

IPC932-230-FL-ECM

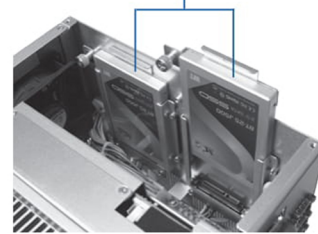
2-slot Fanless Industrial EtherCAT Master Controller with 4th Gen Intel® Core™ i7/i5/i3 & Celeron® Processors (up to 3.3 GHz), Intel® Q87 Chipset and Front-access I/O and PCIe/PCI Slots

Features

- 4th gen Intel® Core™ i7/i5/i3 & Celeron® Processor, up to 45W (codename: Haswell/Haswell Refresh)
- Intel® Q87 chipset
- Supports 2 expansion slots
- 10-30 VDC to DC power supply
- Compact & front I/O design
- -10°C to +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 RTX64
- 1 EtherCAT port, 1 GbE LAN port
- Verified with IntervalZero EtherCAT solution KingStar
- Support Acontis EtherCAT master stack



Phoenix plug for DC version Din-jack for AC version
Supports 2 x SATA HDD, Easy-to-install



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



Specifications

Standard Color	Silver
Construction	Aluminum extrusion heavy-duty cold-rolled steel, IP30
System Board	SHB230DGGA
Processor System	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, up to 16GB
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 2 x RS-232/422/485 2 x 10/100/1000 Mbps Ethernet 1 x EtherCAT port 1 x GbE LAN port 1 x DVI-I 1 x DIO (Female DB9 Connector) (4-in/4-out) 1 x PS/2 keyboard/mouse 1 x Audio (MIC-in/Line-out) 1 x AT/ATX Mode switch

▲ Rear view

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 - 30 VDC Output: +5V@11A, +3.3V@5A, +12V@9A, -12V@-150mA, 5Vsb@2A AC-DC power adapter: Input: 90 - 264 VAC Output: 19V@7.89A
Operation Temperature	-10°C to +55°C (+14°F to +131°F) with W.T. HDD or W.T. SSD or W.T. CFast™
Storage Temperature	-20°C to +80°C (-4°F to +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 industrial EtherCAT master controller embedded system with 4th generation Intel® Core™ i7/ i5/i3 processor and front-access I/O PCIe slots and DC-in ATX 150W P/S
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*Specifications and certifications may vary according to various options.

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 64 bit
Windows Extension	IntervalZero Windows real-time extension RTX64
Test Middleware	IntervalZero KingStar
EtherCAT Configurator	IntervalZero EtherCAT configurator

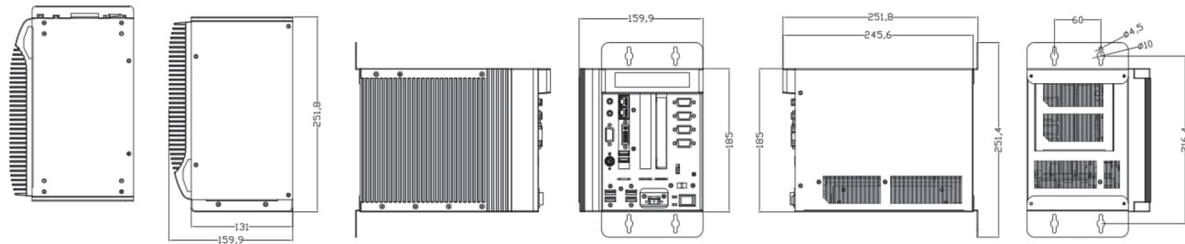
Optional Items

DDR3 SO-DIMM: 2GB, 4GB, 8GB
CFast™: 2GB, 4GB, 8GB
2.5" SATA HDD: 320GB, 500GB
IPC932-230-FL Fan module kit (E26G932104)
Y-Cable for CRT and DVI 150 mm (594826A0010E)
6P PS/2 KB + mouse cable (59381560000E)

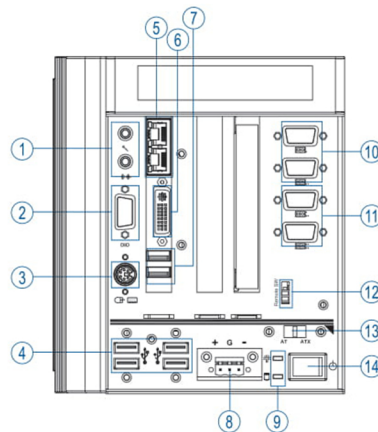
Packing List

1 x IPC932-230-FL series unit
1 x 19 V 15 0W adapter (for AC version)
1 x Driver CD
1 x Quick manual
2 x Wall mount bracket x 2
1 x Screw pack
4 x Foot pad
1 x CPU thermal pad
2 x HDD bracket
2 x HDD mylar
1 x Terminal block (for DC version)
1 x Remote power switch cable

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