ZOOM industry

FUSION

Intelligent Server Portfolio

Intelligent Server Portfolio

Rack Servers

General computing
1288H V6

Balanced
2288H V6

Compute-intensive
2488H V6

Storage-intensive
5288 V6

Storage-intensive
2298 V5

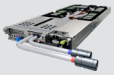
Storage-intensive
5288 V5

Mission-critical
5885H V5

High-Density Servers

2 U 4-node
X6000 V6

Air-cooled
XH321 V6



Liquid-cooled
XH321C V6

2 U 4-node
X6000 V5

Air-cooled
XH321 V5

Liquid-cooled
XH321L V5

Heterogeneous Servers

Full-width
G5500

Half-width
G5500

Rack-Scale Full Liquid-Cooled Servers

FusionPoD

Mission Critical Servers

KunLun

Intelligent Management Platform

Operation and maintenance (O&M) efficiency increased by 30%
Five intelligent technologies: intelligent maintenance, deployment, upgrade, energy saving, and discovery

Rack Servers

ZOOM Hard'Server 1288H V6

ZOOM Hard'Server 1288H V6 is a 1 U 2-socket rack server that applies to high-density deployment scenarios, such as cloud computing, virtualization, high-performance computing (HPC), and big data processing, improving space utilization for data centers.

- 1 or 2 x 3rd Generation Intel® Xeon® Scalable processors (4300/5300/6300/8300 series), TDP up to 270 W
- 32 DDR4 DIMMss and delivers memory capacity of up to 8.192 TB (with 256 GB DIMMs). This is ideal for application scenarios that require large-capacity memory
- Supports the use of 16 Intel® Optane™ Persistent Memory (Optane™ PMem) 200 series as volatile or non-volatile storage with 16 DDR4 DIMMss. The memory capacity is up to 12 TB (with 512 GB Optane™ PMem and 256 GB DDR4 DIMMs) to meet the demands of various workloads
- Compatible with Microsoft Windows Server, SUSE Linux Enterprise Server, VMware ESXi, Red Hat Enterprise Linux, CentOS, Oracle, Ubuntu, Debian, etc
- Supports various drive configurations and hot swappable:
  - 8 x 2.5-inch SAS/SATA/SSD drives
  Supports flash storage: Dual M.2 SSDs
- 6 x PCIe slots, including one PCIe slot dedicated for a RAID card, two FlexIO card slots dedicated for OCP 3.0 network adapters, and three PCIe 4.0 slots for standard PCIe cards
- Provides expansion capability of multiple types of networks. Provides OCP 3.0 NICs. The two FlexIO card slots support two OCP 3.0 network adapter respectively, which can be configured as required. Hot swappable function supported
- DEMT 2.0 and intelligent memory fault recovery

ZOOM Hard'Server 2288H V6

ZOOM Hard'Server 2288H V6 is a 2 U 2-socket rack server with flexible configuration. It is widely used in cloud computing, virtualization, database, and big data scenarios.

- 1 or 2 x 3rd Generation Intel® Xeon® Scalable processors (4300/5300/6300/8300 series), thermal design power (TDP) up to 270 W
- 32 DDR4 DIMMss and delivers the maximum memory capacity of up to 8.192 TB (with 256 GB DIMMs). This is ideal for application scenarios that require large-capacity memory.
- Supports the use of 16 Optane™ PMem 200 series as volatile or non-volatile storage with 12 DDR4 DIMMss. The memory capacity is up to 12 TB (with 512 GB Optane™ PMem and 256 GB DDR4 DIMMss) to meet the demands of various workloads
- 4 x 300 W full-height, full-length, and double-width GPU accelerator cards; 11 x half-height and half-length GPU accelerator cards; 8 x full-height, full-length, single-width GPU accelerator cards
- Supports various drive configurations and hot swappable:
  - 8 or 25 x 2.5-inch SAS/SATA/SSD drives
  - 12 x 3.5-inch SAS/SATA drives
  - 4 x PCIe NVMe SSDs
  Supports flash storage: Dual M.2 SSDs
- 14 x PCIe 4.0 expansion slots, including one PCIe slot dedicated for RAID card, two FlexIO card slots dedicated for OPC 3.0, and eleven PCIe 4.0 slots for standard PCIe cards
- Provides expansion capability of multiple types of networks. Provides OCP 3.0 NICs. The two FlexIO card slots support two OCP 3.0 network adapter respectively, which can be configured as required. Hot swappable function supported
- DEMT 2.0 and intelligent memory fault recovery
- Compatible with Microsoft Windows Server, SUSE Linux Enterprise Server, VMware ESXi, Red Hat Enterprise Linux, CentOS, Oracle, Ubuntu, Debian, etc.

ZOOM Hard'Server 2488H V6

ZOOM Hard'Server 2488H V6 is a 2 U 4-socket rack server, ideal for compute-intensive scenarios, such as virtualization, HPC, databases, and SAP HANA.

- 2 or 4 x 3rd Gen Intel®Xeon®Scalable processors (5300/6300/8300 series), TDP up to 250 W
- Supports a maximum of 48 DDR4 DIMMss of the 3200 MT/s registered DIMMss (RDIMMs) and load-reduced DIMMss (LRDIMMs). The memory capacity is up to 12 TB, meeting the requirements of large-capacity memory applications.
- Supports the use of 24 Optane™ PMem 200 series with DDR4 DIMMss. The memory capacity is up to 18 TB to meet the demands of various workloads
- DEMT 2.0 and intelligent memory fault recovery
- Supports various drive configurations and hot swappable:
  - 8 or 25 x 2.5-inch front SAS/SATA drives
  - 4 x 2.5-inch front SAS/SATA drives and 8 or 16 x NVMe SSDs
  Supports flash storage: Dual M.2 SSD
- 11 x PCIe expansion slots
- (Optional) One OCP 3.0 NIC: supports two GE, two 10GE, two 25GE, or two 100GE ports; supports hot-swappable, NC-SI, WOL, and PXE
- Compatible with Microsoft Windows Server, SUSE Linux Enterprise Server, VMware ESXi, Red Hat Enterprise Linux, CentOS, Oracle, Ubuntu, Debian, etc

FusionServer 5288 V6

FusionServer 5288 V6 is a 4 U 2-socket rack server that applies to services such as tiered deployment of hot, warm, and cold data, and historical data archiving. It provides flexible scalability and ultra-large local storage, helping reduce data storage costs.

- 1 or 2 x 3rd Generation Intel®Xeon®Scalable processors (4300/5300/6300/8300 series), TDP up to 270 W
- Provides 32 DDR4 DIMMss and delivers memory capacity of up to 8.192 TB (with 256 GB DIMMs). This is ideal for application scenarios that require large-capacity memory.
- Supports the use of 16 Optane™ PMem 200 series as volatile or non-volatile storage with 16 DDR4 DIMMss. The memory capacity is up to 12 TB (with 512 GB Optane™ PMem and 256 GB DDR4 DIMMs) to meet the demands of various workloads
- Compatible with Microsoft Windows Server, SUSE Linux Enterprise Server, VMware ESXi, Red Hat Enterprise Linux, CentOS, Oracle, Ubuntu, Debian, etc.
- 8 x half-height and half-length GPU accelerator cards
- Supports various drive configurations and hot swappable: • 36-44 3.5-inch SAS/SATA drives + 4 NVMe SSDs • 24 x 3.5-inch front SAS/SATA drives • 4 x 3.5-inch embedded SAS/SATA drives • 16 x 3.5-inch SAS/SATA drives + 4 x 2.5-inch rear SAS/SATA/NVMe SSDs Supports flash storage: • Dual M.2 SSDs
- Provides a maximum of eleven PCIe 4.0 slots, including one PCIe slot dedicated for RAID card, two FlexIO card slots dedicated for OPC 3.0, and eight PCIe 4.0 slots for standard PCIe cards
- Provides expansion capability of multiple types of networks. Provides OCP 3.0 NICs. The two FlexIO card slots support two OCP 3.0 network adapter respectively, which can be configured as required. Hot swappable function supported.
- DEMT 2.0 and intelligent memory fault recovery

FusionServer 2298 V5

FusionServer 2298 V5 is a 2 U 2-socket rack server that applies to services such as tiered deployment of hot, warm, and cold data, and historical data archiving. With its high-efficiency design, this model ensures excellent computing performance and provides flexible scalability and ultra-large local storage capacity, helping reduce data storage costs

- 1 or 2 x 1st Generation Intel®Xeon®Scalable processors (3100/4100/5100/6100/8100 series), TDP up to 205 W
- 1 or 2 x 2nd Generation Intel®Xeon®Scalable processors (3200/4200/5200/6200/8200 series), TDP up to 205 W
- 12 x DDR4 DIMMs at up to 2933 MT/s speeds
- 24 x 3.5" drives and 4 x 2.5" drives; 4 NVMe SSDs
- Up to 5 x PCIe expansion slots
- LOM: 2 x 10GE + 2 x GE ports
- DEMT and intelligent memory fault recovery

FusionServer 5288 V5

FusionServer 5288 V5 is a 4 U 2-socket rack server that applies to services such as tiered deployment of hot, warm, and cold data, and historical data archiving. It provides flexible scalability and ultra-large local storage, helping reduce data storage costs.

- 1 or 2 x 1st Generation Intel®Xeon®Scalable processors (3100/4100/5100/6100/8100 series), TDP up to 205 W
- 1 or 2 x 2nd Generation Intel®Xeon®Scalable processors (3200/4200/5200/6200/8200 series), TDP up to 205 W
- 24 x DDR4 DIMMs at up to 2933 MT/s speeds; 12 x Intel®Optane™ PMem modules (100 series), TDP up to 2666 MT/s
- 44 x 3.5" drives and 4 x 2.5" drives; 8 x NVMe SSDs; 2 x M.2 SSDs
- Up to 10 x PCIe expansion slots
- LOM: 2 x 10GE + 2 x GE ports
- DEMT and intelligent memory fault recovery

FusionServer 5885H V5

FusionServer 5885H V5 is a 4 U 4-socket rack server. It is ideal for high-reliability and high-performance mission-critical services, as well as compute-intensive scenarios such as virtualization, HPC, and databases.

- 2 or 4 x 1st Generation Intel®Xeon®Scalable processors (5100/6100/8100 series), TDP up to 205 W
- 2 or 4 x 2nd Generation Intel®Xeon®Scalable processors (5200/6200/8200 series), TDP up to 205 W
- 48 x DDR4 DIMMs at up to 2933 MT/s speeds; 24 x Intel®Optane™ PMem modules (100 series) at up to 2666 MT/s speeds
- Up to 25 x 2.5" SAS/SATA drives; 24 x NVMe SSDs; 2 x M.2 SSDs
- 15 x PCIe expansion slots
- 2 x GE ports and 2 x 10GE ports
- DEMT and intelligent memory fault recovery

High-Density Servers

FusionServer X6000 V6 High-Density Server

FusionServer X6000 V6 is a next-generation 2 U high-density server designed for service applications such as the Internet, HPC, cloud computing, and data centers. It optimizes and innovates Software Defined Storage (SDS), big data, and Software Defined Infrastructure (SDI).

- 2 U 4-node chassis
- 4 x half-width 1 U 2-socket server nodes
- 4 x hot-swappable 1200 W, 1500 W, 2000 W, or 3000 W AC PSUs in 2+2 redundancy
- 100 V AC to 240 V AC, 48 V DC (1200 W), 336 V DC (1500 W)
- 4 x hot-swappable 8080+ fan modules in N+1 redundancy
- Up to 24 x NVMe SSDs for all-flash storage
- DEMT 2.0 and intelligent memory fault recovery

FusionServer XH321 V6 Air-cooled Node

FusionServer XH321 V6 is a new-generation half-width 1 U 2-socket server node designed to overcome energy constraints and improve storage density. It features powerful computing capabilities, high storage density, and easy management and maintenance.

- 1 or 2 x 3rd Generation Intel®Xeon®Scalable processors (6300/8300 series), TDP up to 270 W
- 16 x DDR4 DIMMs at up to 3200 MT/s speeds; memory capacity of up to 2 TB (configured with 128 GB memory modules)
- 6 x 2.5" SAS/SATA drives/SSDs/NVMe SSDs; 2 x M.2 SSDs
- 2 x PCIe 4.0 x16 half-height and half-length standard slots
- 1 x OCP slot
- DEMT 2.0 and intelligent memory fault recovery

FusionServer XH321C V6 Liquid-cooled Node

FusionServer XH321C V6 is a next-generation half-width 1 U 2-socket liquid-cooled server node. It supports 45ºC (113°F) liquid cooling for CPUs and memory modules. A full liquid cooling solution provides a heat dissipation ratio of 100% and a Power Usage Effectiveness (PUE) value ≤ 1.05. A board-level liquid cooling solution delivers a heat dissipation ratio of up to 80% and a PUE value ≤ 1.1.

- 1 or 2 x 3rd Generation Intel®Xeon®Scalable processors (6300/8300 series), TDP up to 270 W
- 16 x DDR4 DIMMs at up to 3200 MT/s speeds; memory capacity of up to 2 TB (configured with 128 GB memory modules)
- 6 x 2.5" SAS/SATA drives/SSDs/NVMe SSDs; 2 x M.2 SSDs
- 1 x PCIe 4.0 x16 half-height and half-length standard slot
- 1 x OCP slot
- DEMT 2.0 and intelligent memory fault recovery

FusionServer X6000 V5 High-Density Server

FusionServer X6000 V5 is a 2 U high-density server designed for the scale-out architecture of data centers. It is ideal for multiple service scenarios, such as cloud computing, web-based applications, and HPC.

- 4 x half-width server nodes in a 2 U chassis
- 2 x hot-swappable 1500 W enhanced, 2000 W, or 3000 W AC PSUs in 1+1 redundancy mode
- 4 x hot-swappable fan modules in N+1 redundancy
- Up to x 24 NVMe SSDs for all-flash storage
- DEMT and intelligent memory fault recovery

FusionServer XH321 V6 Air-cooled Node

FusionServer XH321 V6 is a new-generation half-width 1 U 2-socket server node designed to overcome energy constraints and improve storage density. It features powerful computing capabilities, high storage density, and easy management and maintenance.

- 1 or 2 x 3rd Generation Intel®Xeon®Scalable processors (6300/8300 series), TDP up to 270 W
- 16 x DDR4 DIMMs at up to 3200 MT/s speeds; memory capacity of up to 2 TB (configured with 128 GB memory modules)
- 6 x 2.5" SAS/SATA drives/SSDs/NVMe SSDs; 2 x M.2 SSDs
- 2 x PCIe 4.0 x16 half-height and half-length standard slots
- 1 x OCP slot
- DEMT 2.0 and intelligent memory fault recovery

FusionServer XH321C V6 Liquid-cooled Node

FusionServer XH321C V6 is a next-generation half-width 1 U 2-socket liquid-cooled server node. It supports 45ºC (113°F) liquid cooling for CPUs and memory modules. A full liquid cooling solution provides a heat dissipation ratio of 100% and a Power Usage Effectiveness (PUE) value ≤ 1.05. A board-level liquid cooling solution delivers a heat dissipation ratio of up to 80% and a PUE value ≤ 1.1.

- 1 or 2 x 3rd Generation Intel®Xeon®Scalable processors (6300/8300 series), TDP up to 270 W
- 16 x DDR4 DIMMs at up to 3200 MT/s speeds; memory capacity of up to 2 TB (configured with 128 GB memory modules)
- 6 x 2.5" SAS/SATA drives/SSDs/NVMe SSDs; 2 x M.2 SSDs
- 1 x PCIe 4.0 x16 half-height and half-length standard slot
- 1 x OCP slot
- DEMT 2.0 and intelligent memory fault recovery

FusionServer X6000 V5 High-Density Server

FusionServer X6000 V5 is a 2 U high-density server designed for the scale-out architecture of data centers. It is ideal for multiple service scenarios, such as cloud computing, web-based applications, and HPC.

- 4 x half-width server nodes in a 2 U chassis
- 2 x hot-swappable 1500 W enhanced, 2000 W, or 3000 W AC PSUs in 1+1 redundancy mode
- 4 x hot-swappable fan modules in N+1 redundancy
- Up to x 24 NVMe SSDs for all-flash storage
- DEMT and intelligent memory fault recovery

FusionServer XH321 V5 Server Node

FusionServer XH321 V5 is a half-width 1 U 2-socket server node. It is ideal for multiple service scenarios, such as cloud computing, web-based applications, and HPC.

- 1 or 2 x 1st Generation Intel®Xeon®Scalable processors (3100/4100/5100/6100/8100 series), TDP up to 205 W
- 1 or 2 x 2nd Generation Intel®Xeon®Scalable processors (3200/4200/5200/6200/8200 series), TDP up to 205 W
- 16 x DDR4 DIMMs at up to 2933 MT/s speeds; 4 x Intel®Optane™ PMem modules (100 series) at up to 2666 MT/s speeds
- 6 x 2.5" SAS/SATA drives/SSDs/NVMe SSDs or 3 x 3.5" SAS/SATA drives/SSDs; 2 x M.2 SSDs
- 2 x PCIe expansion slots
- 2 x GE ports and 2 x 10GE ports
- DEMT and intelligent memory fault recovery

FusionServer XH321L V5 Liquid-cooled Node

FusionServer XH321L V5 is a half-width 1 U 2-socket liquid-cooled server node. It supports 45ºC (113°F) liquid cooling for CPUs and memory modules. A full liquid cooling solution provides a heat dissipation ratio of 100% and a PUE value ≤ 1.05. A board-level liquid cooling solution delivers a heat dissipation ratio of up to 80% and a PUE value ≤ 1.1.

- 1 or 2 x 1st Generation Intel®Xeon®Scalable processors (6100/8100 series), TDP up to 205 W
- 1 or 2 x 2nd Generation Intel®Xeon®Scalable processors (6200/8200 series), TDP up to 205 W
- 16 x DDR4 DIMMs at up to 2933 MT/s speeds
- 6 x 2.5" SAS/SATA drives/SSDs/NVMe SSDs or 3 x 3.5" SAS/SATA drives/SSDs; 2 x M.2 SSDs
- 2 x PCIe expansion slots
- 2 x GE ports and 2 x 10GE ports
- DEMT and intelligent memory fault recovery

Heterogeneous Servers

FusionServer G5500 is a 4 U heterogeneous server that adopts a fully modular and decoupled system design. It provides two types of heterogeneous compute nodes (full-width and half-width) and supports heterogeneous PCIe GPU accelerator cards. FusionServer G5500 provides high-density heterogeneous computing capabilities, supports heterogeneous topology configuration and one-click switchover, and adapts to long-term evolution of CPU and heterogeneous computing technologies. FusionServer G5500 is an optimal heterogeneous computing platform for large-scale data center deployment, accelerating artificial intelligence (AI), HPC, intelligent cloud, video analysis, and database applications.

FusionServer G5500 Full-Width Server

- Up to 8 x NVIDIA®Tesla®A100/V100S/V100/P100/T4
- 2 x Intel®Xeon®Scalable processors
- PCIe GPU form
- PCIe GPU model: 8 x 3.5'' SAS/SATA drives, 6 x 2.5'' NVMe SSDs/SAS/SATA drives, and 2 x 2.5'' SAS/SATA drives
- DEMT and intelligent memory fault recovery

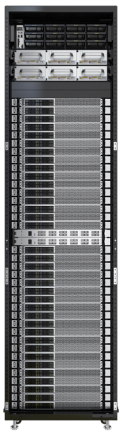
FusionServer G5500 Half-Width Server

- Up to 16 x NVIDIA®Tesla®T4, 4 A100/V100S/V100/P100, or 8 V100 (150 W)
- 2 x Intel®Xeon®Scalable processors
- PCIe GPU form
- 16 x T4 model: 2 x 2.5'' NVMe SSDs/SAS/SATA drives
- 4 x dual-slot GPU model or 8 x single-slot GPU model: 4 x 3.5'' SAS/SATA drives and 2 x 2.5'' NVMe SSDs/SAS/SATA drives
- DEMT and intelligent memory fault recovery

Rack-Scale Full Liquid-Cooled Servers

The FusionPoD rack-scale full liquid-cooled server is a brand-new computing cluster server developed by xFusion. It features high computing power, energy efficiency, reliability, and extremely simple O&M, greatly reducing the overall total cost of ownership (TCO). The server is suitable for cloud computing, HPC, and integrated big data center scenarios, and can be widely deployed in Internet Data Center (IDC) and data centers of enterprises and carriers.

FusionPoD Rack-Scale Full Liquid-Cooled Server



High computing power

- 32/36 x 1 U liquid-cooled server nodes and 128/144 x CPUs/cabinet, increasing the computing power density by 4 times
- CPU limit computing power, a large number of cores, and high-frequency CPU applications
- 33/66 kW/cabinet and PSUs in N+M redundancy

Remarkable energy efficiency

- Full liquid cooling deployment with a liquid cooling ratio of 95% and PUE ≤ 1.1
- Intelligent prediction of power peak and intelligent switching of power supply mode, increasing the power supply efficiency by 4%

Solid reliability

- Highly reliable key liquid cooling components with a life span of 10+ years
- All-round reliable guarantee from engineering design, quality verification, production testing to safety operation

Simple O&M

- Integrated delivery of the entire cabinet without cable deployment, improving delivery efficiency by 4 times (shortened from three or four months to one week)
- Blind-mating of all the power supply, interface, and liquid cooling buses; automatic and unattended O&M
- Five intelligent technologies: intelligent maintenance, deployment, upgrade, energy saving, and discovery

KunLun Mission Critical Servers

KunLun Mission Critical

The KunLun Mission Critical Server is designed for mission-critical workloads and ideal for scenarios such as core databases, database application consolidation, in-memory computing, and HPC fat nodes. The KunLun Mission Critical Server leverages the innovative RAS 2.0 technology to provide high reliability of UNIX servers in the open x86 ecosystem, helping customers embrace an open architecture and unleash innovation potential.

- Open platform most suitable for UNIX-to-x86 migration
- Compatibility with mainstream x86-based OSs, databases, and virtualization
- TCO 30% lower than that of UNIX servers
- Reliable and innovative RAS 2.0 technology
- 100% modular design, allowing for maintenance without opening the chassis cover
- Proactive failure analysis engine (PFAE), slashing 85% downtime
- Innovation, industry-leading performance, and flexible scalability
- Up to 8 x CPUs, 224 x cores, and 96 x DDR4 DIMMs
- Physical partitioning (K-Par)
- Industry's No.1 in the SAP HANA B4H benchmark performance test (as of December 2020)

ZOOM Hard'Server and Fusion Server Series - *Management*

• The iBMC chip integrates one dedicated GE management port to provide comprehensive management functions such as fault diagnosis, automated O&M, and hardware security hardening. • The iBMC supports standard interfaces such as Redfish, SNMP, and IPMI 2.0; provides a remote management user interface based on HTML5/ VNC KVM; provides out-of-band management functions such as monitoring, diagnosis, configuration, Agentless, and remote control for smart and simplified management.
• (Optional) Configured with the FusionDirector management software to provide advanced management functions such as five intelligent technologies, realizing intelligent, automatic, visualized, and refined management throughout the lifecycle.

Intelligent Management Platform

O&M efficiency

Integration of prevention, diagnosis, and self-healing
CPUs, memory modules, drives, and PSUs

Fault diagnosis accuracy up to 93%;
downtime rate reduced by 50%

One-click automation
Automatic version upgrading or kitting in batches

Upgrade efficiency increased by 20 times

Component-level visualization
Automatic inventory in seconds and real-time tracking

100% accuracy rate

Dynamic refinement
DEMT 2.0

18% energy saved for the entire server

Streamlined deployment and fast switching
Hardware, OS, databases/ multiple modes

Deployment efficiency increased by 10 times