

PICMG 1.3

The PICMG 1.3 allows users to protect their investment in PCI technology while taking advantage of the speed and increased bandwidth of PCI Express

What is PICMG 1.3 ?

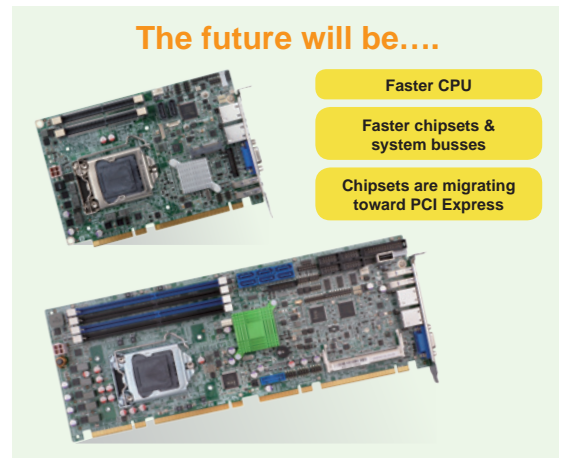
- Bringing PCI Express to your SBC with increased speed and bandwidth**
 PICMG 1.3 is designed to interface with PCI Express peripherals on a backplane. The PCI Express interconnects with the backplane and can operate at x1, x4, x8, x16, and more, depending on the capabilities of both the SHB and the backplane.
- Support PCI on board with flexibility**
 The optional PCI portion of the SHB interconnects with the backplane allows for 32-bit operation. The clock rate can be 33 MHz, 66 MHz, 100 MHz, and 133 MHz, depending on how the backplane and SHB are designed.
- Miscellaneous IO**
 SATA, USB, IPMB, SMBus, Geographic Addressing, and PCI Wake Up to the backplane are specified, simplifying the cabling on SHB for the system.

PICMG 1.3 Key Features

- PCI Express**
 20 PCI Express lanes are supported, including PCI Express x16, x4 and x1 configurations
- ATX power signals are supported**
 Provides AUX voltages for standby power and sleep states (soft starts, wake on LAN), supports PSON#, PWRGD, PWRRBT# and ACPI states

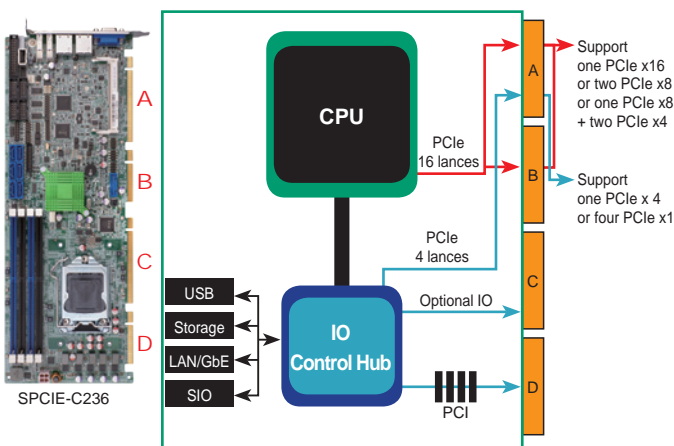
Why PICMG 1.3?

- This new technology is expected to allow PCIe transmission rates to keep pace with processor and I/O advances for the next 10 years or more.
- Same basic mechanical dimensions are maintained to minimize chassis redesign expense
- Better host board power management and simplified I/O cabling
- Supports PCI Express and PCI option cards without driver changing

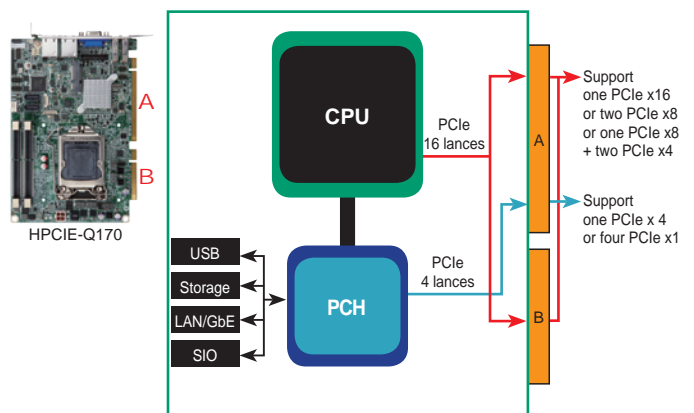


Graphic & Server Grade PICMG 1.3 Solutions

Full-size PICMG 1.3 Solutions



Half-size PICMG 1.3 Solutions



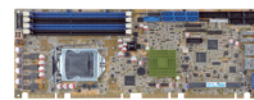
Full-Size PICMG 1.3 PCIe Slot Configuration

Full-size SBC Type		Server & Graphic Grade		Server Grade			
Combination		A	B	C	D	E	F
PCIe Slots Available (Non-switch)	CPU or NB	x16	1	1	-	-	-
		x8	-	-	2	2	1
		x4	-	-	-	-	2
	PCH or SB	x4	-	1	-	1	-
		x1	4	-	4	-	-
Backplane Solution		IEI PE/PXE series		IEI SPE/SPXE series			

Half-Size PICMG 1.3 PCIe Slot Configuration

Half-size SBC Type		Any Type		High Performance			
Combination		A	B	C	D	E	F
PCIe Slots Available (Non-switch)	CPU	x16	1	1	-	-	-
		x8	-	-	2	2	1
		x4	-	-	-	-	2
	PCH	x4	-	1	-	1	-
x1		4	-	4	-	4	

PICMG 1.3 Selection Guide



Model Name	HPCIE-C236 New	HPCIE-Q170 New	SPCIE-C236 New	SPCIE-C2260-i2
CPU Socket	LGA 1151	LGA 1151	LGA1151	LGA 1150
CPU Type	Intel® Xeon® E3, Core™ i3, Pentium®, Celeron® processor	Intel® Core™ i7/i5/i3, Pentium®, Celeron® processor	Intel® Xeon® E3, Core™ i3, Pentium®, Celeron® processor	Intel® Xeon® E3, Core™ i3, Pentium®, Celeron® processor
Chipset	Intel® C236	Intel® Q170	Intel® C236	Intel® C226
Memory	Two 260-pin 2133/1867 MHz dual-channel DDR4 SO-DIMMs (system max. 32 GB)	Two 260-pin 2133/1867 MHz dual-channel DDR4 SO-DIMMs (system max. 32 GB)	Four 288-pin 2133/1867 MHz Dual-Channel DDR4 ECC & non-ECC unbuffered DIMM supported up to 64GB	Four 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs (system max. 32 GB)
Display Interface	Dual display supported 1 x VGA 1 x iDP interface	Dual display supported 1 x VGA 1 x iDP interface	Triple display supported 1 x VGA 1 x iDP interface	Dual display supported 1 x VGA 1 x iDP interface
Ethernet	LAN1: Intel® I219-LM with Intel® AMT 11.0 support LAN2: Intel® I211-AT Ethernet controller	LAN1: Intel® I219-LM with Intel® AMT 11.0 support LAN2: Intel® I211-AT Ethernet controller	LAN1: Intel® I219LM Clarkville-V with Intel® iAMT 11.0 supported LAN2: Intel® I210 PCIe controller	LAN1: Intel® I217LM with Intel® AMT 9.0 support LAN2: Intel® I210-AT PCIe controller with NCSI support
iRIS Remote Management Module	N/A	N/A	1 x iRIS-2400 slot	1 x iRIS-2400 slot
I/O Interface	1 x 6-pin wafer for KB/MS 2 x RS-232/422/485 2 x USB 3.0 4 x USB 2.0	1 x 6-pin wafer for KB/MS 2 x RS-232/422/485 2 x USB 3.0 4 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 2 x RS-232 2 x RS-232/422/485 4 x USB 3.0 7 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 4 x RS-232 4 x USB 3.0 8 x USB 2.0
Drive Interface	1 x mSATA (SATA & USB signal) 2 x SATA 6Gb/s (RAID 0/1 supported)	1 x mSATA (SATA & USB signal) 2 x SATA 6Gb/s (RAID 0/1 supported)	6 x SATA 6Gb/s (RAID 0/1 supported)	6 x SATA 6Gb/s (RAID 0/1/10 supported)
Audio	Supports by IEI AC-KIT-892HD-R10 audio kit		Realtek ALC662 HD Audio codec	Supports by IEI AC-KIT-892HD-R10 audio kit
Digital I/O	8-bit digital I/O		8-bit programmable digital I/O	8-bit digital I/O
Power Consumption	5V@0.13A, 12V@7.89A, 3.3V@0.10A, 5VSB@0.20A (Intel® Xeon® E3-1275 v5 3.60 GHz with two 16 GB 2133 MHz DDR4 memory)	5V@0.15A, 12V@8.39A, 3.3V@0.11A, 5VSB@0.21A (Intel® Core™ i7-6700K 4.0GHz with two 16 GB 2133 MHz DDR4 memory)	5V@3.22A, 12V@6.81A, 3.3V@1.21A, 5VSB@0.18A (Intel® Xeon® E3-1275 v5 3.60 GHz CPU with 64GB (16GB x 4) 2133 MHz DDR4 memory)	5V@3.55A, 12V@0.37A, Vcore_12V@7.61A, 3.3V@1.55A, 5VSB@0.13A (Intel® E3-1240 v3 3.4GHz CPU with 16 GB (4x4 GB) 1333 MHz DDR3 memory)
Watchdog Timer	Software programmable supports 1~255 sec. system reset			
Operation Environment	Temperature Range: -20°C ~ 60°C (-4°F ~ 140°F) Relative Humidity: 5% ~ 95%, non-condensing			
Expansion Slot	N/A	N/A	1 x Full-size PCIe Mini card slot (support mSATA)	1 x Full-size PCIe Mini card slot (support mSATA)
CPU Cooler	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11 CF-1150SF-R10

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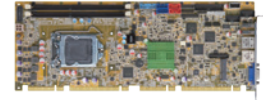
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Power Supply/Peripherals

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All-in-One System

PICMG 1.3 Selection Guide



Model Name	SPCIE-C2160	SPCIE-C2060-R21	PCIE-Q170 New	PCIE-H810
CPU Socket	LGA 1155	LGA 1155	LGA1151	LGA 1150
CPU Type	Intel® Xeon® E3, Core™ i3, Pentium®, Celeron® processor	Intel® Xeon® E3, Core™ i3, Pentium®, Celeron® processor	6th generation Intel® Core™ i7/i5/i3, Celeron® and Pentium® processor	Intel® Core™ i7/i5/i3, Pentium®, Celeron® processor
Chipset	Intel® C216	Intel® C206	Intel® Q170	Intel® H81
Memory	Two 240-pin 1600/1333 MHz dual-channel ECC and non-ECC unbuffered DDR3 SDRAM DIMMs supported (system max. 16 GB)	Two 240-pin 1333/1066 MHz dual-channel ECC and non-ECC unbuffered DDR3 SDRAM DIMMs (system max. 16 GB)	Four 288-pin 2133/1867 MHz Dual-Channel DDR4 non-ECC unbuffered DIMM supported up to 64GB	Two 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs (system max. 16 GB)
Display Interface	1 x VGA 1 x DVI-D (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)	1 x VGA 1 x DVI-D (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)	Triple display supported 1 x VGA 1 x iDP interface	Dual display supported 1 x VGA 1 x iDP interface
Ethernet	LAN1: Intel® 82574L PCIe controller LAN2: Intel® 82579 PHY with Intel® AMT 8.0 support	LAN1: Intel® 82574L PCIe controller LAN2: Intel® 82579 PHY with Intel® AMT 7.0 support	LAN1: Intel® I219LM Clarkville-V with Intel® iAMT 11.0 supported LAN2: Intel® I210 PCIe controller	LAN1: Realtek RTTL8111E PCIe controller LAN: Realtek RTTL8111E PCIe controller
iRIS Remote Management Module	N/A	N/A	1 x iRIS-2400 slot (Optional)	N/A
I/O Interface	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 4 x RS-232 8 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 4 x RS-232 8 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 2 x RS-232 2 x RS-232/422/485 4 x USB 3.0 7 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 2 x RS-232 2 x USB 3.0 8 x USB 2.0
Driver Interface	2 x SATA 6Gb/s (RAID 0/1/5/10 supported) 4 x SATA 3Gb/s	2 x SATA 6Gb/s (RAID 0/1/5/10 supported) 4 x SATA 3Gb/s	6 x SATA 6Gb/s (RAID 0/1 supported)	2 x SATA 3Gb/s 2 x SATA 6Gb/s
Audio	Supports by IEI AC-KIT-892HD-R10 audio kit		Realtek ALC662 HD Audio codec	Supports by IEI AC-KIT-892HD-R10 audio kit
Digital I/O	8-bit digital I/O	8-bit digital I/O	8-bit programmable digital I/O	8-bit digital I/O
Power Consumption	5V@3.98A, 12V@0.38A, Vcore_12V@7.81A, 3.3V@1.61A, 5VSB@0.15A (3.4GHz Intel® Xeon® 2.2GHz with two 2 GB 1333 MHz DDR3 memory)	5V@3.98A, 12V@0.38A, Vcore_12V@7.81A, 3.3V@1.61A, 5VSB@0.15A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)	5V@3.12A, 12V@6.85A, 3.3V@1.13A, 5VSB@0.15A (Intel® Core™ i7-6700K 4.0GHz CPU with 64GB (16GB x 4) 2133 MHz DDR4 memory)	5V@3.41A, 12V@0.35A, Vcore_12V@7.52A, 3.3V@1.41A, 5VSB@0.12A (Intel® Core™ i7-4770K 3.90 GHz CPU with 8 GB (two 4 GB) 1333 MHz DDR3 memory)
Watchdog Timer	Software programmable supports 1~255 sec. system reset			
Operation Environment	Temperature Range: -10°C ~ 60°C (14°F ~ 140°F) Relative Humidity: 5% ~ 95%, non-condensing		Temperature Range: -20°C ~ 60°C (-4°F~140°F) Relative Humidity: 5% ~ 95% non-condensing	
Expansion Slot	1 x Full-size PCIe Mini card slot	1 x Full-size PCIe Mini card slot	1 x Full/Half-size PCIe mini card slot 4 x PCI signal via golden finger	1 x Full-size PCIe Mini card slot (support mSATA)
CPU Cooler	CF-1156A-RS-R11 CF-1156C-RS CF-1156D-RS CF-1156E-R11	CF-1156A/C/D/E	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11 CF-1150SF-R10

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All-in-One System

PICMG 1.3 Selection Guide



Model Name	PCIE-Q870-i2	PCIE-Q670-R20	PCIE-H610	PCIE-Q57A
CPU Socket	LGA 1150	LGA 1155	LGA 1155	LGA 1156
CPU Type	Intel® Core™ i7/i5/i3, Pentium®, Celeron® processor	Intel® Core™ i7/i5/i3, Pentium®, Celeron® processor	Intel® Core™ i7/i5/i3, Pentium®, Celeron® processor	Intel® Core™ i7/i5/i3, Pentium® processor
Chipset	Intel® Q87	Intel® Q67	Intel® H61	Intel® Q57
Memory	Four 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs (system max. 32 GB)	Two 240-pin 1333/1066 MHz dual-channel DDR3 SDRAM DIMMs (system max. 16 GB)	Two 240-pin 1333/1066 MHz dual-channel DDR3/DDR3L (1.35V) SDRAM DIMMs (system max. 16 GB)	Two 240-pin 1333/1066 MHz dual-channel DDR3 SDRAM DIMMs (system max. 8 GB)
Display Interface	Dual display supported 1 x VGA 1 x iDP interface	1 x VGA 1 x DVI-D (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)	1 x VGA 1 x DVI-D (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)	1 x VGA
Ethernet	LAN1: Intel® I217LM with Intel® AMT 9.0 support LAN2: Intel® I210-AT PCIe controller with NCSI support	LAN1: Intel® 82583V PCIe controller LAN2: Intel® 82579 PHY with Intel® AMT 7.0 support	LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E PCIe GbE controller	LAN1: Intel® 82583V PCIe GbE controller LAN2: Intel® 82578DM with Intel® AMT 6.0 supported by iEZman software UI
iRIS Remote Management Module	1 x iRIS-2400 slot	N/A		
I/O Interface	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 4 x RS-232 4 x USB 3.0 8 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 4 x RS-232 8 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x FDD 1 x LPT 1 x RS-422/485 2 x RS-232 10 x USB 2.0	1 x Infrared interface 1 x LPT 1 x PS/2 KB & MS 2 x RS-232 14 x USB 2.0
Driver Interface	6 x SATA 6Gb/s (RAID 0, 1, 5, 10 supported)	2 x SATA 6Gb/s (RAID 0/1/5/10 supported) 4 x SATA 3Gb/s	4 x SATA 3Gb/s	1 x FDD 6 x SATA 3Gb/s (RAID 0/1/5/10 supported)
Audio	IEI AC-KIT-892HD-R10 7.1-channel HD Audio kit via the on-board 10-pin header connector			
Digital I/O	8-bit digital I/O			
Power Consumption	5V@3.55A, 12V@0.37A, Vcore_12V@7.61A, 3.3V@1.55A, 5VSB@0.13A (3.4GHz Intel® Qual CoreCPU with four GB 1333 MHz DDR3 memory)	5V@3.98A, 12V@0.38A, Vcore_12V@7.81A, 3.3V@1.61A, 5VSB@0.15A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)	5V@4.41A, 12V@0.21A, Vcore_12V@7.72A, 3.3V@1.71A, 5VSB@0.16A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)	3.3V@0.89A, 5V@4.62A, 12V@4.35A, 5Vsb@0.14A (Intel® Core™ i5 660 3.3GHz CPU with two 2 GB 1066 MHz DDR3 memory)
Watchdog Timer	Software programmable supports 1~255 sec. system reset			
Operation Environment	Temperature Range: -20°C ~ 60°C (-4°F ~ 140°F) Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: -10°C ~ 60°C (14°F ~ 140°F) Relative Humidity: 5% ~ 95%, non-condensing		Temperature Range: 0°C ~ 60°C (32°F ~ 140°F) Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slot	1 x Full-size PCIe Mini card slot (support mSATA)		N/A	
CPU Cooler	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11 CF-1150SF-R10	CF-1156A-RS-R11 CF-1156C-RS CF-1156D-RS CF-1156E-R11	CF-1156A-RS-R11 CF-1156C-RS CF-1156D-RS CF-1156E-R11	CF-1156A-RS-R11 CF-1156E-R11

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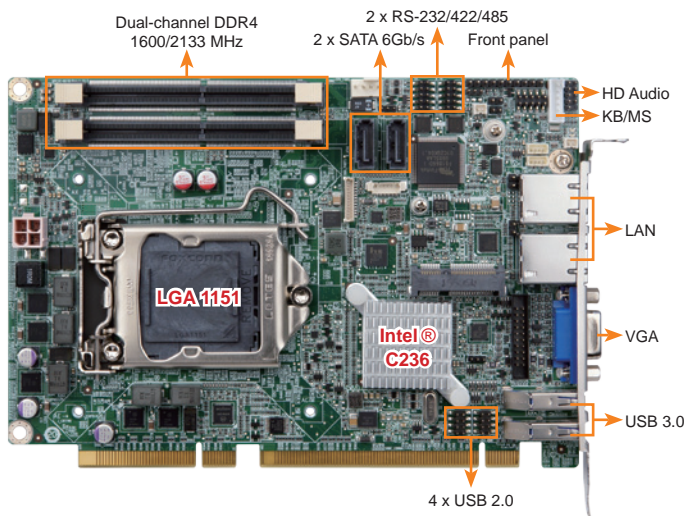
Power Supply/Peripherals

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All-in-One System

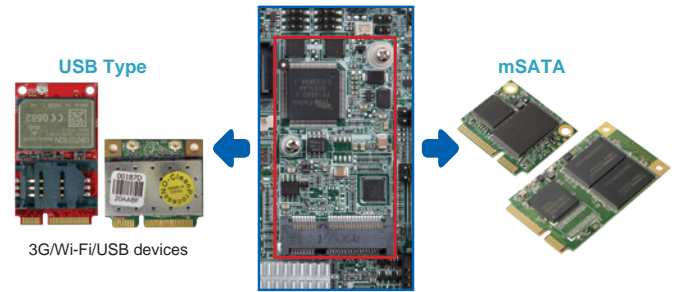
HPCIE-C236

Half-size PICMG 1.3 CPU Card supports LGA 1151 Intel® Xeon® E3, Core™ i3/Pentium®/Celeron® CPU with Intel® C236, ECC & non-ECC DDR4 SO-DIMM, VGA, iDP, Dual Intel® PCIe GbE, USB 3.0, SATA 6Gb/s, mSATA, HD Audio, Intel® AMT and RoHS



PCIe Mini slot provides mSATA and USB signal for full-size or half-size mSATA SSD and wireless LAN card.

New



Specifications

- ◆ CPU
LGA 1151 Intel® 6th generation Intel® Xeon® E3-1200 v5, Core™ i3, Pentium® and Celeron® processor
- ◆ Chipset
Intel® C236
- ◆ Memory
Two 260-pin 2133/1867 MHz dual-channel DDR4 ECC and non-ECC unbuffered SO-DIMMs support up to 32 GB
- ◆ BIOS
UEFI BIOS
- ◆ Graphics Engine
Intel® HD Graphics Gen 9 supports DX11/12, OpenCL 2.x and OpenGL 4.3/4.4 Decode/Encode for HEVC, VP8, VP9, VDENC
- ◆ Display Output
1 x VGA (up to 1920x1200@60 Hz)
1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60 Hz)
- ◆ Ethernet
LAN1: Intel® I219LM Clarkville-V with Intel® AMT 11.0 support
LAN2: Intel® I210 PCIe controller
- ◆ External I/O Interface
2 x USB 3.0
- ◆ Internal I/O Interface
1 x KB/MS (1x6 pin) 2 x SATA 6Gb/s (RAID 0, 1 supported)
1 x mSATA (SATA & USB signal) 4 x USB 2.0 (2x4 pin, P=2.0)
2 x RS-232/422/485 (2x5 pin, P=2.0)
- ◆ Front Panel
1 x Front panel (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ LAN LED
2 x LAN LED (1x2 pin)
- ◆ Audio
Support 7.1-channel HD Audio by IECI AC-KIT-892HD kit
- ◆ SMBus
1 x SMBus (1x4 pin)
- ◆ iPC
1 x iPC (1x4 pin)
- ◆ Expansion
16-lane PCIe signal from CPU via golden finger
(supports x16, or x8 + x8, or x4 + x4 + x8)
4-lane PCIe signal from Q170 via golden finger
- ◆ Watchdog Timer
Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O
8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x CPU smart fan (1x4 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@0.13A, 12V@7.89A, 3.3V@0.10A, 5VSB@0.20A
(Intel® Xeon® E3-1275 v5 3.60 GHz with two 16 GB 2133 MHz DDR4 memory)
- ◆ Operating Temperature
-20°C ~ 60°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions
169 mm x 126 mm
- ◆ Weight
GW: 1000g / NW: 420g

Features

- PICMG 1.3 half-size CPU Card
- LGA 1151 Intel® 6th generation Intel® Xeon® E3, Core™ i3, Pentium® and Celeron® processor supported
- Two 260-pin 1867/2133 MHz dual-channel DDR4 ECC and non-ECC SO-DIMMs support up to 32 GB memory
- Supports dual independent display by VGA & internal DP pin header
- PCIe mini card slot support mSATA & USB 2.0
- Intel® PCIe GbE with Intel® AMT 11.0 supported
- Supports RAID 0, 1 function via SATA 6Gb/s
- IEI jumper-less function

Packing List

- 1 x HPCIE-C236 single board computer
- 1 x SATA cable
- 1 x QIG
- 1 x Utility CD

Ordering Information

Part No.	Description
HPCIE-C236-R10	Half-size PICMG 1.3 CPU card supports LGA 1151 Intel® Xeon® E3, Core™ i3/Pentium®/Celeron® CPU with Intel® C236, ECC & non-ECC DDR4 SO-DIMM, VGA, iDP, dual Intel® PCIe GbE, USB 3.0, SATA 6Gb/s, mSATA, HD Audio, Intel® AMT and RoHS
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-002700-200-RS	RS-232/422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1156A-RS-R11	High-performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 65W
DP-DP-R10	DisplayPort to DisplayPort converter board (for IEI iDP connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for IEI iDP connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for IEI iDP connector)
DP-LVDS-R10	DisplayPort to LVDS converter board (for IEI iDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEI iDP connector)
SAIDE-KIT01-R10	SATA to IDE/CF converter board

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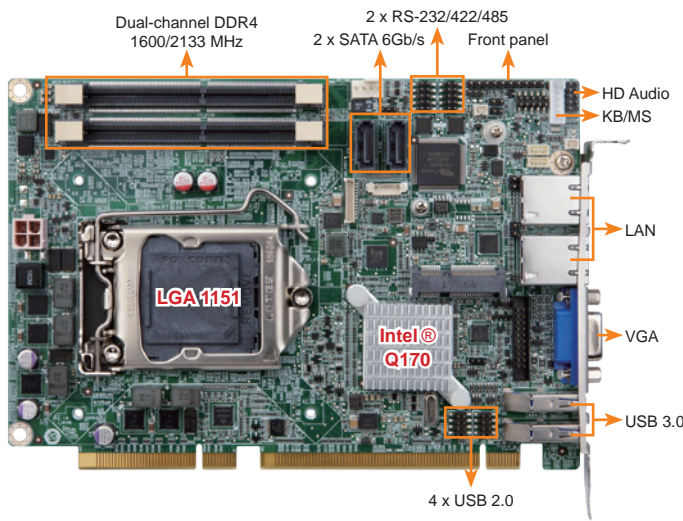
Power Supply/Peripherals

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All-in-One System

HPCIE-Q170

Half-size PICMG 1.3 CPU Card supports LGA 1151 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® Q170, DDR4 SO-DIMM, VGA/iDP, Dual Intel® PCIe GbE, USB 3.0, SATA 6Gb/s, mSATA, HD Audio, Intel® AMT and RoHS

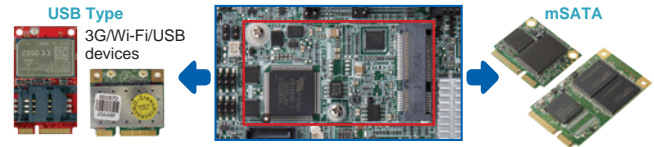


Intel® 6th generation Core™ CPU + Intel® Q170 New
support 3 controllers of PCI Express Gen 3

Number of PCIe Controller	Configuration
1	PCIe x16
2	PCIe x8, PCIe x8
3	PCIe x4, PCIe x4, PCIe x8

```
Sets PCIe x16 signal via BIOS
PEG port configuration      [1 x8, 2 x4 PCIe]
USB Power SW1             [+5V DUAL]
USB Power SW2             [+5V DUAL]
```

PCIe Mini slot provides mSATA and USB signal for full-size or half-size mSATA SSD and wireless LAN card.



Specifications

- ◆ CPU
LGA 1151 Intel® 6th generation Core™ i7/i5/i3, Pentium® or Celeron® processor
- ◆ Chipset
Intel® Q170
- ◆ Memory
Two 260-pin 2133/1867 MHz dual-channel DDR4 non-ECC unbuffered SO-DIMMs support up to 32 GB
- ◆ BIOS
UEFI BIOS
- ◆ Graphics Engine
Intel® HD Graphics Gen 9 supports DX11/12, OpenCL 2.x and OpenGL 4.3/4.4 Decode/Encode for HEVC, VP8, VP9, VDENC
- ◆ Display Output
1 x VGA (up to 1920x1200@60 Hz)
1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60 Hz)
- ◆ Ethernet
LAN1: Intel® I219LM Clarkville-V with Intel® AMT 11.0 support
LAN2: Intel® I211 PCIe controller
- ◆ External I/O Interface
2 x USB 3.0
- ◆ Internal I/O Interface
1 x KB/MS (1x6 pin) 2 x SATA 6Gb/s (RAID 0, 1 supported)
1 x mSATA (SATA & USB signal) 4 x USB 2.0 (2x4 pin, P=2.0)
2 x RS-232/422/485 (2x5 pin, P=2.0)
- ◆ Front Panel
1 x Front panel (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ LAN LED
2 x LAN LED (1x2 pin)
- ◆ Audio
Support 7.1-channel HD Audio by IEI AC-KIT-892HD kit
- ◆ SMBus
1 x SMBus (1x4 pin)
- ◆ I²C
1 x I²C (1x4 pin)
- ◆ Expansion
16-lane PCIe signal from CPU via golden finger
(supports x16, or x8 + x8, or x4 + x4 + x8)
4-lane PCIe signal from Q170 via golden finger
- ◆ Watchdog Timer
Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O
8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x CPU smart fan (1x4 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@0.15A, 12V@8.39A, 3.3V@0.11A, 5VSB@0.21A
(Intel® Core™ i7-6700K 4.0GHz with two 16 GB 2133 MHz DDR4 memory)
- ◆ Operating Temperature
-20°C ~ 60°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions
169 mm x 126 mm
- ◆ Weight
GW: 1000g / NW: 420g

Features

- PICMG 1.3 half-size CPU card
- LGA 1151 Intel® 6th generation Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- Two 260-pin 1867/2133 MHz dual-channel DDR4 SO-DIMMs support up to 32 GB
- Supports dual independent display by VGA & internal DP pin header
- PCIe mini card slot supports mSATA & USB 2.0
- Intel® PCIe GbE with Intel® AMT 11.0 supported
- Supports RAID 0, 1 function via SATA 6Gb/s
- IEI jumper-less function

Packing List

- 1 x HPCIE-Q170 single board computer
- 1 x SATA cable
- 1 x QIG
- 1 x Utility CD

Ordering Information

Part No.	Description
HPCIE-Q170-R10	Half-size PICMG 1.3 CPU card supports LGA 1151 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® Q170, DDR4 SO-DIMM, VGA, iDP, dual Intel® PCIe GbE, USB 3.0, mSATA, SATA 6Gb/s, PCIe Mini, HD Audio, Intel® AMT and RoHS
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-002700-200-RS	RS-232/422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1156A-RS-R11	High-performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 65W
DP-DP-R10	DisplayPort to DisplayPort converter board (for IEI iDP connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for IEI iDP connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for IEI iDP connector)
DP-LVDS-R10	DisplayPort to LVDS converter board (for IEI iDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEI iDP connector)
SAIDE-KIT01-R10	SATA to IDE/CF converter board

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

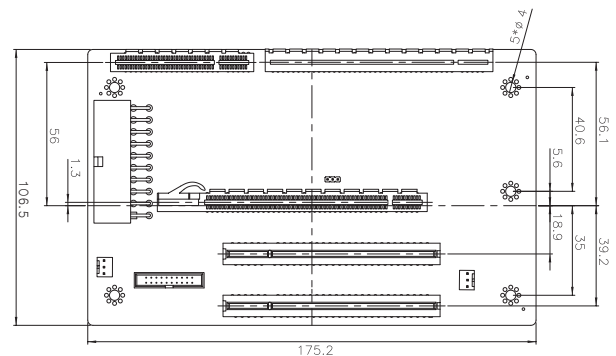
PICMG 1.3 Passive Backplane for Half-Size CPU Card

Selection Guide

 PAC series wall-mount chassis

PICMG 1.3 (PCIe+PCI)	Model	HPXE2-5S1	HPXE2-7S1
Total Slot		5	7
Expansion Slots	PCIe x16	1	
	PCIe x8		2
	PCIe x4		
	PCIe x1		
	PCI-X		
PSU Type		24+4-pin ATX	24+4-pin ATX
Chassis Option		PR-1500G RACK-500G	PAC-700G PAC-1700G
Note		ATX power	ATX power

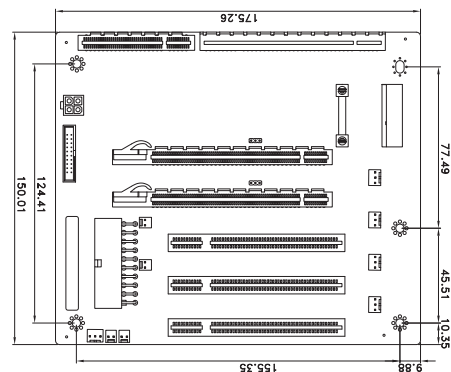
HPXE2-5S1-R10



Ordering Information

HPXE2-5S1-R10	5-slot PICMG 1.3 backplane for half-size SBC, with two PCI slots and one PCIe x16 slot (x16 signal)
PR-1500G	5-slot half-size compact chassis
RACK-500G	5U 5-slot full-size rackmount chassis

HPXE2-7S1-R10



Ordering Information

HPXE2-7S1-R10	7-slot PICMG 1.3 backplane for half-size SBC, with three PCI slots and two PCIe x16 slots (x8 signal)
PAC-700G	7-slot half-size compact chassis
PAC-1700G	7-slot full-size compact chassis

1

Industrial
Computing
Solutions

2

Video
Capture
Solutions

3

Industrial
Computer
Chassis

4

Open
Frame
Monitor

5

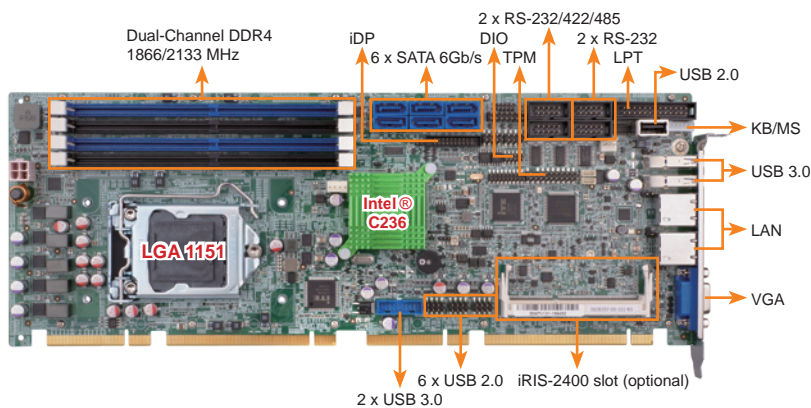
Power Supply/
Peripherals

6

All-in-One
System

SPCIE-C236

Full-size PICMG 1.3 CPU Card supports LGA 1151 Intel® Xeon® E3, Core™ i3/Pentium®/Celeron® CPU per Intel® C236, ECC & non-ECC DDR4, VGA/IDP, Dual Intel® PCIe GbE, USB 3.0, SATA 6Gb/s, PCIe mini, mSATA, HD Audio, Intel® AMT, iRIS-2400 and RoHS



PCIe Mini & mSATA coloy



Mini PCIe interface provide SATA, PCIe x1 and USB signal such as mSATA, PCIe device, and wireless LAN card for full-size or half-size devices.



Specifications

- ◆ CPU
LGA 1151 Intel® Xeon® E3, Core™ i3/Pentium®/Celeron® processor supported
- ◆ Chipset
Intel® C236
- ◆ Memory
Four 288-pin 2133/1867 MHz Dual-Channel DDR4 ECC & non-ECC unbuffered DIMM supported up to 64GB
- ◆ BIOS
UEFI BIOS
- ◆ Graphic Engine
Intel® HD Graphics Gen 9 supports DX11/12, OpenCL 2.x and OpenGL 4.3/4.4 Decode/Encode for HEVC, VP8, VP9, VDENC
- ◆ Display Output
Dual independent display
1 x VGA (up to 1920x1200@60 Hz)
1 x iDP interface for HDMI, LVDS, VGA, DVI and DisplayPort (up to 3840x2160@60 Hz)
- ◆ Ethernet
LAN1: Intel® I219LM Clarkville-V with Intel® AMT 11.0 supported
LAN2: Intel® I210 PCIe controller
- ◆ External I/O Interface
2 x USB 3.0
- ◆ Internal I/O Interface
1 x KB/MS (1x6 pin) 2 x RS-232/422/485 (2x5 pin, P=2.54)
1 x LPT (2x13 pin) 2 x USB 3.0 (2x10 pin)
1 x mSATA (SATA & USB signal) 6 x SATA 6Gb/s (RAID 0/1/5/10 supported)
1 x USB 2.0 (180° Type-A) 6 x USB 2.0 (2x4 pin, P=2.54)
2 x RS-232 (2x5pin, P=2.54)
- ◆ Front Panel
1 x Front Panel (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ LAN LED
2 x LAN LED (1x2 pin)
- ◆ Audio
Support 7.1 channel HD audio by IEI AC-KIT-892HD kit
- ◆ TPM
1 x TPM (2x10 pin)
- ◆ SMBus
1 x SMBus (1x4 pin)
- ◆ I²C
1 x I²C (1x4 pin)
- ◆ iRIS Remote Management Module
1 x iRIS-2400 slot (optional)
- ◆ Expansion
16-lane PCIe link from CPU via golden finger:
Supports one PCIe x16, or two PCIe x8, or one PCIe x8 + two PCIe x4 on the backplane (configured via BIOS)
4-lane PCIe link from PCH via golden finger:
Supports four PCIe x1 slots or one PCIe x4 slot on the backplane (configured via BIOS switch)
1 x Full/Half-size PCIe mini card slot
- ◆ Watchdog Timer
Software programmable support 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x CPU smart fan (1x4 pin)
1 x System smart fan (1x3 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@3.22A, 12V@6.81A, 3.3V@1.21A, 5VSB@0.18A
(Intel® Xeon® E3-1275 v5 3.60 GHz CPU with 64GB (16GBx4) 2133 MHz DDR4 memory)
- ◆ Operating Temperature
-20°C ~ 60°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions
338 mm x 126 mm
- ◆ Weight
GW: 1000g / NW: 420g



Features

- PICMG 1.3 full-size CPU Card
- LGA 1151 Intel® Xeon® E3, Core™ i3/Pentium®/Celeron® processor supported
- Four 288-pin 1867/2133MHz DDR4 ECC & non-ECC unbuffered DIMM
- Supports dual independent display by VGA & internal DP pin header
- Supports mini-PCIe device & mSATA via PCIe mini card slot
- Intel® PCIe GbE with Intel® AMT 11.0 supported
- Supports RAID 0, 1, 5, 10 function via SATA 6Gb/s
- TPM 1.2 & 2.0 hardware security function supported by TPM module

Packing List

1 x SPCIE-C236 single board computer	
1 x SATA cable	1 x QIG
1 x Mini jumper pack	1 x Utility CD

Ordering Information

Part No.	Description
SPCIE-C236-R10	Full-size PICMG 1.3 CPU Card supports LGA 1151 Intel® Xeon® E3, Core™ i3/Pentium®/Celeron® CPU per Intel® C236, ECC & non-ECC DDR4, Dual Intel® PCIe GbE, USB 3.0, VGA/IDP, SATA 6Gb/s, PCIe mini, mSATA, HD Audio, Intel® AMT and RoHS
SPCIE-C236-i2-R10**	Full-size PICMG 1.3 CPU Card supports LGA 1151 Intel® Xeon® E3, Core™ i3/Pentium®/Celeron® CPU per Intel® C236, ECC & non-ECC DDR4, Dual Intel® PCIe GbE, USB 3.0, VGA/IDP, SATA 6Gb/s, PCIe mini, mSATA, HD Audio, Intel® AMT, iRIS-2400 and RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
AC-KIT-892HD-R10	7.1 channel HD Audio kit with Realtek ALC892 support dual audio streams
CF-1150SA-R10	Special cooler kit for LGA1150, High-performance compatible, 95W
CF-1150SB-R11	Special cooler kit for LGA1150, High-performance compatible, 65W
CF-1150SC-R20	Special cooler kit for LGA1150, 1U chassis compatible, 65W
CF-1150SE-R11	Special cooler kit for LGA1150, high-performance compatible, 95W
CF-1150SF-R10	Special cooler kit for LGA1150, 1U chassis compatible, 54W
DP-DP-R10	DisplayPort to DisplayPort converter board (for iEi IDP connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for iEi IDP connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for iEi IDP connector)
DP-LVDS-R10	DisplayPort to LVDS converter board (for iEi IDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for iEi IDP connector)
SAIDE-KIT01-R10	SATA to IDE/CF Converter board

**By order production, MOQ: 100

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

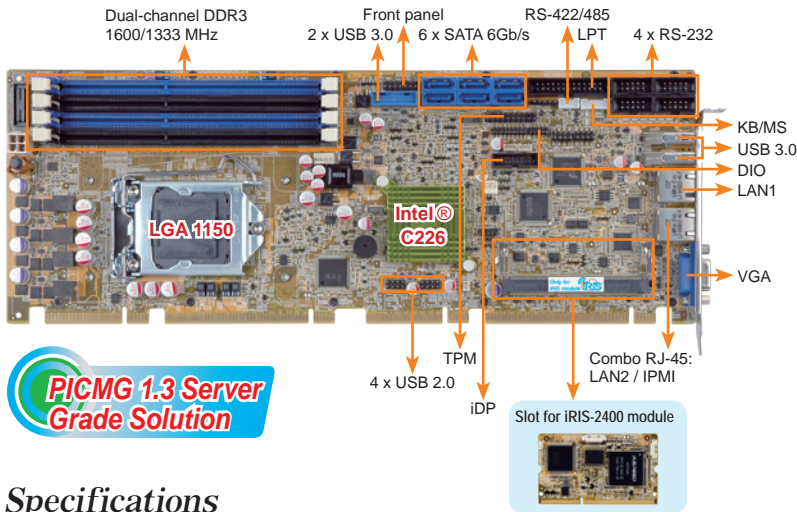
4 Open Frame Monitor

5 Power Supply/ Peripherals

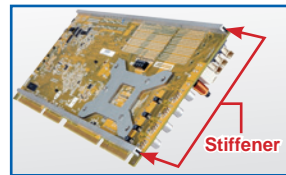
6 All-in-One System

SPCIE-C2260-i2

Full-size PICMG 1.3 CPU Card supports LGA 1150 Intel® Xeon® E3, Core™ i3, Pentium® and Celeron® with Intel® C226, DDR3, VGA, iDP, Dual Intel® PCIe GbE, SATA 6Gb/s, mSATA, PCIe Mini, RS-232, HD Audio, iRIS-2400 and RoHS



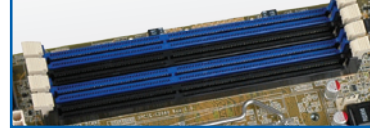
PICMG 1.3 Server Grade Solution



Enhance stability

Strengthen the mechanism
Prevent PCB bending

Four 240-pin DDR3 SDRAM Supported



The first IEC full-size server-grade CPU card that supports four 240-pin 1600/1333 MHz dual-channel DDR3 SDRAM ECC and non-ECC unbuffered DIMMs (system max. 32 GB).

Specifications

- ◆ CPU
LGA 1150 Intel® Xeon® E3, Core™ i3, Pentium® or Celeron® processor supported
- ◆ Chipset
Intel® C226
- ◆ Memory
Four 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM ECC and non-ECC unbuffered DIMMs support up to 32 GB
- ◆ BIOS
UEFI BIOS
- ◆ Graphics Engine
Intel® HD Graphics Gen 7.5 supports DX11.1 and OpenCL 1.2, OpenGL 3.2 Full MPEG2, VC1, AVC Decode
- ◆ Display Output
1 x VGA (up to 1920x1200@60 Hz)
1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60 Hz)
- ◆ Ethernet
LAN1: Intel® I217LM with Intel® AMT 9.0 support
LAN2: Intel® I210-AT PCIe controller with NCSI support
- ◆ External I/O Interface
2 x USB 3.0
- ◆ Internal I/O Interface
1 x KB/MS (1x6 pin) 4 x RS-232 (2x5pin, P=2.54)
1 x LPT (2x13 pin) 4 x USB 2.0 (2x4 pin, P=2.54)
1 x mSATA 4 x USB 2.0 (Golden finger)
1 x RS-422/485 (1x4 pin, P=2.0) 6 x SATA 6Gb/s (RAID 0/1/5/10 supported)
2 x USB 3.0 (2x10 pin)
- ◆ Front Panel
1 x Front panel (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ LAN LED
2 x LAN LED (1x2 pin)
- ◆ Audio
Supports 7.1-channel HD Audio by IEC AC-KIT-892HD-R10 kit
- ◆ TPM
1 x TPM (2x10 pin)
- ◆ SMBus
1 x SMBus (1x4 pin)
- ◆ I²C
1 x I²C (1x4 pin)
- ◆ Infrared Interface
1 x Infrared Interface (1x5 pin)
- ◆ iRIS Remote Management Module
1 x iRIS-2400 slot
- ◆ Expansion
PCIe signal and PCI signal via golden finger
1 x Full-size PCIe Mini card slot (colay mSATA)
- ◆ Watchdog Timer
Software programmable, supports 1~255 sec. system reset
- ◆ Digital I/O
8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x CPU smart fan (1x4 pin)
1 x System smart fan (1x3 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@3.55A, 12V@0.37A, Vcore_12V@7.61A, 3.3V@1.55A, 5VSB@0.13A (Intel® E3-1240 v3 3.4GHz CPU with 16 GB (4x4 GB) 1333 MHz DDR3 memory)
- ◆ Operating Temperature
-20°C ~ 60°C
- ◆ Storage Temperature
-30°C ~ 70°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions
338 mm x 126 mm
- ◆ Weight
GW: 1200g / NW: 420g



Features

- PICMG 1.3 full-size server grade solution
- LGA 1150 Intel® Xeon® E3, Core™ i3, Pentium® or Celeron® processor supported
- Four 240-pin 1600/1333 MHz dual-channel DDR3 DIMMs support up to 32 GB
- Supports dual independent display by VGA and iDP interfaces
- Supports PCIe Mini devices and mSATA via PCIe Mini socket
- Intel® PCIe GbE with Intel® AMT 9.0 support
- Supports RAID function via SATA 6Gb/s
- TPM V1.2 hardware security function supported by TPM module
- Stiffener bars
- IEC jumper-less function
- Supports IPMI 2.0 via iRIS-2400 module

Packing List

1 x SPCIE-C2260-i2 single board computer	
1 x Dual RS-232 cable	
1 x USB 2.0 cable	1 x QIG
2 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
SPCIE-C2260-i2-R10	Full-size PICMG 1.3 CPU card supports LGA 1150 Intel® Xeon® E3, Core™ i3, Pentium® and Celeron® with Intel® C226, DDR3, VGA, iDP, Dual Intel® PCIe GbE, SATA 6Gb/s, mSATA, RS-232, PCIe Mini, HD Audio, iRIS-2400 and RoHS
iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
19800-010500-200-RS	USB 3.0 cable with bracket, 450mm
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1150SB-R11	Special cooler kit for LGA 1150, high-performance compatible, 65W
CF-1150SC-R20	Special cooler kit for LGA1150, 1U chassis compatible, 65W
CF-1150SE-R11	Special cooler kit for LGA1150, high-performance compatible, 95W
CF-1150SF-R10	Special cooler kit for LGA1150, 1U chassis compatible, 54W
DP-DP-R10	DisplayPort to DisplayPort converter board (for IEC iDP connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for IEC iDP connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for IEC iDP connector)
DP-LVDS-R10	DisplayPort to LVDS converter board (for IEC iDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEC iDP connector)
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

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Industrial
Computing
Solutions

2

Video
Capture
Solutions

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Industrial
Computer
Chassis

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Open
Frame
Monitor

5

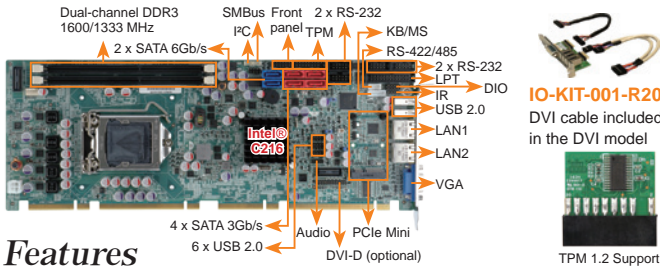
Power Supply/
Peripherals

6

All-in-One
System

SPCIE-C2160

Full-size PICMG 1.3 CPU Card supports LGA 1155 Intel® Xeon® E3/Core™ i3/Pentium®/Celeron® CPU with Intel® C216, DDR3, VGA, DVI-D, Dual GbE, SATA, PCIe Mini, HD Audio and RoHS



IO-KIT-001-R20
DVI cable included in the DVI model

Features

- Full-size PICMG 1.3 server grade solution
- LGA 1155 Intel® Xeon® E3/Core™ i3/Pentium®/Celeron® processors supported
- Up to 16 GB 1600 MHz dual-channel DDR3 SDRAM
- Supports dual independent display by VGA and DVI-D (DVI model)
- Supports PCIe Mini expansion
- Intel® PCIe GbE with Intel® AMT 8.0 support
- Supports RAID function via SATA 6Gb/s and SATA 3Gb/s
- High-speed I/O interface provided through the 3rd gen PCIe add-on card and SATA 6Gb/s connectors
- TPM V1.2 hardware security provided by the TPM module
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU
LGA 1155 socket supports LGA 1155 Intel® Xeon® E3/Core™ i3/Pentium®/Celeron® processor
- ◆ Chipset: Intel® C216
- ◆ Memory
Two 240-pin 1600/1333 MHz dual-channel DDR3 SDRAM ECC and non-ECC unbuffered DIMMs support up to 16 GB
- ◆ BIOS: UEFI BIOS
- ◆ Graphics Engine
Intel® HD Graphics Gen 7 supports DX11 and OpenCL 1.1
Full MPEG-2, VC1, AVC decoding
- ◆ Display Output
1 x VGA (up to 2048x1536@75Hz)
1 x DVI-D (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)
- ◆ Ethernet
LAN1: Intel® 82574L PCIe controller
LAN2: Intel® 82579 PHY with Intel® AMT 8.0 support
- ◆ External I/O Interface: 2 x USB 2.0
- ◆ Internal I/O Interface
1 x LPT (2x13 pin) 1 x KB/MS (1x6 pin)
1 x mSATA 1 x RS-422/485 (1x4 pin, P=2.0)
2 x SATA 6Gb/s (RAID 0/1/5/10 supported)
4 x RS-232 (2x5pin, P=2.54)
4 x SATA 3Gb/s (RAID 0/1/5/10 supported)
6 x USB 2.0 (2x4 pin, P=2.0)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ I2C: 1 x I2C (1x4 pin)
- ◆ Infrared Interface
1 x Infrared Interface (1x5 pin)
- ◆ Front Panel
1 x Front panel connector (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ Audio: Supports by IEI AC-KIT-892HD-R10 audio kit
- ◆ Expansion
PCIe signal and PCI signal via golden finger
1 x PCIe Mini slot
- ◆ Watchdog Timer
Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x Smart fan (1x4 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@3.98A, 12V@0.38A, Vcore_12V@7.81A, 3.3V@1.61A, 5VSB@0.15A (3.4GHz Intel® Xeon®) 2.2GHz with two 2 GB 1333 MHz DDR3 memory)
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions: 338 mm x 126 mm
- ◆ Weight: GW: 1200g / NW: 420g

Packing List

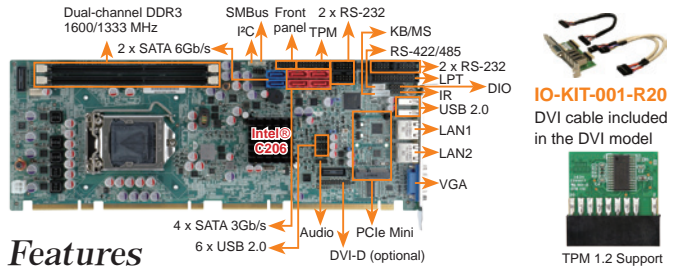
1 x SPCIE-C2160 single board computer	1 x One Key Recovery CD
1 x Dual RS-232 cable	1 x Mini jumper pack
1 x USB cable	1 x QIG
4 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
SPCIE-C2160-R10	Full-size PICMG 1.3 CPU card supports 32nm LGA 1155 Intel® Xeon® E3 and Intel® Core™ i3/Pentium®/Celeron® CPU with Intel® C216, DDR3, VGA, dual Intel® PCIe GbE, SATA 6Gb/s, PCIe Mini, HD Audio and RoHS
SPCIE-C2160-DVI-R10	Full-size PICMG 1.3 CPU card supports 32nm LGA 1155 Intel® Xeon® E3 and Intel® Core™ i3/Pentium®/Celeron® CPU with Intel® C216, DDR3, DVI-D, dual Intel® PCIe GbE, SATA 6Gb/s, PCIe Mini, HD Audio and RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1156A-RS-R11	High-performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 65W
CF-1156E-R11	High-performance LGA 1155/LGA 1156 cooler kit, 95W
SAIDE-KIT01-R10	SATA to IDE/CF converter board

SPCIE-C2060-R21

Full-size PICMG 1.3 CPU Card supports LGA 1155 Intel® Xeon® E3/Core™ i3/Pentium®/Celeron® CPU with Intel® C206, DDR3, VGA, DVI-D, Dual GbE, SATA, PCIe Mini, HD Audio and RoHS



IO-KIT-001-R20
DVI cable included in the DVI model

Features

- Full-size PICMG 1.3 server grade solution
- LGA 1155 Intel® Xeon® E3/Core™ i3/Pentium®/Celeron® processors supported
- Up to 16 GB 1333 MHz dual-channel DDR3 SDRAM
- Supports dual independent display by VGA and DVI-D (DVI model)
- Supports PCIe Mini expansion
- Intel® PCIe GbE with Intel® AMT 7.0 support
- Supports RAID function via SATA 6Gb/s and SATA 3Gb/s
- High-speed I/O interface provided through the 2nd gen PCIe add-on card and SATA 6Gb/s connectors
- TPM V1.2 hardware security provided by the TPM module
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU
LGA 1155 socket supports LGA 1155 Intel® Xeon® E3/Core™ i3/Pentium®/Celeron® processor
- ◆ Chipset: Intel® C206
- ◆ Memory
Two 240-pin 1333/1066 MHz dual-channel DDR3 SDRAM ECC and non-ECC unbuffered DIMMs support up to 16 GB
- ◆ BIOS: UEFI BIOS
- ◆ Graphics Engine
Intel® HD Graphics Gen 6 supports DX10.1 and OpenGL 3.0
Full MPEG2, VC1, AVC decoding
- ◆ Display Output
1 x VGA (up to 2048x1536@75Hz)
1 x DVI-D (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)
- ◆ Ethernet
LAN1: Intel® 82574L PCIe controller
LAN2: Intel® 82579 PHY with Intel® AMT 7.0 support
- ◆ External I/O Interface: 2 x USB 2.0
- ◆ Internal I/O Interface
1 x LPT (2x13 pin) 1 x KB/MS (1x6 pin)
1 x mSATA 1 x RS-422/485 (1x4 pin, P=2.0)
2 x SATA 6Gb/s (RAID 0/1/5/10 supported)
4 x RS-232 (2x5pin, P=2.54)
4 x SATA 3Gb/s (RAID 0/1/5/10 supported)
6 x USB 2.0 (2x4 pin, P=2.0)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ I2C: 1 x I2C (1x4 pin)
- ◆ Infrared Interface
1 x Infrared Interface (1x5 pin)
- ◆ Front Panel
1 x Front panel connector (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ Audio: Supports by IEI AC-KIT-892HD-R10 audio kit
- ◆ Expansion
PCIe signal and PCI signal via golden finger
1 x PCIe Mini slot
- ◆ Watchdog Timer
Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x Smart fan (1x4 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@3.98A, 12V@0.38A, Vcore_12V@7.81A, 3.3V@1.61A, 5VSB@0.15A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions: 338 mm x 126 mm
- ◆ Weight: GW: 1200g / NW: 420g

Packing List

1 x SPCIE-C2060 single board computer	1 x One Key Recovery CD
1 x Dual RS-232 cable	1 x Mini jumper pack
1 x USB cable	1 x QIG
4 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
SPCIE-C2060-R21	Full-size PICMG 1.3 CPU card supports 32nm LGA 1155 Intel® Xeon® E3 and Intel® Core™ i3/Pentium®/Celeron® CPU with Intel® C206, DDR3, VGA, dual Intel® PCIe GbE, SATA 6Gb/s, PCIe Mini, HD Audio and RoHS
SPCIE-C2060-DVI-R21	Full-size PICMG 1.3 CPU card supports 32nm LGA 1155 Intel® Xeon® E3 and Intel® Core™ i3/Pentium®/Celeron® CPU with Intel® C206, DDR3, DVI-D, dual Intel® PCIe GbE, SATA 6Gb/s, PCIe Mini, HD Audio and RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1156A-RS-R11	High-performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 65W
CF-1156E-R11	High-performance LGA 1155/LGA 1156 cooler kit, 95W
SAIDE-KIT01-R10	SATA to IDE/CF converter board

- Industrial Computing Solutions
- Video Capture Solutions
- Industrial Computer Chassis
- Open Frame Monitor
- Power Supply/Peripherals
- All-in-One System

PICMG 1.3 Backplane

Selection Guide

 PAC series wall-mount chassis

 4U rack-mount chassis

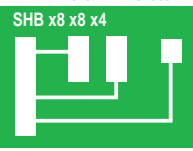

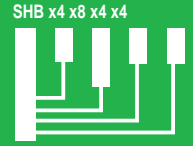

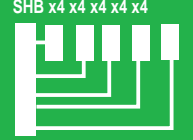

Backplane		SPE-4S	SPE-6S	SPE-9S	SPXE-14S
Total	Slot	4	6	7	14
PCIe	x16				
	x8	2 (x16 connector)		1 (x16 connector)	1 (x16 connector)
	x4	1	5	3	
	x1				12
	PCI-X				
	PCI			3	
PSU Type		24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+8-pin ATX
Chassis Option		PAC-106G PAC-1000G	PAC-106G PAC-1000G	PAC-125G	RACK-305G RACK-360G RACK-3000G

IEI Server Grade Backplane Solution

Server grade backplane accommodates PCIe x8 and multiple PCIe x4 add-on cards. It is specially designed for intensive data transfer applications such as server data storage and any application that requires more than one PCIe x4 or four PCIe x1 cards. Given the multiple PCIe x4 and x1 support, it provides a more cost effective solution for end-users by reducing the number of systems required.

System Solution for options

Backplane	Total Slot	PCIe						PSU Type	Chassis Option
		x16	x8	x4	x1	PCI-X	PCI		
SPE-4S	4	-	2 (x16 connector)	1	-	-	24+4-pin ATX	PAC-106G, PAC-1000G	
SPE-6S	6	-		5	-	-	24+4-pin ATX	PAC-106G, PAC-1000G	
SPE-9S	7	-	1 (x16 connector)	3		3	24+4-pin ATX	PAC-125G	
SPXE-14S	14	-	1 (x16 connector)	-	12	-	24+4-pin ATX	RACK-305G, RACK-360G, RACK-3000G	

Server Grade Backplane	
Example	Corresponding Model
<p>EX1: 2 x8 & 1 x4 slots</p>  <p>SHB x8 x8 x4</p>	<p>SPE-4S</p> 
<p>EX2: 1 x8 & 3 x4 slots</p>  <p>SHB x4 x8 x4 x4</p>	<p>SPE-9S</p> 
<p>EX3: 5 x4 slots</p>  <p>SHB x4 x4 x4 x4 x4</p>	<p>SPE-6S</p> 

1 Industrial Computing Solutions

2 Video Capture Solutions

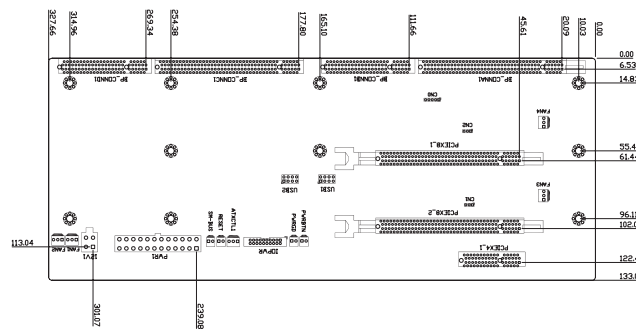
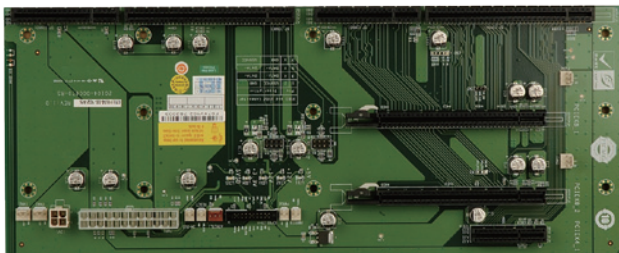
3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

SPE-4S-R10

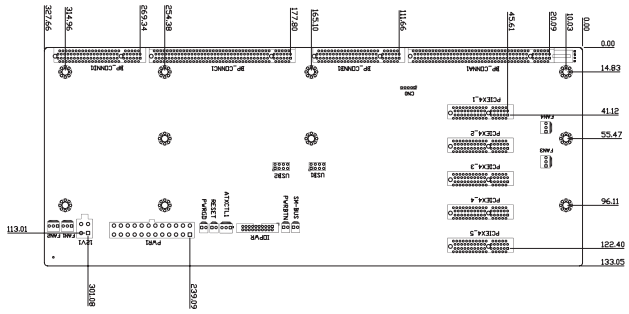
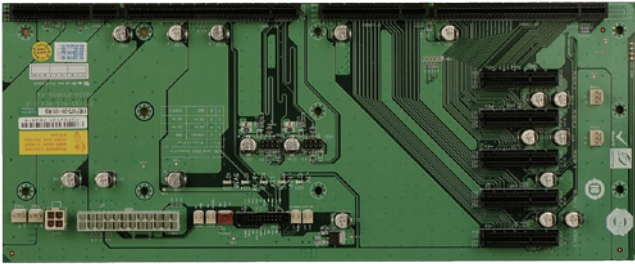


Ordering Information

SPE-4S-R10	4-slot PICMG 1.3 backplane with two PCIe x16 slots (x8 signal) and one PCIe x4 slot
PAC-106G	6-slot full-size compact chassis
PAC-1000G	6-slot full-size compact chassis



SPE-6S-R10

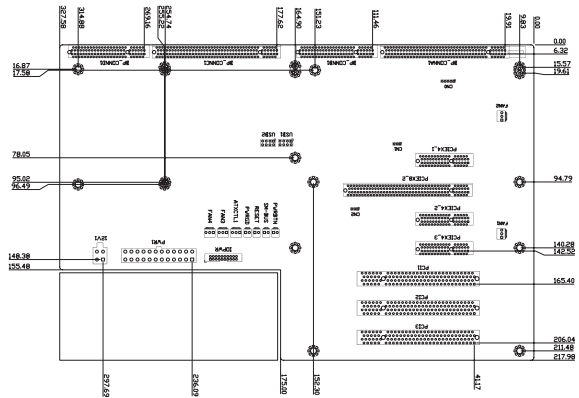
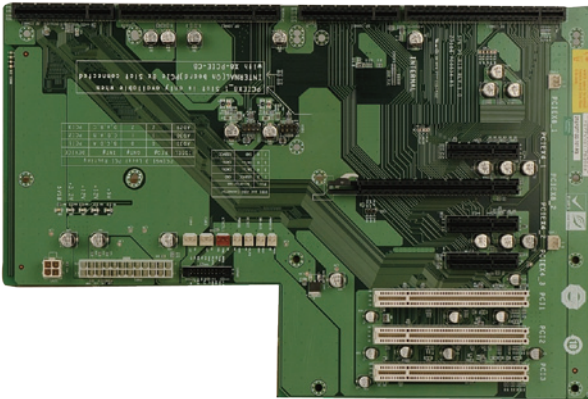


Ordering Information

SPE-6S-R10	6-slot PICMG 1.3 backplane with five PCIe x4 slots
PAC-106G	6-slot full-size compact chassis
PAC-1000G	6-slot full-size compact chassis

Note: PCIeX4_3 can not work with SPCIE-C2060.

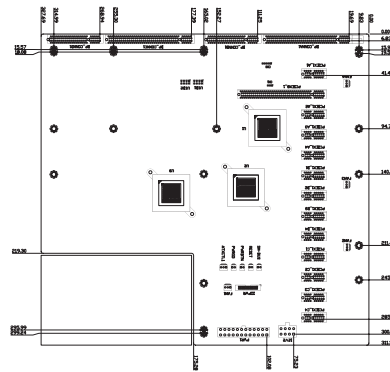
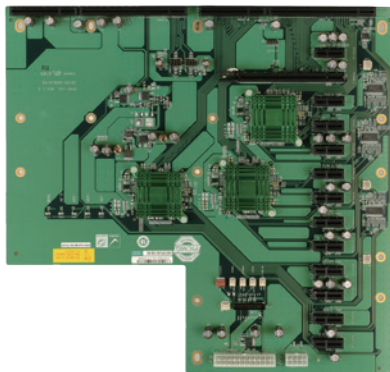
SPE-9S-R11



Ordering Information

SPE-9S-R11	7-slot PICMG 1.3 backplane with one PCIe x16 slot (x8 signal), three PCIe x4 slots and three PCI slots
PAC-125G	10-slot full-size compact chassis

SPXE-14S-R10



Ordering Information

SPXE-14S-R10	14-slot PICMG 1.3 backplane with one PCIe x16 slot (x8 signal) and twelve PCIe x1 slots
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis
RACK-3000G	4U 14-slot full-size rack-mount chassis

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

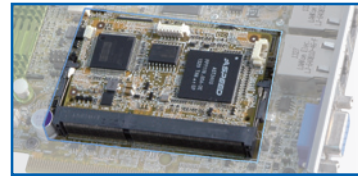
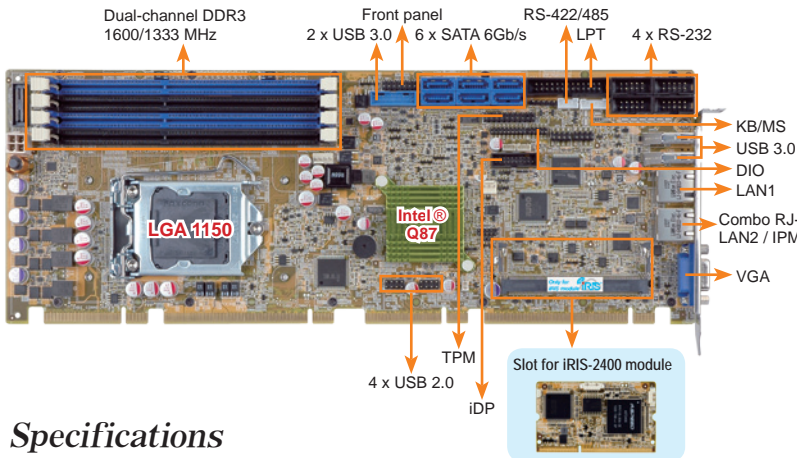
4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

PCIE-Q870-i2

Full-size PICMG 1.3 CPU card supports LGA 1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU per Intel® Q87, DDR3, VGA, iDP, Dual PCIe GbE, SATA 6Gb/s, mSATA, PCIe Mini, RS-232, Audio, iRIS-2400 and RoHS



iRIS-2400 Key Features

- IPMI 2.0 Based Management
- Cross OS Platform Support
- Hardware Health Monitor
- Event Log
- KVM over IP
- Notifications
- Virtual Media Support
- Remote Power Control
- User Management
- Serial over LAN



Enhance component protection
Prevent the damage of bottom side components

Specifications

- ◆ CPU
LGA 1150 Intel® 4th generation Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- ◆ Chipset
Intel® Q87
- ◆ Memory
Four 240-pin 1600/1333 MHz dual-channel unbuffered DDR3 & DDR3L SDRAM DIMMs support up to 32 GB
- ◆ BIOS
UEFI BIOS
- ◆ Graphics Engine
Intel® HD Graphics Gen 7.5 supports DX11.1, OpenCL 1.2 and OpenGL 3.2 Full MPEG2, VC1, AVC Decode
- ◆ Display Output
1 x VGA (up to 1920x1200@60 Hz)
1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60 Hz)
- ◆ Ethernet
LAN1: Intel® I217LM with Intel® AMT 9.0 support
LAN2: Intel® I210-AT PCIe controller with NCSI support
- ◆ External I/O Interface
2 x USB 3.0
- ◆ Internal I/O Interface
1 x KB/MS (1x6 pin) 4 x RS-232 (2x5pin, P=2.54)
1 x LPT (2x13 pin) 4 x USB 2.0 (2x4 pin, P=2.54)
1 x mSATA 4 x USB 2.0 (Golden finger)
1 x RS-422/485 (1x4 pin, P=2.0) 6 x SATA 6Gb/s (RAID 0/1/5/10 supported)
2 x USB 3.0 (2x10 pin)
- ◆ Front Panel
1 x Front panel (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ LAN LED
2 x LAN LED (1x2 pin)
- ◆ Audio
Supports 7.1-channel HD Audio by IECI AC-KIT-892HD-R10 kit
- ◆ TPM
1 x TPM (2x10 pin)
- ◆ SMBus
1 x SMBus (1x4 pin)
- ◆ iPC
1 x iPC (1x4 pin)
- ◆ Infrared Interface
1 x Infrared Interface (1x5 pin)
- ◆ iRIS Remote Management Module
1 x iRIS-2400 slot
- ◆ Expansion
PCIe signal and PCI signal via golden finger
1 x Full-size PCIe Mini card slot (colay mSATA)
- ◆ Watchdog Timer
Software programmable, supports 1~255 sec. system reset
- ◆ Digital I/O
8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x CPU smart fan (1x4 pin)
1 x System smart fan (1x3 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@3.55A, 12V@0.37A, Vcore_12V@7.61A, 3.3V@1.55A, 5VSB@0.13A (Intel® Core™ i7-4770K 3.90 GHz CPU with 16 GB (4x4 GB) 1333 MHz DDR3 memory)
- ◆ Operating Temperature
-20°C ~ 60°C
- ◆ Storage Temperature
-30°C ~ 70°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions
338 mm x 126 mm
- ◆ Weight
GW: 1200g / NW: 420g



Features

- PICMG 1.3 full-size graphic grade solution
- LGA 1150 Intel® 4th generation Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- Four 240-pin 1600/1333 MHz dual-channel DDR3 DIMMs support up to 32 GB memory
- Supports dual independent display by VGA & iDP interfaces
- Supports PCIe Mini devices and mSATA via PCIe Mini socket
- Intel® PCIe GbE with Intel® AMT 9.0 support
- Supports RAID function via SATA 6Gb/s
- TPM v1.2 hardware security function supported by TPM module
- Stiffener bars
- IEI jumper-less function
- Supports IPMI 2.0 via iRIS-2400 module

Packing List

1 x PCIE-Q870-i2 single board computer	
1 x Dual RS-232 cable	
1 x USB 2.0 cable	1 x QIG
2 x SATA cable	1 x Utility CD

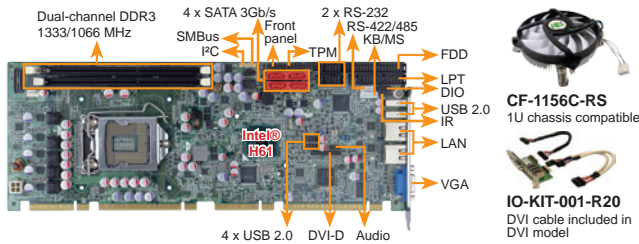
Ordering Information

Part No.	Description
PCIE-Q870-i2-R10	Full-size PICMG 1.3 CPU card supports LGA 1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU with Intel® Q87, DDR3, VGA, iDP, dual Intel® PCIe GbE, SATA 6Gb/s, mSATA, RS-232, PCIe Mini, Audio, iRIS-2400 and RoHS
iRIS-2400-R10	IPMI 2.0 adapter card with AST2400 BMC chip for DDR3 SO-DIMM socket interface
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
19800-010500-200-RS	USB 3.0 cable with bracket, 450mm
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1150SB-R11	Special cooler kit for LGA 1150, high-performance compatible, 65W
CF-1150SC-R20	Special cooler kit for LGA 115X, 1U chassis compatible, 65W, copper
CF-1150SE-R11	Special cooler kit for LGA 115X, high-performance compatible, 95W, copper
CF-1150SF-R10	Special cooler kit for LGA 115X Intel® CPU, 107x70x35, 54W
DP-DP-R10	DisplayPort to DisplayPort converter board (for IEI iDP connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for IEI iDP connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for IEI iDP connector)
DP-LVDS-R10	DisplayPort to LVDS converter board (for IEI iDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEI iDP connector)
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

- Industrial Computing Solutions
- Video Capture Solutions
- Industrial Computer Chassis
- Open Frame Monitor
- Power Supply/Peripherals
- All-in-One System

PCIE-H610

Full-size PICMG 1.3 CPU Card supports 32nm LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® H61, DDR3, VGA, USB 2.0, SATA 3Gb/s, Dual Realtek PCIe GbE, HD Audio and RoHS



CF-1156C-RS
1U chassis compatible

IO-KIT-001-R20
DVI cable included in DVI model



TPM 1.2 Support

Features

- Full-size PICMG 1.3 graphics grade solution
- LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- Dual-channel 1333/1066 MHz DDR3/DDR3L SDRAM supported up to 16 GB
- Intel® HD graphics technology integrates high-performance graphics and media processing
- TPM v1.2 hardware security function supported by TPM module
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU
LGA 1155 socket supports Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor
- ◆ Chipset: Intel® H61
- ◆ Memory
Two 240-pin 1333/1066 MHz dual-channel unbuffered DDR3 & DDR3L SDRAM DIMMs support up to 16 GB
- ◆ BIOS: UEFI BIOS
- ◆ Graphics Engine
Intel® HD Graphics Gen 6 supports DX10.1 and OpenGL 3.0
Full MPEG2, VC1, AVC Decode
- ◆ Display Output
1 x VGA (up to 2048x1536@75Hz)
1 x DVI-D (up to 1920x1200@60Hz) (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)
- ◆ Ethernet
LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support
LAN2: Realtek RTL8111E PCIe GbE controller
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ PC: 1 x PC (1x4 pin)
- ◆ Infrared Interface: 1 x Infrared Interface (1x5 pin)
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ External I/O Interface: 2 x USB 2.0
- ◆ Internal I/O Interface
1 x FDD (2x17 pin) 1 x KB/MS (1x6 pin)
1 x LPT (2x13 pin) 4 x SATA 3Gb/s
1 x RS-422/485 (1x4 pin, P=2.0)
2 x RS-232 (2x5pin, P=2.54)
4 x USB 2.0 (2x4 pin, P=2.54)
4 x USB 2.0 (Golden finger)
- ◆ Front Panel
1 x Front panel (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ Audio: Supports by IEI AC-KIT-892HD-R10 audio kit
- ◆ Expansion: PCIe signal and PCI signal via golden finger
- ◆ Watchdog Timer: Software programmable supports 1~255 sec. system reset
- ◆ Fan Connector: 1 x Smart fan (1x4 pin)
- ◆ Power Supply: 5V/12V, AT/ATX support
- ◆ Power Consumption
5V@4.41A, 12V@0.21A, Vcore_12V@7.72A, 3.3V@1.71A, 5VSB@0.16A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 338 mm x 126 mm
- ◆ Weight: GW: 1200g / NW: 420g

Packing List

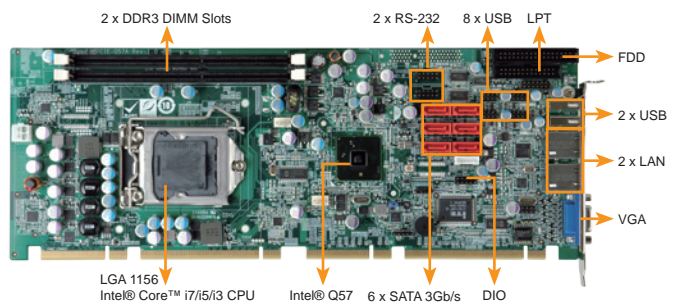
1 x PCIE-H610 single board computer	1 x One Key Recovery CD
1 x Dual RS-232 cable	1 x Mini jumper pack
1 x USB cable	1 x QIG
4 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
PCIE-H610-R10	Full-size PICMG 1.3 CPU card supports 32nm LGA 1155 Intel® Core™ i7/i5/i3 CPU with Intel® H61, DDR3, VGA, dual Realtek PCIe GbE, USB 2.0, SATA 3Gb/s, HD Audio and RoHS
PCIE-H610-DVI-R10	Full-size PICMG 1.3 CPU card supports 32nm LGA 1155 Intel® Core™ i7/i5/i3 CPU with Intel® H61, DDR3, VGA, DVI-D, dual Realtek PCIe GbE, USB 2.0, SATA 3Gb/s, HD Audio and RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32200-000017-RS	FDD Cable, 520mm, P=2.54
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1156A-RS-R11	High performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 65W
CF-1156E-R11	High performance LGA 1155/LGA 1156 cooler kit, 95W
CPU-DT-C-G440	Intel® Celeron® G440 processor, LGA 1155, single core 1.6GHz, 1M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-I3-2120T	Intel® Core™ i3-2120T processor, LGA 1155, dual core 2.6GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-I5-2390T	Intel® Core™ i5-2390T processor, LGA 1155, dual core 2.7GHz, 3M cache, 35W, AMT, compatible with CF-1156C-RS CPU cooler
CPU-DT-I5-2500T	Intel® Core™ i5-2500T processor, LGA 1155, quad core 2.3GHz, 6M cache, 45W, compatible with CF-1156C-RS CPU cooler
CPU-DT-P-G630T	Intel® Pentium® G630T processor, LGA 1155, dual core 2.3GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
SAIDE-KIT01-R10	SATA to IDE/CF converter board
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

PCIE-Q57A

PICMG 1.3 CPU Card with LGA 1156 socket for Intel® Core™ i7/i5/i3 or Pentium® CPU with VGA, Dual Intel® GbE, SATA 3Gb/s, COM, USB 2.0 and Audio, RoHS



LGA 1156 Cooler
IEI P/N: CF-1156A-RS-R11



Features

- PICMG 1.3 with LGA 1156 socket for Intel® Core™ i7/i5/i3 or Pentium® processor
- Supports 8 GB (max.) dual-channel 800/1066/1333 MHz DDR3 SDRAM
- Intel® GbE LAN controller with Intel® AMT 6.0 support
- Fourteen USB 2.0 ports and two COM ports
- Six SATA ports with RAID function
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU
LGA 1156 socket supports Intel® Core™ i7/i5/i3 or Pentium® processor
- ◆ Chipset: Intel® Q57
- ◆ BIOS: AMI BIOS
- ◆ Memory
Two 240-pin 1333/1066 MHz dual-channel unbuffered DDR3 SDRAM DIMMs support up to 8 GB
- ◆ Display Output
1 x VGA
Note: The Intel® quad-core processor (e.g., i7-860 and i5-750) is a discrete processor which does not integrate a graphics engine. If a quad-core processor is used on the motherboard, an additional graphics card must be installed in order to support display output. Otherwise, the display will show "No display output" when connected to the on-board VGA port.
- ◆ Ethernet
LAN1: Intel® 82583V PCIe GbE controller
LAN2: Intel® 82578DM with Intel® AMT 6.0
- ◆ External I/O Interface: 2 x USB 2.0
- ◆ Internal I/O Interface
1 x FDD (2x17 pin) 1 x KB/MS (1x6 pin)
1 x LPT (2x13 pin) 2 x RS-232 (2x5pin, P=2.54)
4 x USB 2.0 (Golden finger)
6 x SATA 3Gb/s (RAID 0/1/5/10 supported)
8 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Infrared Interface
1 x Infrared Interface (1x5 pin)
- ◆ Digital I/O
8-bit digital I/O (2x5 pin)
- ◆ Audio
Supports 7.1-channel HD Audio by IEI AC-KIT-892HD-R10 kit
- ◆ Watchdog Timer
Software programmable supports 1~255 sec. system reset
- ◆ Fan Connector
1 x CPU smart fan (1x4 pin)
1 x System smart fan (1x4 pin)
- ◆ Power Supply
ATX Power (supports AT/ATX mode)
- ◆ Power Consumption
3.3V@0.89A, 5V@4.62A, 12V@0.51A, Vcore_12V@4.35A, 5VSB@0.14A (Intel® Core™ i5 660 3.3GHz CPU with two 2 GB 1066 MHz DDR3 memory)
- ◆ Operating Temperature
0°C ~ 60°C (32°F ~ 140°F)
- ◆ Storage Temperature: -10°C ~ 70°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions: 338 mm x 126 mm
- ◆ Weight: GW: 1100g

Packing List

1 x PCIE-Q57A single board computer	1 x Mini jumper pack
1 x Dual RS-232 cable	1 x One Key Recovery CD
1 x USB cable	1 x QIG
6 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
PCIE-Q57A-R10	PICMG 1.3 CPU card with LGA 1156 socket for Intel® Core™ processor with VGA, dual Intel® GbE, SATA 3Gb/s, USB 2.0, COM, Audio and RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
19800-000100-100-RS	Quad-port USB cable, 300mm, P=2.54
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32200-000017-RS	FDD Cable, 520mm, P=2.54
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 codec and dual audio streams
CF-1156A-RS-R11	High performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-1156E-R11	High performance LGA 1155/LGA 1156 cooler kit, 95W

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

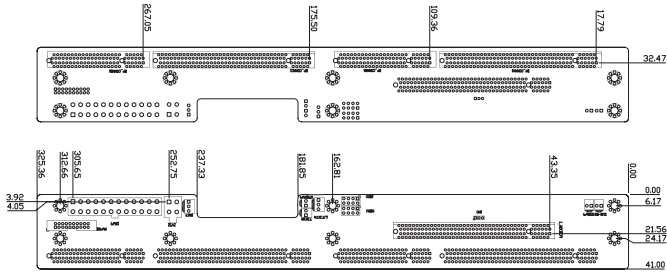
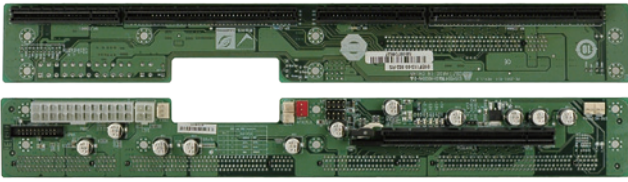
4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

PE-2SD1-R10

For 1U system!

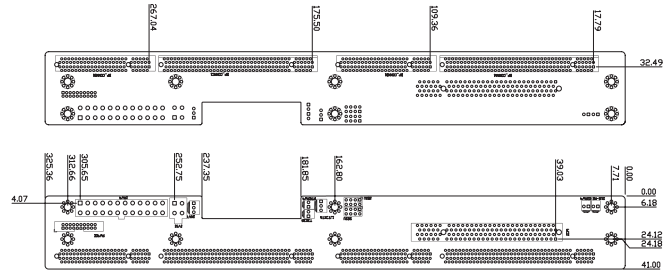
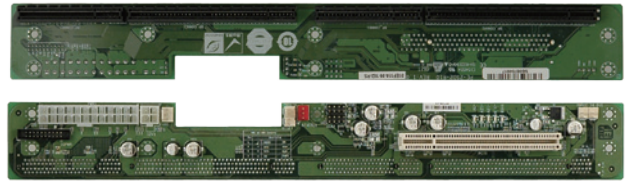


Ordering Information

PE-2SD1-R10	2-slot backplane with one PCIe slot
RACK-1150G-PE	1U full-size rack-mount chassis

PE-2SD2-R10

For 1U system!



Ordering Information

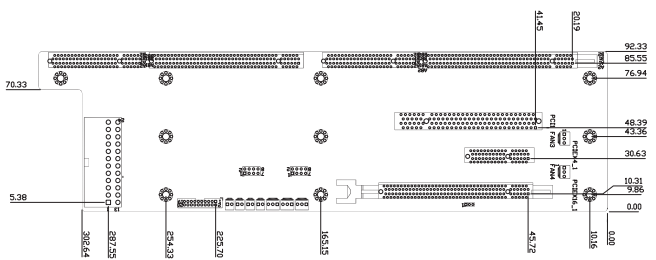
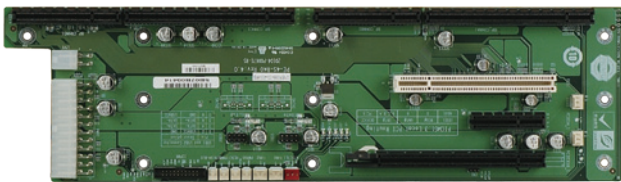
PE-2SD2-R10	2-slot backplane with one PCI slot
RACK-1150G-PE	1U full-size rack-mount chassis

1

Industrial Computing Solutions

PE-4S-R40

Mounting holes compatible with PCI-4S

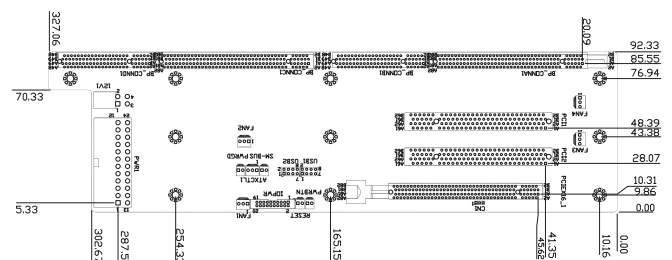
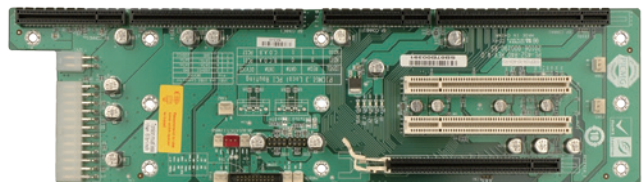


Ordering Information

PE-4S-R40	4-slot backplane with one PCIe x16 slot, one PCIe x4 slot and one PCI slot
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PE-4S2-R40

Mounting holes compatible with PCI-4S



Ordering Information

PE-4S2-R40	4-slot backplane with one PCIe x16 slot and two PCI slots
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2

Video Capture Solutions

3

Industrial Computer Chassis

4

Open Frame Monitor

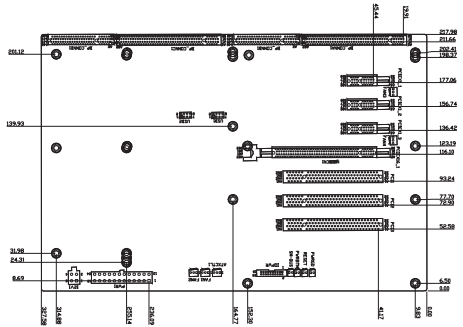
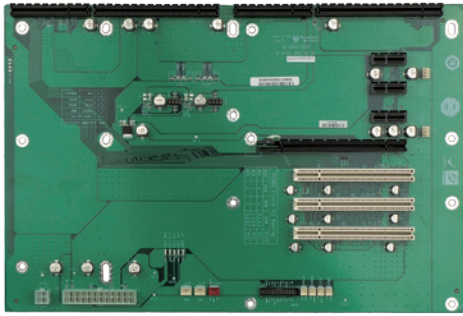
5

Power Supply/Peripherals

6

All-in-One System

PE-8S-R40

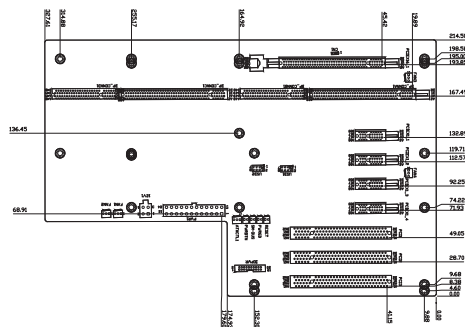
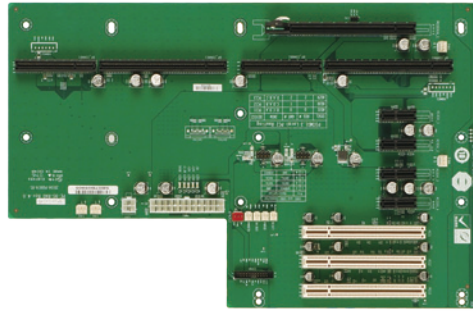


Ordering Information

PE-8S-R40	8-slot backplane with one PCIe x16 slots, three PCIe x1 slots and three PCI slots
PAC-125G	10-slot full-size compact chassis

PE-9S-R40

Mounting holes compatible with PCI-10S2

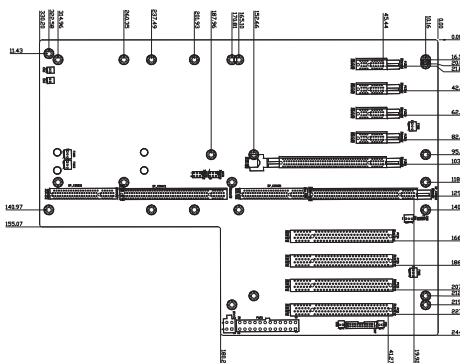
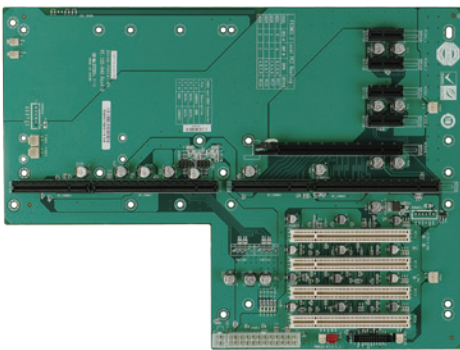


Ordering Information

PE-9S-R40	9-slot backplane with one PCIe x16 slot, four PCIe x1 slots and three PCI slots
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PE-10S-R40

Mounting holes compatible with PCI-14S

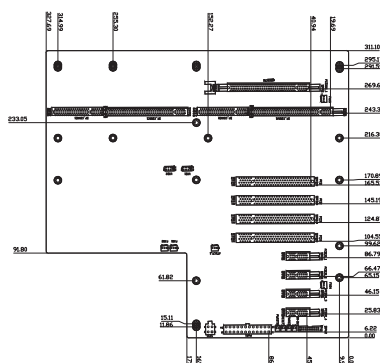
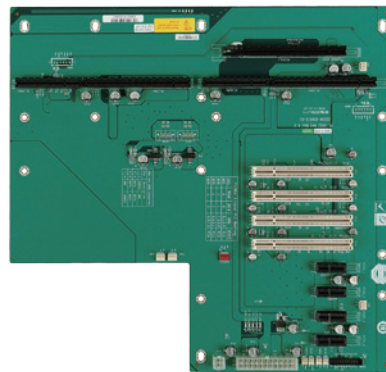


Ordering Information

PE-10S-R40	10-slot backplane with one PCIe x16 slot, four PCIe x1 slots and four PCI slots
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis
RACK-3000G	4U 14-slot full-size rack-mount chassis

PE-10S2-R40

Mounting holes compatible with PCI-14S



Ordering Information

PE-10S2-R40	10-slot backplane with one PCIe x16 slot, four PCIe x1 slots and four PCI slots
RACK-3000G	4U 14-slot full-size rack-mount chassis
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

4 Open Frame Monitor

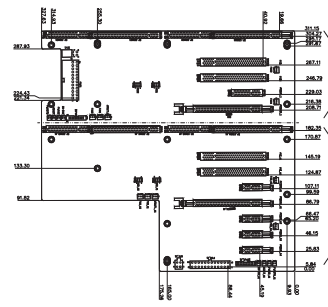
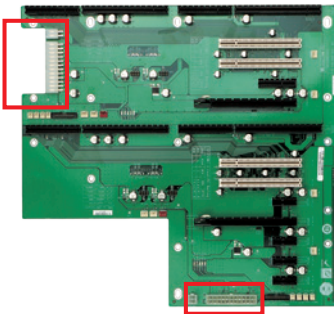
5 Power Supply/ Peripherals

6 All-in-One System

PE-13SD-R40

Mounting holes compatible with PCI-14S

Dual system



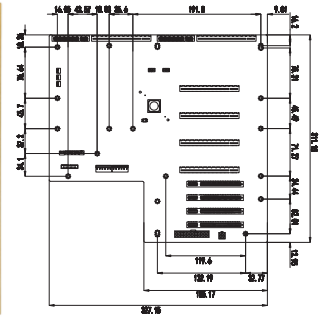
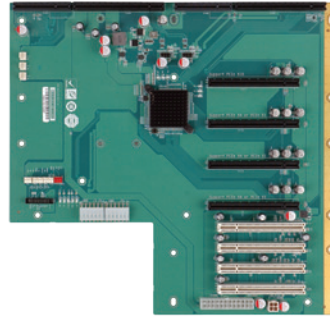
2 independent power resources

Ordering Information

PE-13SD-R40	13-slot backplane with two PCIe x16 slots, one PCIe x4 slot, four PCIe x1 slot and four PCI slots
RACK-3000G	4U 14-slot full-size rack-mount chassis
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis

PXE-9S2-R10

Mounting holes compatible with PCI-14S



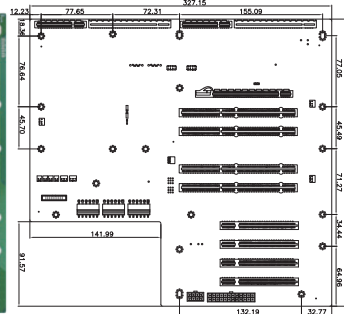
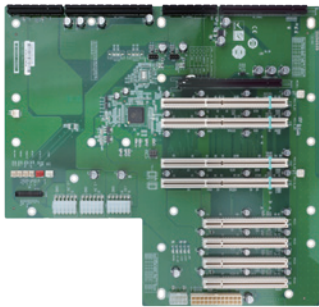
Ordering Information

PXE-9S2-R10	9-slot PICMG 1.3 backplane, one PCIe x16 with x16 slot, 3 PCIe x4 with x16 slots, four PCI slots RoHS
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis
RACK-3000G	4U 14-slot full-size rack-mount chassis

PXE-12S-R11

Mounting holes compatible with PCI-14S

(PCIe to PCI-X Bridge)



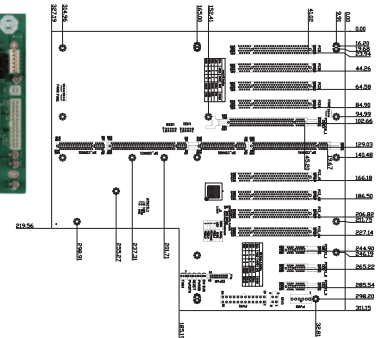
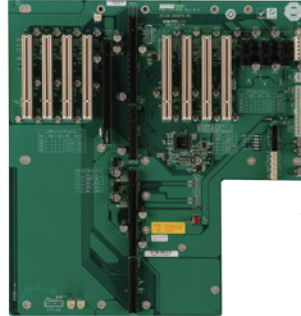
Ordering Information

PXE-12S-R11	12-slot backplane with one PCIe x16 slot, four PCI-X slots and four PCI slots
RACK-3000G	4U 14-slot full-size rack-mount chassis
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis

PXE-13S-R50

Mounting holes compatible with PCI-14S

(PCIe to PCI Bridge)



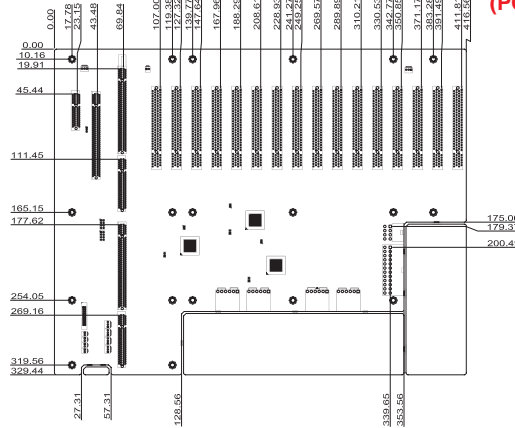
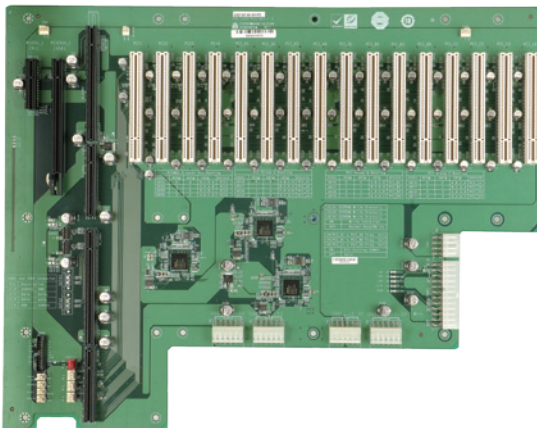
Ordering Information

PXE-13S-R50	13-slot backplane with one PCIe x16 slot, three PCIe x1 slots and eight PCI slots
RACK-3000G	4U 14-slot full-size rack-mount chassis
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis

PXE-19S2-R10

Mounting holes compatible with PCI-19S

(PCIe to PCI Bridge)



Ordering Information

PXE-19S2-R10	19-slot backplane with one PCIe x16 slot, one PCIe x1 slot and sixteen PCI slots
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- 1 Industrial Computing Solutions
- 2 Video Capture Solutions
- 3 Industrial Computer Chassis
- 4 Open Frame Monitor
- 5 Power Supply/Peripherals
- 6 All-in-One System

Full-size PICMG 1.0 Selection Guide



Model Name	WSB-H810	WSB-H610	WSB-PV-D4251/D5251
CPU Socket	LGA 1150	LGA 1155	On board
CPU Type	Intel® Core™ i7/i5/i3, Pentium®, Celeron® processor	Intel® Core™ i7/i5/i3, Pentium®, Celeron® processor	Intel® Atom™ D525 1.8GHz Intel® Atom™ D425 1.8GHz
Chipset	Intel® H81	Intel® H61	Intel® ICH8M
Memory	Two 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs (system max. 16 GB)	Two 240-pin 1333/1066 MHz dual-channel DDR3 & DDR3L (1.35V) DIMMs supported (system max. 16 GB)	Two 204-pin 800 MHz DDR3 SDRAM SO-DIMMs (system max. 4 GB)
Display Interface	Dual display supported 1 x VGA 1 x iDP interface	1 x VGA 1 x DVI-D (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)	Dual display supported 1 x VGA 1 x 18-bit single-channel LVDS
Ethernet	LAN1: Intel® I217-V LAN PHY LAN2: Intel® I211-AT Ethernet controller	LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E PCIe GbE controller	LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E PCIe GbE controller
I/O Interface	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 2 x USB 3.0 4 x RS-232 8 x USB 2.0	1 x 6-pin wafer for KB & MS 1 x FDD 1 x LPT 1 x PS/2 KB/MS 1 x RS-422/485 2 x RS-232 7 x USB 2.0	1 x 6-pin wafer for PS/2 KB/MS 1 x LPT 1 x PS/2 KB & MS 4 x RS-232 7 x USB 2.0
Drive Interface	1 x SATA 3Gb/s 2 x SATA 6Gb/s	4 x SATA 3Gb/s	1 x CF Type II 1 x FDD 1 x IDE 3 x SATA 3Gb/s
Audio	IEI AC-KIT-892HD-R10 7.1-channel HD Audio kit via the on-board 10-pin header connector		
Digital I/O	8-bit digital I/O		
Power Consumption	5V@3.41A, 12V@0.35A, Vcore_12V@7.52A, 3.3V@1.41A, 5VSB@0.12A (Intel® Core™ i7-4770K 3.90 GHz CPU with 8 GB (two 4 GB) 1333 MHz DDR3 memory)	5V@4.53A, 12V@0.19A, Vcore_12V@7.81A, 5VSB@0.18A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)	5V@5.16A, 12@0.55A (Intel® Dual Core Atom™ D525 1.80GHz with two 2 GB 1066 MHz DDR3 memory)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset		
Operation Environment	Temperature Range: -20°C ~ 60°C (-4°F ~ 140°F) Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: -10°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: -20°C ~ 65°C (-4°F ~ 149°F) with free air for D425 CPU -20°C ~ 60°C (-4°F ~ 140°F) with free air for D525 CPU -20°C ~ 70°C (-4°F ~ 158°F) with force air for D425/D525 CPU Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slot	1 x Full/Half-size PCIe mini card slot (support mSATA)	1 x Full/Half-size PCIe mini card slot	N/A
CPU Cooler	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11 CF-1150SF-R10	CF-1156A/C/D/E	Heatsink (optional CPU fan by 19FFD124010HB2A7-000001-RS)

1

Industrial
Computing
Solutions

2

Video
Capture
Solutions

3

Industrial
Computer
Chassis

4

Open
Frame
Monitor

5

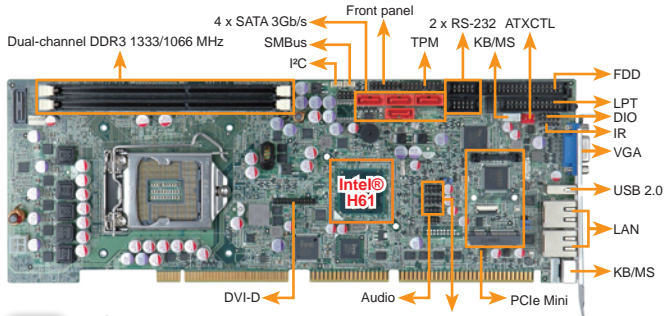
Power Supply/
Peripherals

6

All-in-One
System

WSB-H610-R11

Full-size PICMG 1.0 CPU Card supports 32nm LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® H61, DDR3, VGA, DVI-D, Dual Realtek PCIe GbE, USB 2.0, SATA 3Gb/s, COM, HD Audio and RoHS



Features

- Full-size PICMG 1.0 CPU card with LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- Two DDR3 & DDR3L 1333/1066 MHz DIMM SDRAM supported up to 16 GB
- Embedded controller on board supports infrared and PECCI 2.0 technologies
- Dual Realtek PCIe GbE and LAN1 with ASF 2.0 support
- TPM V1.2 hardware security function supported by TPM module
- IEI One Key Recovery solution allows you to create raidp OS backup and recovery

Specifications

- ◆ CPU: LGA 1155 socket supports Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor
- ◆ Chipset: Intel® H61
- ◆ Memory: Two 240-pin 1333/1066 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs support up to 16 GB
- ◆ BIOS: UEFI
- ◆ Graphics Engine Intel® HD Graphics Gen 6 supports DX10.1 and OpenGL 3.0 Full MPEG2, VC1, AVC Decode
- ◆ Display Output
 - 1 x VGA (up to 2048x1536@75Hz)
 - 1 x DVI-D (up to 1920x1200@60Hz) (via header to IO-KIT-001-R20 DVI-D/USB module) (optional)
- ◆ Ethernet LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E PCIe GbE controller
- ◆ External I/O Interface
 - 1 x KB/MS 1 x USB 2.0
- ◆ Internal I/O Interface
 - 1 x FDD (2x17 pin) 1 x KB/MS (1x6 pin)
 - 1 x LPT (2x13 pin) 1 x RS-422/485 (1x4 pin, P=2.0)
 - 2 x RS-232 (2x5pin, P=2.54)
 - 4 x SATA 3Gb/s (no AHCI & RAID support)
 - 6 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Audio: Supports 7.1-channel HD Audio by IEI AC-KIT-892HD-R10 kit
- ◆ Front Panel
 - 1 x Front panel (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ I²C: 1 x I²C (1x4 pin)
- ◆ Expansion PCI signal and ISA signal via golden finger
- ◆ Watchdog Timer Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
 - 1 x CPU smart fan (1x4 pin)
 - 1 x System smart fan (1x4 pin)
- ◆ Power Supply: 5V/12V, AT/ATX support
- ◆ Power Consumption
 - 5V@4.53A, 12V@0.19A, Vcore_12V@7.81A, 5VSB@0.18A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity
 - 5% ~ 95%, non-condensing
- ◆ Dimensions: 338 mm x 122 mm
- ◆ Weight: GW: 1000g / NW: 260g

Packing List

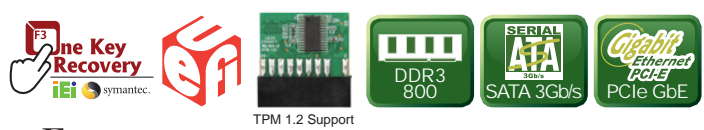
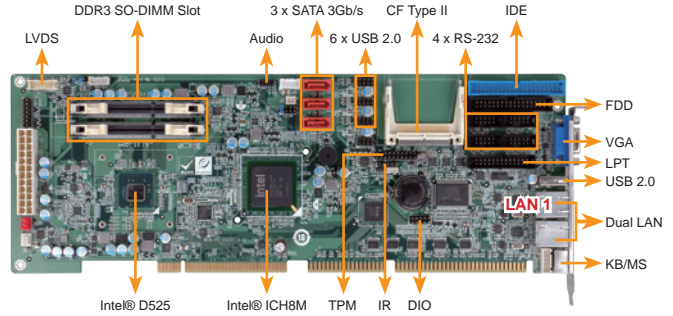
1 x WSB-H610 single board computer	
1 x Dual RS-232 cable with bracket	1 x One Key Recovery CD
1 x KB/MS Y cable	1 x Mini jumper pack
1 x USB cable	1 x QIG
2 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
WSB-H610-R11	Full-size PICMG 1.0 CPU card supports 32nm LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® H61, DDR3, VGA, dual Realtek PCIe GbE, USB 2.0, SATA 3Gb/s, COM, HD Audio and RoHS
WSB-H610-DVI-R11	Full-size PICMG 1.0 CPU card supports 32nm LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® H61, DDR3, VGA, DVI-D, dual Realtek PCIe GbE, USB 2.0, SATA 3Gb/s, COM, HD Audio and RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32006-000300-100-RS	PS/2 KB/MS Y-cable without bracket, 140mm/120mm
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32200-000017-RS	FDD Cable, 520mm, P=2.54
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1156A-RS-R11	High performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 65W
CF-1156E-R11	High performance LGA 1155/LGA 1156 cooler kit, 95W
SAIDE-KIT01-R10	SATA to IDE/CF converter board
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

WSB-PV-D4251/D5251

Full-size PICMG 1.0 CPU Card with Intel® Atom™ D425/D525, DDR3, VGA, LVDS, Dual PCIe GbE, SATA 3Gb/s, COM, USB 2.0, Audio and RoHS



Features

- PICMG 1.0 form factor and RoHS compliant
- Supports Intel® Atom™ D425/D525 1.80GHz processor
- Supports 800 MHz DDR3 SDRAM SO-DIMM up to 4 GB
- Dual PCIe Ethernet, three SATA 3Gb/s, and four RS-232 serial port connectors
- VGA and 18-bit single-channel LVDS for dual independent display support
- TPM V1.2 hardware security function supported by TPM module
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU Intel® Atom™ D525 dual-core processor (1.80GHz, dual-core, 1MB cache) Intel® Atom™ D425 single-core processor (1.80GHz, single-core, 512KB cache)
- ◆ Chipset: ICH8M
- ◆ BIOS: UEFI BIOS
- ◆ System Memory One 240-pin 800 MHz dual-channel DDR3 SDRAM unbuffered DIMMs support up to 4 GB
- ◆ Graphics Engine GMA 3150, Gen3.5 DX9, 400 MHz
- ◆ Display output
 - 1 x VGA (up to 2048x1536@60Hz)
 - 1 x 18-bit single channel LVDS (up to 1366x768@60Hz)
- ◆ Ethernet LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E PCIe GbE controller
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Infrared Interface: 1 x Infrared Interface (1x5 pin)
- ◆ External I/O Interface
 - 1 x KB/MS 1 x USB 2.0
- ◆ Internal I/O Interface
 - 1 x FDD (2x17 pin) 1 x IDE (2x20 pin, P=2.54)
 - 1 x LPT (2x13 pin) 1 x KB (1x5 pin, P=2.5)
 - 4 x RS-232 (2x5pin, P=2.54)
 - 4 x SATA 3Gb/s
 - 6 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Audio Supports 7.1-channel HD Audio by IEI AC-KIT-892HD-R10 kit
- ◆ Watchdog Timer Software programmable supports 1~255 sec. system reset
- ◆ Power Supply: AT/ATX power
- ◆ Power Consumption
 - 5V@5.16A, 12@0.55A (Intel® dual core Atom™ D525 1.80GHz with two 2 GB 1066 MHz DDR3 memory)
- ◆ Operating Temperature
 - 20°C ~ 60°C with free air, -20°C ~ 70°C with force air for D525 processor
 - 20°C ~ 65°C with free air, -20°C ~ 70°C with force air for D425 processor
- ◆ Storage Temperature: -30°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 338 mm x 122 mm
- ◆ Weight: GW: 1100g

Packing List

1 x WSB-PV-D4251/D5251 single board computer	1 x Mini jumper pack
1 x Dual RS-232 cable	1 x One Key Recovery CD
1 x USB cable	1 x QIG
2 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
WSB-PV-D5251-R10	Full-size PICMG 1.0 CPU card with Intel® dual-core Atom™ D525 1.80GHz/1MB L2 cache, DDR3, VGA, LVDS, dual PCIe GbE, SATA 3Gb/s, COM, USB 2.0, audio, RoHS
WSB-PV-D4251-R10	Full-size PICMG 1.0 CPU card with Intel® single-core Atom™ D425 1.80GHz/512KB L2 cache, DDR3, VGA, LVDS, dual PCIe GbE, SATA 3Gb/s, COM, USB 2.0, audio, RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000100-200-RS	Quad-port USB cable, 300mm, P=2.54
19FFD124010HB2A7-000001-RS	CPU fan
32006-000300-100-RS	PS/2 KB/MS Y-cable without bracket, 140mm/120mm
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32200-000017-RS	FDD Cable, 520mm, P=2.54
32225-002000-200-RS	ATA 66 flat cable, 457mm, P=2.54
34000-000510-RS	30mm higher heatsink
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

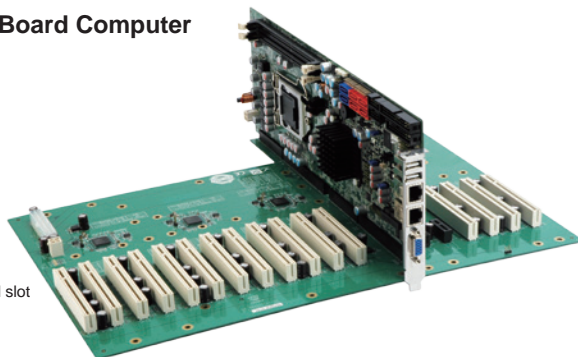
4 Open Frame Monitor

5 Power Supply/ Peripherals

6 All-in-One System

PCI/PX Backplane

Supports PCI and ISA slot on one backplane! For PICMG 1.0 Single Board Computer



The advantages of using the PICMG 1.0 card are numerous:

1. Supports standard PICMG version 1.0 slot on the PCI/PX series passive backplane
2. Compatible with all available PCI/ISA cards. PCI/PX backplane is also integrated with the ROCKY series card slot

Selection Guide

PAC series wall-mount chassis
 4U/5U rack-mount chassis
 1U/2U rack-mount chassis

RoHS Ready



RoHS Ready



RoHS Ready



RoHS Ready



RoHS Ready



RoHS Ready



Model	PCI-4S-RS-R40	PCI-5S-RS-R40	PCI-5S2A-RS-R40 PCI-5S2-RS-R40	PCI-6S-RS-R40	PCI-7S-RS-R41	PCI-8S-RS-R40
Total Slot	4	5	5	6	7	8
PCI Slot	3	3	4	4	4	4
ISA Slot	1	2	1	2	3	4
PSU Type	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT
Chassis	N/A	PAC-1000G	RACK-500G	PAC-106G PAC-1000G	PAC-1700G	N/A

RoHS Ready



RoHS Ready



RoHS Ready



RoHS Ready



RoHS Ready



RoHS Ready



Model	PCI-10S-RS-R41	PCI-10S2-RS-R41	PX-10S-RS-R50	PCI-12S-RS-R40	PCI-13SD-RS-R40	PCI-14S-RS-R40
Total Slot	10	10	10	12	13	14
PCI Slot	4	4	7	4	3+4	4
ISA Slot	5	5	3	7	3+3	9
PSU Type	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT
Chassis	PAC-125G	N/A	PAC-125G	RACK-3000G	RACK-305G RACK-360G RACK-3000G	N/A
Note					For Dual System	

RoHS Ready



RoHS Ready



RoHS Ready



RoHS Ready



Model	PCI-14S2-RS-R40	PCI-14S3-RS-R40	PX-14S3-RS-R50	PX-14S5-RS-R50
Total Slot	14	14	14	14
PCI Slot	4	4	12	7
ISA Slot	8	9	2	6
PSU Type	ATX/AT	ATX/AT	ATX/AT	ATX/AT
Chassis	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G

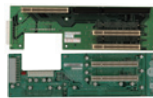
RoHS Ready



RoHS Ready



RoHS Ready



RoHS Ready



Model	PCI-2SD2-RS-R41	PCI-5SD6-RS-R40	PCI-5SDA-RS-R40	PCI-6SD-RS-R40/PCI-6SR-RS-R30
Total Slot	2	6	6	6
PCI Slot	R2	L2+R2	L2+R2	L1+R1 L1+R1
ISA Slot				
PSU Type	ATX/AT	ATX	ATX/AT	ATX
Chassis	RACK-1150G	RACK-220G	RACK-220G	RACK-220G

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Open Frame Monitor

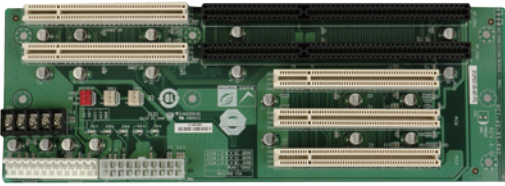
5

Power Supply/Peripherals

6

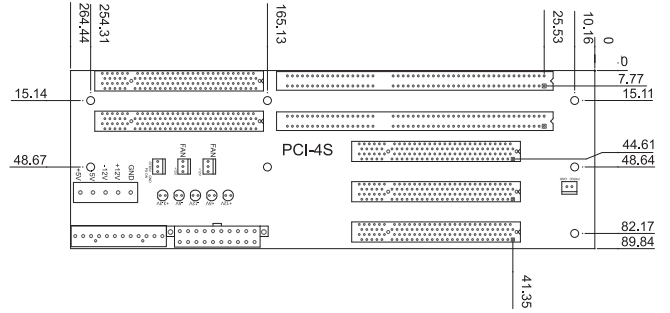
All-in-One System

PCI-4S-RS-R40

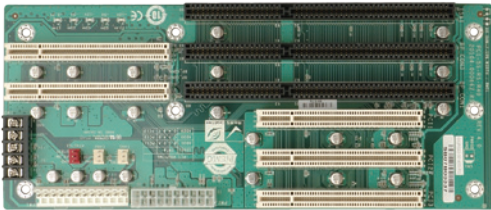


Ordering Information

PCI-4S-RS-R40 4-slot backplane with three PCI slots and one ISA slot



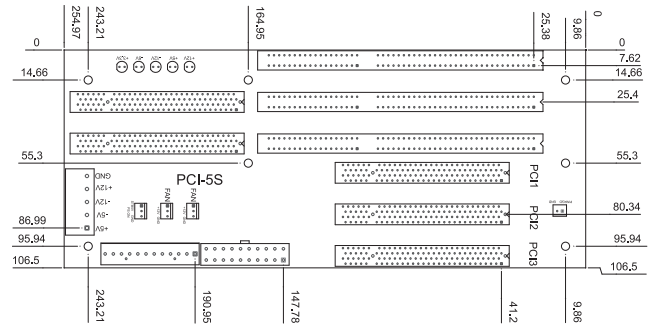
PCI-5S-RS-R40



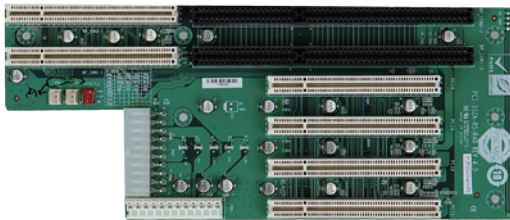
Ordering Information

PCI-5S-RS-R40 5-slot backplane with three PCI slots and two ISA slots

PAC-1000G 6-slot full-size compact chassis



PCI-5S2-RS-R40/PCI-5S2A-RS-R40

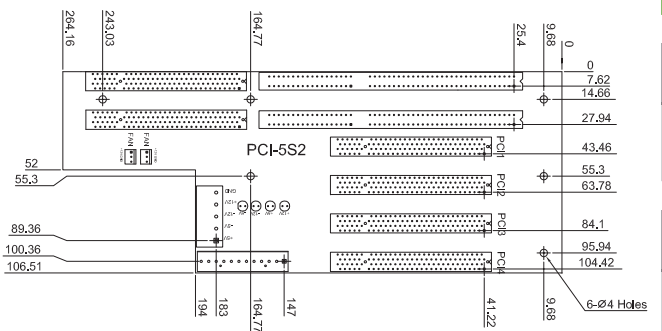


Ordering Information

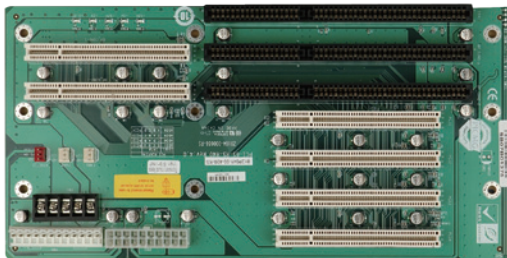
PCI-5S2-RS-R40 5-slot AT power backplane with four PCI slots and one ISA slot

PCI-5S2A-RS-R40 5-slot ATX power backplane with four PCI slots and one ISA slot

RACK-500G 5-slot full-size compact chassis



PCI-6S-RS-R40

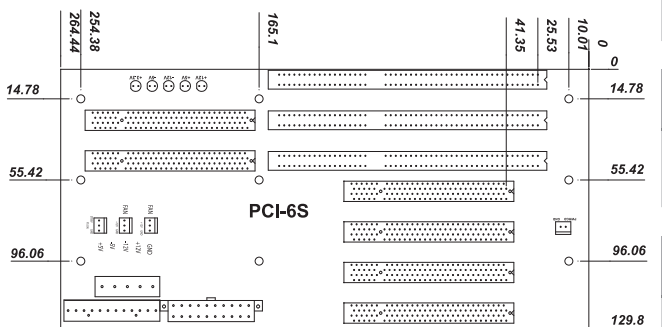


Ordering Information

PCI-6S-RS-R40 6-slot backplane with four PCI slots and two ISA slots

PAC-106G 6-slot full-size compact chassis

PAC-1000G 6-slot full-size compact chassis



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Open Frame Monitor

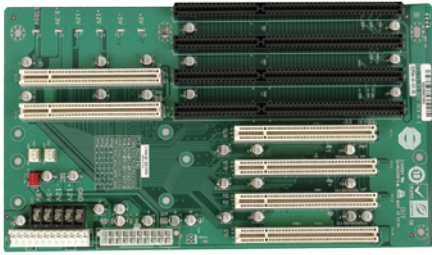
5

Power Supply/Peripherals

6

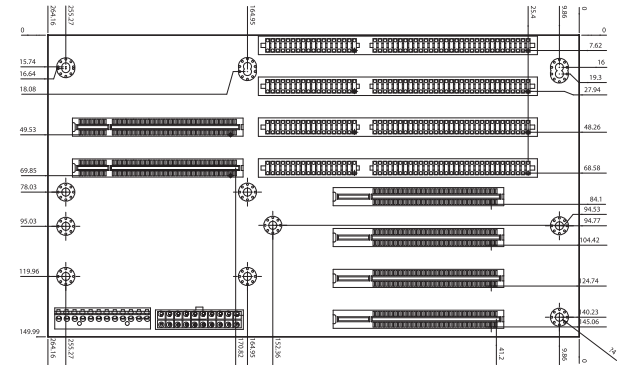
All-in-One System

PCI-7S-RS-R41

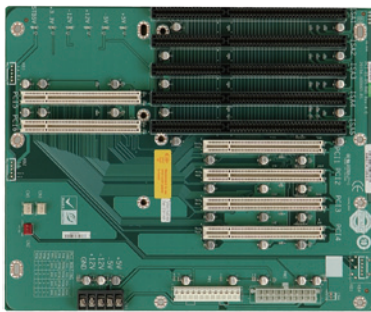


Ordering Information

PCI-7S-RS-R41	7-slot backplane with four PCI slots and three ISA slots
PAC-1700G	7-slot full-size compact chassis

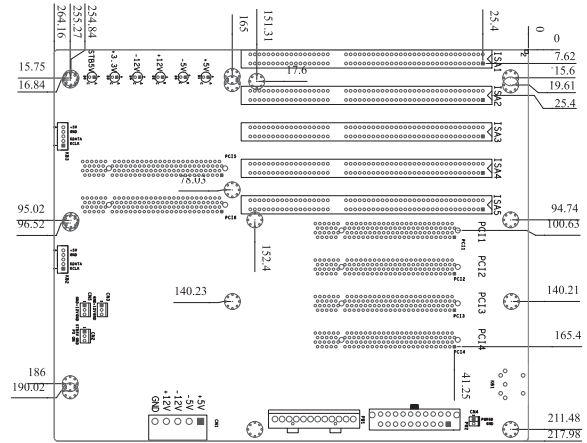


PCI-8S-RS-R40

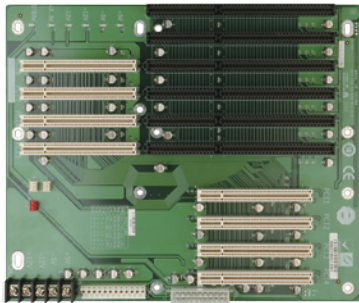


Ordering Information

PCI-8S-RS-R40	8-slot backplane with four PCI slots and four ISA slots
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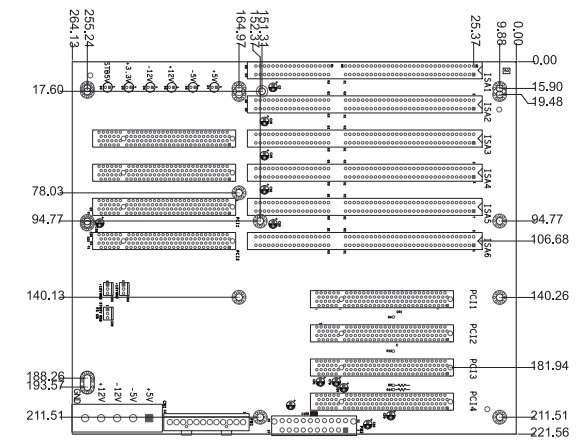


PCI-10S-RS-R41

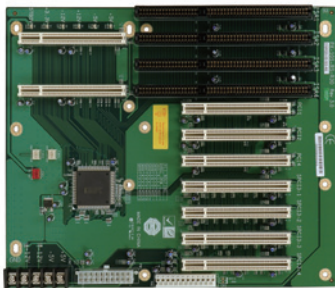


Ordering Information

PCI-10S-RS-R41	10-slot backplane with four PCI slots and five ISA slots
PAC-125G	10-slot full-size compact chassis

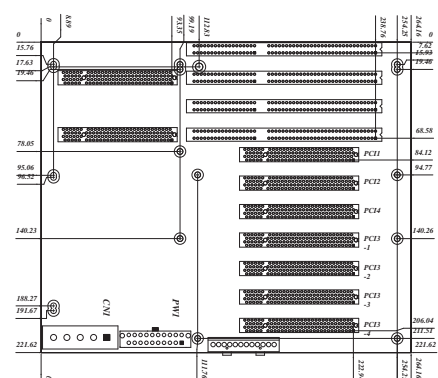


PX-10S-RS-R50



Ordering Information

PX-10S-RS-R50	10-slot backplane with seven PCI slots and three ISA slots
PAC-125G	10-slot full-size compact chassis



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Open Frame Monitor

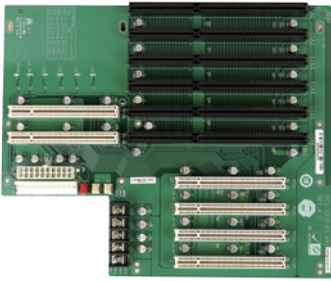
5

Power Supply/Peripherals

6

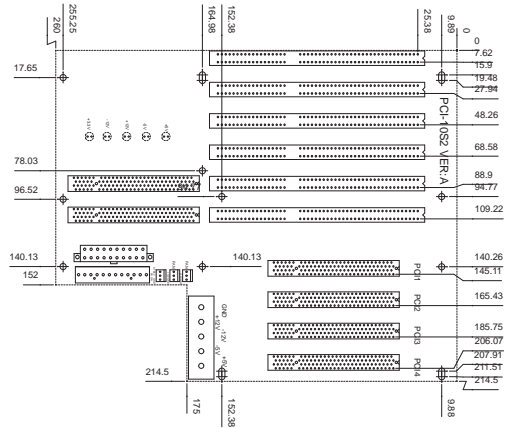
All-in-One System

PCI-10S2-RS-R41

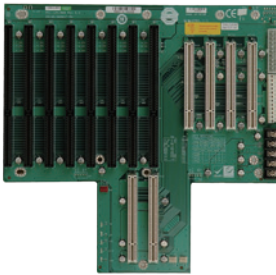


Ordering Information

PCI-10S2-RS-R41 10-slot backplane with four PCI slots and five ISA slots

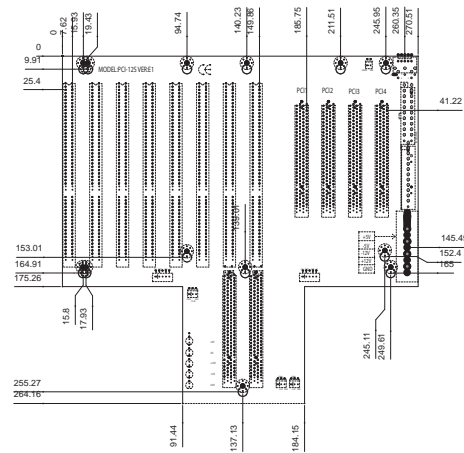


PCI-12S-RS-R40

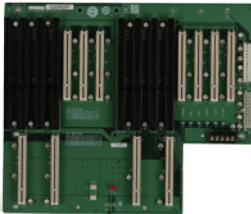


Ordering Information

PCI-12S-RS-R40 12-slot backplane with four PCI slots and seven ISA slots
 RACK-3000G 4U 14-slot full-size rack-mount chassis

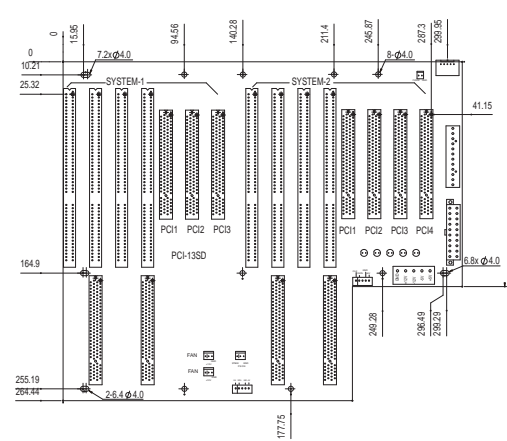


PCI-13SD-RS-R40 Dual System

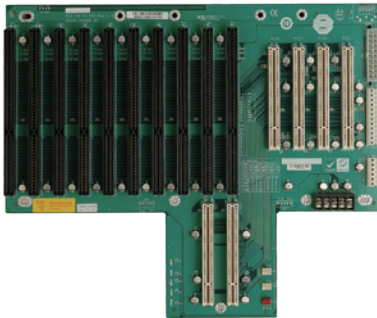


Ordering Information

PCI-13SD-RS-R40 13-slot dual-system backplane with system 1 having three PCI slots and three ISA slots and system 2 having four PCI slots and three ISA slots
 RACK-305G 4U 14-slot full-size rack-mount chassis
 RACK-360G 4U 14-slot full-size rack-mount chassis
 RACK-3000G 4U 14-slot full-size rack-mount chassis

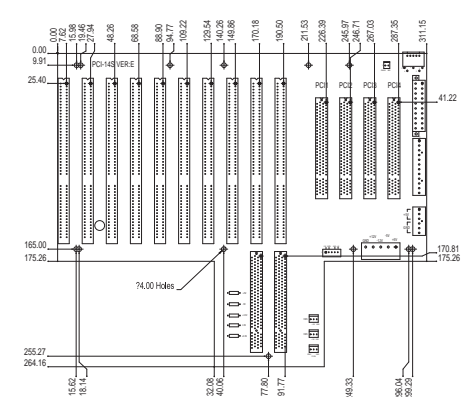


PCI-14S-RS-R40



Ordering Information

PCI-14S-RS-R40 14-slot backplane with four PCI slots and nine ISA slots



1 Industrial Computing Solutions

2 Video Capture Solutions

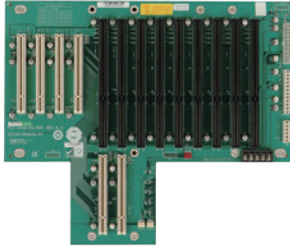
3 Industrial Computer Chassis

4 Open Frame Monitor

5 Power Supply/Peripherals

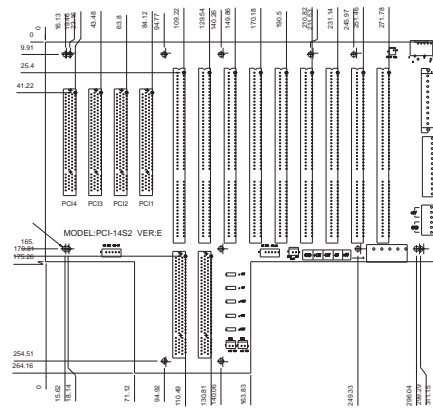
6 All-in-One System

PCI-14S2-RS-R40

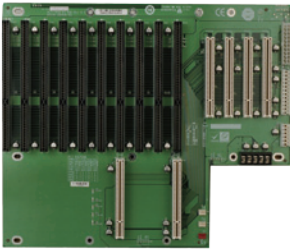


Ordering Information

PCI-14S2-RS-R40	14-slot backplane with four PCI slots and eight ISA slots
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis
RACK-3000G	4U 14-slot full-size rack-mount chassis

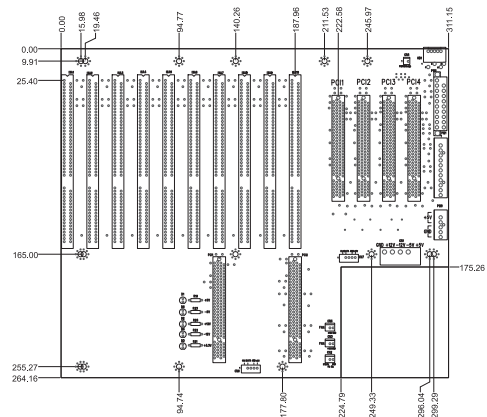


PCI-14S3-RS-R40

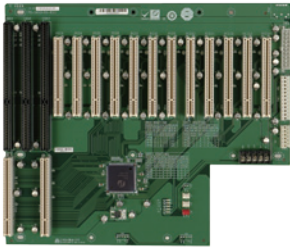


Ordering Information

PCI-14S3-RS-R40	14-slot backplane with four PCI slots and nine ISA slots
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis
RACK-3000G	4U 14-slot full-size rack-mount chassis

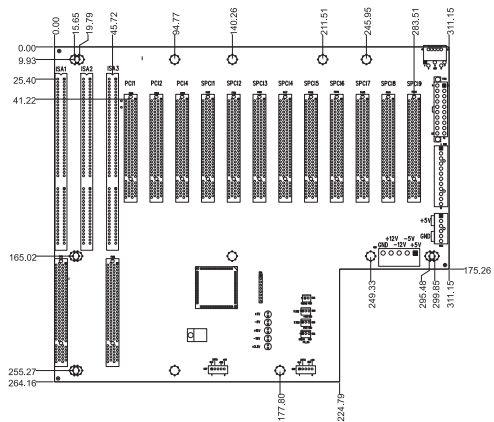


PX-14S3-RS-R50

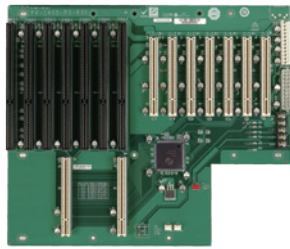


Ordering Information

PX-14S3-RS-R50	14-slot backplane with twelve PCI slots and two ISA slots
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis
RACK-3000G	4U 14-slot full-size rack-mount chassis

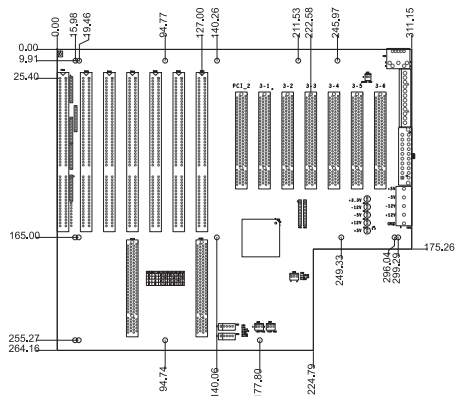


PX-14S5-RS-R50



Ordering Information

PX-14S5-RS-R50	14-slot backplane with seven PCI slots and six ISA slots
RACK-305G	4U 14-slot full-size rack-mount chassis
RACK-360G	4U 14-slot full-size rack-mount chassis
RACK-3000G	4U 14-slot full-size rack-mount chassis



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Open Frame Monitor

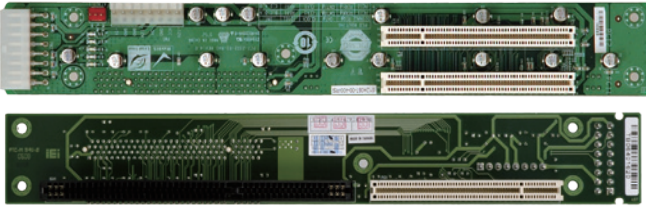
5

Power Supply/Peripherals

6

All-in-One System

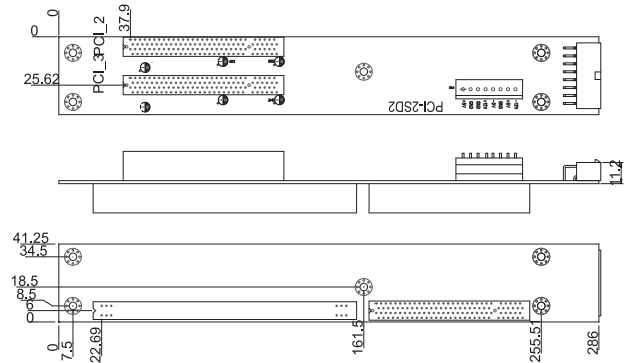
PCI-2SD2-RS-R41



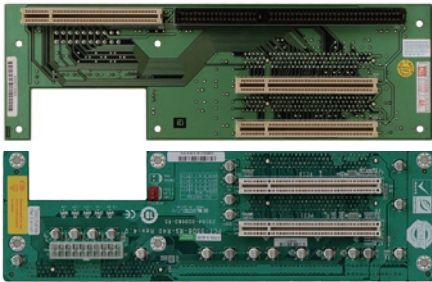
Ordering Information

PCI-2SD2-RS-R41	1U chassis backplane with two PCI slots
RACK-1150G	1U full-size rack-mount chassis

* The adapter cable 32100-040600-RS is required when connecting PCI-2SD2-RS to a standard ATX supply.

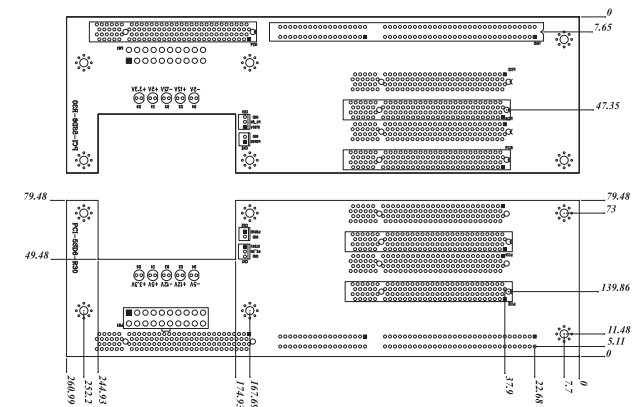


PCI-5SD6-RS-R40 2U Type

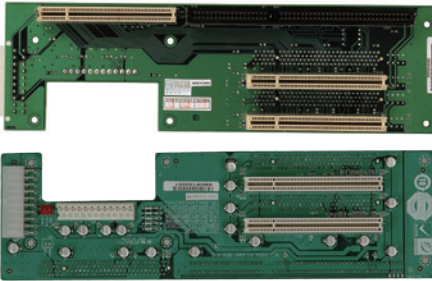


Ordering Information

PCI-5SD6-RS-R40	2U chassis backplane with four PCI slots
RACK-220G	2U 6-slot full-size rack-mount chassis

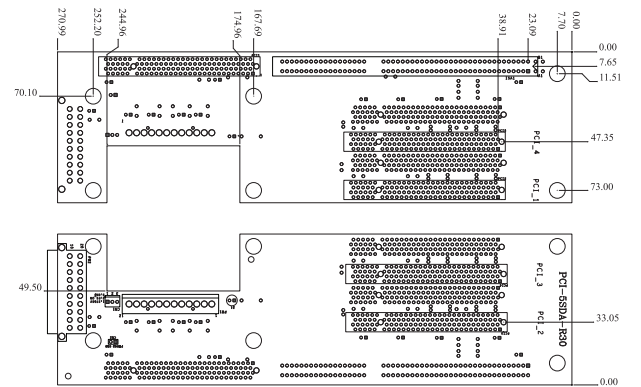


PCI-5SDA-RS-R40 2U Type

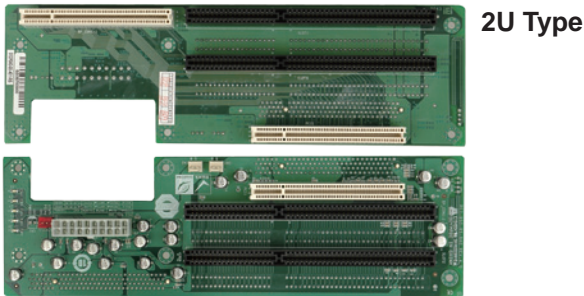


Ordering Information

PCI-5SDA-RS-R40	2U chassis backplane with four PCI slots
RACK-220G	2U 6-slot full-size rack-mount chassis

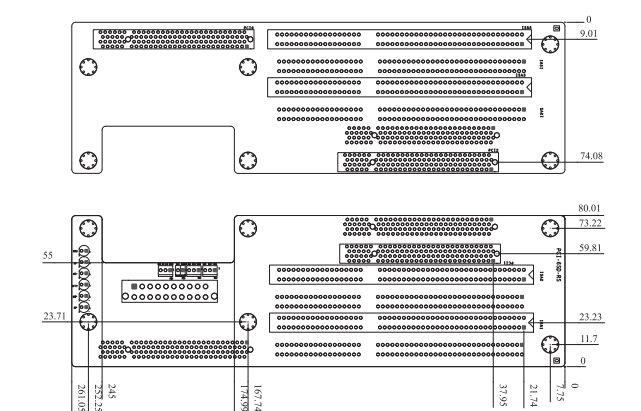


PCI-6SD-RS-R40/PCI-6SR-RS-R30 (AT Mode)

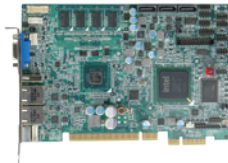
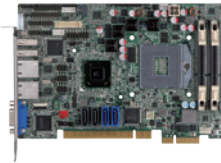
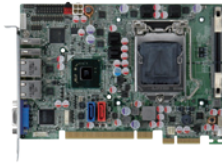


Ordering Information

PCI-6SD-RS-R40	2U chassis backplane with two PCI slots and two ISA slots
PCI-6SR-RS-R30	2U chassis backplane with two PCI slots and two ISA slots (AT mode)
RACK-220G	2U 6-slot full-size rack-mount chassis



Half-size PICOe, ISA Selection Guide



Model Name	PICOe-B650	PICOe-HM650	PICOe-PV-D4251/N4551/D5251-R11
CPU Socket	LGA 1155	Socket G2	On board
CPU Type	Socket LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU	Socket 988B Intel® Mobile Core™ i7/i5/i3 or Celeron® CPU	Intel® Atom™ D525 1.80GHz Intel® Atom™ D425 1.80GHz Intel® Atom™ N455 1.66GHz
Chipset	Intel® B65	Intel® HM65	Intel® ICH8M
Memory	One 204-pin 1333/1066 MHz DDR3/DDR3L (1.35V) SO-DIMM supported (system max. 8 GB)	Two 204-pin 1333/1066 MHz dual-channel DDR3 SO-DIMMs supported (system max. 16 GB)	One 204-pin 800 MHz DDR3 SDRAM SO-DIMM (system max. 4 GB for D525/D425, 2 GB for N455) (compatible with 128MB*8 SDRAM) On-board 1 GB 800 MHz DDR3 memory
Display Interface	1 x VGA	Dual display supported 1 x VGA 1 x 18/24-bit dual-channel LVDS	Dual display supported 1 x VGA 1 x 18/24-bit single-channel LVDS
Ethernet	LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E PCIe GbE controller	LAN1: Realtek RTL8111E GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E GbE controller	LAN1: Realtek RTL8111E GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E GbE controller
I/O Interface	1 x 6-pin wafer for KB & MS 2 x RS-232 4 x USB 2.0	1 x 6-pin wafer for KB & MS 1 x LPT 1 x RS-422/485 2 x RS-232 8 x USB 2.0	1 x 6-pin wafer for PS/2 KB & MS 1 x LPT 1 x PS/2 KB & MS 1 x RS-232/422/485 3 x RS-232 7 x USB 2.0
Driver Interface	1 x SATA 3Gb/s 1 x SATA 6Gb/s	2 x SATA 3Gb/s 2 x SATA 6Gb/s	1 x CF Type II 3 x SATA 3Gb/s
Audio	IEI AC-KIT-892HD-R10 7.1-channel HD Audio kit via the on-board 10-pin header connector		
Digital I/O	8-bit digital I/O		
Power Consumption	5V@3.17A, 12V@0.46A, Vcore_12V@7.26A, 5VSB@0.18A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)	5V@3.99A, 12V@0.43A, Vcore_12V@3.80A, 5VSB@0.06A (2.70GHz Intel® Core™ i7-2620M with two 2 GB 1333 MHz DDR3 memory)	5V@3.38A, 12V@0.54A (Intel® dual-core Atom™ D525 1.80GHz CPU with 1 GB 800 MHz DDR3 on-board memory) 5V@3.28A, 12V@0.43A (Intel® single-core Atom™ D425 1.80GHz CPU with 1 GB 800 MHz DDR3 on-board memory) 5V@3.13A, 12V@0.32A (Intel® single-core Atom™ N455 1.66GHz CPU with 1 GB 800 MHz DDR3 on-board memory)
Watchdog Timer	Software programmable supports 1~255 sec. system reset		
Operation Environment	Temperature Range: -10°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing		Temperature Range: -20°C ~ 65°C (-4°F ~ 149°F) with free air for D425 CPU -20°C ~ 60°C (-4°F ~ 140°F) with free air for D525 CPU -20°C ~ 70°C (-4°F ~ 158°F) with free air for D525 CPU -20°C ~ 70°C (-4°F ~ 158°F) with force air for D425/D525 CPU -20°C ~ 75°C (-4°F ~ 167°F) with force air for N455 CPU Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slot	NA	NA	NA
CPU Cooler	CF-1156A/C/D/E	CF-989A-RS-R12	Heatsink (fanless) (optional CPU fan by 19FFD124010HB2A7-000001-RS)

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Industrial
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Solutions

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Open
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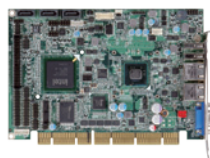
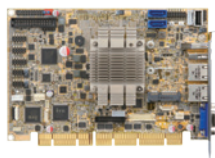
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Power Supply/
Peripherals

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All-in-One
System

Half-size PICOe, ISA Selection Guide

New

Model Name	PCISA-BT	PCISA-PV-D5251	IOWA-LX
CPU Socket	On board	On board	On board
CPU Type	Intel® Atom™ E3845 on-board SoC (1.91GHz, quad-core, 2MB cache, TDP=10W) Intel® Atom™ E3825 on-board SoC (1.33GHz, dual-core, 1MB cache, TDP=6W)	Intel® Atom™ D525 1.80GHz	AMD Geode™ LX600
Chipset	N/A	Intel® ICH8M	AMD Geode™ CS5536
Memory	One 204-pin 1066/1333 MHz single-channel DDR3L SDRAM unbuffered DIMM (system max. 8 GB)	One 204-pin 800 MHz DDR3 SDRAM SO-DIMM (system max. 4 GB)	On-board 128MB 200/266 MHz DDR SDRAM One 200-pin 200/266 MHz DDR SO-DIMM (system max. 512MB)
Display Interface	Dual display supported 1 x VGA 1 x iDP interface	Dual display supported 1 x VGA 1 x 18-bit single-channel LVDS	1 x VGA
Ethernet	LAN1: Intel® I211-AT PCIe controller LAN2: Intel® I211-AT PCIe controller	LAN1: Realtek RT8111E with ASF 2.0 support LAN2: Realtek RT8111E	10/100Mbps Realtek RTL8100C Ethernet controller
I/O Interface	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 2 x RS-232 2 x USB 3.0 8 x USB 2.0	1 x Infrared interface 1 x LPT 1 x PS/2 KB & MS 1 x RS-232/422/485 3 x RS-232 6 x USB 2.0	1 x Infrared interface 1 x LPT 1 x PS/2 KB/MS 1 x RS-422/485 2 x RS-232 4 x USB 2.0 (by pin header)
Driver Interface	1 x mSATA (colay SATA2, supports SATA 3Gb/s signal only) 2 x SATA 3Gb/s	1 x CF Type II 1 x FDD 1 x IDE 3 x SATA 3Gb/s	1 x CF Type II 1 x FDD 1 x IDE 2 x SATA (RAID 0, 1)
Audio	IEI AC-KIT-892HD-R10 7.1-channel HD Audio kit via the on-board 10-pin header connector		Realtek ALC203 with AC'97 codec
Digital I/O	8-bit digital I/O		
Power Consumption	5V@1.55A, 12V@0.74A (Intel® Atom™ E3845 1.91GHz CPU, one 8 GB 1600 MHz memory)	5V@3.36A, 12V@0.57A (Intel® dual-core Atom™ D525 1.80GHz with 1 GB 1066 MHz DDR3 memory)	5V@1.51A, 5VSb@0.09A (On-board AMD Geode™ LX600 CPU 366 MHz with on-board 128MB 200 MHz DDR memory and 512MB 333 MHz DDR memory)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset		
Operation Environment	Temperature Range: -20°C ~ 60°C (-4°F ~ 140°F) Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: -20°C ~ 60°C (-4°F ~ 140°F) with free air for D525 CPU -20°C ~ 70°C (-4°F ~ 158°F) with free air for D525 CPU -20°C ~ 70°C (-4°F ~ 158°F) with force air for D525 CPU Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: 0°C ~ 60°C (32°F ~ 140°F) Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slot	1 x PCIe Mini slot	NA	NA
CPU Cooler	NA	Heatsink (fanless) (optional CPU fan by 19FFD124010HB2A7-000001-RS)	Heatsink (fanless)

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All-in-One
System

PIC0e CPU Card

The Future of Half-sized CPU Cards

ISA → PCISA → PCI → PIC0e

1990~

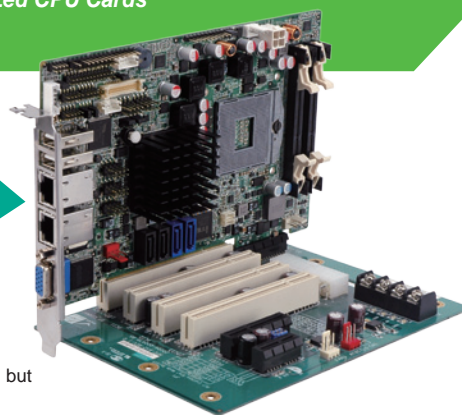
ISA

1996~

PCISA
ISA + PCI

2016~

PIC0e
PCI + PCIe x4



PIC0e-HM650

IEI Patent No CN: 200986704Y
From SIPO (State Intellectual Property Office of The P.R.C)

The advantages of PIC0e

PIC0e = PCI + PCIe x4

- PCIe has excellent I/O bandwidth and performance
- Backwards compatible with half-sized CPU cards
- Backplane design for half-size PCIe CPU cards is easy

The benefits of PIC0e

- Same dimensions, backwards compatible but half the size of PCI SBC
- Higher performance as PCI only solution for the same price
- More configuration options for the same price

The advantages of PIC0e

Increasing I/O bandwidth with leading technology

Specifications	ISA	PCI 33	PCIe x4
Support	(16 MB/s)	(132 MB/s)	(1250 MB/s)

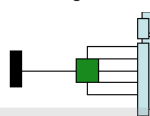
Backwards compatible with half-size PCI backplane and chassis

1. Dimensions: 185 mm x 122 mm
= All half-size CPU cards
Share the same chassis & I/O design
2. PCI pin definition same as PICMG 1.0 PCI
= All half-size PCI CPU cards
Share all half-size PCI backplanes

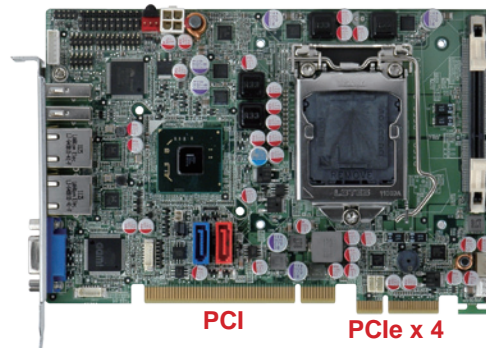
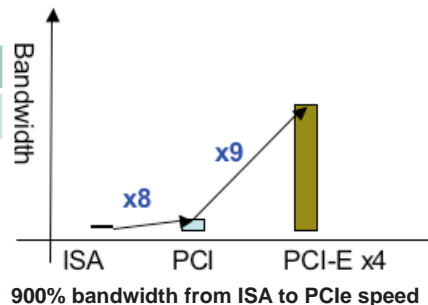
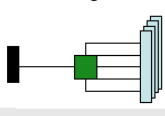
Quick design backplane

1. Four PCI slots and one PCIe x4 or four PCIe x1 lanes
More configuration options on the backplane with a PCI and PCIe slot
2. PCIe switches and bridges such as PLX or TI solutions

PCIe to PCI-X
PCIe Bridge PCI-X



PCIe to PCI
PCIe Bridge PCI



PIC0e-B650

IEI PIC0e backplane solutions

Complete PIC0e backplane solutions fully support all kinds of chassis and power modes. PIC0e is the easiest way to upgrade current systems from slow ISA+PCI architecture to the latest high performance PCIe+PCI solution.



CPU card (located on the right side of the first slot)

Model Name	PCI	PCIe x4	PCIe x1	PSU Type	Note
HPE-3S1	2			ATX/AT	CPU on R1st
HPE-3S2	1	1		ATX/AT	CPU on R1st
HPE-4S1	3			ATX/AT	CPU on R2nd
HPE-4S2	2	1		ATX/AT	CPU on R2nd
HPE-5S1	4			ATX/AT	CPU on R2nd
HPE-5S2	3	1		ATX/AT	CPU on R2nd
HPE-5S3	2	0	2	ATX/AT	CPU on R2nd
HPE-6S1	4	1		ATX/AT	CPU on R1st
HPE-7S1	4	0	2	ATX/AT	CPU on R2nd
HPE-8S0	4	0	2	ATX/AT	Reserved 1 Slot

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Industrial Computing Solutions

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Video Capture Solutions

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Industrial Computer Chassis

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Open Frame Monitor

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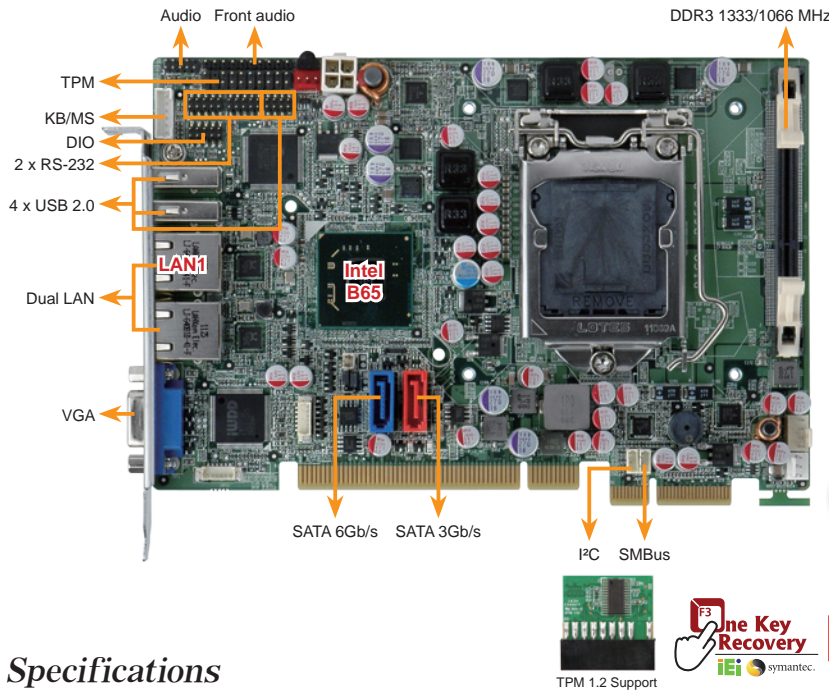
Power Supply/Peripherals

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All-in-One System

PIC0e-B650

Half-size PCIe CPU Card supports LGA 1155 32nm Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® B65, DDR3, VGA, Dual Realtek PCIe GbE, USB 2.0, SATA 6Gb/s, HD Audio and RoHS



2nd Gen Intel® Core™ Processors (TDP=35W) Recommended List

CPU No.	Clock speed	Core	Smart cache	TDP
i5-2390T	2.7GHz	2	3M	35W
i3-2120T	2.6GHz	2	3M	35W
G630T	2.3GHz	2	3M	35W
G530T	2.0GHz	2	2M	35W
G440	1.6GHz	1	1M	35W



The 2nd generation Intel® processors provide advanced technology and intelligent performance.

Specifications

- ◆ CPU
LGA 1155 socket supports Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor
- ◆ Chipset
Intel® B65
- ◆ Memory
One 240-pin 1333/1066 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs support up to 8 GB
- ◆ BIOS
UEFI
- ◆ Graphics Engine
Intel® HD Graphics Gen 6 supports DX10.1 and OpenGL 3.0
Full MPEG2, VC1, AVC decoding
- ◆ Display Output
1 x VGA (up to 2048x1536@75Hz)
- ◆ Ethernet
LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support
LAN2: Realtek RTL8111E PCIe GbE controller
- ◆ External I/O Interface
2 x USB 2.0
- ◆ Internal I/O Interface
1 x KB/MS (1x6 pin) 1 x LPT (2x13 pin) 1 x SATA 3Gb/s
1 x SATA 6Gb/s 2 x RS-232 (2x5pin, P=2.0) 2 x USB 2.0 (2x4 pin, P=2.0)
- ◆ Audio
Supports 7.1-channel HD Audio by IEI AC-KIT-892HD-R10 kit
- ◆ Front Panel
1 x Front panel connector (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ TPM
1 x TPM (2x10 pin)
- ◆ SMBus
1 x SMBus (1x4 pin)
- ◆ I2C
1 x I2C (1x4 pin)
- ◆ Expansion
PCIe signal and PCI signal via golden finger
- ◆ Watchdog Timer
Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O
8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
1 x CPU smart fan (1x4 pin) 1 x System smart fan (1x4 pin)
- ◆ Power Supply
5V/12V, AT/ATX support
- ◆ Power Consumption
5V@3.17A, 12V@0.46A, Vcore_12V@7.26A, 5VSB@0.18A (3.4GHz Intel® Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)
- ◆ Operating Temperature
-10°C ~ 60°C
- ◆ Storage Temperature
-20°C ~ 70°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Dimensions
185 mm x 122 mm
- ◆ Weight
GW: 1000g / NW: 260g

TPM 1.2 Support



Features

- Half-size PCIe CPU card with LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- One 1333/1066 MHz DDR3/DDR3L (1.35V) SDRAM SO-DIMM supports up to 8 GB
- On-board embedded controller supports infrared and PECI 2.0 technologies
- One SATA 6Gb/s and dual Realtek PCIe GbE
- TPM V1.2 hardware security provided by the TPM module
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Packing List

1 x PIC0e-B650 single board computer	
1 x Dual RS-232 cable with bracket	
1 x USB cable	1 x Mini jumper pack
2 x SATA cable	1 x QIG
1 x One Key Recovery CD	1 x Utility CD

Ordering Information

Part No.	Description
PIC0e-B650-R10	Half-size PCIe CPU card supports 32nm LGA 1155 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® B65, DDR3, VGA, dual Realtek PCIe GbE, USB 2.0, SATA 6Gb/s, HD Audio and RoHS
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-1156A-RS-R11	High-performance LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA 1155/LGA 1156 cooler kit, 1U chassis compatible, 65W
CPU-C-G440	Intel® Celeron® G440 processor, LGA -1155, single core 1.6GHz, 1M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-i3-2120T	Intel® Core™ i3-2120T processor, LGA 1155, dual core 2.6GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-i5-2390T	Intel® Core™ i5-2390T processor, LGA -1155, dual core 2.7GHz, 3M cache, 35W, AMT, compatible with CF-1156C-RS CPU cooler
CPU-DT-i5-2500T	Intel® Core™ i5-2500T processor, LGA -1155, quad core 2.3GHz, 6M cache, 45W, compatible with CF-1156C-RS CPU cooler
CPU-DT-P-G630T	Intel® Pentium® G630T processor, LGA 1155, dual core 2.3GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
SAIDE-KIT01-R10	SATA to IDE/CF converter board
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial Computer Chassis

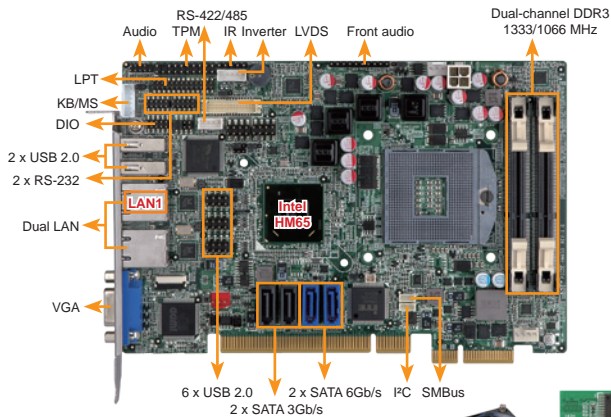
4 Open Frame Monitor

5 Power Supply/Peripherals

6 All-in-One System

PIC0e-HM650

Half-size PCIe CPU Card supports Socket 988B Intel® Mobile Core™ i7/i5/i3 or Celeron® CPU with Intel® HM65, DDR3, VGA, LVDS, Dual PCIe GbE, SATA 6Gb/s, HD Audio and RoHS



Features

- Half-size PCIe CPU card supports Socket G2 32nm Intel® Core™ i7/i5/i3 or Celeron® processor
- Up to 16 GB 1333/1066 MHz dual-channel DDR3 SDRAM
- Supports 18/24-bit dual-channel LVDS and analog CRT output
- High-speed I/O interface provided through the 2nd gen PCIe add-on card and SATA 6Gb/s connectors
- Rich media acceleration for hardware encoding and decoding
- TPM V1.2 hardware security provided by the TPM module
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU: Socket 988B Intel® Mobile Core™ i7/i5/i3 or Celeron® CPU
- ◆ Chipset: Intel® HM65
- ◆ Memory: Two 204-pin 1333/1066 MHz dual-channel DDR3 SDRAM unbuffered DIMMs support up to 16 GB
- ◆ BIOS: UEFI
- ◆ Graphics Engine: Intel® HD Graphics Gen 6 supports DX10.1 and OpenGL 3.0
- ◆ Full MPEG2, VC1, AVC Decode
- ◆ Display Output: Dual display supported
1 x VGA (up to 2048x1536@75Hz)
1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz)
- ◆ Ethernet: LAN1: Realtek RTL8111E GbE controller with ASF 2.0 support
LAN2: Realtek RTL8111E GbE controller
- ◆ External I/O Interface: 2 x USB 2.0
- ◆ Internal I/O Interface: 1 x KB/MS (1x6 pin) 1 x RS-422/485
2 x SATA 3Gb/s 2 x SATA 6Gb/s
2 x RS-232 (2x5pin, P=2.0)
6 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Audio: Supports 7.1-channel HD Audio by IEI AC-KIT-892HD-R10 kit
- ◆ Front Panel: 1 x Front panel connector (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ PC: 1 x PC (1x4 pin)
- ◆ Expansion: PCIe signal and PCI signal via golden finger
- ◆ Watchdog Timer: Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector: 1 x CPU smart fan (1x4 pin)
1 x System smart fan (1x4 pin)
- ◆ Power Supply: 5V/12V, AT/ATX support
- ◆ Power Consumption: 5V@3.99A, 12V@0.43A, Vcore_12V@3.80A, 5VSB@0.06A
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 185 mm x 122 mm
- ◆ Weight: GW: 1000g / NW: 260g

Packing List

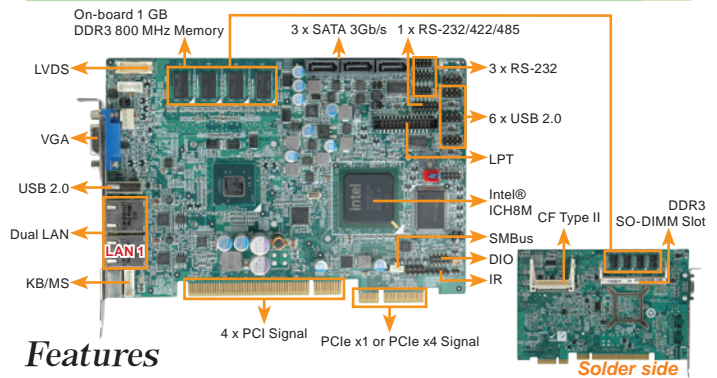
1 x PIC0e-HM650 single board computer	1 x Mini jumper pack
1 x Dual RS-232 cable	1 x One Key Recovery CD
1 x USB cable	1 x QIG
2 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
PIC0e-HM650-R10	Half-size PCIe CPU card supports Socket 988B Intel® Mobile Core™ i7/i5/i3 or Celeron® CPU with Intel® HM65, DDR3, VGA, LVDS, dual PCIe GbE, SATA 6Gb/s, HD Audio and RoHS
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32200-015100-RS	LPT flat cable, 240mm, P=2.54
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams
CF-989A-RS-R12	CPU cooler for mobile socket 989 and 55W CPU
CF-989B-RS-R11	CPU cooler for mobile socket 989 and 50W CPU
SAIDE-KIT01-R10	SATA to IDE/CF converter board
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

PIC0e-PV-D4251/N4551/D5251

Half-size PCIe CPU Card with Intel® Atom™ D425/N455/D525, DDR3, 1 GB Memory on Board, VGA, LVDS, Dual PCIe GbE, USB 2.0, SATA 3Gb/s, Audio and RoHS



Features

- PCIe CPU card supports four PCIe x1 or one PCIe x4, and four PCI
- Intel® Atom™ D525/D425/N455 processor
- 1 GB of DDR3 800 MHz SDRAM on board and one expansion SO-DIMM slot support
- Supports VGA and 18-bit single-channel LVDS with dual display support
- I/O includes three RS-232, one RS-232/422/485, seven USB 2.0 and three SATA 3Gb/s
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU: Intel® Atom™ Dual Core D525 processor (1.80GHz with 1MB L2 cache)
Intel® Atom™ Single Core N455 processor (1.66GHz with 512K L2 cache)
Intel® Atom™ Single Core D425 processor (1.80GHz with 512K L2 cache)
- ◆ Chipset: ICH8M
- ◆ BIOS: UEFI BIOS
- ◆ Memory: One 204-pin 800 MHz single-channel DDR3 SDRAM unbuffered DIMMs support up to 3 GB (D525/D425) or 1GB (N455)
On-board 1 GB DDR3 800 MHz memory
- ◆ Graphics Engine: GMA 3150
Gen3.5 DX9, 400 MHz for D525/D425
Gen3.5 DX9, 200 MHz for N455
- ◆ Display Output: 1 x VGA (up to 2048x1536(D525/D425) or 1024x768(N455)@60Hz)
1 x 18-bit single channel LVDS (up to 1366x768(D525/D425) or 1024x768(N455)@60Hz)
- ◆ Ethernet: LAN1: Realtek RTL8111E GbE controller with ASF 2.0 support
LAN2: Realtek RTL8111E GbE controller
- ◆ External I/O Interface: 1 x KB/MS 1 x USB 2.0
- ◆ Internal I/O Interface: 1 x CF Type II 1 x KB/MS (1x6 pin)
1 x LPT (2x13 pin) 2 x SATA 3Gb/s
1 x RS-232/422/485 (2x7 pin, P=2.0)
3 x RS-232 (2x5pin, P=2.0)
6 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ Infrared Interface: 1 x Infrared Interface (1x5 pin)
- ◆ Fan Connector: 1 x CPU smart fan (1x4 pin)
1 x System smart fan (1x4 pin)
- ◆ Expansion: 4 x PCI 4 x PCIe x1 or 1 x PCIe x4
- ◆ Audio: Supports 7.1-channel HD Audio by IEI AC-KIT-892HD-R10 kit
- ◆ Watchdog Timer: Software programmable supports 1~255 sec. system reset
- ◆ Power Consumption: 5V@3.38A, 12V@0.54A (Intel® Dual Core Atom™ D525 1.80GHz with 1 GB DDR3 800 MHz memory on board)
5V@3.28A, 12V@0.43A (Intel® Single Core Atom™ D425 1.80GHz with 1 GB DDR3 800 MHz memory on board)
5V@3.13A, 12V@0.32A (Intel® Single Core Atom™ N455 1.66GHz with 1 GB DDR3 800 MHz memory on board)
- ◆ Power Supply: 5V/12V, AT/ATX support
- ◆ Operating Temperature: -20°C ~ 65°C with free air, -20°C ~ 70°C with force air for D525 processor
-20°C ~ 65°C with free air, -20°C ~ 70°C with force air for D425 processor
-20°C ~ 70°C with free air, -20°C ~ 75°C with force air for N455 processor
- ◆ Storage Temperature: -30°C ~ 80°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 185 mm x 122 mm
- ◆ Weight: GW: 1000g / NW: 260g

Packing List

1 x PIC0e-PV-D4251/N4551/D5251 single board computer	
1 x Dual RS-232 cable	1 x Mini jumper pack
1 x KB/MS Y cable	1 x One Key Recovery CD
1 x USB cable	1 x QIG
3 x SATA cable	1 x Utility CD

Ordering Information

Part No.	Description
PIC0e-PV-D5251-R11	Half-size PCIe CPU card with Intel® Atom™ dual-core D525 1.80GHz/1MB L2, 1 GB memory on board, VGA, LVDS, dual PCIe GbE, USB 2.0, SATA 3Gb/s, audio and RoHS
PIC0e-PV-N4551-R11	Half-size PCIe CPU card with Intel® Atom™ single-core N455 1.66GHz/512K L2, 1 GB memory on board, VGA, LVDS, dual PCIe GbE, USB 2.0, SATA 3Gb/s, audio and RoHS
PIC0e-PV-D4251-R11	Half-size PCIe CPU card with Intel® Atom™ single-core D425 1.80GHz/512K L2, 1 GB memory on board, VGA, LVDS, dual PCIe GbE, USB 2.0, SATA 3Gb/s, audio and RoHS
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
19800-004300-100-RS	RS-232 & RS-422/485 cable with bracket, 14-pin to two DB-9, 250mm, P=2.0
19FFD124010HB2A7-000001-RS	CPU fan
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32200-015100-RS	LPT flat cable, 280mm, P=2.0
34000-000510-RS	30mm higher heatsink
AC-KIT-892HD-R10	7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams

PCI/PICoE Backplane

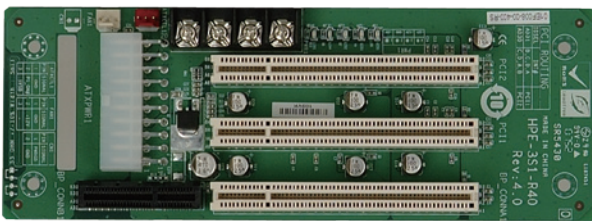
Selection Guide

PAC series wall-mount chassis

4U rack-mount chassis

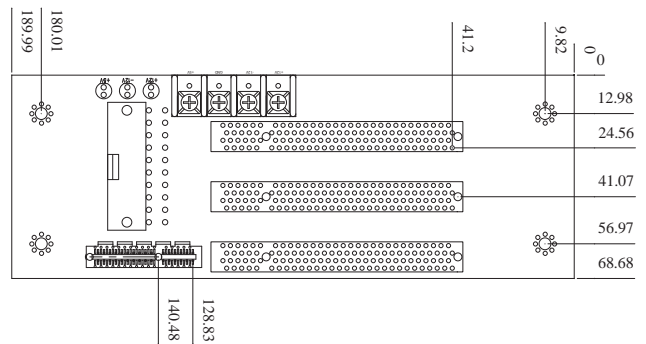
	PCIe/PCI	PCIe/PCI	HPE-3S1	HPE-3S2	HPE-4S1	HPE-4S2	HPE-5S1	HPE-5S2	HPE-5S3	HPE-6S1	HPE-8S
Total Slot			3	3	4	4	5	5	5	6	7
Expansion Slots	PCI		2	1	3	2	4	3	2	4	4
	PCIe	x4		1		1		1		1	
		x1							2		2
Chassis			N/A	N/A	PAC-42GH PAC-400G	PAC-42GH PAC-400G	PR-1500G RACK-500G	PR-1500G RACK-500G	PR-1500G RACK-500G	N/A	N/A

HPE-3S1-R41

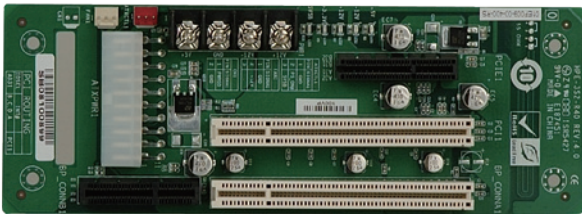


Ordering Information

HPE-3S1-R41 3-slot backplane with two PCI slots

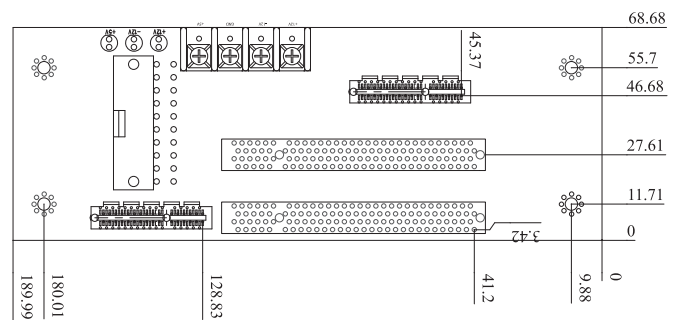


HPE-3S2-R41

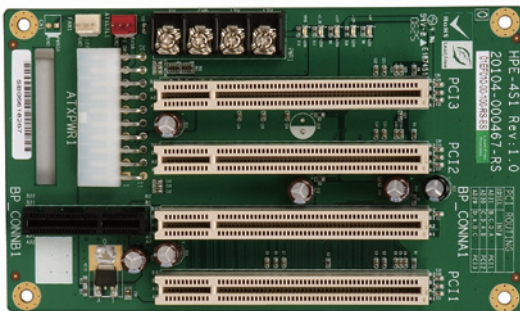


Ordering Information

HPE-3S2-R41 3-slot backplane with one PCI slot and one PCIe x4 slot

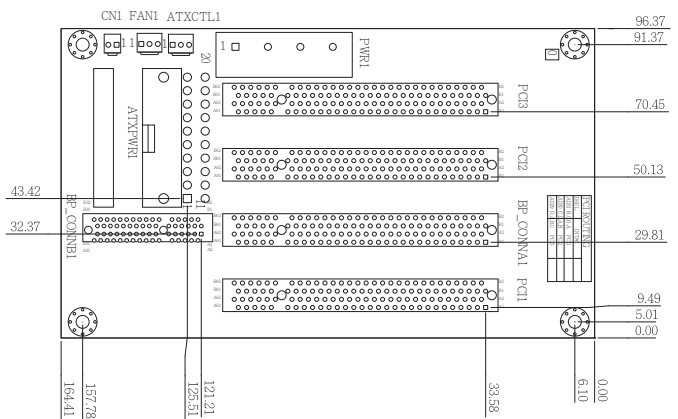


HPE-4S1-R41



Ordering Information

HPE-4S1-R41 4-slot backplane with three PCI slots
 PAC-42GH 4-slot half-size compact chassis
 PAC-400G 4-slot half-size compact chassis



1

Industrial Computing Solutions

2

Video Capture Solutions

3

Industrial Computer Chassis

4

Open Frame Monitor

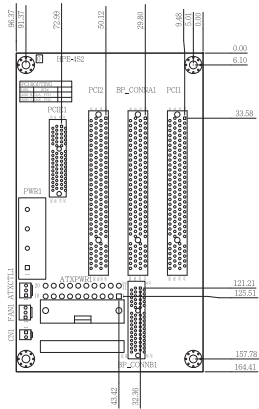
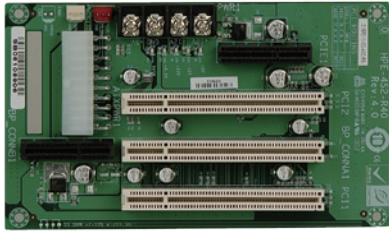
5

Power Supply/Peripherals

6

All-in-One System

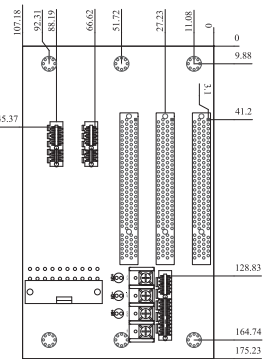
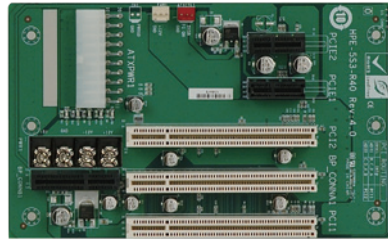
HPE-4S2-R41



Ordering Information

HPE-4S2-R41	4-slot backplane with two PCI slots and one PCIe x4 slot
PAC-42GH	4-slot half-size compact chassis
PAC-400G	4-slot half-size compact chassis

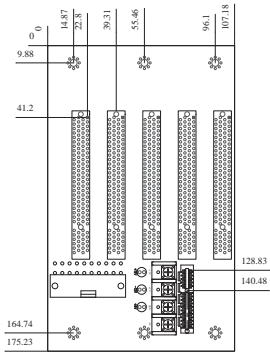
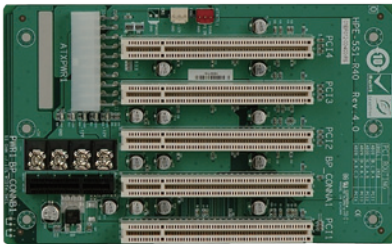
HPE-5S3-R40



Ordering Information

HPE-5S3-R40	5-slot backplane with two PCI slots and two PCIe x1 slots
PR-1500G	5-slot half-size compact chassis
RACK-500G	5U 5-slot full-size rack-mount chassis

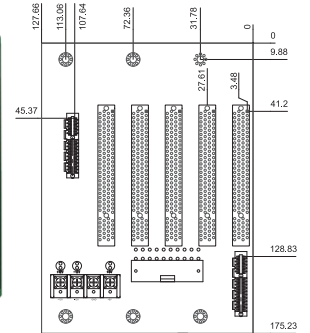
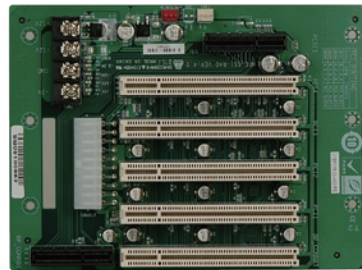
HPE-5S1-R51



Ordering Information

HPE-5S1-R51	5-slot backplane with four PCI slots
PR-1500G	5-slot half-size compact chassis
RACK-500G	5U 5-slot full-size rack-mount chassis

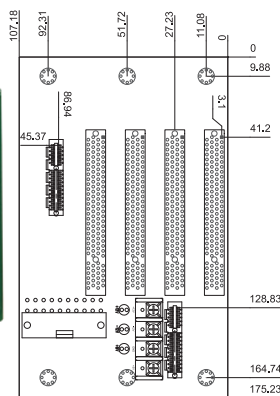
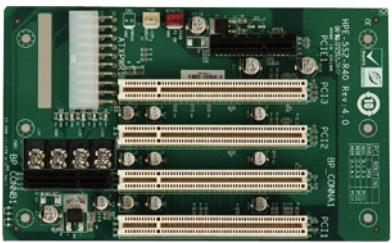
HPE-6S1-R41



Ordering Information

HPE-6S1-R41	6-slot backplane with four PCI slots and one PCIe x4 slot
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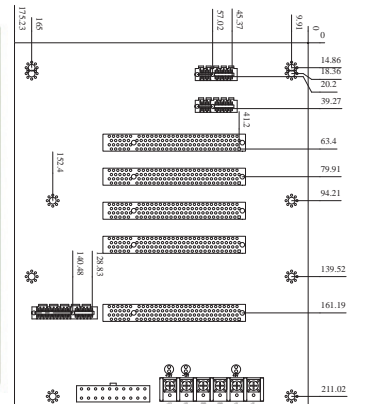
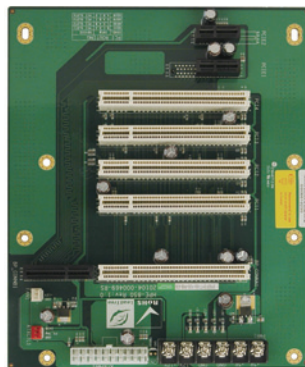
HPE-5S2-R40



Ordering Information

HPE-5S2-R40	5-slot backplane with three PCI slots and one PCIe x4 slot
PR-1500G	5-slot half-size compact chassis
RACK-500G	5U 5-slot full-size rack-mount chassis

HPE-8S0-R41



Ordering Information

HPE-8S0-R41	7-slot backplane with four PCI slots and two PCIe x1 slots
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1

Industrial Computing Solutions

2

Video Capture Solutions

3

Industrial Computer Chassis

4

Open Frame Monitor

5

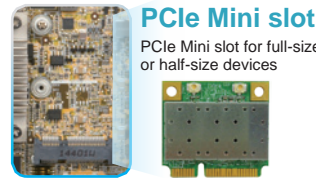
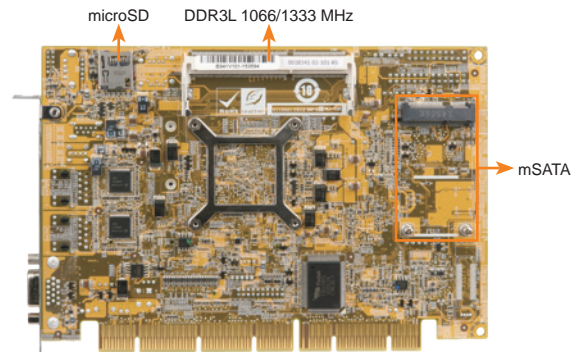
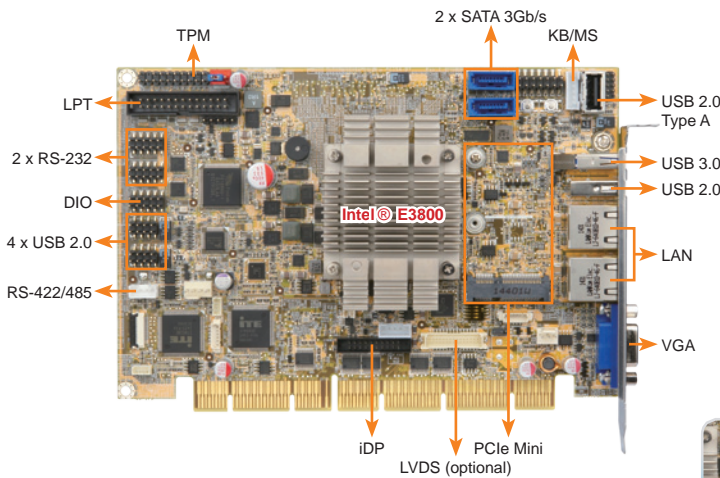
Power Supply/Peripherals

6

All-in-One System

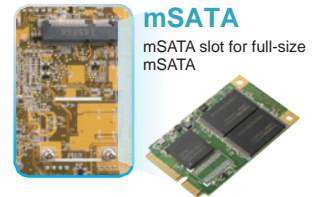
PCISA-BT

Half-size PCISA CPU Card supports Intel® 22nm Atom™ On-board SoC with VGA, iDP, Dual Intel® PCIe GbE, USB 3.0, PCIe Mini, SATA, mSATA, COM, Audio and RoHS



PCIe Mini slot

PCIe Mini slot for full-size or half-size devices



mSATA

mSATA slot for full-size mSATA



Specifications

- ◆ SoC
 - Intel® Atom™ E3845 on-board SoC (1.91GHz, quad-core, 2MB cache, TDP=10W)
 - Intel® Atom™ E3827 on-board SoC (1.75GHz, dual-core, 1MB cache, TDP=8W)
 - Intel® Atom™ E3826 on-board SoC (1.46GHz, dual-core, 1MB cache, TDP=7W)
 - Intel® Atom™ E3825 on-board SoC (1.33GHz, dual-core, 1MB cache, TDP=6W)
 - Intel® Atom™ E3815 on-board SoC (1.46GHz, single-core, 512KB cache, TDP=5W)
- ◆ Memory
 - One 204-pin 1333/1066 MHz single-channel DDR3L SDRAM unbuffered SO-DIMM slot supports up to 8GB
- ◆ Graphics Engine
 - Intel® HD Graphics Gen 7 Engines with 4 execution units, supporting DX11.1, OpenGL 4.2 and OpenCL 1.2
- ◆ Display Output
 - Dual independent display
 - 1 x VGA (up to 2560x1600@60Hz)
 - 1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz) (optional, MOQ: 100 pcs/lot)
 - 1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 2560x1600@60Hz)
- ◆ Ethernet
 - LAN1: Intel® I211-AT PCIe controller
 - LAN2: Intel® I211-AT PCIe controller
- ◆ External I/O Interface
 - 1 x USB 2.0
 - 1 x USB 3.0
- ◆ Internal I/O Interface
 - 1 x KB/MS (1x6 pin)
 - 1 x LPT (2x13 pin)
 - 1 x mSATA
 - 1 x RS-422/485 (1x4 pin, P=2.0)
 - 1 x USB 2.0 (180° Type-A)
 - 2 x RS-232 (2x5 pin, P=2.54)
 - 2 x SATA 3Gb/s
 - 4 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Audio
 - Supports 7.1-channel HD Audio by IEI AC-KIT-892HD kit
 - 1 x Front Audio (2x5 pin)
- ◆ TPM
 - 1 x TPM (2x10 pin)
- ◆ SMBus
 - 1 x SMBus (1x4 pin)
- ◆ I²C
 - 1 x I²C (1x4 pin)
- ◆ Infrared Interface
 - 1 x Infrared Interface (1x5 pin)
- ◆ Expansion
 - 1 x microSD socket
 - 1 x PCIe Mini slot
 - PCI and ISA signal via golden finger
- ◆ Watchdog Timer
 - Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O
 - 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector
 - 1 x CPU smart fan (1x4 pin)
 - 1 x System smart fan (1x3 pin)
- ◆ Power Supply
 - 5V/12V, AT/ATX support
- ◆ Power Consumption
 - 5V@1.55A, 12V@0.74A (Intel® Atom™ E3845 1.91GHz CPU with one 8 GB 1333 MHz memory)
- ◆ Operating Temperature
 - 20°C ~ 60°C
- ◆ Storage Temperature
 - 30°C ~ 70°C
- ◆ Dimensions
 - 185 mm x 128 mm
- ◆ Weight
 - GW: 1000g / NW: 250g

Features

- Half-size PCISA CPU card supports Intel® 22nm Atom™ or Celeron® on-board SoC
- Supports dual LAN by Intel® I211-AT PCIe controllers
- Supports 1.35 V 1333/1066 MHz DDR3L SDRAM up to 8 GB
- Supports dual independent display with one analog CRT, iDP and one 24-bit dual-channel LVDS (optional)
- COM, USB 3.0, SATA 3Gb/s, PCIe Mini, mSATA and HD Audio support
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Packing List

1 x PCISA-BT single board computer	1 x QIG
1 x SATA cable	1 x Utility CD

Ordering Information

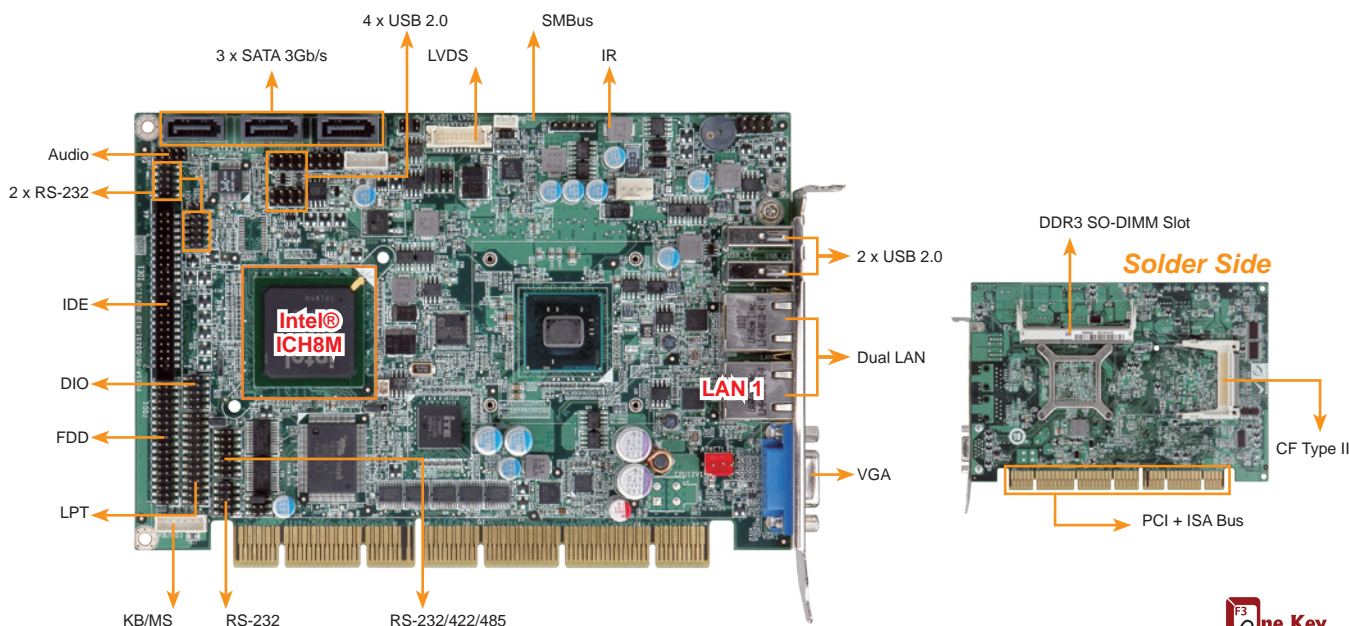
Part No.	Description
PCISA-BT-E38451-R10	Half-size PCISA CPU card supports Intel® Atom™ E3845 (10W) on-board SoC with VGA, iDP, dual Intel® PCIe GbE, USB 3.0, PCIe Mini, SATA, mSATA, COM, Audio and RoHS
PCISA-BT-E38251-R10	Half-size PCISA CPU card supports Intel® Atom™ E3825 (6W) on-board SoC with VGA, iDP, dual Intel® PCIe GbE, USB 3.0, PCIe Mini, SATA, mSATA, COM, Audio and RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
19800-020100-100-RS	RS-232 cable with bracket, Dual 10-pin to dual DB-9, 230mm, P=2.54
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
AC-KIT-892HD-R10	Realtek ALC892 7.1-channel HD Audio peripheral board
DP-DP-R10	DisplayPort to DisplayPort converter board (for IEI iDP connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for IEI iDP connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for IEI iDP connector)
DP-LVDS-R10	DisplayPort to LVDS converter board (for IEI iDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEI iDP connector)
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

Note: Models with other CPUs not listed in the table are requested by MOQ - 100 pcs/lot.

- 1 Industrial Computing Solutions
- 2 Video Capture Solutions
- 3 Industrial Computer Chassis
- 4 Open Frame Monitor
- 5 Power Supply/Peripherals
- 6 All-in-One System

PCISA-PV-D5251

Half-size PCISA CPU Card with Intel® Atom™ D425/N455/D525, DDR3, VGA, LVDS, Dual PCIe GbE, USB 2.0, Four COM, Three SATA 3Gb/s, Audio and RoHS



Specifications

- ◆ CPU
Intel® Atom™ D525 dual-core processor (1.80GHz/1MB L2 cache)
- ◆ Chipset
Intel® ICH8M
- ◆ BIOS
UEFI BIOS
- ◆ Memory
One 204-pin 800 MHz single-channel DDR3L SDRAM unbuffered SO-DIMM slot supports up to 4GB
- ◆ Graphics Engine
GMA 3150
Gen 3.5 DX9, 400 MHz for D525
- ◆ Display Output
1 x VGA (up to 2048x1536@60Hz)
1 x 18-bit single channel LVDS (up to 1366x768@60Hz)
- ◆ Ethernet
LAN1: Realtek RT8111E with ASF 2.0 support
LAN2: Realtek RT8111E
- ◆ External I/O Interface
2 x USB 2.0
- ◆ Internal I/O Interface
1 x CF Type II
1 x FDD (2x17 pin)
1 x IDE (2x10 pin, P=2.0)
1 x IR (1x5 pin)
1 x KB/MS (1x6 pin)
1 x LPT (2x13 pin, P=2.0)
1 x RS-232/422/485 (2x7 pin, P=2.0)
3 x RS-232 (2x5pin, P=2.0)
4 x SATA 3Gb/s
4 x USB 2.0 (2x4 pin, P=2.54)
- ◆ Audio
Realtek ALC888 HD codec
1 x Front audio (2x5 pin)
- ◆ SMBus
1 x SMBus (1x4 pin)
- ◆ Expansion
4 x PCI bus support
- ◆ Digital I/O
8-bit digital I/O (2x5 pin)
- ◆ Watchdog Timer
Software programmable supports 1~255 sec. system reset
- ◆ Fan Connector
1 x Smart fan (1x4 pin)
- ◆ Power Supply
5V/12V, AT/ATX mode support
- ◆ Power Consumption
5V@3.36A, 12V@0.57A (Intel® dual-core Atom™ D525 1.80GHz with 1 GB 1066 MHz DDR3 memory)
- ◆ Operating Temperature
-20°C ~ 60°C with free air, -20°C ~ 70°C with force air for D525 processor
- ◆ Storage Temperature
-30°C ~ 80°C
- ◆ Operating Humidity
5% ~ 95%, non-condensing
- ◆ Weight
GW: 1000g / NW: 250g

Features

- PCISA CPU card supports PCI and ISA bus expansion
- Supports Intel® Atom™ D525 processor
- Supports VGA and 18-bit single-channel LVDS with dual display
- Supports 800 MHz DDR3 SDRAM SO-DIMM up to 4 GB
- Supports four COM, six USB 2.0, three SATA 3Gb/s, IDE and CF Type II
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Packing List

1 x PCISA-PV-D5251 single board computer
1 x LPT/RS-232 cable
1 x USB cable
1 x Audio cable
3 x SATA cable
1 x Mini jumper pack
1 x One Key Recovery CD
1 x QIG
1 x Utility CD

Ordering Information

Part No.	Description
PCISA-PV-D5251-R10	PCISA CPU card with Intel® Atom™ D525 1.80GHz, VGA, LVDS, dual PCIe GbE, USB 2.0, 4 COM, 3 SATA 3Gb/s, audio and RoHS
19800-000075-RS	PS/2 KB/MS cable with bracket, 220mm, P=2.0
19800-004300-100-RS	RS-232 & RS-422/485 cable with bracket, 14-pin to two DB-9, 250mm, P=2.0
19FFD124010HB2A7-000001-RS	CPU fan
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32200-000009-RS	IDE Flat Cable, 400mm, 44 pin to 44pin (P=2.0)
32221-001700-100-RS	IDE Flat Cable, 350mm, 44 pin to 40 pin to 40 pin (P=2.0, 2.54, 2.54)
32229-000400-100-RS	FDD Cable, 350mm, P=2.0
34000-000510-RS	30mm higher heatsink

1

Industrial
Computing
Solutions

2

Video
Capture
Solutions

3

Industrial
Computer
Chassis

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Open
Frame
Monitor

5

Power Supply/
Peripherals

6

All-in-One
System

IP/IPX Series Backplane

Supports PCI and ISA slot on one backplane!
For half-size PCISA series single board computers

The advantages of using the PCISA card are numerous:

1. Supports standard PISA version 1.0 slot on the IP/IPX series passive backplane.
2. Compatible with all available PCI/ISA cards. IP/IPX backplane is also integrated with the PCISA series card slot.

Selection Guide

 PAC series wall-mount chassis  4U rack-mount chassis



Model	IP-3S-RS	IP-3SA-RS	IP-4S-RS	IP-4S2-RS	IP-4S2A-RS	IP-4S4-RS
Total Slot	3	3	4	4	4	4
PCI Slot	2	2	3	2	3	
ISA Slot				1		3
PSU Type	AT	ATX	AT	AT	ATX	AT
Chassis	PAC-53GH	N/A	PAC-400G PAC-42GH	PAC-400G PAC-42GH	PAC-400G	PAC-400G PAC-42GH



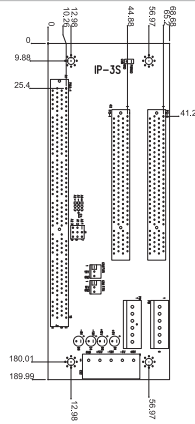
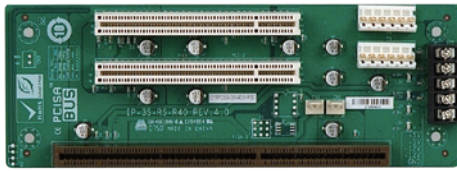
Model	IP-5S2-RS	IP-5SA-RS	IP-5SA2-RS	IP-6S-RS	IP-6SA-RS	IP-7SA-RS
Total Slot	5	5	5	6	6	7
PCI Slot	4	3	4	3	3	4
ISA Slot		1		2	2	2
PSU Type	AT	ATX	ATX	AT	ATX	ATX
Chassis	PR-1500G	PR-1500G	PR-1500G	PAC-1000G	PAC-106G PAC-1000G	PAC-700G PAC-1700G



Model	IP-8S-RS	IPX-9S-RS	IP-10S-RS	IPX-13S-RS
Total Slot	8	9	10	13
PCI Slot	4	8	4	12
ISA Slot	3		5	
PSU Type	ATX/AT	ATX/AT	ATX/AT	ATX/AT
Chassis	PAC-125G	PAC-125G	PAC-125G	RACK-305G RACK-360G RACK-3000G

- 1 Industrial Computing Solutions
- 2 Video Capture Solutions
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- 5 Power Supply/Peripherals
- 6 All-in-One System

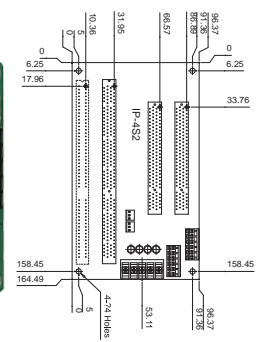
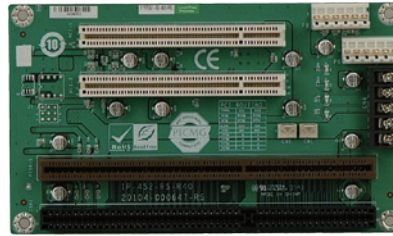
IP-3S-RS-R40



Ordering Information

IP-3S-RS-R40	3-slot backplane with two PCI slots
PAC-53GH	3-slot half-size compact chassis

IP-4S2-RS-R40

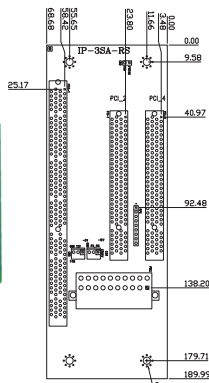
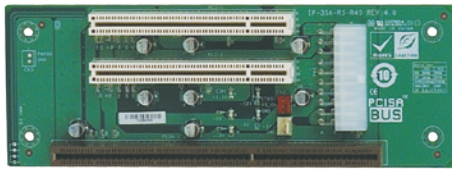


Ordering Information

IP-4S2-RS-R40	4-slot backplane with two PCI slots and one ISA slot
PAC-400G	4-slot half-size compact chassis
PAC-42GH	4-slot half-size compact chassis

IP-3SA-RS-R40

ATX power

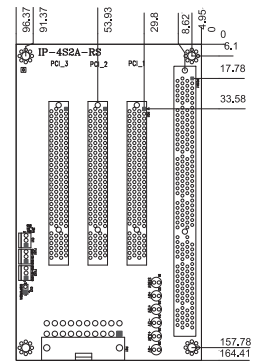
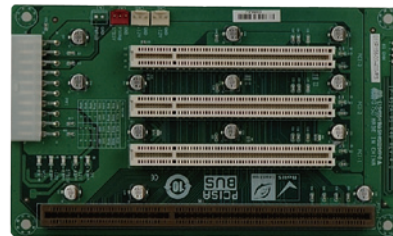


Ordering Information

IP-3SA-RS-R40	3-slot backplane with two PCI slots
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IP-4S2A-RS-R40

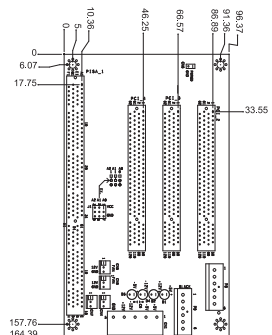
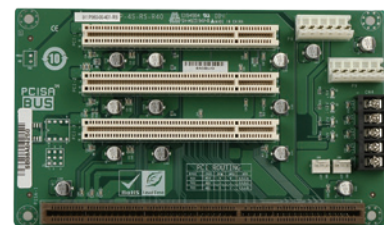
ATX power



Ordering Information

IP-4S2A-RS-R40	4-slot backplane with three PCI slots
PAC-400G	4-slot half-size compact chassis

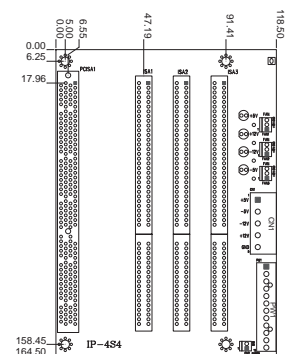
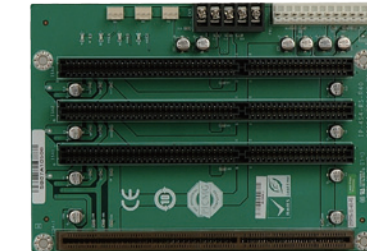
IP-4S-RS-R40



Ordering Information

IP-4S-RS-R40	4-slot backplane with three PCI slots
PAC-400G	4-slot half-size compact chassis
PAC-42GH	4-slot half-size compact chassis

IP-4S4-RS-R40



Ordering Information

IP-4S4-RS-R40	4-slot backplane with three ISA slots
PAC-400G	4-slot half-size compact chassis
PAC-42GH	4-slot half-size compact chassis

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Industrial Computing Solutions

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Industrial Computer Chassis

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Open Frame Monitor

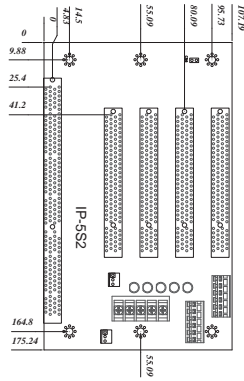
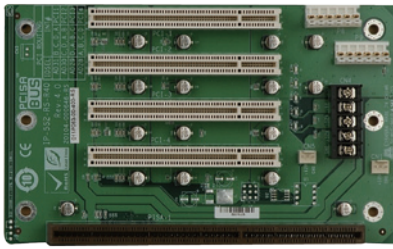
5

Power Supply/Peripherals

6

All-in-One System

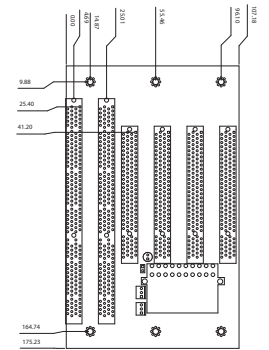
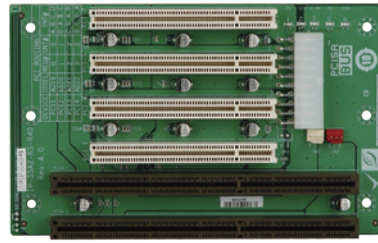
IP-5S2-RS-R40



Ordering Information

IP-5S2-RS-R40	5-slot backplane with three PCI slots
PR-1500G	5-slot half-size compact chassis

IP-5SA2-RS-R40

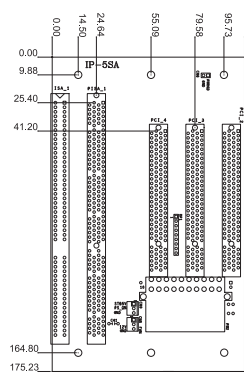
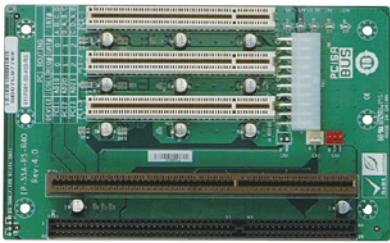


Ordering Information

IP-5SA2-RS-R40	5-slot backplane with four PCI slots
PR-1500G	5-slot half-size compact chassis

IP-5SA-RS-R40

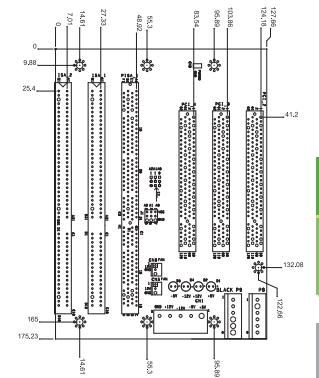
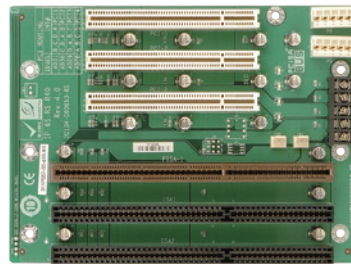
ATX power



Ordering Information

IP-5SA-RS-R40	5-slot backplane with three PCI slots and one ISA slot
PR-1500G	5-slot half-size compact chassis

IP-6S-RS-R40

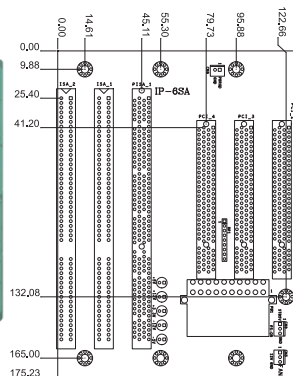
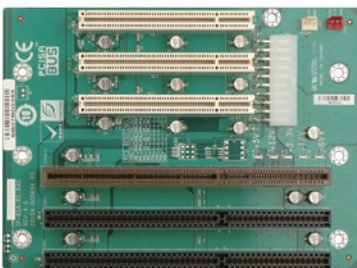


Ordering Information

IP-6S-RS-R40	6-slot backplane with three PCI slots and two ISA slots
PAC-1000G	6-slot full-size compact chassis

IP-6SA-RS-R40

ATX power

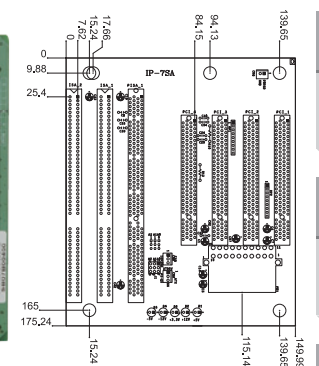
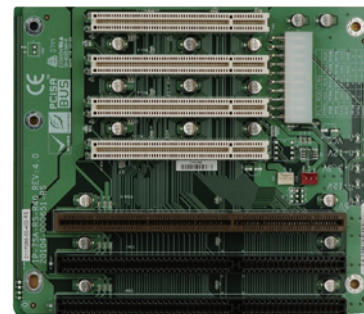


Ordering Information

IP-6SA-RS-R40	6-slot backplane with three PCI slots and two ISA slots
PAC-106G	6-slot full-size compact chassis
PAC-1000G	6-slot full-size compact chassis

IP-7SA-RS-R40

ATX power



Ordering Information

IP-7SA-RS-R40	7-slot backplane with three PCI slots and two ISA slots
PAC-700G	7-slot half-size compact chassis
PAC-1700G	7-slot full-size compact chassis

1 Industrial Computing Solutions

2 Video Capture Solutions

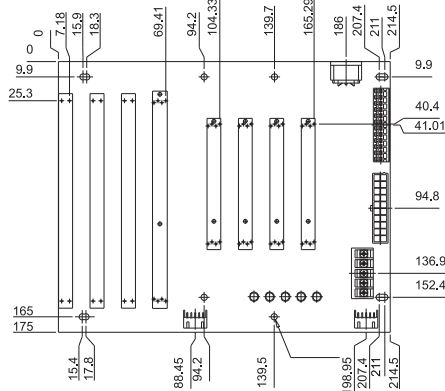
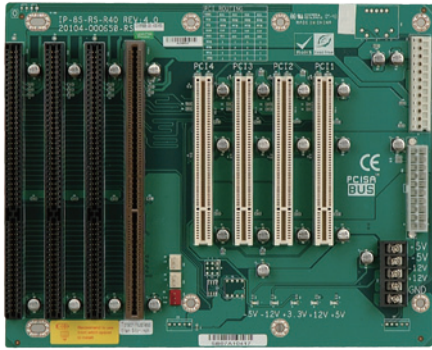
3 Industrial Computer Chassis

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5 Power Supply/Peripherals

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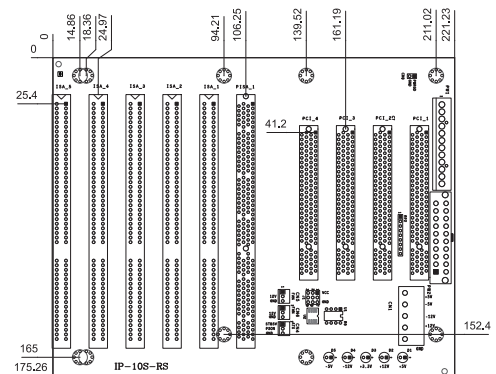
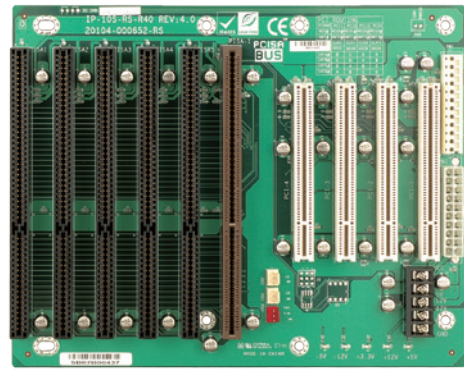
IP-8S-RS-R40



Ordering Information

IP-8S-RS-R40	8-slot backplane with four PCI slots and three ISA slots
PAC-125G	10-slot full-size compact chassis

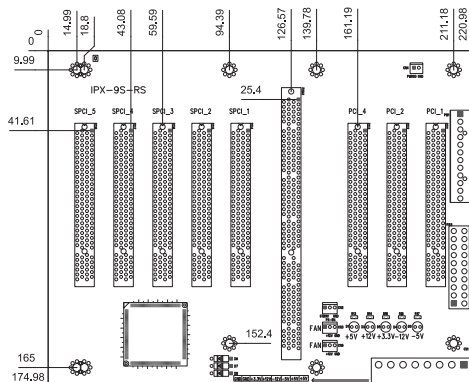
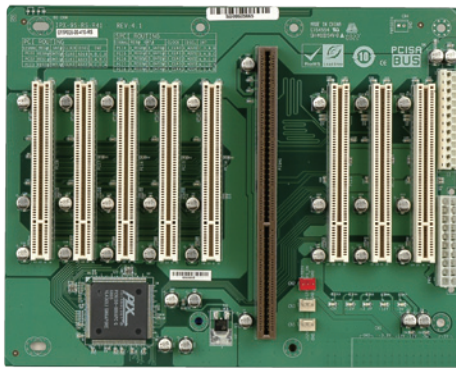
IP-10S-RS-R40



Ordering Information

IP-10S-RS-R40	10-slot backplane with four PCI slots and five ISA slots
PAC-125G	10-slot full-size compact chassis

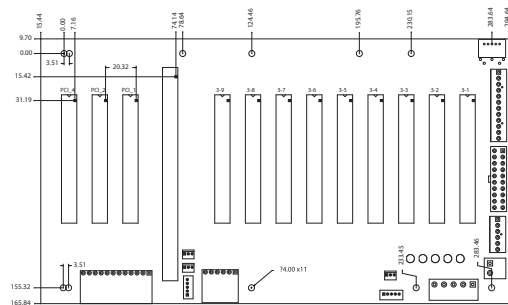
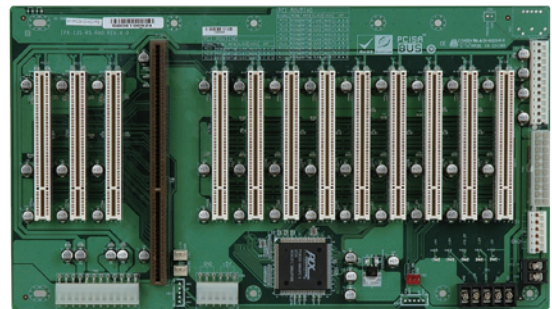
IPX-9S-RS-R41



Ordering Information

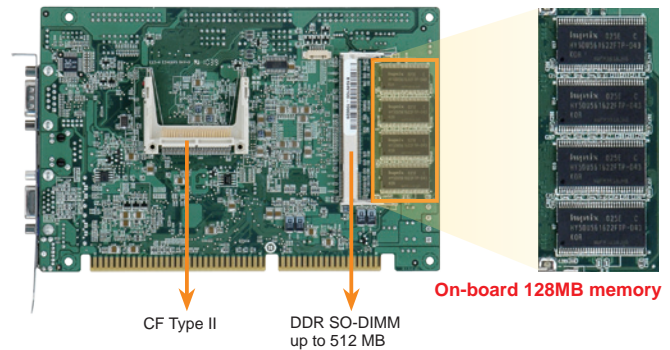
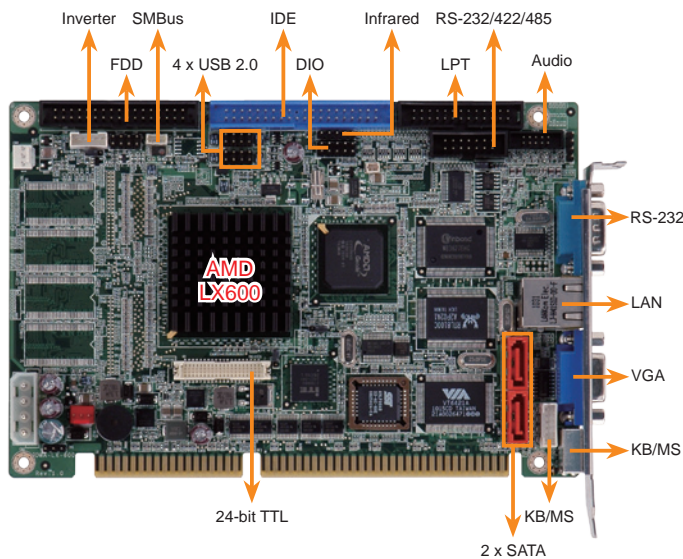
IPX-9S-RS-R41	9-slot backplane with eight PCI slots
PAC-125G	10-slot full-size compact chassis

IPX-13S-RS-R40

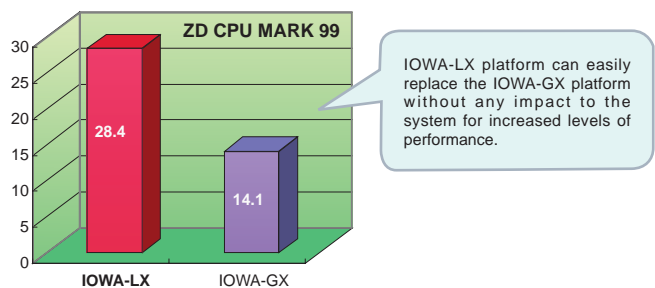


IOWA-LX

Half-size Pure ISA CPU Card with On-board AMD Geode™ LX600 Processor (366 MHz), 128KB L2 cache, On-board 128MB Memory, VGA, LAN, USB 2.0, CF, COM, LPT, Audio and RoHS



Performance Comparison Chart



Specifications

- ◆ CPU
 - On-board AMD Geode™ LX600 processor (366 MHz), 128KB L2 cache
- ◆ Chipset
 - AMD Geode™ CS5536
- ◆ BIOS
 - Award BIOS
- ◆ Memory
 - One 200-pin 266/200 MHz DDR SDRAM SO-DIMMs supports up to 512MB
 - On-board 128MB DDR 266/200 MHz memory
- ◆ Graphics Engine
 - VGA integrated in the AMD Geode™ LX600
- ◆ Display Output
 - Single HD VOP 2.0 output
 - 1 x VGA (up to 1920x1440)
 - 1 x TFT (up to 1600x1200)
- ◆ External I/O Interface
 - 1 x KB/MS
 - 1 x RS-232
- ◆ Internal I/O Interface
 - 1 x CF Type II
 - 1 x RS-232/422/485 (2x7 pin, P=2.54)
 - 1 x FDD (2x17 pin)
 - 1 x LPT (2x13 pin)
 - 1 x IDE (2x10 pin)
 - 4 x USB 2.0 (2x4 pin, P=2.54)
 - 4 x SATA (RAID 0/1 supported on IOWA-LX-600S-R10)
- ◆ Ethernet
 - 10/100Mbps Realtek RTL8100C Ethernet controller
- ◆ Audio
 - Realtek ALC203 with AC'97 codec
 - 1 x Front audio (2x5 pin)
- ◆ Expansion
 - ISA bus supported via golden finger
- ◆ Digital I/O
 - 8-bit digital I/O (2x5 pin)
- ◆ Infrared Interface
 - 1 x Infrared Interface (1x5 pin)
- ◆ Watchdog Timer
 - Software programmable supports 1~255 sec. system reset
- ◆ FAN connector
 - 1 x Smart fan (1x3 pin)
- ◆ Power supply
 - 5V/12V, AT/ATX support
- ◆ Power Consumption
 - 5V @ 1.51A, 5Vsb @ 0.09A
 - (On-board AMD Geode™ LX 600 CPU 366 MHz with 128MB 200 MHz on-board DDR memory and 512MB 333 MHz DDR memory)
- ◆ Operating Temperature
 - 10°C ~ 60°C
- ◆ Storage Temperature
 - 20°C ~ 70°C
- ◆ Operating Humidity
 - 5% ~ 95%, non-condensing
- ◆ Weight
 - GW: 1000g / NW: 250g



Features

- ISA CPU card with on-board AMD Geode™ LX600 processor (366 MHz), 128KB L2 cache
- Flexible on-board DDR SDRAM and one SO-DIMM slot
- Enhanced TTL, RS-232, RS-422/485 and USB 2.0 interfaces for extended connectivities
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Packing List

1 x IOWA-LX-600 single board computer
1 x Audio cable
1 x IDE flat cable
1 x KB/MS Y cable
1 x USB cable
1 x Mini jumper pack
1 x One Key Recovery CD
1 x QIG
1 x Utility CD

Ordering Information

Part No.	Description
IOWA-LX-600-R10	Half-size pure ISA CPU card with on-board AMD Geode™ LX600 processor (366 MHz), 128KB L2 cache, on-board 128MB memory, VGA, LAN, USB 2.0, COM, CF, LPT, audio and RoHS
IOWA-LX-600S-R10	Half-size pure ISA CPU card with on-board AMD Geode™ LX600 processor (366 MHz), 128KB L2 cache, on-board 128MB memory, VGA, LAN, USB 2.0, SATA, CF, COM, LPT, Audio and RoHS
19800-000049-RS	LPT flat cable, 240mm, P=2.54
19800-004400-200-RS	RS-232 & RS-422/485 cable with bracket, 14-pin to two DB-9, 255mm, P=2.54
32801-000703-500-RS	SATA (7-pin to 7-pin) cable, 500mm
32200-000017-RS	FDD Cable, 520mm, P=2.54

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BP Series Backplane

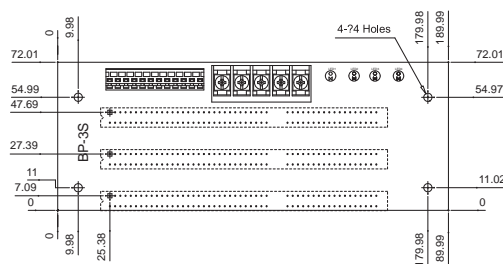
Selection Guide

PAC series wall-mount chassis 4U rack-mount chassis



Model	BP-3S-RS-R40	BP-4S-RS-R40	BP-5S-RS-R40	BP-6S-RS-R40	BP-7S-RS-R40	BP-8S-RS-R41	BP-10S-RS-R40
Total Slot	3	4	5	6	7	8	10
ISA Slot	3	4	5	6	7	8	10
PSU Type	AT	AT	AT	AT	AT	AT	AT
Chassis	PAC-53GH	PAC-400G PAC-42GH	PR-1500G	PAC-106G PAC-1000G	PAC-700G PAC-1700G	N/A	PAC-125G

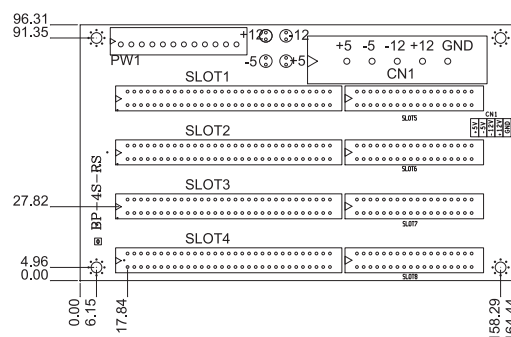
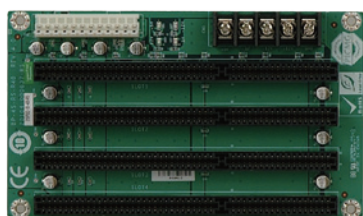
BP-3S-RS-R40



Ordering Information

BP-3S-RS-R40	3-slot backplane with three ISA slots
PAC-53GH	3-slot half-size compact chassis

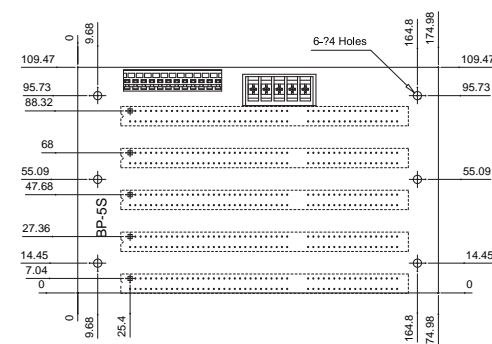
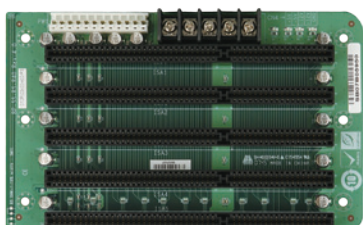
BP-4S-RS-R40



Ordering Information

BP-4S-RS-R40	4-slot backplane with four ISA slots
PAC-400G	4-slot half-size compact chassis
PAC-42GH	4-slot half-size compact chassis

BP-5S-RS-R40



Ordering Information

BP-5S-RS-R40	5-slot backplane with five ISA slots
PR-1500G	5-slot half-size compact chassis

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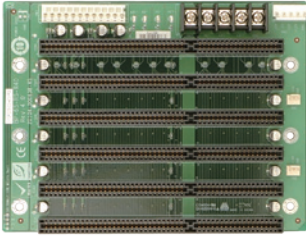
5

Power Supply/Peripherals

6

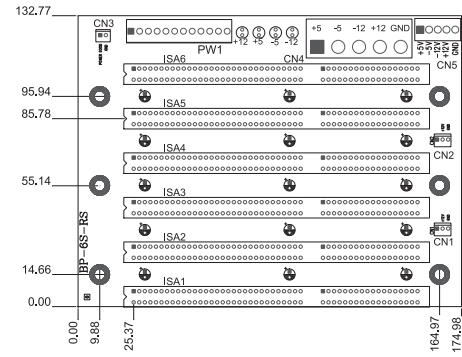
All-in-One System

BP-6S-RS-R40

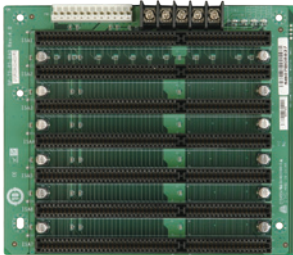


Ordering Information

BP-6S-RS-R40	6-slot backplane with six ISA slots
PAC-106G	6-slot full-size compact chassis
PAC-1000G	6-slot full-size compact chassis

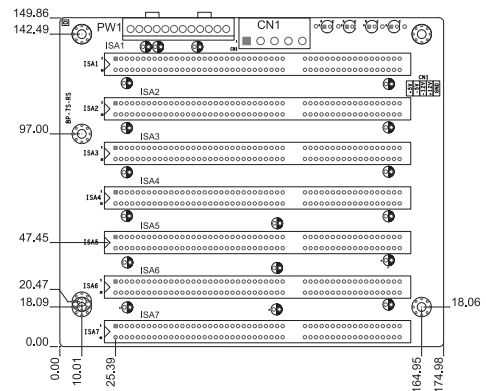


BP-7S-RS-R40

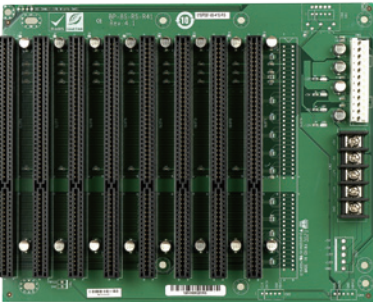


Ordering Information

BP-7S-RS-R40	7-slot backplane with seven ISA slots
PAC-700G	7-slot half-size compact chassis
PAC-1700G	7-slot full-size compact chassis

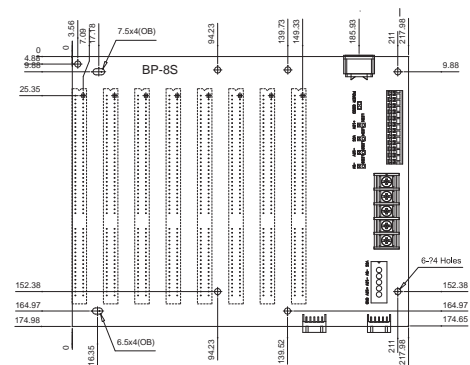


BP-8S-RS-R41

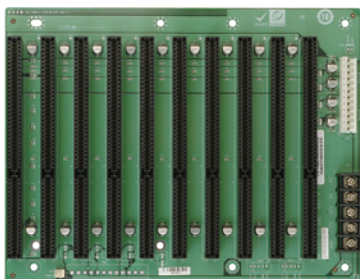


Ordering Information

BP-8S-RS-R41	8-slot backplane with eight ISA slots
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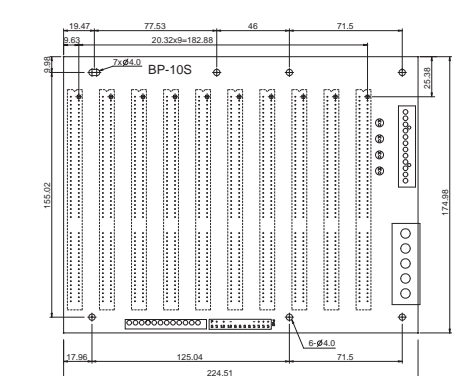


BP-10S-RS-R40



Ordering Information

BP-10S-RS-R40	10-slot backplane with ten ISA slots
PAC-125G	10-slot full-size compact chassis



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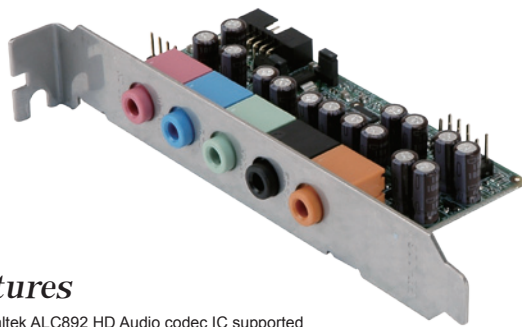
4 Open Frame Monitor

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AC-KIT-892HD

Realtek ALC892 7.1-Channel HD Audio Peripheral Board, RoHS



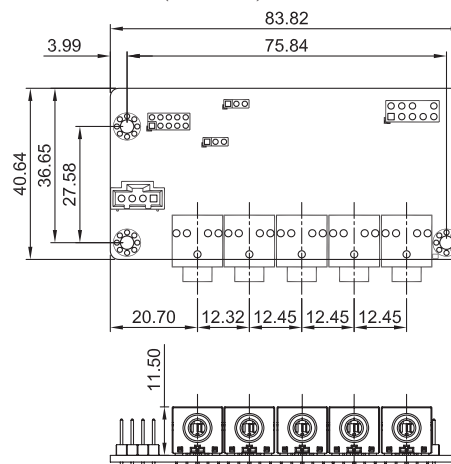
Features

- Realtek ALC892 HD Audio codec IC supported
- Five audio jacks for microphone, 7.1+2-channel high definition audio input and output
- High performance 7.1+2-channel high definition audio board provides 7.1-channel sound playback and multiple streaming through the front panel stereo outputs
- Digital to Analog Converter (DAC) with 97dB Signal to Noise Ratio (SNR)
- Analog to Digital Converter (ADC) with 90dB Signal to Noise Ratio (SNR)
- All the Digital to Analog Converter (DAC) supports 44.1k/48k/96k/192kHz sampling rate
- All the Analog to Digital Converter (ADC) supports 44.1k/48k/96kHz sampling rate
- Driver supports Windows® 2000/2003/XP/VISTA/7 (32/64 bits) and Linux (Ubuntu or Debian)

Packing List

1 x AC-KIT-892HD audio peripheral board	
1 x Audio cable	1 x QIG

Dimensions (Unit: mm)



Ordering Information

AC-KIT-892HD-R10	Realtek ALC892 7.1-channel HD Audio peripheral board
32107-001100-100-RS	Audio cable with length of 200 mm, 2 x 5-pin, pitch=2.0 mm

AC-KIT08R

Audio Converter Card via Realtek ALC665 AC'97 5.1-Channel Audio Daughter Board, RoHS



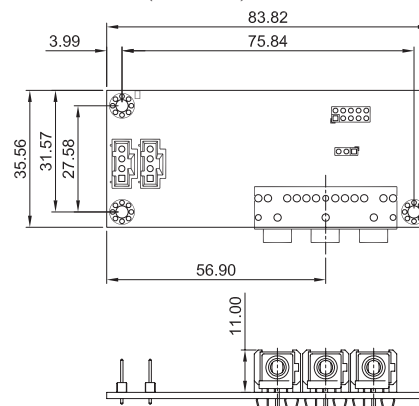
Features

- Realtek ALC665 AC'97 audio codec IC supported
- Three audio jacks for microphone, 5.1-channel AC'97 audio input and output
- Full duplex AC'97 2.3 compatible 5.1-channel audio codec designed for PC multimedia system
- Supports double sampling rate (96kHz) of DVD audio playback
- Driver supports Windows® 2000/2003/XP/VISTA/7 (32/64 bits) and Linux (Ubuntu or Debian)

Packing List

1 x AC-KIT08R audio peripheral board	
1 x Audio cable	1 x QIG

Dimensions (Unit: mm)

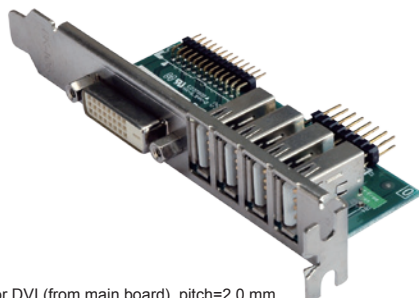


Ordering Information

AC-KIT08R-R10	Realtek ALC665 AC'97 5.1-channel audio peripheral board
32107-001100-100-RS	Audio cable with length of 200 mm, 2 x 5-pin, pitch=2.0 mm

IO-KIT-001-R20

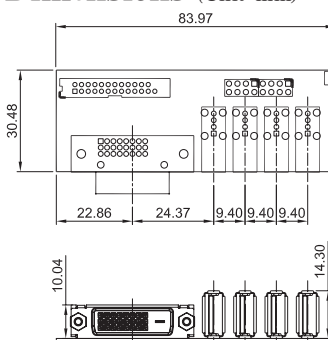
DVI and 4 x USB 1.1/2.0 Translation Daughter Board with Bracket, RoHS



Features

- 26-pin header for DVI (from main board), pitch=2.0 mm
- 2 x 8-pin header for USB 1.1/2.0 (from main board, four sets), pitch=2.54 mm
- DVI-D connector on edge
- Four USB 1.1/2.0 connectors on edge

Dimensions (Unit: mm)



Packing List

1 x IO-KIT-001-R20 (DVI and four USB 1.1/2.0 translation daughter board)
1 x DVI cable
1 x USB cable
1 x QIG

Ordering Information

IO-KIT-001-R20	DVI and four USB 1.1/2.0 translation daughter board
32001-009900-100-RS	USB cable with length of 200 mm, 2 x 8-pin, pitch=2.54 mm
32104-000100-100-RS	DVI cable with length of 200 mm, 2 x 13-pin, pitch=2.0 mm

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