

# HPS-ERSD4A

Dual 4th/5th Generation Intel® Xeon® Scalable Processors with Intel® C741 Chipset, 1300W, 5 x RJ-45, IPMI2.0 Workstation



## Features

- 19" 4U Chassis
- 430mm (W) x 174.8mm (H) x 650mm (D)
- 1 x 1300W PS2 ATX PSU or 1 x 1600W CRPS
- 3 x Front accessible 2.5" storage bays
- Dual Intel LGA4677 Sockets support 4th/5th Generation Intel® Xeon® Scalable Processors (Max. TDP at 270W)
- Intel® C741 Chipset
- 12 x DDR5 5600 MHz RDIMM up to 3TB
- IPMI 2.0 with AST 2600 BMC controller onboard
- 1 x Intel I210AT 1GbE controller
- 1 x Intel I226-LM 2.5GbE controller
- 1 x Intel X550AT2 10GbE controller supports 2 x 10GbE Ethernet ports



4th/5th Gen.  
Intel® Xeon®  
Scalable  
Processor



12 x DDR5  
RDIMM  
5600MHz



IPMI 2.0  
Supported



10GbE



PCIe Gen5  
Multiple  
Expansion

## Specifications

### System Information

|                         |                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------|
| Processor               | Dual Intel FCLGA4677 Sockets support 4th/5th Generation Intel Xeon Scalable Processors (Max. TDP at 270W each) |
| Platform Controller Hub | Intel® C741 Chipset                                                                                            |
| System Memory           | 12 x DDR5 5600 MHz RDIMM up to 3TB                                                                             |
| BIOS                    | AMI UEFI BIOS                                                                                                  |
| Watchdog Timer          | System reset event 0 ~ 6553 seconds                                                                            |
| H/W Status Monitor      | CPU temperature<br>Fan speed and voltage monitoring<br>Fan speed control<br>Case open detection                |
| TPM                     | TPM 2.0 onboard                                                                                                |
| IPMI                    | IPMI 2.0 with AST 2600 BMC controller onboard                                                                  |
| SBC                     | HPM-ERSDE                                                                                                      |

### Front I/O

|               |                                                                                             |
|---------------|---------------------------------------------------------------------------------------------|
| USB           | 2 x USB 3.2 Gen1 ports                                                                      |
| Power Button  | 1 x Power button                                                                            |
| Reset Button  | 1 x Reset button                                                                            |
| LED Indicator | 1 x Power status indicator<br>1 x Disk activity indicator<br>1 x Network activity indicator |

### Rear I/O

|          |                                                                                                                                                          |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| USB      | 6 x USB 3.2 Gen1 ports                                                                                                                                   |
| COM Port | 1 x RS232 port                                                                                                                                           |
| VGA      | 1 x VGA port                                                                                                                                             |
| RJ-45    | 5 x RJ45<br>MGMT port for dedicated IPMI access only<br>LAN1 port for 1GbE shares with IPMI access<br>LAN2 port for 2.5GbE<br>LAN3 and 4 ports for 10GbE |

### Display

|                 |                                               |
|-----------------|-----------------------------------------------|
| Graphic Chipset | AST 2600 BMC controller                       |
| Resolution      | 1 x VGA port<br>VGA: 1920 x 1200 @ 60Hz 32bpp |

### Power Requirement

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| Power Supply Unit | 1 x 1300W PS2 ATX PSU (Default)<br>1 x 1600W CRPS (Option) |
|-------------------|------------------------------------------------------------|

### Expansion

|           |                                                                                                                                                                                                                                                                                                                                   |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expansion | 7 x PCIe Gen5 x16 slots<br>Slot 1, PCIe 5.0 x16 from 2nd CPU<br>Slot 2, PCIe 5.0 x16 from 1st CPU<br>Slot 3, PCIe 5.0 x16 from 2nd CPU<br>Slot 4, PCIe 5.0 x16 from 1st CPU<br>Slot 5, PCIe 5.0 x16 from 2nd CPU<br>Slot 6, PCIe 5.0 x16 from 1st CPU<br>Slot 7, PCIe 5.0 x16 from 2nd CPU<br>(Slot 7 is the slot closest to CPU) |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Storage

|               |                                                                      |
|---------------|----------------------------------------------------------------------|
| M.2           | 1 x M.2 M-Key PCIe 5.0 x4 NVMe SSD, 2242/2260/2280/22110 form factor |
| 2.5 Drive Bay | 3 x Front accessible 2.5" storage bays                               |

### Ethernet

|             |                                                                                                                                                          |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| LAN Chipset | 1 x Intel I210AT 1GbE controller<br>1 x Intel I226-LM 2.5GbE controller<br>1 x Intel X550AT2 10GbE controller supports 2 x 10GbE Ethernet ports          |
| LAN Port    | 5 x RJ45<br>MGMT port for dedicated IPMI access only<br>LAN1 port for 1GbE shares with IPMI access<br>LAN2 port for 2.5GbE<br>LAN3 and 4 ports for 10GbE |

### Mechanical & Environmental

|                       |                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Operating Temp.       | 0 ~ 35°C (L6 system with 1300W ATX PSU)<br>0 ~ 40°C (L6 system with 1600W CRPS)                               |
| Storage Temp.         | -40°C 24hrs IEC60068-2-1 Cold test Test: Ab<br>70°C/ RH95% 24hrs IEC 60068-2-3 Test: Ca                       |
| Operating Humidity    | 35°C @ 95% Relative Humidity, Non-condensing                                                                  |
| Weight                | 25.8KG                                                                                                        |
| Dimension (W x L x D) | 19" 4U Chassis<br>430mm (W) x 174.8mm (H) x 650mm (D)<br>482.6mm (W) x 174.8mm (H) x 650mm (D) with ear mount |

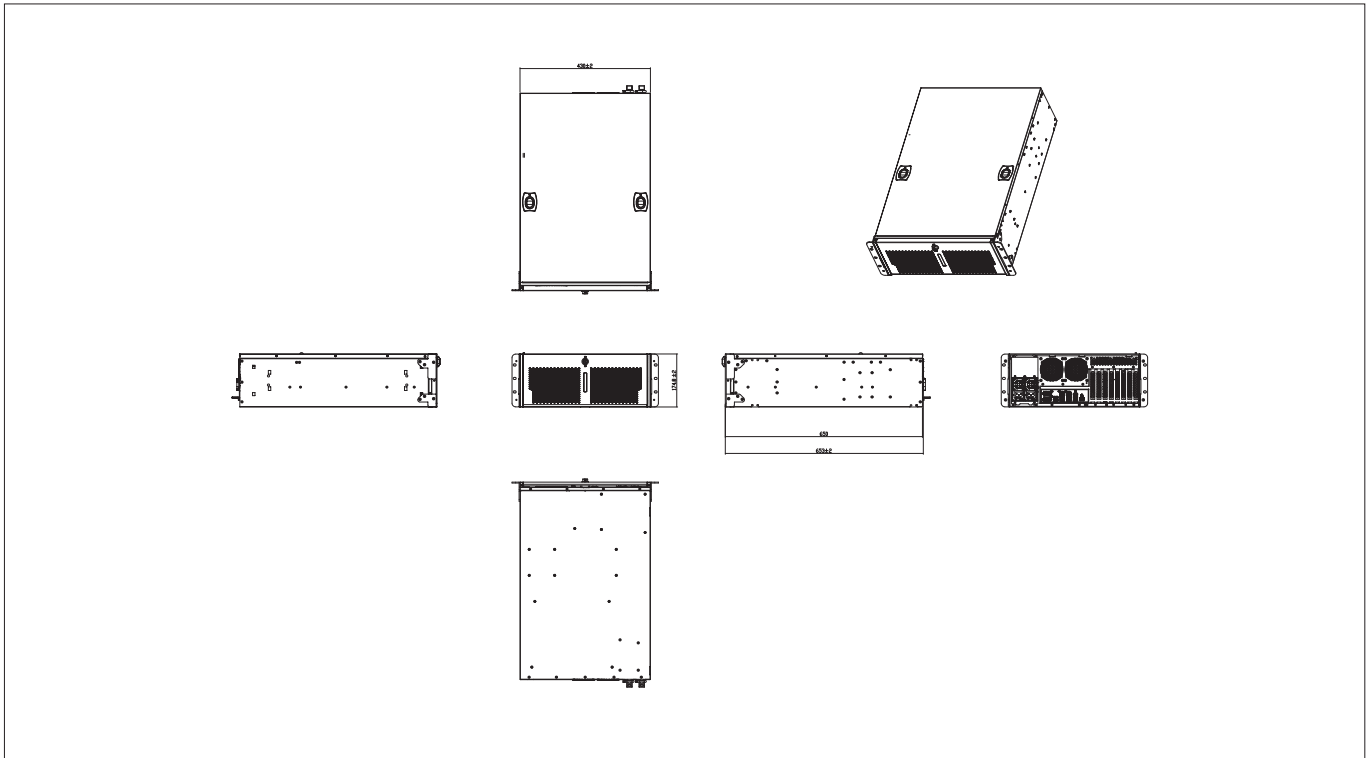
### Software Support

|    |                                                                                                                                                                                                   |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OS | Windows 10 IoT Enterprise LTSC 2021<br>Windows Server IoT 2019 with VT-d disabled<br>Windows Server IoT 2022<br>Ubuntu 21.10, 22.04 LTS or later<br>Red Hat Enterprise Linux (RHEL) 8.2 and later |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## Mechanical Drawing



## Ordering Information

| Model Name | P/N             | CPU | Chipset | Memory | PCIe Slot | 10GbE/2.5GbE/1GbE | USB 3.2 Gen2/USB 3.2 Gen1/USB 2.0 | 2.5" Drive Bay | PSU           |
|------------|-----------------|-----|---------|--------|-----------|-------------------|-----------------------------------|----------------|---------------|
| HPS-ERSD4A | HPS-ERSD4AD-A1R | 2   | C741    | 12     | 7         | 2/1/1             | 0/8/0                             | 3              | 1300W PS2 ATX |
| HPS-ERSD4A | HPS-ERSD4AU-A1R | 2   | C741    | 12     | 7         | 2/1/1             | 0/8/0                             | 3              | 1600W CRPS    |

## Packing List

| Item                                   | P/N             | Quantity |
|----------------------------------------|-----------------|----------|
| L6 19" 4U Rackmount w/HPM-ERSDEA/1300W | HPS-ERSD4AD-A1R | 1        |
| LGA4677 CPU carrier-E1B                | E199TR00063R    | 2        |

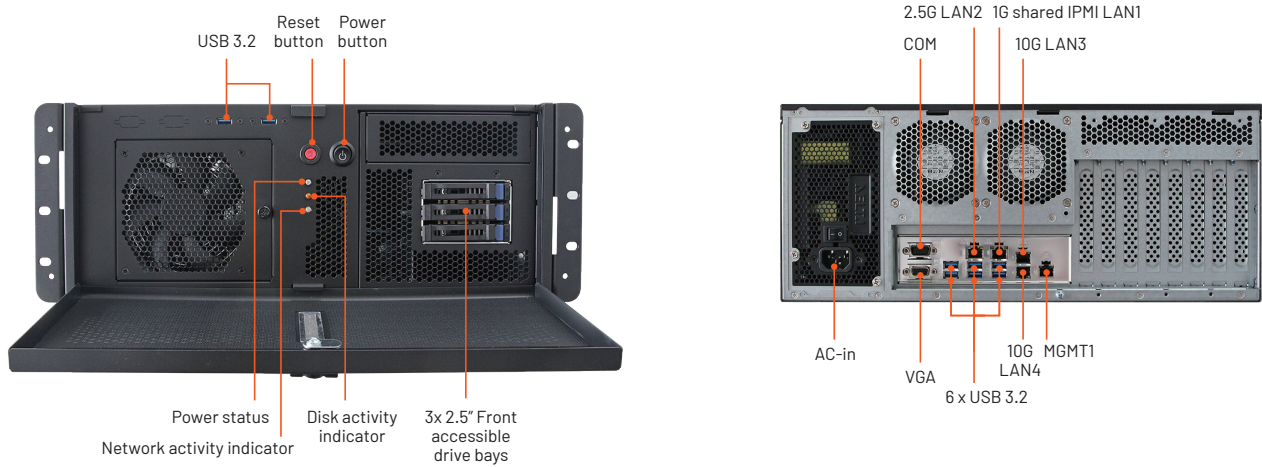
## Optional Items

| Item                                   | P/N             |
|----------------------------------------|-----------------|
| CPU Cooler for LGA4677 4U 4500RPM 350W | BCC-FAN-467-01R |
| US Power Cord 1.8M                     | E170P060390R    |
| EU Power Cord 1.8M                     | E1702031000R    |
| UK Power Cord 1.8M                     | E170P060380R    |
| JP Power Cord 1.8M                     | E170P060410R    |

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## I/O Overview



## CPU Support List (HPC Only)

| SKU                                                       | Launch Date | # of Cores | # of Threads | Processor Base Frequency | Max Turbo Frequency | TDP (W) |
|-----------------------------------------------------------|-------------|------------|--------------|--------------------------|---------------------|---------|
| Intel® Xeon® Gold 6548Y+                                  | Q4,23       | 32         | 64           | 2.5 GHz                  | 4.1 GHz             | 250     |
| Intel® Xeon® Gold 6526Y                                   | Q4,23       | 16         | 32           | 2.8 GHz                  | 3.9 GHz             | 195     |
| Intel® Xeon® Gold 5515+                                   | Q4,23       | 8          | 16           | 3.2 GHz                  | 4.1 GHz             | 165     |
| Intel® Xeon® Gold 6530                                    | Q4,23       | 32         | 64           | 2.1 GHz                  | 4.0 GHz             | 270     |
| Intel® Xeon® Gold 5520+                                   | Q4,23       | 28         | 56           | 2.2 GHz                  | 4.0 GHz             | 205     |
| Intel® Xeon® Silver 4516Y+                                | Q4,23       | 24         | 48           | 2.2 GHz                  | 3.7 GHz             | 185     |
| Intel® Xeon® Silver 4514Y                                 | Q4,23       | 16         | 32           | 2.0 GHz                  | 3.4 GHz             | 150     |
| Intel® Xeon® Silver 4510                                  | Q4,23       | 12         | 24           | 2.4 GHz                  | 4.1 GHz             | 150     |
| Intel® Xeon® Silver 4509Y                                 | Q4,23       | 8          | 16           | 2.6 GHz                  | 4.1 GHz             | 125     |
| Intel® Xeon® Silver 4510T                                 | Q4,23       | 12         | 24           | 2.0 GHz                  | 3.7 GHz             | 115     |
| Intel® Xeon® Bronze 3508U<br>(Support single socket only) | Q4,23       | 8          | 8            | 2.1 GHz                  | 2.2 GHz             | 125     |
| Intel® Xeon® Gold 6448Y                                   | Q1,23       | 32         | 64           | 2.1 GHz                  | 4.1 GHz             | 225     |
| Intel® Xeon® Gold 6426Y                                   | Q1,23       | 16         | 32           | 2.5 GHz                  | 4.1 GHz             | 185     |
| Intel® Xeon® Gold 6418H                                   | Q1,23       | 24         | 48           | 2.1 GHz                  | 4.0 GHz             | 185     |
| Intel® Xeon® Gold 5415+                                   | Q1,23       | 8          | 16           | 2.9 GHz                  | 4.1 GHz             | 150     |
| Intel® Xeon® Gold 5420+                                   | Q1,23       | 28         | 56           | 2.0 GHz                  | 4.1 GHz             | 205     |
| Intel® Xeon® Gold 5418Y                                   | Q1,23       | 24         | 48           | 2.0 GHz                  | 3.8 GHz             | 185     |
| Intel® Xeon® Silver 4416+                                 | Q1,23       | 20         | 40           | 2.0 GHz                  | 3.9 GHz             | 165     |
| Intel® Xeon® Silver 4410Y                                 | Q1,23       | 12         | 24           | 2.0 GHz                  | 3.9 GHz             | 150     |
| Intel® Xeon® Silver 4410T                                 | Q1,23       | 10         | 20           | 2.7 GHz                  | 4.0 GHz             | 150     |
| Intel® Xeon® Bronze 3408U<br>(Support single socket only) | Q1,23       | 8          | 8            | 1.8 GHz                  | 1.9 GHz             | 125     |
| Intel® Xeon® Gold 6430                                    | Q1,23       | 32         | 64           | 2.10 GHz                 | 3.40 GHz            | 270     |