xFUSION

FusionServer

G8600 V7 AI Server

New-Generation Flagship

xFusion Digital Technologies Co., Ltd.

AI Server
FusionServer G8600 V7

Introduction

G8600 V7

FusionServer G8600 V7 is a new-generation flagship AI server ideal for high-performance scenarios such as large-scale accelerated computing, scientific computing, and image and data analysis. It features flagship computing power, ultimate energy efficiency, high reliability, and easy O&M.

Highlights

Supreme Computing Power

- General computing power: 2 x 4th or 5th Gen Intel® Xeon® Scalable processors with 385 W TDP per processor, and 32 x DDR5 DIMMs, improving the overall performance by up to 50%
- Intelligent computing power: 8 x GPU modules with the unmatched computing power in the industry
- Optimal architecture: compatible with the high-performance and balanced NVIDIA topologies; PCIe 5.0 devices in cable-free chassis without Retimer chips

Ultimate Energy Efficiency

- The 54 V and 12 V dual-plane architecture combined with the Model Predictive Control (MPC) algorithm for GPUs and CPUs enables 5.9% higher energy efficiency than the industry average and saves 500 W power under the typical load
- Compared with the 12 V PSUs, the dual-partitioned 54 V and 12 V PSUs reduce a power conversion step, saving 76 W power per server
- Self-developed 54 V and 12 V Titanium PSUs improve the power efficiency by 2% compared with Platinum PSUs under 50% load
- The 54 V PSUs support dual inputs, improving the power load rate and promoting the power efficiency by 1.9%
- The MPC algorithm for heat dissipation control saves about 1.1% power for fan modules

Optimal Reliability

- Highly reliable power supply architecture: 54 V dual-bus PSUs allow a smaller PSU amount and higher redundancy
- Modular and easy O&M: Six modules (GPU, CPU, fan, power supply, and I/O modules) can be replaced without being removed from the chassis, reducing maintenance time by 2.5 times
- Fan module and PSU redundancy: GPU and CPU fan modules in N+1 redundancy, 12 V PSUs in 1+1 redundancy, and 54 V PSUs in N+M redundancy

Technical Specifications

Form Factor	8U 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, up to 256 GB per DIMM, up to 5600 MT/s
Local Storage	8 x 2.5" front SAS/SATA drives + 8 x 2.5" rear NVMe SSDs Flash storage: dual M.2 SSDs
RAID	RAID 0, 1, 10, 5, 50, 6, or 60; supercapacitors for cache data protection from power failures; RAID level migration, drive roaming, self-diagnosis, and remote web-based configuration
GPU Module	8 x GPU modules
Network	2 x OCP 3.0 NICs, which can be configured as required and supports orderly hot swap
PCIe Expansion	Up to 13 x PCIe slots, including 12 x standard PCIe 5.0 x16 slots and 1 x OCP 3.0 slot
Fan Module	GPU: 10 x 54 V fan modules in N+1 redundancy; CPU: 5 x 12 V fan modules in N+N redundancy
PSU	54 V: 6 x 3000 W Titanium hot-swappable PSUs，Cabinet-level N+N redundancy backup with 2+2, 3+1, 3+3, 4+2, and 5+1 configuration based on the load is supported. 12 V： 2 x 3000 W Titanium or 2000 W Titanium/Platinum hot-swappable PSUs in 1+1 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	Ubuntu, SUSE Linux Enterprise Server, Red Hat Enterprise Linux, and others
Security	Power-on password, administrator password, Trusted Platform Module (TPM) 2.0, and secure boot
Operating Temperature	5°C to 35°C (41°F to 95°F), compliant with ASHRAE Class A1/A2/A3
Certification	CQC, CE, and RoHS
Installation Suite	L-shaped guide rails
Dimensions (H x W x D)	352.8 mm x 447 mm x 925 mm (13.89 in. x 17.60 in. x 36.42 in.)

*According to the plan, it will be realized within 2024

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.