



High Performance Computing Solution

Powering the Future of IoT & AI with Unprecedented Speed, Immediate Analysis and Unmatched Reliability

Server Board			
Model Number	HPM-ERSUA	HPM-ERSDE	HPM-SIEUA
Processor	Intel LGA4677 Socket Supports 5th Generation Intel® Xeon® Scalable Processor (Max. TDP at 270W)	Dual Intel LGA4677 Sockets Support 5th Generation Intel® Xeon® Scalable Processor (Max. TDP at 270W Each)	AMD SP6 Socket Supports 4th Generation AMD EPYC Processor (Max. TDP at 225W)
System Chipset	Intel® C741 Chipset	Intel® C741 Chipset	N/A
System Memory	6 x DDR5 5600MHz RDIMM up to 1.5TB	12 x DDR5 5600MHz RDIMM up to 3TB	6 x DDR5 4800/ 4400MHz RDIMM up to 1.5TB
Expansion	4 x PCIe Gen5 x16 Slots and 3 x PCIe Gen5 x4 Slots Slot 1, PCIe 5.0 x16 Slot 2, PCIe 5.0 x4 Slot 3, PCIe 5.0 x16 Slot 4, PCIe 5.0 x4 Slot 5, PCIe 5.0 x16 Slot 6, PCIe 5.0 x4 Slot 7, PCIe 5.0 x16 (Slot 7 is the Slot Closest to CPU)	7 x PCIe Gen5 x16 Slots Slot 1, PCIe 5.0 x16 from CPU2 Slot 2, PCIe 5.0 x16 from CPU1 Slot 3, PCIe 5.0 x16 from CPU2 Slot 4, PCIe 5.0 x16 from CPU1 Slot 5, PCIe 5.0 x16 from CPU2 Slot 6, PCIe 5.0 x16 from CPU1 Slot 7, PCIe 5.0 x16 from CPU2 (Slot 7 is the Slot Closest to CPU)	3 x PCIe Gen5 x16 Slots and 4 x PCIe Gen5 x8 Slots Slot 1, PCIe 5.0 x8 Slot 2, PCIe 5.0 x16 Slot 3, PCIe 5.0 x8 Slot 4, PCIe 5.0 x16 Slot 5, PCIe 5.0 x8 Slot 6, PCIe 5.0 x16 Slot 7, PCIe 5.0 x8 (Slot 7 is the Slot Closest to CPU)
Display	AST 2600 BMC Controller	AST 2600 BMC Controller	AST 2600 BMC Controller
Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp
Ethernet	1 x Intel® I210AT Giga-bit Ethernet 1 x Intel® I226-LM 2.5Giga-bit Ethernet 1 x Intel® X550-AT2 10Giga-bit Ethernet	1 x Intel® I210AT Giga-bit Ethernet 1 x Intel® I226-LM 2.5Giga-bit Ethernet 1 x Intel® X550-AT2 10Giga-bit Ethernet	1 x Intel® I210AT Giga-bit Ethernet 1 x Intel® I226-LM 2.5Giga-bit Ethernet 1 x Intel® X550-AT2 10Giga-bit Ethernet
USB/SATA/COM/LAN	10/5/2/5	12/5/2/5	4/4/2/5
Power Requirement	1 x Std. 24 Pin ATX Connector 3 x 8 Pin SSI 12V Connectors	1 x Std. 24 Pin ATX Connector 3 x 8 Pin SSI 12V Connectors	1 x Std. 24 Pin ATX Connector 3 x 8 Pin SSI 12V Connectors
IPMI	IPMI 2.0	IPMI 2.0	IPMI 2.0
Operating Temp.	0 ~ 55°C (32 ~ 131°F) to Support up to 250W TDP CPU 0 ~ 45°C (32 ~ 113°F) to Support up to 270W TDP CPU	0 ~ 50°C (32 ~ 122°F) to Support up to 250W TDP CPU 0 ~ 40°C (32 ~ 104°F) to Support up to 270W TDP CPU	0 ~ 60°C (32 ~ 140°F) (without Intel X550) 0 ~ 55°C (32 ~ 131°F) (with Intel X550)
Dimension (L x W)	12" x 9.6" (304.8 x 243.84 mm) PCB Thickness is 2.54 mm	12" x 16.452" (304.8 x 417.88 mm) PCB Thickness is 2.86 mm	12" x 9.6" (304.8 x 243.84 mm) PCB Thickness is 2.0 mm
Weight	2.62 lbs (1.19 kg)	4.85 lbs (2.2 kg)	2.14 lbs (0.97 kg)

Rackmount & Tower Workstation		
Model Number	HPS-ERSU4A	HPS-ERSUTA
Processor (CPU Type)	Intel LGA4677 Socket Supports 5th Generation Intel® Xeon® Scalable Processor (Max. TDP at 270W)	
Chipset	Intel® C741 Chipset	
Memory	6 x DDR5 5600MHz RDIMM up to 1.5TB	
Storage	3 x Front Accessible 2.5" Storage Bays	
IPMI	IPMI 2.0	
Expansion Slots	4 x PCIe Gen5 x16 Slots 3 x PCIe Gen5 x4 Slots Slot 1, PCIe 5.0 x16 Slot 2, PCIe 5.0 x4 Slot 3, PCIe 5.0 x16 Slot 4, PCIe 5.0 x4 Slot 5, PCIe 5.0 x16 Slot 6, PCIe 5.0 x4 Slot 7, PCIe 5.0 x16 (Slot 7 is the Slot Closest to CPU)	
LAN	5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shares with IPMI Access LAN2 Port for 2.5GbE LAN3 and 4 Ports for 10GbE	
USB	Front: 2 x USB 3.2 Gen1 Ports Rear: 4 x USB 3.2 Gen1 Ports + 2 x USB 2.0 Type A Ports	
Display	AST 2600 BMC Controller	
Display Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	
Cooling Fan	1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans	
Power Supply	1 x 1300W PS2 ATX PSU	
Operating Temp.	0°C ~ 35°C (32°C ~ 95°F)	
Dimension (W x H x D)	482.6 x 174.8 x 528 mm with Ear Mount	340 x 488 x 528 mm with External Handles & Pedestal Stand
Form Factor	19" 4U Rackmount	Tower Chassis
OS	Windows 10 IoT Enterprise LTSC 2021, Windows 11 Windows Server 2019, Windows Server 2022 Ubuntu 21.1, 22.04 LTS or Later Red Hat Enterprise Linux (RHEL) 8.2 and Later	

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Avalue's HPC products are built with superior performance, bandwidth, and connectivity to meet the needs of demanding applications such as AI, graphics processing, cloud computing, and data analysis. Renowned for its lightning-fast data processing and ability to handle complex computations with ease, our HPC series represents the next generation of computing power. Experience real-time analysis with unwavering reliability.

All High Performance Computing products



Mainboard

- IPMI enabled server board with server grade manageability.
- 7-year product availability with revision control.



Barebone system

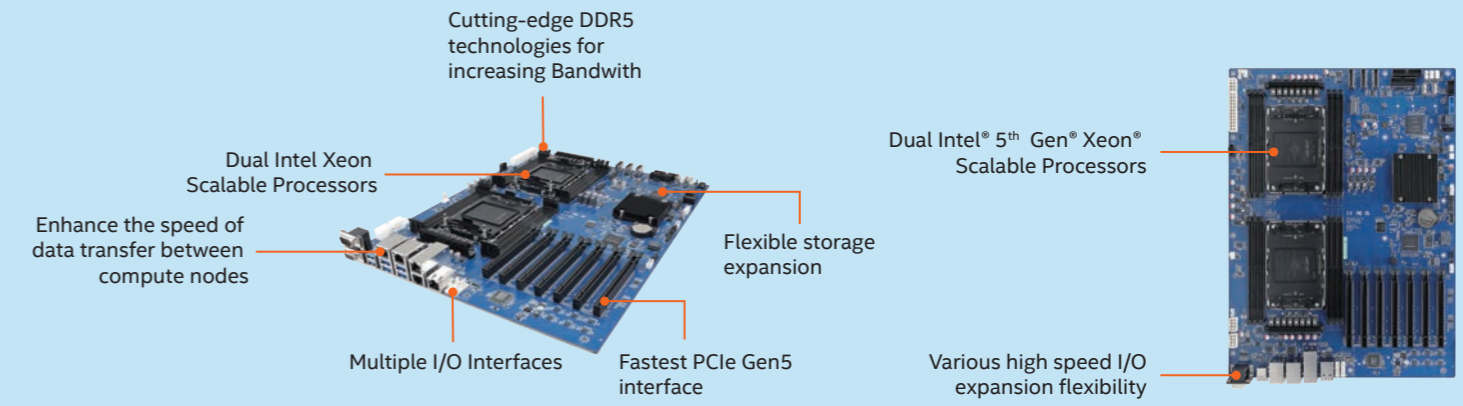
- Key parts selection flexibility on customers' requirement.
- Optimized thermal design with maximum I/O Flexibility



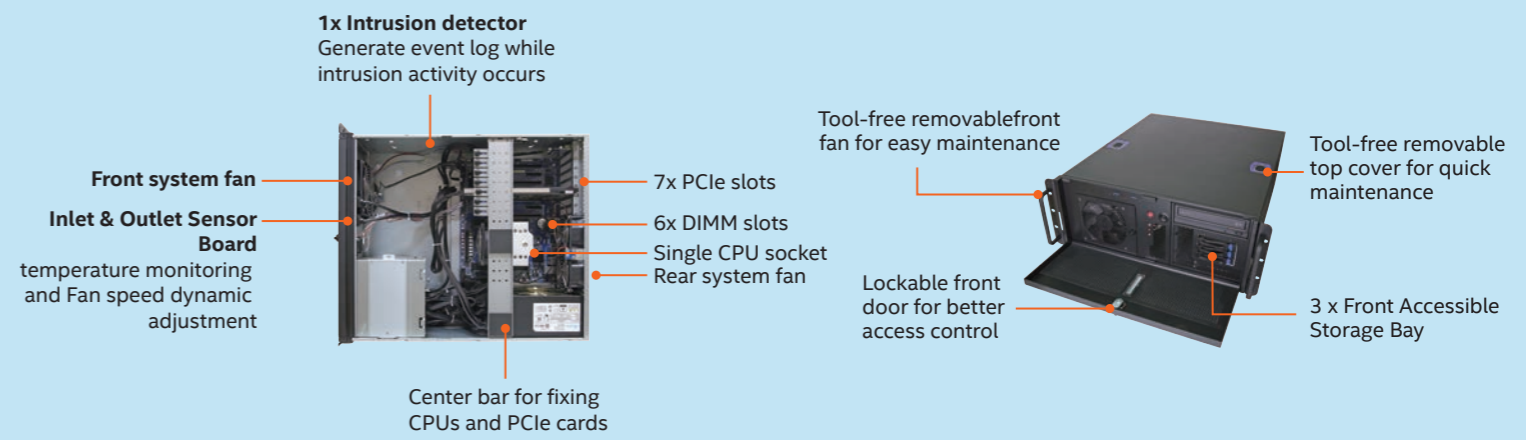
Fully-integrated system

- Fully tested system.
- No hardware related efforts or experience needed.

HPC-ERSDE



HPS-ERSU4A



Advantages of Avalue HPC Solution



Seamless Upgradability
Painless upgrade to in the existing server rack, cabinet or inside system chassis.



Real-time Management
Integrated IPMI2.0 and BMC technology for system monitoring and preventive maintenance.



Extended Lifecycle
At least 7 years product life cycle. Intel IOTG roadmap products provide 15 years availability.



Quality Reliability
robust and wide operating temperature design. 50,000 hours system level MTBF and 100% MP test coverage with traceability

Industry applications

