# ZOOM Hard'Server V5 Rack Servers

Bring Pervasive Intelligent Computing with Chip Innovation







### Flexible Configurations for Diverse Workloads



2288H V5 (8-drive)



2288H V5 (12-drive)



2288H V5 (25-drive)

The ZOOM Hard'Server 2288H V5 is a 2U 2-socket rack server that supports various configurations and can be widely used in scenarios such as cloud computing virtualization, databases, and big data. The server can be configured with two Intel® Xeon® Scalable processors, 24 DDR4 DIMM slots, 10 PCIe slots, and large-capacity local storage resources.

It incorporates patented technologies such as Dynamic Energy Management Technology (DEMT) and Fault Diagnosis & Management (FDM), and integrates FusionDirector software for entire-lifecycle management, helping customers drive down OPEX and improve ROI.



### Supreme Performance with Flexible Configurations

- Supports 2 Intel<sup>®</sup> Xeon<sup>®</sup> Scalable processors in a 2U space, with an Ultra Path Interconnect (UPI) bus speed of up to 10.4 GT/s.
   Each CPU supports up to 28 cores. The server supports the Intel<sup>®</sup> Turbo Boost, hyper-threading, and Advanced Vector Extensions (AVX-512). A single processor delivers up to 40% higher compute power than its predecessor.
- 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<sup>®</sup> Optane<sup>™</sup> persistent memory (Optane<sup>™</sup> 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<sup>™</sup> PMem and 128 GB DDR4 DIMMs) to meet various workload requirements.
- Supports heterogeneous computing acceleration. It can be configured with two dual-slot full-height full-length GPU accelerator cards.
- Supports 20 x 3.5-inch or 31 x 2.5-inch (4/8/12/24/28 NVMe SSDs) local storage drives.
- Supports 2 GE and 2 x 10GE LOM ports, meeting the networking requirements of 98% scenarios with streamlined configuration.



### **Smart Power Saving and Better Energy Efficiency**

- Leverages patented Dynamic Energy Management Technology (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.
- Supports 80 Plus® Titanium power supply units (PSUs), with up to 96% conversion efficiency and compliant with China Energy Conservation Certification.
- Supports 550 W, 900 W, 1,200 W, and 1,500 W PSU options, flexibly adapting to different power requirements. The 1,200 W and 1,500 W PSUs support DC and high-voltage DC (HVDC) technologies, enabling better energy utilization.



### **Unmatched Intelligent Manageability, Integration, and Openness**

- Uses patented intelligent Fault Diagnosis & Management (FDM) technology, delivering up to 93% accuracy in diagnosing core component faults.
- Integrates FusionDirector for smart entire-lifecycle O&M, boosting deployment and O&M efficiency.
  - » Supports batch OS installation, slashing the average OS installation time of each server from hours to minutes.
  - » Supports automated firmware upgrade, with flexible and configurable upgrade policies for different components and drivers.
  - » Supports stateless computing, allowing for rapid replication of live-network configuration and swift failover.
- Integrates a touchscreen LCD panel for fault diagnosis, allowing O&M personnel to quickly locate faults (supported only by the 2288H V5 8-drive models).
- Provides standardized open interfaces and development guides, facilitating seamless integration with third-party management software.

## ZOOM Hard'Server 2288H V5 Server



Form factor	2U rack server
Processors	1 or 2 1st Generation Intel® Xeon® Scalable processors (3100/4100/5100/6100/8100 series), up to 205 W 1 or 2 2nd Generation Intel® Xeon® Scalable processors (3200/4200/5200/6200/8200 series), up to 205 W
Chipset platform	Intel C622
Memory	24 DDR4 DIMM slots, 2933 MT/s; up to 12 Intel® Optane™ PMem modules (100 series), 2666 MT/s
Internal storage	<ul> <li>Supports hot-swappable hard drives with the following configuration options:</li> <li>8 x 2.5-inch SAS/SATA hard drives</li> <li>12/16/20 x 3.5-inch SAS/SATA hard drive</li> <li>4, 8, 12, 24, or 28 NVMe SSDs</li> <li>31 x 2.5-inch SAS/SATA hard drives</li> </ul>
RAID support	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	LOM: 2 x 10GE + 2 x GE ports 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.
Heterogeneous accelerator cards	2 dual-slot FHFL GPU heterogeneous accelerator cards
Fan modules	4 hot-swappable counter-rotating fan modules with support for N+1 redundancy
Power supply units	<ul> <li>2 hot-swappable PSUs with support for 1+1 redundancy and the following configuration options:</li> <li>550 W AC Platinum PSUs (input:100 V to 240 VAC, or 192 V to 288 V DC)</li> <li>900 W AC Platinum/Titanium PSUs (input: 100 V to 240 V AC, or 192 V to 288 V DC)</li> <li>1500 W AC Platinum PSUs</li> <li>1000 W (input: 100 V to 127 V AC)</li> <li>1500 W (input: 200 V to 240 V AC, or 192 V to 288 V DC)</li> <li>1500 W 380 V HVDC PSUs (input: 260 V to 400 V DC)</li> <li>1200 W -48 V to -60 V DC PSUs (input: -38.4 V to -72 V DC)</li> </ul>
Management	<ul> <li>iBMC integrates one dedicated management GE network port to provide comprehensive management features such as fault diagnosis, automated O&amp;M, and hardware security hardening.</li> <li>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.</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 smart and automatic entire-lifecycle management.</li> </ul>
Operating Systems	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Citrix XenServer, VMware ESXi For details, visit
Security	Power-on password, Administrator password, Trusted Platform Module (TPM), Security front panel
Operating temperature	5°C to 45°C (41°F to 113°F), compliant with ASHRAE A3 and A4
/Ü <b>Ğ</b> ðŐ <b>Ð</b> ĨðďĈ	CE, UL, FCC, CCC, and RoHS
Installation suite	L-shaped guide rails, adjustable guide rails, and holding rails
Dimensions (H x W x D)	Chassis with 3.5-inch hard drives: 86.1 mm x 447 mm x 748 mm (3.39 in. x 17.60 in. x 29.45 in.) Chassis with 2.5-inch hard drives: 86.1 mm x 447 mm x 708 mm (3.39 in. x 17.60 in. x 27.87 in.)

### ZOOM Hard'Server Ltda.

Edifício Office Green - 816 R. da Praça, 241 - Pedra Branca, Palhoça - SC, 88137-086 Tel: (48) 3279-0400 | 0800 643 5890 e-mail: contato@zoomtecnologia.com.br www.zoomtecnologia.com.br

### Tradememark Notice

 $\underset{\text{industry}}{\text{ZOOM}}$  and  $\underset{\text{industry}}{\text{ZOOM}}$  are trademarks or registered trademarks of ZOOMtecnologia Ltda. Other Trademarks, product, service and company names mentioned are the property of thier respective owners.

### General Disclaimer

The information in this document may contain predictive statement including, without limitation, statements regarding the future financial and operating results, future product portfolios, new technologies, etc. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in the predictive statements. Therefore, such information is provided for reference purpose only and constitutes neither an offer nor an acceptance. ZOOMtecnologia may change the information at any time without notice.

#### Copyright © 2021 ZOOMtecnologia LTDA. 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 ZOOMtecnologia Ltda.