



Huawei FusionServer V5

V5 Product Collection

Innovation Makes Computing Simple

Huawei FusionServer 1288H V5 Server



| High-Density Deployment with Lower OPEX |



1288H V5 (4-drive)



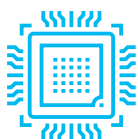
1288H V5 (8-drive)



1288H V5 (10-drive)

- 2 Intel® Xeon® Scalable processors in 1U space, with 24 DDR4 DIMMs
- Up to 4 3.5-inch or 10 2.5-inch hard drives for local storage, or 4/8 NVMe SSDs
- 2 10GE and 2 GE LAN on motherboard (LOM) ports, and 5 PCIe expansion slots
- Leverages intelligent energy saving to improve performance per watt by 16%; combines intelligent management features to enable up to 93% accuracy for fault locating

Delivers high computing density, which is especially suitable for scenarios such as virtualization, high-performance computing (HPC), and big data analytics.



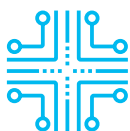
Superior Performance, Ultra-high Density

- Supports 2 Intel® Xeon® Scalable Processors in a 1U 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 the Intel® Turbo Boost, hyper-threading, and Advanced Vector Extensions (AVX-512). A single processor delivers up to 65% higher compute power than the previous-generation processor.
- Provides 24 DDR4 DIMM slots, and delivers memory speeds of up to 2,666 MT/s. This is ideal for application scenarios that require large-capacity memory.
- Supports heterogeneous computing acceleration, configurable with 2 single-slot half-height half-length (HHHL) GPU or FPGA accelerator cards.
- Supports two GE and two 10GE LAN on motherboard (LOM) ports, meeting 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 16% without compromising workload performance.
- Supports 80 Plus® Titanium power supply units (PSUs), with up to 96% conversion efficiency and compliant with ENERGY STAR and China Environmental Labelling.
- 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 eSight 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 fault diagnosis LEDs on the front panel to display error codes in real time, enabling maintenance personnel to rapidly locate a fault.
- Provides standardized open interfaces and development guides, facilitating seamless integration with third-party management software.

Huawei FusionServer 1288H V5 Server



Form factor	1U rack server
Processors	1 or 2 Intel® Xeon® Scalable Processors of up to 205 W
Chipset platform	Lewisburg-2
Memory	24 DDR4 DIMM slots, up to 2,666 MT/s
Internal storage	Three types of hard drive configurations supported: <ul style="list-style-type: none"> • 10 x 2.5-inch hard drives (6–8 NVMe SSDs and 2–4 SAS/SATA HDDs, total number of drives ≤ 10) , which can be: <ul style="list-style-type: none"> » 0–6 NVMe SSDs + 0–4 SAS/SATA hard drives, or » 0–7 NVMe SSDs + 0–3 SAS/SATA hard drives, or » 0–8 NVMe SSDs + 0–2 SAS/SATA hard drives • 8 x 2.5-inch SAS/SATA hard drives (the NVMe model supports 4 NVMe SSDs) • 4 x 3.5-inch SAS/SATA hard drives Flash storage: <ul style="list-style-type: none"> • 2 M.2 SSDs
RAID support	<ul style="list-style-type: none"> • RAID 0, 1, 10, 5, 50, 6, or 60 • Configured with a supercapacitor for cache power-off protection • Supports RAID state transition, RAID configuration memory, 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, or 1/2 x 56G FDR IB ports
PCIe expansion	Up to 5 PCIe slots: <ul style="list-style-type: none"> • 2 x 16 slots for 2 HHHL PCIe 3.0 x16 standard cards • 1 x 8 slot for 1 FHHL PCIe 3.0 x16 standard card • 1 PCIe slot dedicated for 1 RAID controller card • 1 PCIe slot for 1 flexible network interface card (NIC)
Heterogeneous accelerator cards	2 single-slot HHHL GPU or FPGA heterogeneous accelerator cards For details, visit http://support.huawei.com/online/tools/web/ftca/indexEn?serise=2 .
Fan modules	7 hot-swappable counter-rotating fan modules with support for N+1 redundancy
Power supply units	2 hot-swappable PSUs with support for 1+1 redundancy and the following configuration options(Note1): <ul style="list-style-type: none"> • 550 W AC Platinum PSUs • 900 W AC Platinum/Titanium PSUs • 1,500 W AC Platinum PSUs • 1,500 W 380 V HVDC PSUs • 1,200 W -48 V to -60 V DC PSUs
Management	<ul style="list-style-type: none"> • Provides management features such as fault diagnosis, dynamic energy management technology (DEMT), and hardware security hardening based on Huawei iBMC chips; provides mainstream interfaces, such as Redfish interfaces, enabling easy integration. • Optionally configured with the Huawei eSight management software to provide advanced management features such as batch OS deployment and automated firmware upgrade, enabling automated entire-lifecycle management.
Operating Systems	<ul style="list-style-type: none"> • Microsoft Windows Server • Red Hat Enterprise Linux • SUSE Linux Enterprise Server • CentOS • Citrix XenServer • VMware ESXi For details, visit http://support.huawei.com/online/tools/web/ftca/indexEn?serise=2 .
Security	<ul style="list-style-type: none"> • Supports Power-on password • Administrator password • Trusted Platform Module (TPM) • Security front panel security features
Power supply	110 V/220 V AC or 240 V/380 V DC or -48 V DC
Operating temperature	5°C to 45°C (41°F to 113°F), compliant with ASHRAE A3 and A4
Certification	CE, UL, FCC, CCC, and RoHS
Installation suite	Guide rails and adjustable holding rails
Dimensions (H x W x D)	Chassis with 3.5-inch hard drives: 43 mm x 436 mm x 748 mm (1.70 in. x 17.17 in. x 29.45 in.) Chassis with 2.5-inch hard drives: 43 mm x 436 mm x 708 mm (1.70 in. x 17.17 in. x 27.87 in.)

Remarks:

Note 1: The Titanium PSU and 1,200 W and 1,500 W PSUs are planned for release in 2018Q3 .

*Last updated on April 20, 2018

For more information

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<http://e.huawei.com/en/products/cloud-computing-dc/servers>



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Huawei FusionServer 2288H V5 Server



| Flexible Configurations for Diverse Workloads |



2288H V5 (8-drive)



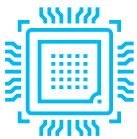
2288H V5 (12-drive)



2288H V5 (25-drive)

- 2 Intel® Xeon® Scalable processors in 2U space, with 24 DDR4 DIMMs
- Up to 20 3.5-inch or 31 2.5-inch hard drives for local storage, or 28 NVMe SSDs
- 2 10GE and 2 GE LOM ports, and 10 PCIe expansion slots
- Leverages intelligent energy saving to improve performance per watt by 16%; combines intelligent management features to enable up to 93% accuracy for fault locating

Supports flexible configuration, which is especially suitable for scenarios such as virtualization, database, HPC, and big data analytics.



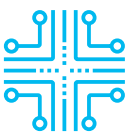
Supreme Performance with Flexible Configurations

- Supports 2 Intel® Xeon® Scalable Processors in a 2U 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 the Intel® Turbo Boost, hyper-threading, and Advanced Vector Extensions (AVX-512). A single processor delivers up to 65% higher compute power than the previous-generation processor.
- Provides 24 DDR4 DIMM slots, and delivers memory speeds of up to 2,666 MT/s. This is ideal for application scenarios that require large-capacity memory.
- Supports heterogeneous computing acceleration, configurable with 2 dual-slot full-height full-length (FHFL) GPU or FPGA accelerator cards.
- Supports up to 20 x 3.5-inch or 31 x 2.5-inch local hard drives (configurable with 4, 8, 12, 24, or 28 NVMe SSDs), providing flexible configurations to meet diversified storage and performance demands.
- Supports two GE and two 10GE LAN on motherboard (LOM) ports, meeting 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 16% without compromising workload performance.
- Supports 80 Plus® Titanium power supply units (PSUs), with up to 96% conversion efficiency and compliant with ENERGY STAR and China Environmental Labelling.
- 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 eSight 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.
- Comes with a touchscreen LCD panel for fault diagnosis, allowing O&M personnel to quickly locate faults.
- Provides standardized open interfaces and development guides, facilitating seamless integration with third-party management software.

Huawei FusionServer 2288H V5 Server



Form factor	2U rack server
Processors	1 or 2 Intel® Xeon® Scalable Processors of up to 205 W
Chipset platform	Lewisburg-2
Memory	24 DDR4 DIMM slots, up to 2,666 MT/s
Internal storage	Supports the following hard drive configuration options: <ul style="list-style-type: none"> • 8 x 2.5-inch SAS/SATA hard drives • 12/16/20 x 3.5-inch SAS/SATA hard drives • 4, 8, 12, 24, or 28 NVMe SSDs • 31 x 2.5-inch SAS/SATA hard drives (Note 1) Flash storage: <ul style="list-style-type: none"> • 2 M.2 SSDs
RAID support	<ul style="list-style-type: none"> • RAID 0, 1, 10, 1E, 5, 50, 6, or 60 • Configured with a supercapacitor for cache power-off protection • Supports RAID state transition, RAID configuration memory, 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, or 1/2 x 56G FDR IB ports
PCIe expansion	Up to 10 PCIe slots: <ul style="list-style-type: none"> • 4 x8 slots for 4 FHFL PCIe 3.0 x16 standard cards • 3 x8 slots for 3 FHHL PCIe 3.0 x16 standard cards • 1 x8 slot for 1 FHHL PCIe 3.0 x8 standard card • 1 PCIe slot dedicated for 1 RAID controller card • 1 PCIe slot for 1 flexible network interface card (NIC)
Heterogeneous accelerator cards	2 dual-slot FHFL GPU or FPGA heterogeneous accelerator cards For details, visit http://support.huawei.com/online/toolsweb/ftca/indexEn?serie=2 .
Fan modules	4 hot-swappable counter-rotating fan modules with support for N+1 redundancy
Power supply units	2 hot-swappable PSUs with support for 1+1 redundancy and the following configuration options (Note 2): <ul style="list-style-type: none"> • 550 W AC Platinum PSUs • 900 W AC Platinum/Titanium PSUs • 1,500 W AC Platinum PSUs • 1,500 W 380 V HVDC PSUs • 1,200 W -48 V to -60 V DC PSUs
Management	<ul style="list-style-type: none"> • Provides management features such as fault diagnosis, dynamic energy management technology (DEMT), and hardware security hardening based on Huawei iBMC chips; provides mainstream interfaces, such as Redfish interfaces, enabling easy integration. • Optionally configured with the Huawei eSight management software to provide advanced management features such as batch OS deployment and automated firmware upgrade, enabling automated entire-lifecycle management.
Operating Systems	<ul style="list-style-type: none"> • Microsoft Windows Server • Red Hat Enterprise Linux • SUSE Linux Enterprise Server • CentOS • Citrix XenServer • VMware ESXi For details, visit http://support.huawei.com/online/toolsweb/ftca/indexEn?serie=2 .
Security	<ul style="list-style-type: none"> • Supports Power-on password • Administrator password • Trusted Platform Module (TPM) • Security front panel security features
Power supply	110 V/220 V AC or 240 V/380 V DC or -48 V DC
Operating temperature	5°C to 45°C (41°F to 113°F), compliant with ASHRAE A3 and A4
Certification	CE, UL, FCC, CCC, and RoHS
Installation suite	Guide rails and adjustable holding rails
Dimensions (H x W x D)	Chassis with 3.5-inch hard drives: 86.1 mm x 436 mm x 748 mm (3.39 in. x 17.17 in. x 29.45 in.) Chassis with 2.5-inch hard drives: 86.1 mm x 436 mm x 708 mm (3.39 in. x 17.17 in. x 27.87 in.)

Remarks:

Note 1: The 31-SFF drive is planned for release in 2018Q2.

Note 2: The Titanium PSU and 1,200 W and 1,500 W PSUs are planned for release in 2018Q3.

*Last updated on April 20, 2018

For more information

To learn more about Huawei's Servers, contact Huawei sales representatives or business partners, or visit:

<http://e.huawei.com/en/products/cloud-computing-dc/servers>



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Huawei FusionServer 5288 V5 Server

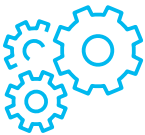


5288 V5

| 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 16%; 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.



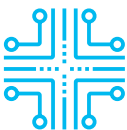
Ultralarge Capacity, Tiered Storage

- 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 65% higher compute power than the previous-generation processor.
- Provides 24 DDR4 DIMM slots, and delivers memory speeds of up to 2,666 MT/s. This is ideal for application scenarios that require large-capacity memory.
- Ultralarge storage space of 44 x 3.5-inch and 4 x 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.



Smart Power Saving and Better Energy Efficiency

- Leverages patented DEMA, 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 16% without compromising workload performance.
- Fitted with 80 Plus® Platinum power supply units (PSUs), up to 94% conversion efficiency; complies with ENERGY STAR standards and has passed the China Energy Conservation and Environmentally-Friendly Certification.
- PSUs with 900 W, 1500 W and more power options to flexibly adapt to different power requirements, improving 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.
- eSight for entire-lifecycle intelligent O&M, significantly improving deployment and O&M efficiency
 - » Batch installation of OSs, slashing the OS installation time per server from hours to minutes
 - » Automated firmware upgrade, with flexible and configurable upgrade policies for different components and drivers
 - » Stateless computing, allowing for rapid replication of live-network configuration and swift active/standby failover
- Integrated fault diagnosis LEDs to display error codes in real time, enabling maintenance personnel to rapidly locate a fault
- Standardized open interfaces and development guides, facilitating seamless integration with third-party management software

Huawei FusionServer 5288 V5 Server



Form Factor	4U rack server
Processors	1 or 2 Intel® Xeon® Scalable processors of up to 205 W
Chipset	Intel C622
Memory	24 DDR4 DIMM slots, up to 2666 MT/s memory speeds
Internal Storage	Front: • 24 x 3.5-inch SAS/SATA hard drives Embedded: • 4 x 3.5-inch SAS/SATA hard drives (Note 1) Rear: • 16 x 3.5-inch SAS/SATA hard drives • 16 x 3.5-inch SAS/SATA hard drives + 4 x 2.5-inch SAS/SATA hard drives or NVMe SSDs • 14 x 3.5-inch SAS/SATA hard drives (configurable with 4 NVMe SSDs) + 4 x 2.5-inch SAS/SATA hard drives or NVMe SSDs (This configuration does not support internal hard disk and I/O module 1) Flash storage: • Two M.2 SSDs (Note 2)
RAID	RAID 0, 1, 5, 50, 6, or 60; optional supercapacitor to protect cache data from power failures; RAID level migration, RAID configuration memory, self-diagnosis, and web-based remote configuration
Network Ports	LAN on motherboard (LOM): 2 x 10GE + 2 x GE ports Flexible NIC: 2 x GE, 4 x GE, 2 x 10GE, or 1/2 x 56G FDR IB ports
PCIe Expansion	Up to 8 PCIe slots: • 5 PCIe 3.0 x16 standard cards (in x8 slots) • 2 PCIe 3.0 x16 standard cards • 1 PCIe 3.0 x8 standard card
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: 900 W AC Platinum PSU or 1500 W AC Platinum PSU
Management	<ul style="list-style-type: none">• Provides management features such as fault diagnosis, dynamic energy management technology (DEMT), and hardware security hardening based on Huawei iBMC chips; provides mainstream interfaces, such as Redfish interfaces, enabling easy integration.• Optionally configured with the Huawei eSight management software to provide advanced management features such as batch OS deployment and automated firmware upgrade, enabling automated entire-lifecycle management.
Operating Systems	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Citrix XenServer, VMware ESXi For details, see http://support.huawei.com/online/toolsweb/ftca/index?serise=2 .
Security	Power-on password, administrator's password, Trusted Platform Module (TPM), front bezel, and more
Power Supply	100V to 240V AC 192V to 288V HVDC
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	Guide rails and adjustable 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.)

Remarks:

Note 1: 44 x 3.5-inch model is planned for release in Q2 2018.

Note 2: The feature supporting 2 M.2 SSDs is planned for release in Q2 2018.

*Last updated on April 20, 2018

For more information

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<http://e.huawei.com/en/products/cloud-computing-dc/servers>



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Huawei FusionServer 2488/2488H V5 Server

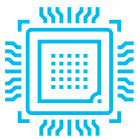


2488/2488H V5

| New Option for Distributed Deployment with Higher Computing Efficiency |

- 4 Intel® Xeon® Scalable processors in 2U space, with 32/48 DDR4 DIMMs
- Up to 25 2.5-inch hard drives for local storage, or 8 NVMe SSDs
- 2 10GE and 2 GE LOM ports, and 9/11 PCIe expansion slots
- Delivers lower OPEX than 2U 2-socket servers; leverages intelligent energy saving to improve performance per watt by 16%; combines intelligent management features to enable up to 93% accuracy for fault locating

Unlocks high computing efficiency for scenarios such as virtualization, HPC, database, and SAP HANA in-memory computing.



Superior Performance with Higher Efficiency

- Supports 4 Intel® Xeon® Scalable Processors (Platinum 8100, Gold 6100, or Gold 5100 series) in a 2U space. Its Ultra Path Interconnect (UPI) bus supports rates of up to 10.4 GT/s, and a single processor 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 65% higher compute power than the previous-generation processor.
 - Provides 32/48 DDR4 DIMM slots*, and delivers memory speeds of up to 2,666 MT/s, ideal for application scenarios that require large-capacity memory.
 - Supports two GE and two 10GE LAN on motherboard (LOM) ports, meeting networking requirements of 98% scenarios with streamlined configuration.
 - Supports up to 25 2.5-inch local hard drives (configurable with 8 NVMe SSDs).
 - One FusionServer 2488/2488H V5 saves up to 32%** OPEX in the virtualization scenario compared with two traditional 2U 2S servers.
- * The FusionServer 2488 V5 supports up to 32 DIMMs and FusionServer 2488H V5 supports 48 DIMMs.

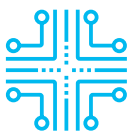
** Data is derived from Huawei lab tests; actual improvement depends on the real-world scenario.



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 16% without compromising workload performance.
- Supports 2,000 W Platinum AC power supply unit (PSU)*, meeting ultra-high performance requirements; leverages the DC and high-voltage DC (HVDC) technologies to improve energy utilization.
- PSUs meet the requirements of ENERGY STAR and China Environmental Labelling.

* The 2,000 W PSU is planned for release in Q2 2018.



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 eSight for smart entire-lifecycle O&M, driving a leap in 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 fault diagnosis LEDs on the front panel to display error codes in real time, enabling maintenance personnel to rapidly locate a fault.
- Provides standardized open interfaces and development guides, facilitating seamless integration with third-party management software.

Huawei FusionServer 2488/2488H V5 Server



	2488 V5	2488H V5
Form factor	2U rack server	
Processors	2 or 4 Intel® Xeon® Scalable Processors of up to 205 W: Platinum 8100, Gold 6100, or Gold 5100 series	
Chipset platform	Intel C622	
Memory	32 DDR4 DIMM slots, up to 2,666 MT/s	48 DDR4 DIMM slots, up to 2,666 MT/s
Internal storage	Supports hot-swappable hard drives with the following configuration options: <ul style="list-style-type: none"> • 8 x 2.5-inch SAS/SATA hard drives • 25 x 2.5-inch SAS/SATA hard drives • 8 x 2.5-inch NVMe SSDs and 16 x 2.5-inch SAS/SATA hard drives Flash storage: <ul style="list-style-type: none"> • 2 M.2 SSDs (Note 1) 	Supports hot-swappable hard drives with the following configuration options: <ul style="list-style-type: none"> • 8 x 2.5-inch SAS/SATA hard drives • 25 x 2.5-inch SAS/SATA hard drives • 24 x 2.5-inch SAS/SATA hard drives • 8 x 2.5-inch NVMe SSDs and 16 x 2.5-inch SAS/SATA hard drives Flash storage: <ul style="list-style-type: none"> • 2 M.2 SSDs (Note 1)
RAID support	<ul style="list-style-type: none"> • RAID 0, 1, 10, 1E, 5, 50, 6, or 60 • Configured with a supercapacitor for cache power-off protection • Supports RAID state transition and RAID configuration memory 	
LOM network ports	2 x GE + 2 x 10GE ports	
PCIe expansion	Up to 9 PCIe 3.0 slots: <ul style="list-style-type: none"> • 5 slots provide PCIe x8 ports • 4 slots provide PCIe x16 ports 	Up to 11 PCIe 3.0 slots: <ul style="list-style-type: none"> • 1 slot (PCIe x8) provides PCIe x4 ports • 7 slots provide PCIe x8 ports • 3 slots provide PCIe x16 ports
Fan modules	4 hot-swappable fan modules, providing protection against single-fan failures	
Power supply units	2 hot-swappable PSUs, with support for 1+1 redundancy. The following PSUs are supported: <ul style="list-style-type: none"> • 2,000 W AC PSUs (Note 3) • 1,500 W AC PSUs (power supply: 100 V AC to 127 V AC; 200 V AC to 240 V AC; or 190 V DC to 300 V DC) • 900 W AC PSUs (power supply: 100 V AC to 240 V AC; or 190 V DC to 290 V DC) • 1,200 W DC PSUs (power supply: -38.4 V DC to -72 V DC) 	
Management	<ul style="list-style-type: none"> • Provides management features such as fault diagnosis, dynamic energy management technology (DEMT), and hardware security hardening based on Huawei iBMC chips; provides mainstream interfaces, such as Redfish interfaces, enabling easy integration. • Optionally configured with the Huawei eSight management software to provide advanced management features such as batch OS deployment and automated firmware upgrade, enabling automated entire-lifecycle management. 	
Operating Systems	<ul style="list-style-type: none"> • SUSE Linux Enterprise Server • Red Hat Enterprise Linux • Windows Server • Citrix • CentOS • Ubuntu For details, visit http://support.huawei.com/onlinetoolsweb/ftca/index?serie=2 .	
Security	<ul style="list-style-type: none"> • Power-on password • Administrator password • Trusted Platform Module (TPM) • Secure startup • Security front panel 	
Operating temperature	5°C to 45°C (41°F to 113°F), compliant with ASHRAE Classes A3 and A4	
Certification	CE, ENERGY STAR, FCC, CCC, RoHS	
Dimensions (H x W x D)	86.1 mm (2 U) x 447 mm x 748 mm (3.39 in. x 17.60 in. x 29.45 in.)	

Remarks:

Note 1: The feature supporting 2 M.2 SSDs is planned for release in Q2 2018.

Note 2: The 2,000 W PSU is planned for release in Q2 2018.

*Last updated on April 20, 2018

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Huawei FusionServer 5885H V5 Server

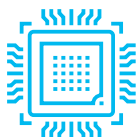


5885H V5

| Deliver Excellent Performance and Scalability to Enable Fast and Stable Mission-Critical Services |

- 4 Intel® Xeon® Scalable processors in 4U space, with 48 DDR4 DIMMs
- Up to 25 2.5-inch hard drives for local storage, or 8 NVMe SSDs
- 2 10GE and 2 GE LOM ports, and 15 PCIe expansion slots
- Leverages intelligent energy saving to improve performance per watt by 16%; combines intelligent management features to enable up to 93% accuracy for fault locating

Delivers excellent stability and reliability for scenarios such as virtualization, HPC, and database.



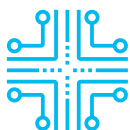
High Efficiency, Stability, and Expandability

- Supports four Intel® Xeon® Scalable processors in a 4U space. Its Ultra Path Interconnect (UPI) bus supports a speed of up to 10.4 GT/s, and a single CPU supports up to 28 computing cores. The server supports Intel® Turbo Boost, hyper-threading, and Advanced Vector Extensions (AVX-512). A single processor delivers up to 65% higher compute performance than the previous-generation processor.
- 48 DDR4 DIMMs, up to 2666 MT/s memory speed, meeting large-capacity memory application requirements.
- 15 PCIe slots, providing excellent scalability.
- Two GE and two 10GE LAN on motherboard (LOM) ports with streamlined configuration, meeting networking requirements of 98% scenarios.
- Supports up to 25 x 2.5-inch local hard drives (configurable with 8 NVMe SSDs).



Smart Power Saving and Better Energy Efficiency

- Leverages patented DEMA, 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 16% without compromising workload performance.
- Fitted with 80 Plus® Platinum power supply units (PSUs), up to 94% conversion efficiency; complies with ENERGY STAR standards and has passed the China Energy Conservation and Environmentally-Friendly Certification.
- PSUs with 900 W, 1200 W, 1500 W, and more power options to flexibly adapt to different power requirements, improving 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.
- eSight for entire-lifecycle intelligent O&M, significantly improving deployment and O&M efficiency.
 - » Batch installation of OSs, slashing the OS installation time per server from hours to minutes.
 - » Automated firmware upgrade, with flexible and configurable upgrade policies for different components and drivers.
 - » Stateless computing, allowing for rapid replication of live-network configuration and swift active/standby failover .
- Integrated fault diagnosis LEDs to display error codes in real time, enabling maintenance personnel to rapidly locate a fault.
- Standardized open interfaces and development guides, facilitating seamless integration with third-party management software.

Huawei FusionServer 5885H V5 Server



Form Factor	4U rack server
Processors	2 or 4 Intel® Xeon® Scalable processors of up to 205 W
Chipset	Intel C622
Memory	48 DDR4 DIMM slots, up to 2666 MT/s memory speeds
Internal Storage	Supports hot-swappable hard drives with the following configuration options: <ul style="list-style-type: none">• 8 x 2.5-inch SAS/SATA hard drives (front)• 24 x 2.5-inch SAS/SATA hard drives (front)• 25 x 2.5-inch SAS/SATA hard drives (front)• 16 x 2.5-inch SAS/SATA hard drives and 8 x 2.5-inch NVMe SSDs (front) Flash storage: <ul style="list-style-type: none">• Two M.2 SSDs
RAID	RAID 0, 1, 5, 50, 6, or 60; optional supercapacitor to protect cache data from power failures; RAID level migration, RAID configuration memory, self-diagnosis, and web-based remote configuration
Network Ports	LAN on motherboard (LOM): 2 x 10GE + 2 x GE ports
PCIe Expansion	Up to 15 PCIe slots for 15 PCIe 3.0 standard cards (3 x4, 8 x8, and 4 x16) 2 dual-width full-height full-length GPU cards (x16)
Fan Modules	5 hot-swappable counter-rotating fan modules with optional N+1 redundancy
Power Supply	4 hot-swappable PSUs with optional 2+2 redundancy. Supported options include: <ul style="list-style-type: none">• 1500 W AC PSU (power supply: 100 V–127 V AC, 200 V–240 V AC, or 190 V–300 V DC)• 900 W AC PSU (power supply: 100 V–240 V AC or 190 V–290 V DC)• 1200 W DC PSU (power supply: –38.4 V to –72 V DC) (Note 1)
Management	<ul style="list-style-type: none">• Provides management features such as fault diagnosis, dynamic energy management technology (DEMT), and hardware security hardening based on Huawei iBMC chips; provides mainstream interfaces, such as Redfish interfaces, enabling easy integration.• Optionally configured with the Huawei eSight management software to provide advanced management features such as batch OS deployment and automated firmware upgrade, enabling automated entire-lifecycle management.
Operating Systems	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Citrix XenServer, VMware ESXi For details, see http://support.huawei.com/online/toolsweb/ftca/index?serise=2 .
Security	Power-on password, administrator's password, Trusted Platform Module (TPM), front bezel, and more
Operating Temperature	5°C to 45°C (41°F to 113°F) (ASHRAE A3 and A4 compliant)
Certification	CE, UL, FCC, CCC, and RoHS
Installation Suite	Guide rails and adjustable holding rails
Dimensions (H x W x D)	175 mm x 447 mm x 790 mm (6.89 in. x 17.60 in. x 31.10 in.)

Remarks:

Note 1: The 1200 W PSU is planned for release in 2018 Q3.

*Last updated on April 20, 2018

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Huawei FusionServer 8100 V5 Rack Server

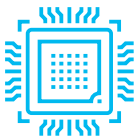


8100 V5

| 8S Server with Top-Rate Performance to Supercharge Your Business |

- 8 Intel® Xeon® Scalable processors in 8U space, with 96 DDR4 DIMMs
- Up to 48 2.5-inch hard drives for local storage, or 40 NVMe SSDs
- 2 10GE and 2 GE LOM ports, and 18 PCIe expansion slots
- Incorporates FusionPar physical partitioning technology, allowing the server to run as one 8-socket or two 4-socket servers
- Leverages intelligent energy saving to improve performance per watt by 16%; combines intelligent management features to enable up to 93% accuracy for fault locating

Unlocks superior performance and unrivaled reliability, ideal for compute-intensive scenarios such as mission-critical applications, virtualization consolidation, in-memory computing, and HPC fat nodes.



Leading Performance and Rock-Solid Reliability

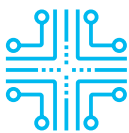
- Supports 8 Intel® Xeon® Platinum 8100 Scalable Processors in an 8U space. Its Ultra Path Interconnect (UPI) bus supports rates of up to 10.4 GT/s, and a single CPU supports up to 28 cores. The server supports the Intel Turbo Boost, hyper-threading, and Advanced Vector Extensions (AVX-512) technologies. A single processor delivers up to 65% higher compute power than the previous-generation processor.
- Provides 96 DDR4 DIMM slots, and delivers memory speeds of up to 2,666 MT/s and memory capacities of up to 12 TB (configured with 128 GB DIMMs*). This is ideal for application scenarios that require large-capacity memory.
- Supports 48 2.5-inch SAS/SATA hard drives or 40 2.5-inch NVMe SSDs for local storage, which deliver 2x and 5x improvement respectively compared with previous-generation products. Mixed configuration of NVMe and SAS/SATA hard drives is supported, meeting different requirements of diverse applications for storage capacity and performance.
- Supports the Huawei FusionPar physical partitioning technology. The server can be switched through one click on the iBMC interface to the Dual-System Mode. The two systems are electrically isolated to prevent fault propagation.
- Supports the Intel advanced RAS features, and provides the ADDDC-MR feature to improve the online correction capabilities for memory correctable errors. Leverages Huawei enhanced algorithms such as fault isolation re-examination and interrupt storm suppression, to improve the precision of memory fault isolation and mitigate the impact of the handling process on system performance.

* Currently a single LRDIMM supports 64 GB; the feature supporting 128 GB per LRDIMM is planned for release in Q2 2018.



Smart Power Saving and Higher 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 16% without compromising workload performance.
- Supports PSU options including 2,000 W AC Titanium, 2,500 W DC Platinum, and 3,000 W AC Platinum, flexibly adapting to various power requirements. The Titanium PSU supports an up to 96% conversion efficiency.
- The PSUs meet the requirements of ENERGY STAR and China Environmental Labelling requirements.



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 eSight 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 fault diagnosis LEDs to display fault error codes in real time; also supports an optional touchscreen LCD fault diagnosis panel* to help maintenance personnel quickly locate faults.
- Provides standardized open interfaces and development guides, facilitating seamless integration with third-party management software.

* The LCD fault diagnosis panel feature is planned for release in Q2 2018.

Huawei FusionServer 8100 V5 Rack Server



Form factor	8U rack server
Processors	4 or 8 Intel® Xeon® Platinum 8100 Scalable Processors, with Thermal Design Power (TDP) of up to 205 W
Chipset platform	Intel C622
Memory	Supports up to 96 DDR4 DIMM slots (12 DDR4 DIMM slots per processor), with memory speeds of up to 2,666 MT/s; supports RDIMMs and LRDIMMs: <ul style="list-style-type: none"> RDIMMs with memory of up to 3 TB LRDIMMs with memory of up to 12 TB (Note 1)
Internal storage	Uses a fully modular design; supports 48 2.5-inch SAS/SATA hard drives or 40 x 2.5-inch NVMe SSDs; provides the following compute modules (CMs) and front I/O modules (FM), which provide storage functions and support flexible combinations. <ul style="list-style-type: none"> FM with storage function <ul style="list-style-type: none"> The front I/O module of model B (FM-B) with storage-enhanced configuration. It supports up to 24 hot-swappable SAS/SATA hard drives, which require configuration of 1 or 2 RAID controller cards. The front I/O module of model D (FM-D) with support for NVMe. It supports up to 8 U.2 hard drive connectors, which can be connected to SAS/SATA hard drives or NVMe SSDs. FM-D provides 2 built-in RAID slots. When FM-D is populated with NVMe SSDs, it does not require configuring RAID controller cards. CM with storage function <ul style="list-style-type: none"> Compute module of model B (CM-B) with SAS support. Each CM-B supports up to 4 SAS/SATA hard drives. A single server supports up to 6 CM-B modules, and each CM-B requires one RAID controller card. Compute module of model C (CM-C) with NVMe support. Each CM-C supports up to 4 NVMe SSDs. A single server supports up to 8 CM-C modules, and the CM-C modules do not require RAID controller cards. <p>The SAS/SATA hard drives are hot-swappable. The NVMe SSDs support scheduled hot swap (which requires coordination of the OS). Supports flash storage: <ul style="list-style-type: none"> Each High-performance Fusion Console (HFC) provides 2 built-in M.2 slots (Note 2). </p>
RAID support	<ul style="list-style-type: none"> Supports RAID 0, 1, 10, 5, 50, 6, or 60 Supports 2 GB or 4 GB cache; supports a supercapacitor for cache power-off protection Provides RAID state migration, RAID configuration memory, self-diagnosis, and web-based remote configuration
LOM network ports	2 10GE SFP+ ports and 2 GE RJ45 network ports
PCIe expansion	Up to 18 PCIe 3.0 slots <ul style="list-style-type: none"> Back I/O module supports 10 rear PCIe standard cards: <ul style="list-style-type: none"> 2 hot-swappable x16 standard cards 2 hot-swappable x8 standard cards 6 non-hot-swappable x8 standard cards Front I/O module: <ul style="list-style-type: none"> The FM-B or FM-D supports up to 2 RAID controller card slots Compute module <ul style="list-style-type: none"> Each CM-B supports 1 RAID controller card slot (up to 6 CM-B modules supported by a single server)
Fan modules	8 hot-swappable counter-rotating fans that support N+1 redundancy and can be maintained without opening the chassis
Power supply units	4 hot-swappable PSUs with support for N+N redundancy and the following configuration options: <ul style="list-style-type: none"> 2,000 W AC Titanium PSUs 2,500 W DC Platinum PSUs 3,000 W AC Platinum PSUs
Management	<ul style="list-style-type: none"> Provides management features such as fault diagnosis, dynamic energy management technology (DEMT), and hardware security hardening based on Huawei iBMC chips; provides mainstream interfaces, such as Redfish interfaces, enabling easy integration. Optionally configured with the Huawei eSight management software to provide advanced management features such as batch OS deployment and automated firmware upgrade, enabling automated entire-lifecycle management.
Operating systems	<ul style="list-style-type: none"> SUSE Linux Red Hat Linux Windows Server VMware, Citrix <p>For details, visit http://support.huawei.com/online/tools/web/ftca/index?serise=2.</p>
Security	<ul style="list-style-type: none"> Power-on password Administrator password Trusted Platform Module (TPM)/Trusted Cryptography Module (TCM)
Power supply	<ul style="list-style-type: none"> 2,000 W or 3,000 W AC PSUs, typical input voltage 220 V or 110 V AC 2,500 W DC PSUs, typical input voltage -48 V DC
Operating temperature	5°C to 40°C (41°F to 104°F), compliant with ASHRAE Class A3 Remarks: Processors of TDP 150 W and below (including 8153, 8156, 8158, and 8164) support 45°C operating temperature (ASHRAE Class A4); when the server is configured with FM-B, the supported maximum operating temperature is 35°C.
Certification	CE, ENERGY STAR, FCC, RoHS
Installation suite	Uses the holding-rail-free design, and supports L-shaped guide rails
Dimensions (H x W x D)	352 mm x 447 mm x 855 mm (13.86 in. x 17.60 in. x 33.66 in.)

Remarks:

Note 1: Currently LRDIMM supports up to 6 TB memory; the feature for supporting an up to 12 TB memory is planned for release in Q2 2018.

Note 2: The feature supporting M.2 is planned for release in Q2 2018.

*Last updated on April 20, 2018

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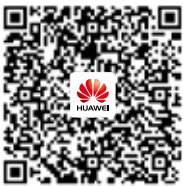


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