# Hyper A+ Server AS -2025HS-TNR

2U Hyper with 12 hot-swap 3.5" NVMe/SAS/SATA bays and up to 4 PCIe 5.0 x16 slots

More details here

## Key Applications

Virtualization, Software-defined Storage, AI Inference and Machine Learning, Cloud Computing, Enterprise Server,

## Key Features

- Dual AMD EPYC™ 9004/9005* Series Processors
  (*AMD EPYC™ 9005 series drop-in support requires board revision 2.xx);
- Support up to DDR5 24 DIMM slots (1DPC), speed up to 6400MT/s
  (Please check System Memory Section for detail);
- Optional PCIe slot configurations up to 8 PCIe 5.0 x8 or 4 PCIe 5.0 x16 slots or mix and match
  Flexible networking options with 1 AIOM networking slot (OCP NIC 3.0 compatible);
- 12 Hot-swap 3.5"/2.5" NVMe/SATA/SAS drive bays
  2 M.2 PCIe 3.0 NVMe slots;
- Dual 1600W Redundant Titanium Level power supplies
  (Power supply full redundancy based on configuration and application load);

| | |
|---|---|
| Form Factor | 2U<br>Enclosure: 437 x 88.9 x 803mm (17.2" x 3.5" x 31.6")<br>Package: 605 x 263 x 1107mm (23.8" x 10.4" x 43.6") |
| Processor | Dual processor(s)<br>AMD EPYC™ 9004/9005 Series Processors<br>(* AMD EPYC™ 9005 Series drop-in support requires board revision 2.x)<br>Up to 320C/640T |
| GPU | Max GPU Count: Up to 2 double-width or 2 single-width GPUs<br>Supported GPU:<br>NVIDIA PCIe: H100, H100 NVL, A100, A16, A30, A40, L4, L40, L40S, RTX 4000, RTX 5000 Ada, RTX 6000 Ada Generation, RTX A2000, RTX A4000, RTX A4500, RTX A5000, RTX A5500, RTX A6000, T1000<br>CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect<br>GPU-GPU Interconnect: PCIe |
| System Memory | Slot Count: 24 DIMM slots<br>Max Memory (1DPC): Up to 6TB 4800MT/s ECC DDR5 RDIMM (AMD EPYC™ 9004 Series Processor, MB R1.x/R2.0/R2.01)<br>Max Memory (1DPC): Up to 6TB 6000MT/s ECC DDR5 RDIMM (AMD EPYC™ 9005 Series Processor, MB R2.0)<br>Max Memory (1DPC): Up to 6TB 6400MT/s ECC DDR5 RDIMM (AMD EPYC™ 9005 Series Processor, MB R2.01) |
| Drive Bays Configuration | Default: Total 12 bays<br>• 12 front hot-swap 3.5"/2.5" NVMe*/SAS*/SATA* drive bays<br>(*NVMe/SAS/SATA support may require additional storage controller and/or cables)<br>M.2: 2 M.2 PCIe 3.0 x4 NVMe slots (M-key 2280/22110) |
| Expansion Slots | Default<br>• 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)<br>Option A*<br>• 1 PCIe 5.0 x16 (in x16) FHFL double-width slot<br>• 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)<br>Option B*<br>• 2 PCIe 5.0 x8 (in x16) FHFL slots<br>• 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)<br>Option C*<br>• 2 PCIe 5.0 x16 (in x16) FHFL double-width slots<br>• 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)<br>Option D*<br>• 1 PCIe 5.0 x16 (in x16) FHFL double-width slot<br>• 2 PCIe 5.0 x8 (in x16) FHFL slots |

- 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)

Option E*
- 4 PCIe 5.0 x8 (in x16) FHFL slots
- 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)

Option F*
- 4 PCIe 5.0 x16 (in x16) FHFL double-width slots
- 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)

Option G*
- 3 PCIe 5.0 x16 (in x16) FHFL double-width slots
- 2 PCIe 5.0 x8 (in x16) FHFL slots
- 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)

Option H*
- 2 PCIe 5.0 x16 (in x16) FHFL double-width slots
- 4 PCIe 5.0 x8 (in x16) FHFL slots
- 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)

Option I*
- 1 PCIe 5.0 x16 (in x16) FHFL double-width slot
- 6 PCIe 5.0 x8 (in x16) FHFL slots
- 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)

| | |
|---|---|
| On-Board Devices | Via AIOM |
| Input / Output | LAN: 1 RJ45 1 GbE Dedicated BMC LAN port<br>USB: 2 USB 3.0 ports(rear)<br>Video: 1 VGA port |

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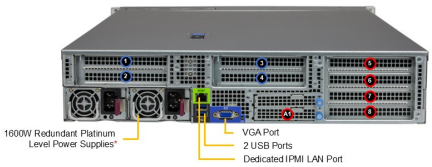
*(Front View – System)*

| Drive Bay | Description |
|---|---|
| 0 – 11 | 12 Hot-swap 3.5" NVMe/SAS/SATA Drive Bays* |

*NVMe/SAS/SATA support requires additional parts from the optional parts list

*(Rear View – System)*




| | Slot Description | |
|---|---|---|
| | Option 1 | Option 2 |
| 1 3 | PCIe 5.0 x16 FH (10.5"L) | PCIe 5.0 x8 FH (10.5"L) |
| 2 4 | Not available | PCIe 5.0 x8 FH (10.5"L) |

| | Slot Description |
|---|---|
| AI | PCIe 5.0 x16 AIOM (OCP 3.0) |

| | Slot Description | | |
|---|---|---|---|
| | Option 1 | Option 2 | Option 3 |
| 5 | PCIe 5.0 x16 FH (10.5"L) | PCIe 5.0 x16 FH (10.5"L) | PCIe 5.0 x8 FH (10.5"L) |
| 6 | Not available | Not available | PCIe 5.0 x8 FH (10.5"L) |
| 7 | PCIe 5.0 x8 FH (10.5"L) | PCIe 5.0 x16 FH (10.5"L) | PCIe 5.0 x8 FH (10.5"L) |
| 8 | PCIe 5.0 x8 FH (10.5"L) | Not available | PCIe 5.0 x8 FH (10.5"L) |

*Full redundancy based on configuration and application load

CPU1 CPU2

| | |
|---|---|
| System Cooling | Fans: Up to 4x 8cm heavy duty fans with optimal fan speed control<br>Air Shroud: 2 Air Shrouds |
| Power Supply | 2x 1600W Redundant (1 + 1) Titanium Level (96%) power supplies |
| System BIOS | BIOS Type: AMI 32MB SPI Flash EEPROM<br>BIOS Features: ACPI 6.4<br>Plug and Play (PnP)<br>SMBIOS 3.5 or later<br>UEFI 2.8<br>USB Keyboard support |
| Management | SuperCloud Composer®; Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); Supermicro SuperDoctor® 5 (SD5); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); OOB Management Package (SFT-OOB-LIC ); SuperServer Automation Assistant (SAA) New! |
| PC Health Monitoring | FAN: Fans with tachometer monitoring<br>Pulse Width Modulated (PWM) fan connectors<br>Status monitor for speed control<br>Temperature: Monitoring for CPU and chassis environment<br>Thermal Control for fan connectors<br>Voltage:<br>System temperature, Memory temperature, CPU temperature, 3.3V standby, +5V standby, +5V, +3.3V, +12V, CPU thermal trip support |
| Dimensions and Weight | Weight: Gross Weight: 69 lbs (31.3 kg)<br>Net Weight: 39 lbs (17.7 kg)<br>Available Color: Black front & silver body |
| Operating Environment | Operating Temperature: 10°C to 35°C (50°F to 95°F)<br>Non-operating Temperature: -30°C to 60°C (-22°F to 140°F)<br>Operating Relative Humidity: 8% to 80% (non-condensing)<br>Non-operating Relative Humidity: 8% to 90% (non-condensing) |
| Motherboard | **Super H13DSH** |
| Chassis | **CSE-HS829-R1K63P-A** |

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