management

Manages multiple nodes in aggregated mode, reducing management cables by 75% and improving management efficiency.

Form Factor	4U standard chassis
Node Support	4 x dual-slot dual-socket server nodes
Power Supply Units	4 x 750 W or 1200 W AC hot-swappable PSUs, or 4 x 800 W DC hot-swappable PSUs N+N redundancy supported
Power Supply	110 V/220 V AC or -48 V DC
Fan Modules	5 x hot-swappable fan modules, N+1 redundancy supported
PCIe Expansion	8 PCIe Gen3 x8 HHHL Slots
Management	Aggregation management network port supported in front panel
Certification	CE, UL, FCC, CCC, VCCI, and RoHS
Dimensions (H x W x D)	175 mm x 447 mm x 898 mm (6.89 in. x 17.60 in. x 35.35 in.)
Operating Temperature	5°C to 40°C (41°F to 104°F)

Huawei FusionServer Pro

XH628 V5 Server Node

XH628 V5

FusionServer Pro XH628 V5 is a 4U dual-slot dual-socket server node that supports Intel® Xeon® Scalable processors. It can be configured with a maximum of two 2.5-inch and twelve 2.5-inch or 3.5-inch SAS/SATA HDDs/SSDs, providing high-density computing and massive storage capabilities.

Form Factor	4U dual-slot dual-socket server nodes
Processors	2 1st Generation Intel® Xeon® Scalable processors (3100/4100/5100/6100/8100 series), up to 165 W 2 2nd Generation Intel® Xeon® Scalable processors (3200/4200/5200/6200/8200 series), up to 165 W
Memory	Supports 16 2933 MT/s DDR4 DIMMs, up to 1 TB memory capacity (configured with 64 GB DIMMs), meeting large-capacity memory application requirements Supports 4 2666 MT/s DCPMMs as volatile or non-volatile storage, which can be used together with 8 DDR4 DIMMs, offering up to 2.5 TB memory capacity (configured with 512 GB DCPMMs and 64 GB DDR4 DIMMs) to meet various workload requirements
Internal Storage	2 x 2.5-inch front SAS/SATA HDDs (optional), 12 x 3.5-inch built-in SAS/SATA HDDs 2 x M.2 SATA SSDs
RAID	RAID 0, 1, 10, 5, 50, 6, 60 Supports a supercapacitor for power failure protection M.2 SSDs can be used to build RAID 0 or 1
LOM Network Ports	2 x 10GE ports + 2GE ports
PCIe Expansion	Front panel: 2 PCIe 3.0 x16 half-height half-length slots Chassis rear panel: 2 PCIe 3.0 x8 half-height half-length slots
Management	Supports standard management interfaces such as SNMP and IPMI. Provides management features such as virtual KVM, virtual media, SOL, remote control, hardware monitoring, and intelligent power supply. Supports power capping, independent management network port, and NC-SI management.
Operating Systems	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Citrix XenServer, and VMware ESXi
Operating Temperature	5°C to 40°C (41°F to 104°F)
Dimensions (H x W x D)	166 mm x 109 mm x 745 mm (6.54 in. x 4.29 in. x 29.33 in.)

For more information

To learn more about Huawei servers, contact Huawei sales representatives or business partners, or visit:

http://e.huawei.com/en/products/cloud-computing-dc/servers

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Why Huawei servers?

Huawei is a world-leading server provider with a broad spectrum of server offerings including rack, high-density, blade servers and KunLun Mission Critical Servers. Huawei is the industry's only vendor that has the integrated capabilities of server R&D, manufacture, and delivery. Huawei servers have been recognized for their superior quality, rock-solid reliability, extraordinary performance, ease of management, energy efficiency, and security. Huawei servers have served over 5,000 customer accounts across various industries around the globe, including government, finance, electric power, Internet, telecom, energy, transportation, and education.