

High Performance Computing

High Performance Computing Systems

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HPC-1420-ISSE

Robust 1U Intel® Quad Core Xeon® Server with Innovative Cable-less Design

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HPC-2820-ISSE

2U Intel® Quad Core Xeon® Server supports 8 SAS/ SATA Hot-swappable HDDs

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High Performance Computing Systems



HPC-1420-ISSE



HPC-2820-ISSE

Selection Guide

Specifications		HPC-1420-ISSE	HPC-2820-ISSE
Processor System	CPU	5000/5100/5300 family Xeon Processor	5000/5100/5300 family Xeon Processor
	Max. Speed	3.0 GHz	3.0 GHz
	Front Side Bus	667/1066/1333 MHz	667/1066/1333 MHz
	L2 Cache	2 x 2 MB or 4 MB L2 cache	2 x 2 MB or 4 MB L2 cache
	Chipset	Intel 5000P MCH Intel 6321 ICH Intel 6702 PXH	Intel 5000P MCH Intel 6321 ICH Intel 6702 PXH
Expansion Slot (via riser card)	PCI	1 x Full-Height/Half-Length 64-bit PCI-X	2 x Full-Height/Full-Length 64-bit PCI-X
	PCIe	1 x Low Profile PCI Express x8 slot	1 x Full-Height/Full-Length PCI Express x8 slot
Memory	Technology	Four Channel ECC Reg. DDR2 533/667 FBD	Four Channel ECC Reg. DDR2 533/667 FBD
	Max. Capacity	48 GB	48 GB
	Socket	12	12
Graphic	Controller	ATI ES1000 VGA Controller	ATI ES1000 VGA Controller
	VRAM	16 MB DDR SDRAM	16 MB DDR VRAM
Storage	SAS Controller	LSI 1068 PCI-X 8-port SAS controller: Support RAID 0, 1, 1E and Raid 5 (optional ZCR)	LSI 1068 PCI-X 8-port SAS controller: Support RAID 0, 1, 1E and Raid 5 (optional ZCR)
	HDD Bays	Supports 4 x Hotswap SAS/ SATA2 HDDs	Supports 8 x Hotswap SAS/ SATA2 HDDs
	Optical Drive	Slim Type DVD-ROM	Slim Type DVD-ROM
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T
	Controller	Intel 82563EB PCIe Dual-port GbE	Intel 82563EB PCIe Dual-port GbE
	Connector	2 x RJ-45	2 x RJ-45
I/O Connectors	Serial Port	1	1
	RJ-45	2	2
	USB	4 x USB 2.0 ports (Front x 2, Rear x 2)	4 x USB 2.0 ports (Front x 2, Rear x 2)
	VGA	1	1
	PS/2 Keyboard	1	1
	PS/2 Mouse	1	1
Power Supply	Power Supply	700 W Single ATX	750 W Single ATX
Environment	Temperature	Operating: 10 ~ 35° C Non-Operating: -40 ~ 70° C	Operating: 10 ~ 35° C Non-Operating: -40 ~ 70° C
	Humidity	Non operation humidity: 20% ~ 90% (Non-Condensing)	Non operation humidity: 20% ~ 90% (Non-Condensing)
Physical Characteristics	Dimensions	686 x 444 x 43.4 mm (27" x 17.5" x 1.75")	732 x 448 x 87.7 mm (28.8" x 17.6" x 3.42")
	Weight	15 kg	19.7 kg
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HPC-1420-ISSE

**Robust 1U Intel® Quad Core
Xeon® Server with Innovative
Cable-less Design**



FCC CE UL cUL

Features

- Supports advanced Intel® Dual Core 5000/5100 and Quad Core 5300 family Xeon® processors
- High memory capacity up to 48 GB
- 2 expansion slots support PCI-X and PCI Express
- Cable-less design to enhance system reliability
- Built-in 700 W single power supply

Specifications

Processor System	CPU	Intel Dual Core 5000/5100 and Quad Core 5300 family Xeon processor
	Max. Speed	3.0 GHz
	Front Side Bus	667/1066/1333 MHz
	L2 Cache	2 x 2 MB or 4 MB L2 cache
	Chipset	Intel 5000P MCH Intel 6321 ICH Intel 6702 PXH
Expansion Slot (via riser card)	PCI	1 x Full-Height/Half-Length 64-bit PCI-X
	PCIe	1 x Low Profile PCI Express x8 slot
Memory	Technology	Four Channel ECC Reg. DDR2 533/667 FBD SDRAM
	Max. Capacity	48 GB
	Socket	12
Graphic	Controller	ATI ES1000 VGA Controller
	VRAM	16 MB DDR SDRAM
Storage	SAS Controller	LSI 1068 PCI-X 8-port SAS controller: Supports RAID 0, 1, 1E (RAID 5 only with optional ZCR)
	HDD Bays	Supports 4 x Hotswap SAS/ SATA2 HDDs
	Optical Drive	Slim Type DVD-ROM
Ethernet	Interface	10/100/1000Base-T
	Controller	Intel 82563EB PCIe Dual-port GbE
	Connector	2 x RJ-45
I/O Connectors	Serial Port	1
	RJ-45	2
	USB	4 x USB 2.0 ports (Front x 2, Rear x 2)
	VGA	1
	PS/2 Keyboard	1
	PS/2 Mouse	1
Power Supply	Power Supply	700 W Single ATX
Environment	Temperature	Operating: 10 ~ 35° C / Non-Operating: -40 ~ 70° C
	Humidity	Non-Operating: 20% ~ 90% (Non-Condensing)
Physical Characteristics	Dimensions (D x W x H)	686 x 444 x 43.4 mm (27" x 17.5" x 1.75")
	Net Weight	15 kg

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Industrial Motherboards

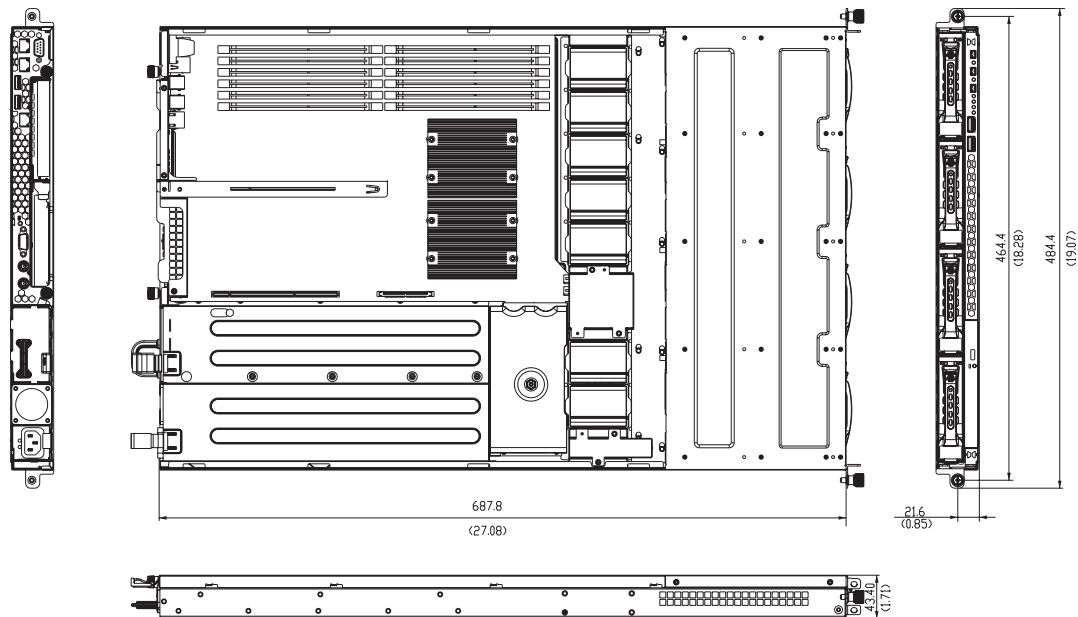
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Single Board Computers

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Industrial Computer Chassis

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Industrial PC Peripherals

Dimensions



Unit: mm (inch)

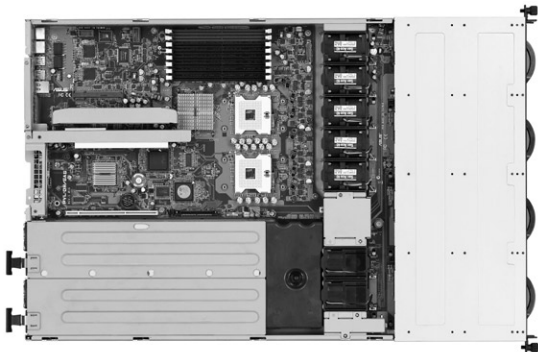
Ordering Information

Model Name	Server board	DVD-ROM FDD	PSU	CPU	RAM	HDD
HPC-1420-ISSE	Yes	Yes	Yes	-	-	-

Front View



Top View



Rear View



Standard Accessories

Item	Quantity
Rack mounting brackets	x 1
Air duct	x 1
CPU cooler	x 2
COM port cable	x 1
US power cord	x 1
Driver CD	x 1
Manual	x 1

Optional Accessories

Part Number	Description
-	ZCR module for SAS RAID 5 (PCI-X card)
-	IPMI 2.0 server management board (SODIMM type)
-	700W power module for redundant power

HPC-2820-ISSE

**2U Intel® Quad Core Xeon®
Server supports 8 SAS/ SATA
Hot-swappable HDDs**



FCC CE UL cUL

Features

- Supports advanced Intel® Dual Core 5000/5100 and Quad Core 5300 family Xeon® processors
- Maximize system performance with high memory capacity up to 48 GB
- High expandability with three expansion slots
- Massive storage with eight hot-swappable SATA/SAS HDD bays
- Built-in 750 W single power supply

Specifications

Processor System	CPU	Intel Dual Core 5000/5100 and Quad Core 5300 family Xeon processor
	Max. Speed	3.0 GHz
	Front Side Bus	667/1066/1333 MHz
	L2 Cache	2 x 2 MB or 4 MB L2 cache
	Chipset	Intel 5000P MCH Intel 6321 ICH Intel 6702 PXH
Expansion Slot (via riser card)	PCI	2 x Full-Height/Full-Length 64-bit PCI-X
	PCIe	1 x Full-Height/Full-Length PCI Express x8 slot
Memory	Technology	Four Channel ECC Reg. DDR2 533/667 FBD SDRAM
	Max. Capacity	Maximum up to 48 GB
	Socket	12
Graphic	Controller	ATI ES1000 VGA Controller
	VRAM	16 MB DDR VRAM
Storage	SAS Controller	LSI 1068 PCI-X 8-port SAS controller: Supports RAID 0, 1, 1E (RAID 5 only with optional ZCR)
	HDD Bays	Supports 8 x Hotswap SAS/ SATA HDDs
	Optical Drive	Slim Type DVD-ROM
Ethernet	Interface	10/100/1000Base-T
	Controller	Intel 82563EB PCIe Dual-port GbE
	Connector	2 x RJ-45
I/O Connectors	Serial Port	1
	RJ-45	2
	USB	4 x USB 2.0 ports (Front x 2, Rear x 2)
	VGA	1
	PS/2 Keyboard	1
	PS/2 Mouse	1
Power Supply	Power Supply	750 W Single ATX
Environment	Temperature	Operating: 10 ~ 35° C / Non-Operating: -40 ~ 70° C
	Humidity	Non-Operating: 20% ~ 90% (Non-Condensing)
Physical Characteristics	Dimensions (D x W x H)	732 x 448 x 87.7 mm (28.8" x 17.6" x 3.42")
	Net Weight	19.7 kg

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Industrial Motherboards

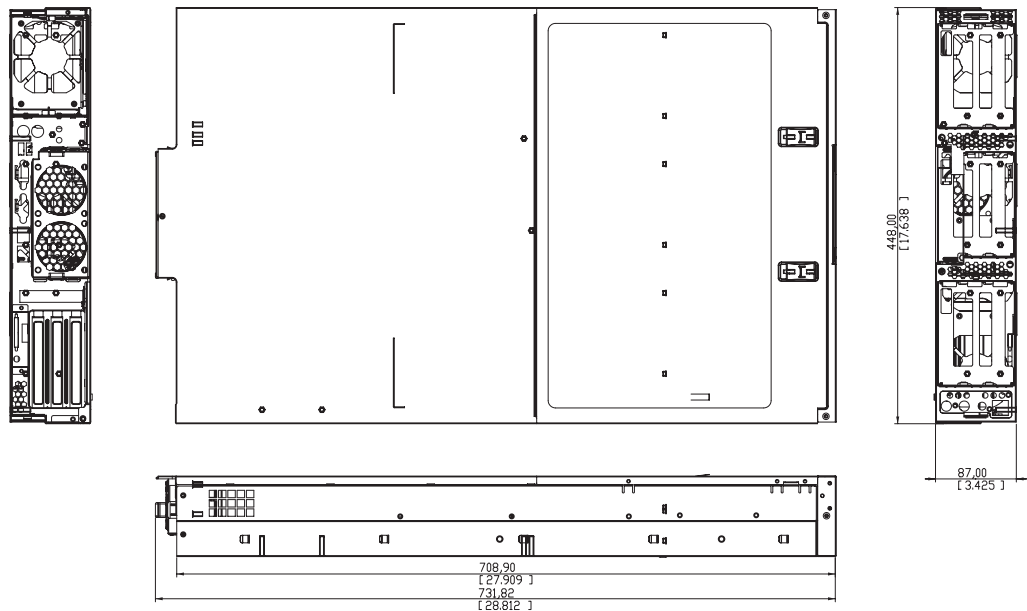
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Single Board Computers

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Industrial Computer Chassis

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Industrial PC Peripherals

Dimensions



SCALE 0,450

Unit: mm (inch)

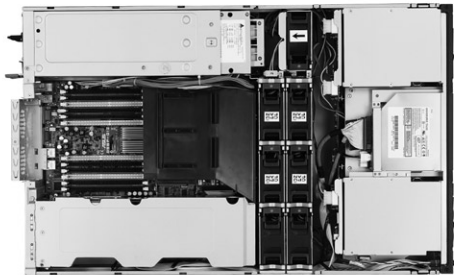
Ordering Information

Model Name	Server board	DVD-ROM FDD	PSU	CPU	RAM	HDD
HPC-2820-ISSE	Yes	Yes	Yes	-	-	-

Front View



Top View



Rear View



Standard Accessories

Item	Quantity
Air duct	x 1
Slide rail	x 1
CPU cooler	x 2
COM port cable	x 1
US power cord	x 1
Driver CD	x 1
Manual	x 1

Optional Accessories

Part Number	Description
-	ZCR module for SAS RAID 5 (PCI-X card)
-	IPMI 2.0 server management board (SODIMM type)
-	750W power module for redundant power