

FusionServer

# X6000 V6 High-Density Server



# X6000 V6 High-Density Server

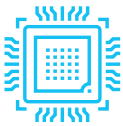


X6000 V6 (8 drives)



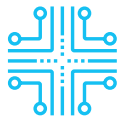
X6000 V6 (24 drives)

The FusionServer X6000 V6 is a next-generation 2U high-density server that is rearchitected for serving ISP and HPC customers to meet their demands on large-scale server deployment. The servers apply to Internet, high-performance computing (HPC), cloud computing, and data center applications, as well as software-defined storage (SDS), big data, and software-defined infrastructure (SDI).



## Optimal Performance and Ultra-high Density

- 2 times higher computing density than 1U rack servers and 4 times higher than 2U rack servers
- Up to 24 NVMe SSDs



## Unified Management and Easy Maintenance

- The X6000 possesses the advantages of both blade and rack servers. Its server nodes can be centrally managed using the Intelligent Baseboard Management Controller (iBMC). They are installed at the rear, with cables routed from the rear.
- In a modular server structure, drives, nodes, PSUs, OCP cards, and fan modules are hot-swappable.



## Shared Architecture and High Energy Efficiency

- A chassis supports up to four 3000 W PSUs. Server nodes share the four PSUs in 1+1 or 2+2 redundancy mode.
- Drives do not have midplanes, increasing the heat dissipation capability by 20%.
- The large vapor chamber (VC) conjoined heat sink is capable of phase-change uniform temperature, increasing thermal conductivity by 15 times.

|                        |   |
|------------------------|---|
| Form Factor            | 2U 4-node chassis   |
| Server Nodes           | Four 1U half-width, 2-socket server nodes   |
| Power Supply Units     | Four hot-swappable 1200 W, 1500 W, 2000 W, or 3000 W AC PSUs in 1+1 or 2+2 redundancy mode* |
| Power Supply           | 100 V to 240 V AC, 48 V DC (1200 W), 336 V DC (1500 W)                                      |
| Fan Modules            | Four hot-swappable 8080+ fan modules in N+1 redundancy mode                                 |
| Operating Temperature  | 5°C to 45°C (41°F to 113°F) (ASHRAE Classes A1 to A3 compliant)                             |
| Certifications         | CE, UL, FCC, CCC, VCCI and RoHS   |
| Dimensions (H x W x D) | 447 mm x 899 mm x 86.1 mm (17.60 in. x 35.39 in. x 3.39 in.)                                |

The X6000 supports 1+1 or 2+2 power redundancy based on the power consumption of the integrated system and a single power supply.

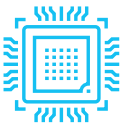


# XH321 V6 Server Node



XH321 V6

The FusionServer XH321 V6 is a next-generation 1U half-width, 2-socket server node. It is that is rearchitected for serving ISP and HPC customers to meet their demands on large-scale server deployment. The servers apply to Internet, high-performance computing (HPC), cloud computing, and data center applications, as well as software-defined storage (SDS), big data, and software-defined infrastructure (SDI).



## Superior Computing Performance

- One or two 3rd Gen Intel® Xeon® Scalable processors, TDP up to 270 W
- 8 DIMMs, 45% higher memory bandwidth
- No I/O bottlenecks, benefiting from all-NVMe SSDs for acceleration and 2+4 balanced configuration



## Flexible Deployment

- InfiniBand HDR 200 high-speed network interconnection
- Two M.2 SSDs to function as high-speed, reliable OS boot drives

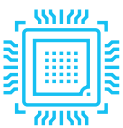
|                        |  |
|------------------------|--|
| Form Factor            | 1U half-width, 2-socket server node  |
| Processors             | two 3rd Gen Intel® Xeon® Scalable processors (6300/8300 series), TDP up to 270 W   |
| Memory                 | 16 DDR4 DIMM slots, up to 2 TB of memory (128 GB DIMM option) at 3200 MT/s   |
| Local Storage          | Up to six 2.5" SAS/SATA/SSD/NVMe drives (NVMe SSDs support 2+4 balanced configuration.)<br>One or two M.2 2280 or 2242 SATA SSDs<br>Supports hybrid drive deployments  |
| RAID Support           | RAID 0, 1, 5, 6, 10, 50, or 60, and supercapacitor for power failure protection<br>Supports M.2 SSDs in RAID 0 or 1  |
| PCIe Expansion         | Two PCIe 4.0 x16 half-height half-length (HHHL) standard expansion slots   |
| OCP Expansion          | One OCP expansion slot   |
| Management             | <ul style="list-style-type: none"> <li>• The iBMC chip integrates one dedicated GE management port to provide comprehensive management features such as fault diagnosis, automated O&amp;M, and hardware security hardening.</li> <li>• The iBMC supports standard interfaces such as Redfish, SNMP, and IPMI 2.0; provides a remote management user interface based on HTML5/VNC KVM; supports CD-free deployment and the Agentless feature for smart and simplified management.</li> <li>• Four compute nodes can be aggregated into one management port to simplify management.</li> <li>• (Optional) Configured with the FusionDirector management software to provide advanced management features such as stateless computing, batch OS deployment, and automated firmware upgrade, enabling automatic management throughout the lifecycle.</li> </ul> |
| Operating Systems      | Microsoft Windows Server, SUSE Linux Enterprise Server, VMware ESXi, Red Hat Enterprise Linux, CentOS, Oracle, Ubuntu, Debian, etc   |
| Operating Temperature  | 5°C to 45°C (41°F to 113°F) (ASHRAE Classes A1 to A3 compliant)  |
| Certifications         | CE, UL, FCC, CCC, RoHS, etc  |
| Dimensions (H x W x D) | 218.7 mm x 632 mm x 40.7 mm (8.61 in. x 24.88 in. x 1.60 in.)  |

# XH321C V6 Liquid-Cooled Server Node



XH321C V6

The FusionServer XH321C V6 is a next-generation 1U half-width, 2-socket liquid-cooled server node. It supports liquid cooling (45°C/113°F warm water supported) for CPUs and memory modules. The full liquid cooling solution delivers a heat dissipation ratio of 100% and a power usage effectiveness (PUE) no greater than 1.05. The board-level liquid cooling solution delivers a heat dissipation ratio of 80% and a PUE no greater than 1.1.



## High Energy Efficiency and Robust Reliability

- The CPU uses a micro-channel cold plate and the memory uses an optimized water routing design for inter-DIMM cold plates. The heat dissipation ratio of board-level liquid cooling reaches 80%.
- The 45°C (113°F) warm water cooling option brings down the TCO by 20%.
- Water flows are isolated from circuits, and their status is monitored in real time.



## Cabinet-Level Deployment

- Accommodated in a FusionServer liquid cooling cabinet, which has manifolds inside and can be connected to the main pipe.
- Up to 72 liquid-cooled nodes in a liquid cooling cabinet.

|                        |  |
|------------------------|--|
| Form Factor            | 1U half-width, 2-socket liquid-cooled server node  |
| Processors             | One or two 3rd Gen Intel® Xeon® Scalable processors (6300/8300 series), thermal design power (TDP) up to 270 W   |
| Memory                 | 16 DDR4 DIMM slots, up to 2 TB of memory (128 GB DIMM option) at 3200 MT/s   |
| Local Storage          | Up to six 2.5" SAS/SATA/SSD/NVMe drives (NVMe SSDs support 2+4 balanced configuration.)<br>One or two M.2 2280 or 2242 SATA SSDs<br>Supports hybrid drive deployments  |
| RAID Support           | RAID 0, 1, 5, 6, 10, 50, or 60, and supercapacitor for power failure protection<br>Supports M.2 SSDs in RAID 0 or 1  |
| PCIe Expansion         | One PCIe x16 half-height half-length (HHHL) standard expansion slot  |
| OCP Expansion          | One OCP expansion slot   |
| Management             | <ul style="list-style-type: none"> <li>• The iBMC chip integrates one dedicated GE management port to provide comprehensive management features such as fault diagnosis, automated O&amp;M, and hardware security hardening.</li> <li>• The iBMC supports standard interfaces such as Redfish, SNMP, and IPMI 2.0; provides a remote management user interface based on HTML5/VNC KVM; supports CD-free deployment and the Agentless feature for smart and simplified management.</li> <li>• Four compute nodes can be aggregated into one management port to simplify management.</li> <li>• (Optional) Configured with the FusionDirector management software to provide advanced management features such as stateless computing, batch OS deployment, and automated firmware upgrade, enabling automatic management throughout the lifecycle.</li> </ul> |
| Operating Systems      | Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Citrix XenServer, VMware ESXi, etc   |
| Operating Temperature  | 5°C to 45°C (41°F to 113°F) (ASHRAE Classes A1 to A3 compliant)  |
| Certifications         | CE, UL, CCC, VCCI, RoHS, etc   |
| Dimensions (H x W x D) | 218.7 mm x 632 mm x 40.7 mm (8.61 in. x 24.88 in. x 1.60 in.) (excluding the water inlet and outlet pipes for liquid cooling)  |

**xFusion Digital Technologies Co., Ltd.**

**Consulting telephone:** 400-080-6888    **Technical hotline:** 400-009-8999 **Address:**

9th Floor, Building 1, Zensun Boya Square, Longzihu Wisdom Island, Zhengdong New District, Zhengzhou, Henan Province

**Address:** [www.xfusion.com](http://www.xfusion.com)

**Copyrights © xFusion Digital Technologies Co., Ltd 2022. All rights reserved.**

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of xFusion Digital Technologies Co., Ltd.

**Trademarks and Permissions**

**XFUSION** and other xFusion trademarks are trademarks of xFusion Digital Technologies Co., Ltd. All other trademarks and trade names mentioned in this document are the property of their respective holders.

**Notice**

The purchased products, services and features are stipulated by the contract made between xFusion Digital Technologies Co., Limited and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied. The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.