HPC-7420
ASMB-977

4U 18" short-depth Edge Accelerator Server with Dual Intel® 4thGen Xeon® Scalable processors, supporting 10 expansion slots



Features

- Dual Intel® 4th Gen Xeon® Scalable processors
- DDR5 4800MHz RDIMM up to 4TB, support Intel Optane Persistent Memory
- Five PCIe x16 Gen 5 slots
- Five PCIeX8 Gen5 slots
- Two hot-swappable 2.5" SATA/SAS/SSD drive bays with slim/ultra slim ODD in option
- Rear-accessible system fan without opening top cover for easy maintenance
- Wide environment temp support, 0 ~ 50 °C

CE FCC

Specifications

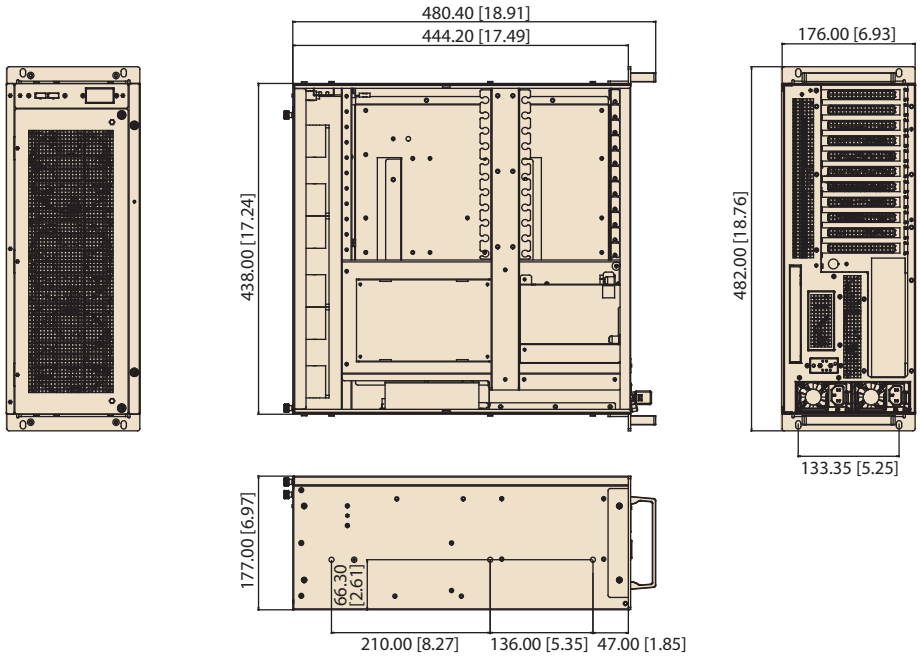
Processor System	Socket	Dual Intel LGA 4677	
	CPU Type	4th Gen Intel Xeon Scalable processors (TDP up to 205W)	
	Chipset	Intel C741 chipset	
Memory	Total slots	16 (1 DIMM per channel)	
	Capacity	Maximum 4TB ECC RDIMM	
	Memory type	DDR5 4800/4400//4000MHz RDIMM	
Graphics	Controller	Aspeed AST2600	
	VRAM	64MB	
Expansion Slot	Slot location 1	PCIe x 8 Slot (x8 link), Signal from CPU0 (Gen4)	
	Slot location 2	PCIe x 16 Slot (x16 Link), Signal from CPU0 (Gen5)	
	Slot location 3	N/A	
	Slot location 4	PCIe x 16 Slot (x16 Link), Signal from CPU0 (Gen5)	
	Slot location 5	PCIe x 8 Slot (x8 Link), Signal from CPU1 (Gen4)	
	Slot location 6	PCIe x 16 Slot (x16 Link), Signal from CPU0 (Gen5)	
	Slot location 7	PCIe x 8 Slot (x8 Link), Signal from CPU1 (Gen4)	
	Slot location 8	PCIe x 16 Slot (x16 Link), Signal from CPU1 (Gen5)	
	Slot location 9	PCIe x 16 Slot (x16 Link), Signal from CPU1 (Gen5)	
	Slot location 10	PCIe x 8 Slot (x8 Link), Signal from CPU1 (Gen4)	
	Slot location 11	PCIe x 8 Slot (x8 Link), Signal from CPU1 (Gen4)	
Storage	2.5"	4 (Optional:2 x External; 2 x Internal)	
	3.5"	2 (Internal)	
	Ultra Slim ODD	1	
	M.2 (2280/22110)	2 (1 x M.2 2242/2280 B+M key (SATA and PCIe) + 1 x M.2 2242/2280 B+M key (PCIe)	
Ethernet	Interface	2 x 10/100/1000 Mbps Gigabit Ethernet or 2 x 10GbeE Ethernet	
	Controller	2 x Intel I210AT or Intel® X710-AT2	
Rear I/O Interface	External serial port	1	
	External USB port	2 (USB 3.2 Gen. 1)	
	Display	1 x VGA	
	RJ-45	5 (4 x GbE + 1 dedicated NIC for IPMI)	
Internal connector	USB	3 (2 x USB 3.2 Gen 1 ports (one onboard header) + 1 x Type-A USB 2.0 port)	
	Serial port header	1	
	SMBus	1	
	Audio Header	1	
	PS/2 Keyboard/Mouse header	1	
Watchdog Timer	Output	System reset	
	Interval	Programmable, 1~255 sec/min	
Power Supply	Output Range	850W Single Flex ATX or 1200W Platinum 1+0 Non-Redundancy Power Supply	
	Input Range	AC 100 ~ 240 V	
Cooling	System Fan	3 x 120x38 for HPC-7420-12ZX 3 x 80x25 for HPC-7420-85ZX	
	Air Filter	-	
Miscellaneous	LED Indicators	Power Status, LAN1-LAN2 Status,HDD and System Information LED	
	Remote Management	Advantech Remote Monitoring Utility	
Environment		Operating	Non-Operating
	Temperature	0 ~ 50 °C (32 ~ 122 °F)	-40 ~ 70 °C (-40 ~ 156 °F)
	Humidity	10 ~ 95% @ 50 °C	10 ~ 95% @ 70 °C
	Vibration (5 ~ 500 Hz)	0.3 Grms	2 Gms
	Shock	10G (with 11ms duration, half since wave)	
Physical Characteristics	Dimension (W x H x D)	438 mm x 177 mm x 450 mm (17.24" x 6.97" x 17.7")	
	Weight (N.W. / G.W.)	16kg/18k	

All product specifications are subject to change without notice.

Last updated: 12-Jul-2024

Dimensions

Unit: mm [inch]



Front View

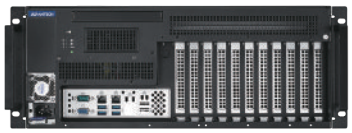
HPC-7420-85ZX



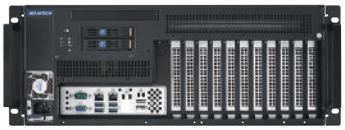
With option 2*2.5" hot-swappable HDD Bays
HPC-7420-85ZX



HPC-7420-12ZX



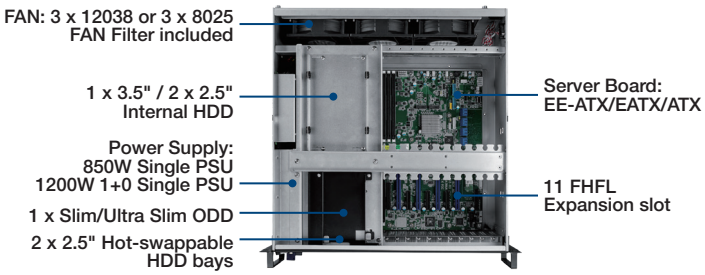
HPC-7420-12ZX



Rear View



Top View



Ordering Information

Part Number	Compatible Chassis	Memory	Chipset	GbE/ 10GbE	Graphic
ASMB-977I-00A1	HPC-7420	16 x DDR5 RDIMM	C741	2/-	AST2600
ASMB-977T2-00A1	HPC-7420	16 x DDR5 RDIMM	C741	2/2	AST2600

Part Number	MB Form Factor	CPU	CPU Cooler	GPU	Build-in PSU
HPC-7420-12ZX	ATX/EATX/EE-ATX	Dual P, up to 165W each	2U	2 x 250W with Active Fan	1200W, 1+0 Single (non-Redundancy) PSU

System Contents

Items	Advantech P/N	Quantity
Rack Mounting Bracket	1960087090N001	2
Handler	1960076093T001	2
GPU retainer HPC-7420	1960097013N000	2
Fan filter	2130021428T000	1

Optional Accessories

Items	Advantech P/N	Quantity
20"-31" Slide Rail Kit	968DE00012	1
ODD power cable	96CB-SATAPOWER-6P2	1
ODD data cable	1700071000	1
CABLE MINI SAS TO 4P SATA 0.6M 6G/S (For SASII RAID Card)	96CB-MSAS-SATA-4P3	1
CABLE MINI SAS HD TO 4P SATA SGPIO 0.8M (For SASIII RAID Card)	96CB-MSASH-SATA-4P	1
USB 3.0 cable (Rear panel reserved USB port)	1700026948-01	1
1200W Power Module	96PSRM-A1K2WCRPA	1
Module to support 2*2.5" Hot-swappable HDDs with HDD Trays	98R1310010E	1
Module to securely fix one or two 2.5" HDDs in a 3.5" drive bay. Note1	989K008734	1
LGA4677 CPU cooler for 2U/4U chassis (270W)	1970005860N000	2
HD Audio-card	PCA-AUDIO-HDB1E	1
Dual port USB USB 3.2 (Gen1) cable (45 cm/17.7") with bracket	1700028024-01	1
COM port cable with bracket	1701090401	1
PS/2 port cable (35 cm/13.7")	1700019268-11	1
Cable bracket for 1700019268-11	1960063434N000	1