

FusionServer
G5500 V7 AI Server

Balanced and Flexible Configuration, Preferred Option for AI



AI Server

FusionServer G5500 V7

Introduction



G5500 V7

FusionServer G5500 V7 (G5500 V7) is a next-generation 4U 2-socket AI server. It supports up to 10 x dual-width GPU cards and has the capability to accommodate 4 x standard PCIe cards and 3 x OCP cards for extensive expansion. With 24 x 2.5/3.5" drives or 12 x NVMe SSDs, it provides remarkable storage options with ultra-large capacity or ultra-fast storage. G5500 V7 features high performance, flexible architecture, solid reliability, easy deployment, and simplified management. It is designed for accelerating applications such as AI training, AI inference, high-performance computing (HPC), image and video analysis, and databases, and supports enterprise and public cloud deployment.

Highlights



Optimal performance

- General computing: 2 x 4th or 5th Gen Intel® Xeon® Scalable processors with 385 W TDP per processor, and 32 x DDR5 DIMMs, improving overall performance by up to 50%
- Intelligent computing: up to 10 x dual-width GPU cards, improving AI computing by 25% compared with the server with 8 x GPU cards
- Large storage: up to 24 x 2.5/3.5" SAS/SATA drives or 12 x NVMe SSDs + 8 x SATA/SAS drives
- Numerous I/Os: typical configuration of 8 x dual-width GPUs, another 6 x standard PCIe cards and 3 x OCP NICs, leading the industry



Extreme flexibility

- One-click switchover between cascaded and balanced topologies, flexibly adapting to multiple scenarios
- PCIe Retimer-free design, reducing the PCIe lane latency and system power consumption
- GPUDirect Storage/RDMA/P2P, adaptive to large-scale cluster deployment



Ultimate reliability

- Innovative drive design with vibration resistance and noise reduction, diminishing the failure rate by 60% compared to the industry average
- Enhanced system robustness design and automatic firmware recovery
- Reliable fan redundancy: 6 or 8 x customized 8080+ fans in N+1 redundancy
- PSU redundancy and high efficiency: 4 x 3000 W Titanium PSUs in N+N/N+M redundancy

| | |
|-------------------------------|--|
| Form Factor | 4U AI server |
| Processor | 2 x 4th/5th Gen Intel® Xeon® Scalable processors, with up to 385 W TDP per processor |
| Chipset | Emmitsburg PCH |
| Memory | 32 x DIMMs at up to 5600 MT/s, up to 256 GB per DIMM |
| Local Storage | Hot-swappable and flexible drive configurations: - Up to 24 x 2.5/3.5" SAS/SATA drives - Up to 12 x NVMe SSDs and 8 x SATA/SAS drives Flash storage: dual M.2 SSDs |
| RAID | RAID 0, 1, 10, 5, 50, 6, and 60; supercapacitors for cache data protection against power failures; RAID level migration, drive roaming, self-diagnosis, and remote web-based configuration |
| GPU Card | 10 x dual-width GPU cards |
| Network | Multiple network expansion capabilities, 3 x OCP 3.0 NICs |
| PCIe Expansion | Up to 14 x standard PCIe 5.0 slots, including 10 x dedicated slots for GPU cards |
| Fan Module | 6 or 8 x hot-swappable counter-rotating fan modules in N+1 redundancy |
| PSU | 4 x 2000 W Platinum/Titanium, 2600 W Platinum, or 3000 W Titanium hot-swappable PSUs in N+N/N+M redundancy |
| Management | The iBMC chip integrates one dedicated management GE network port, providing comprehensive management features such as fault diagnosis, automatic 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; supports out-of-band management functions such as monitoring, diagnosis, configuration, Agentless, and remote control for simplified management - It is optional to configure the FusionDirector management software that provides advanced management features such as five intelligent technologies, enabling intelligent, automatic, visualized, and refined management throughout the lifecycle |
| OS | Microsoft Windows Server, SUSE Linux Enterprise Server, Red Hat Enterprise Linux, and Ubuntu |
| Security | Power-on password, administrator password, Trusted Platform Module (TPM) 2.0, security bezel, secure boot, and chassis intrusion detection |
| Operating Temperature | 5°C to 35°C (41°F to 95°F), compliant with ASHRAE Classes A1/A2 |
| Certification | CCC, CQC, VCCI, and CE |
| Installation Suite | L-shaped guide rails, adjustable guide rails, and holding rails |
| Dimensions (H x W x D) | 175 mm x 447 mm x 898mm (6.89 in. x 17.60 in. x 35.35 in.) |

*The highest operating temperature varies depending on the server configuration. For details, see the white paper.

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

Website: www.xfusion.com

Copyrights © xFusion Digital Technologies Co., Ltd 2024. 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

In this document, "xFusion" is used to refer to "xFusion Digital Technologies Co., Ltd." for concise description and easy understanding, which does not mean that "xFusion" may have any other meaning. Any "xFusion" mentioned or described hereof may not be understood as any meaning other than "xFusion Digital Technologies Co., Ltd.", and xFusion Digital Technology Co., Ltd. shall not bear any liability resulting from the use of "xFusion".

The purchased products, services and features are stipulated by the contract made between xFusion 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.