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FusionServer

# V5 Rack Servers

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# 5288 V5 Server

5288 V5

## | Hybrid Storage Architecture, Tiered Data Storage |

- 2 Intel® Xeon® Scalable processors in 4U space, with 24 DDR4 DIMMs
- Up to 44 3.5-inch hard drives for local storage, or 4/8 NVMe SSDs
- 2 10GE and 2 GE LOM ports, and 10 PCIe expansion slots
- Leverages intelligent energy saving to improve performance per watt by 15%; combines intelligent management features to enable up to 93% accuracy for fault locating

Offers ultra-large storage capacities, which is ideal for hot, warm, and cold data tiered storage in scenarios such as Content Delivery Network (CDN), video cloud, and massive data archiving.

### Ultralarge Capacity, Tiered Storage

- Supports 2 Intel® Xeon® Scalable Processors in a 4U space. Its Ultra Path Interconnect (UPI) bus supports rates of up to 10.4 GT/s, and a single CPU supports up to 28 cores. The server supports Intel® Turbo Boost, hyper-threading, and Advanced Vector Extensions (AVX-512). A single processor delivers up to 40% higher compute power than the previous-generation processor.
- Supports 24 DDR4 DIMMs with a memory capacity of up to 3 TB (configured with 128 GB DIMMs) to meet large-capacity memory application requirements.
- Supports 12 Intel® Optane™ persistent memory (Optane™ PMem) modules (100 series) as volatile or non-volatile storage, which can be used together with 12 DDR4 DIMMs, offering up to 7.5 TB memory capacity (configured with 512 GB Optane™ PMem and 128 GB DDR4 DIMMs) to meet various workload requirements.
- Ultra-large storage space with 44 3.5-inch and 4 2.5-inch hard drives (up to 8 NVMe SSDs), ideal for tiered storage of hot, warm, and cold data.
- Supports two GE and two 10GE LAN on motherboard (LOM) ports, meeting networking requirements of 98% scenarios with streamlined configuration.
- Supports boot speedup storage technology (BSST). The OS is installed on two M.2 SSDs, which is deployed separately from service data. Supports hardware RAID and hot swappable for M.2 SSDs.

### Smart Power Saving and Better Energy Efficiency

- Leverages patented DEMT, and multiple power-saving measures such as component hibernation, proportional-integral-derivative (PID) algorithm based fan speed tuning, and active-standby power supplies, driving down overall equipment power consumption by up to 15% without compromising workload performance.
- Fitted with 80 Plus® Platinum power supply units (PSUs), up to 94% conversion efficiency; complies with China Energy Conservation Certification.
- PSUs with 900 W, 1500 W and more power options to flexibly adapt to different power requirements, improving energy utilization.

### Intelligent Management and Open Integration

- Integrates FusionDirector for intelligent full-lifecycle O&M, improving O&M efficiency by 30%.
  - » Intelligent maintenance integrates diagnosis and recovery, and accurately manages key components. The fault diagnosis accuracy reaches 93% and the breakdown rate decreases by 50%.
  - » Intelligent upgrade enables one-click automation, cloud-based collaboration for quick policy formulation, and firmware versions automatic completeness and upgrade in batches, improving efficiency by 20x.
  - » Intelligent discovery enables 100% accuracy of component-level visualization, automatic asset inventorying in seconds, and real-time track tracing.
  - » Intelligent energy saving enables refined dynamic energy management. It integrates the DEMT, saving 15% of the system energy.
  - » Intelligent deployment enables pipelined deployment, improving deployment efficiency by 10x.
- Provides standardized open interfaces and development guides, facilitating seamless integration with third-party management software.

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| Form Factor | 4U rack server |
| Processors | 1 or 2 1st Generation Intel® Xeon® Scalable processors (3100/4100/5100/6100/8100 series), up to 205 W<br>1 or 2 2nd Generation Intel® Xeon® Scalable processors (3200/4200/5200/6200/8200 series), up to 205 W |
| Chipset | Intel C622 |
| Memory | 24 DDR4 DIMM slots, 2933 MT/s; up to 12 Intel® Optane™ PMem modules (100 series), 2666 MT/s |
| Internal Storage | Supports hot-swappable hard drives with the following configuration options:<br>Front:<br>• 24 x 3.5-inch SAS/SATA hard drives<br>Embedded:<br>• 4 x 3.5-inch SAS/SATA hard drives<br>Rear:<br>• 16 x 3.5-inch SAS/SATA hard drives<br>• 16 x 3.5-inch SAS/SATA hard drives + 4 x 2.5-inch SAS/SATA hard drives or NVMe SSDs<br>• 14 x 3.5-inch SAS/SATA hard drives (configurable with 4 NVMe SSDs) + 4 x 2.5-inch SAS/SATA/NVMe SSDs<br>(This configuration does not support internal hard disk and I/O module 1)<br>Flash storage:<br>• Two M.2 SSDs |
| RAID | RAID 0, 1, 1E, 5, 50, 6, or 60; optional supercapacitor for cache power-off protection; RAID-level migration, drive roaming, self-diagnosis, and web-based remote configuration |
| Network Ports | LAN on motherboard (LOM): 2 x 10GE + 2 x GE ports<br>Flexible NIC: 2 x GE, 4 x GE, 2 x 10GE, 2 x 25GE, or 1/2 x 56G FDR IB ports |
| PCIe Expansion | Up to 10 PCIe 3.0 slots, including 1 for a RAID controller card and 1 for a flexible NIC |
| Fan Modules | 4 hot-swappable counter-rotating fan modules with optional N+1 redundancy |
| Power Supply | 2 hot-swappable PSUs with optional 1+1 redundancy. Supported options include:<br>• 900 W AC Platinum/Titanium PSUs (input: 100 V to 240 V AC, or 192 V to 288 V DC)<br>• 1500 W AC Platinum PSUs<br>1000 W (input: 100 V to 127 V AC)<br>1500 W (input: 200 V to 240 V AC, or 192 V to 288 V DC) |
| Management | • iBMC integrates one dedicated management GE network port to provide comprehensive management features such as fault diagnosis, automated O&M, and hardware security hardening.<br>• iBMC supports standard interfaces such as Redfish, SNMP, and IPMI 2.0; provides a remote management interface based on HTML5/VNC KVM; supports CD-free deployment and the Agentless feature, simplifying management.<br>• (Optional) Configured with the FusionDirector management software to provide advanced management features such as stateless computing, batch OS deployment, and automated firmware upgrade, enabling smart and automatic entire-lifecycle management. |
| Operating Systems | Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Citrix XenServer, VMware ESXi<br>For details, see https://www.xfusion.com/en/ |
| Security | Power-on password, administrator password, Trusted Platform Module (TPM) 2.0, and security front panel |
| Operating Temperature | 5°C to 40°C (41°F to 104°F) (ASHRAE Class A3 compliant) |
| Certification | CE, UL, FCC, CCC, and RoHS |
| Installation Suite | L-shaped guide rails, adjustable guide rails, and holding rails |
| Dimensions (H x W x D) | 175 mm x 447 mm x 748 mm (6.89 in. x 17.60 in. x 29.45 in.) |

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