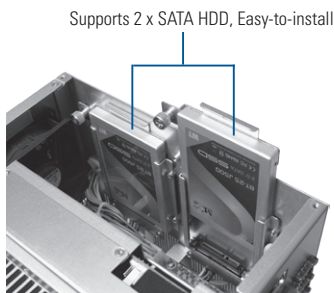
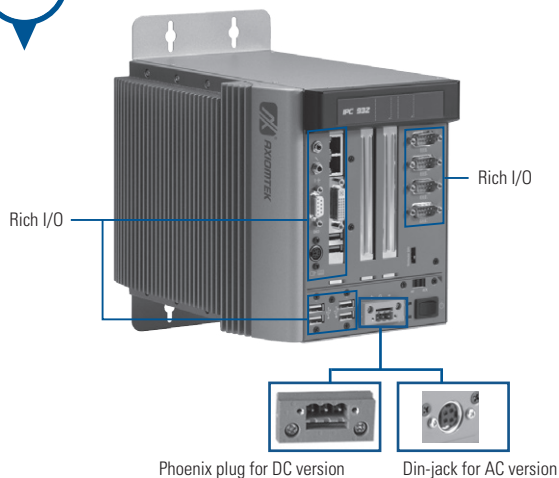


IPC932-230-FL-ECM

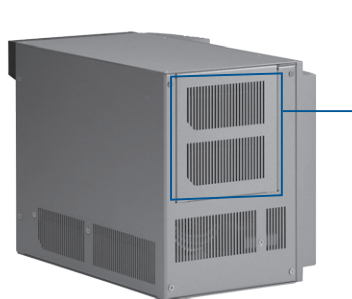
2-slot Fanless EtherCAT Master Controller with 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processors (up to 3.3 GHz) , Intel® Q87 Chipset, PCIe and PCI Slots

NEW



Features

- 4th generation Intel® Core™ i7/i5/i3 & Celeron® processors, up to 45W (Codename Haswell/Haswell Refresh)
- Intel® Q87 chipset
- Supports two expansion slots
- DC to DC power supply supports 10~30V
- Compact & front I/O design
- Rugged, up to -10°C ~ +50°C fanless operation with W.T. SSD or W.T. CFast™
- Supports Intel® AMT 9.0
- Supports two 2.5" SATA HDD
- Supports SATA 6Gbs with RAID 0,1
- Support IntervalZero Windows real-time extension RTX2012
- 1 EtherCAT port, 1 GbE LAN port
- Verified with IntervalZero EtherCAT solution KingStarI032
- EtherCAT communication cycle 100/125µs
- Supports Acontis EtherCAT master stack



Optional fan module helps heat dissipation generated by PCI/PCIe cards
Size: 80 mm (W) x 80 mm (H) x 25 mm (D)

▲ Rear view



Specifications

Standard Color	Sliver
Construction	Aluminum extrusion heavy-duty cold-rolled steel, IP30
System Board	SHB230DGGA
Processor	4th generation Intel® Core™ i7/i5/i3 & Celeron® processors up to 45W (Codename Haswell/Haswell Refresh)
System	
CPU Level	4th generation Intel® Core™ i7/i5/i3 & Celeron® processors up to 45W (Codename Haswell/Haswell Refresh)
Max. Speed	3.3 GHz
Front Side Bus	N/A
Chipset	Intel® Q87
System Memory	2 x 204-pin DDR3-1333/1600 SO-DIMM, max. up to 16 GB
I/O Interface (Front)	ATX power on/off switch 1 x 2-pin connector output for remote on/off switch 2 x USB 3.0 4 x USB 2.0 2 x RS-232 (COM 3/4) 2 x RS-232/422/485 (COM 1/2) 2 x 10/100/1000Mbps Ethernet 1 x EtherCAT port 1 x GbE LAN port 1 x DVI-I 1 x DIO (Female DB9 Connector) (4 IN and 4 OUT) 1 x PS/2 keyboard/mouse 1 x Audio (MIC-in/Line-out) 1 x AT/ATX Mode switch

Expansion Interface	HAB100: 1 PCIe x1 & 1 PCIe x4
Storage	2 x 2.5" SATA HDD, 1 x CFast™ socket
System Indicators	1 x power on/off , 1 x HDD
Power Supply	DC ATX 150W: Input : 10~30VDC Output: +5V@11A, +3.3V@5A, +12V@9A, -12V@-150mA, 5Vsb@2A AC-DC power adapter: Input: 90~264VAC Output: 19V@7.89A
Operation Temperature	-10°C ~ +50°C (+14°F ~ +122°F) with W.T. HDD or W.T. SSD or W.T. CFast™
Storage Temperature	-20°C ~ +80°C (-4°F ~ +176°F)
Humidity	10% ~ 90%, non-condensing
Dimensions	159.9 mm (6.36") (W) x 251.8 mm (10.02") (D) x 185 mm (7.2") (H)
Weight (net/gross)	6.2 kg (13.67 lb)/7.2 kg (15.87 lb)
Certification	CE compliance

**The maximum power rating for expansion slots at 50°C can not be exceeded the following values: The maximum loading of +3.3V /1A and +5V/5A and +12V /3A <60W

Ordering Information

PCIe Version

IPC932-230-FL-ECM-DC SYS w/HAB100 (PN: E26G932107) 2-slot fanless EtherCAT master controller embedded system with 4th generation Intel® Core™ i7/i5/i3 processor, PCIe slots and DC-in ATX 150W P/S

IPC932-230-FL-ECM-AC SYS w/HAB100 (PN: E26G932106) 2-slot fanless EtherCAT master controller embedded system with 4th generation Intel® Core™ i7/i5/i3 processor, PCIe slots, DC-in ATX 150W P/S and AC-DC 150W power adaptor and US power cord

*Specifications and certifications are based on options and may vary.

Power Protection

AC Version

OVP (over voltage protection)

OTP (over temperature protection)

OPP (over power protection)

SCP (over circuit protection)

DC Version

OVP (over voltage protection)

SCP (short circuit protection)

OCP (over current protection)

Verified with Software

Operating System	Windows® Embedded Standard 7 32 bit
Windows Extension	IntervalZero Windows real-time extension RTX2012
Test Middleware	IntervalZero KingStarIO 32 bit
EtherCAT Master	Acontis EtherCAT Master stack 32 bit
EtherCAT Configurator	IntervalZero EtherCAT configurator

Optional Items

DDR3 SO-DIMM: 2 GB, 4 GB, 8 GB

CFast™: 2 GB, 4 GB, 8 GB

2.5" SATA HDD: 320 GB, 500 GB

IPC932-230-FL Fan module kit (E26G932104)

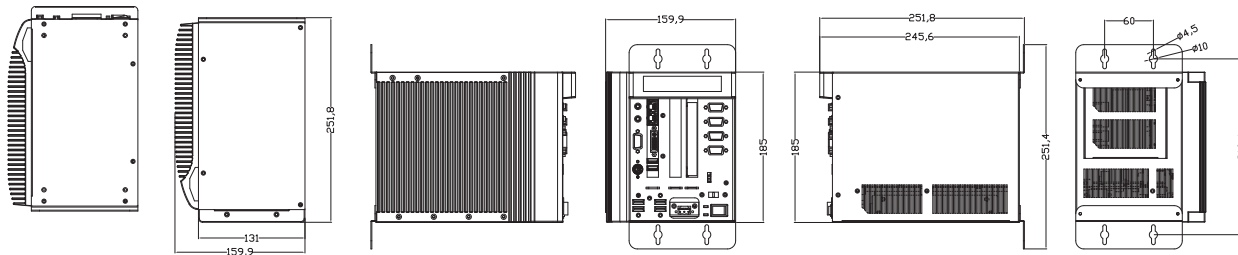
Y-Cable for CRT and DVI 150 mm (594826A0010E)

6P PS/2 KB+Mouse cable (59381560000E)

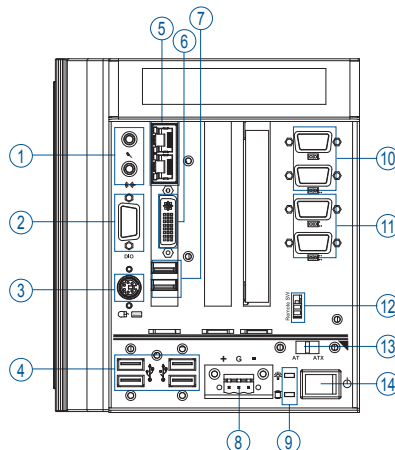
Packing List

IPC932-230-FL Series Unit x 1
 19V 150W Adapter (for AC Version)
 Driver CD
 Quick Manual
 Wall Mount Bracket x 2
 Screw pack x 1
 Foot pad x 4
 CPU Thermal Pad x 1
 HDD Bracket x 2
 HDD Mylar x 2
 Terminal block x 1 (for DC version)
 Remote power switch cable x 1

Dimensions



Front & Rear Metal Panel I/O Layout



1. Audio(MIC-in/Line-out)
2. Digital I/O
3. PS/2 keyboard/mouse
4. USB 2.0 x 4
5. Ethernet x 2
6. DVI-I
7. USB 3.0 x 2
8. Power connector (Din-Jack or Phoenix plug)
9. LED for Power and HDD
10. RS-232/422/485 (COM 1/2)
11. RS-232 (COM 3/4)
12. Remote power switch
13. ATX/AT Mode switch
14. ATX Power switch

