FusionServer

5298 V7 Rack Server

Oceanic Storage, Trusted Security
Efficient Power, and Intelligent O&M

Rack Server
FusionServer 5298 V7

Introduction

Front panel

Rear panel

FusionServer 5298 V7 (5298 V7) is a versatile new-generation 4U 2-socket rack server tailor-made to meet the diverse needs of industries such as the Internet, telecoms, finance, and government enterprises. With its broad range of applications, the 5298 V7 excels in distributed storage as well as warm and cold storage for big data, backup, and archiving. Boasting massive storage capacity, low power consumption, solid reliability, streamlined management, and effortless deployment, the 5298 V7 sets a new benchmark for server excellence.

Highlights

Oceanic Storage

- Unrivaled storage capacity: up to 60 x 3.5" SAS/SATA drives, reducing TCO by over 30%
- Exceptional computing: 4th/5th Gen Intel® Xeon® Scalable processors with up to 385 W TDP and support for 32 x DDR5 DIMMs
- Flexible expansion: up to 6 x PCIe expansion slots

Trusted Security

- Advanced Extended Volume Air Cooling (EVAC): reliable cooling with enhanced temperature adaptability, boasting a 50% increase in individual heat sink
- Industry-exclusive memory fault self-healing: stable system running with a remarkable 66% reduction in system crash rates
- Root of Trust (RoT)-based secure boot: security embedded at every level for comprehensive protection

Efficient Power

- Unique algorithm for the lowest power consumption of fans and CPUs: up to 8% higher energy efficiency compared to the industry standard
- Three core technologies: tailored to elevate power and efficiency, boasting 12.5% lower power loss compared to industry norms and leading the industry in power conversion rates
- Intelligent service sensing: dynamic adjustment of CPU frequencies based on actual business loads, optimizing energy consumption

Intelligent O&M

- Seamless version updates: automated updates without any manual intervention, increasing update efficiency by 20 times
- Tool-driven deployment: 75% tool integration for streamlined deployment processes, boosting deployment efficiency by 10 times
- Unified server management: effortless management of servers from various vendors, achieving automatic asset identification, real-time tracking, and 100% inventory accuracy

Technical Specifications

Form Factor	4U rack 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 DDR5 DIMMs, with up to 5600 MT/s speed
Local Storage	Various drive configurations with hot-swappable capability: - 10 x 2.5" SAS/SATA drives* - 60 x 3.5" SAS/SATA drives - 8 x NVMe SSDs - Dual M.2 SSDs
RAID	• RAID 0, 1, 10, 1E, 5, 50, 6, or 60 • Supercapacitors for cache data protection from power failures • RAID level migration, drive roaming, self-diagnosis, and remote web settings
Network	2 x FlexIO slots dedicated for 2 x OCP 3.0 NICs, allowing for on-demand selection and hot swap
PCIe Expansion	Up to 6 x PCIe expansion slots, including one dedicated for the RAID controller card and 2 x FlexIO expansion slots dedicated for OCP 3.0 NICs, and supporting PCIe 5.0
Fan Module	• Computing area: 8 x hot-swappable counter-rotating fan modules in N+1 redundancy • Storage area: 4 x hot-swappable counter-rotating fan modules in N+1 redundancy
PSU	1500 W/2000 W/3000 W Platinum/Titanium hot-swappable PSUs in 1+1 redundancy
Management	• The Intelligent Baseboard Management Controller (iBMC) chip integrates one dedicated management GE network port, providing comprehensive management features such as fault diagnosis, automated O&M, and hardware security hardening. • iBMC supports standard interfaces such as Redfish, SNMP, and IPMI 2.0, provides a remote management user interface based on HTML5/VNC KVM, and supports out-of-band management functions such as monitoring, diagnosis, configuration, agentless management, and remote control, simplifying management complexity. • Optional FusionDirector management software offers five intelligent management features for intelligent, automated, visualized, and refined management throughout the lifecycle.
OS	FusionOS, Microsoft Windows Server, SUSE Linux Enterprise Server, VMware ESXi, Red Hat Enterprise Linux, CentOS, Oracle, Ubuntu, Debian, and openEuler
Security	Power-on password, administrator password, Trusted Platform Module (TPM) 2.0, Trusted Cryptography Module (TCM), security bezel, secure boot, and chassis intrusion detection
Operating Temperature	5°C to 35°C (41°F to 95°F), compliant with ASHRAE Class A1/A2
Certification	CE, UL, CCC, FCC, VCCI, and RoHS
Installation Suite	L-shaped and adjustable guide rails
Dimensions (H x W x D)	175 mm x 447 mm x 850 mm (6.89 in. x 17.60 in. x 33.46 in.)

*Configuration details are subject to the technical white paper

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