

# IPC964-512-FL

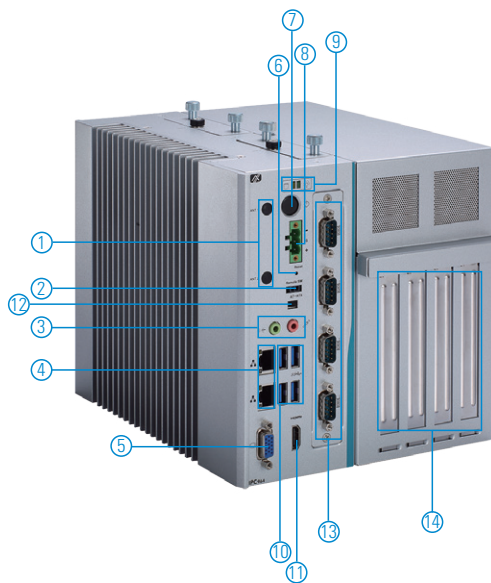
4-slot Fanless Industrial System with LGA1151 Socket 7th/6th Gen Intel® Core™ i7/i5/i3 & Celeron® Processor, Intel® Q170, Front-access I/O, PCIe and PCI Slots

## Features

- LGA1151 Socket 7th/6th gen Intel® Core™ i7/i5/i3 & Celeron® processor, up to 65W (codename: Kaby Lake/Skylake)\*
- Intel® Q170 chipset
- Supports 4 expansion slots
- Power input: 24 VDC (uMin=19V/uMax=30V)
- Compact & front I/O design
- -10°C to +60°C operating temperature range
- Supports 2 swappable 2.5" HDD & RAID 0,1
- Supports ECM BIOS setting
- Supports WLAN module & antenna (optional)
- Supports TPM 2.0



▲ Rear view



1. 2 x Antenna opening
2. Remote switch
3. Mic-in & Line-out
4. 2 x LAN
5. VGA
6. Reset switch
7. Power switch
8. Terminal block
9. HDD & Power LED
10. 4 x USB 3.0
11. HDMI
12. AT/ATX quick switch
13. Extension System I/O Module
  - (1) AX93511: 4 x RS-232/422/485 module (default RS-232)
  - (2) AX93512: 2 x RS-232/422/485 with isolated 1.5kVDC & 8-in/8-out with isolated 1.5kVDC DIO module
  - (3) AX93516: 4 x RS-232/422/485 with isolated 2kVDC module
  - (4) AX93519: 1 x 10/100/1000 Mbps (Intel® i211-AT) Ethernet, 2 x RS-232/422/485 & 2 x USB 3.0 module
14. Expansion Interface
  - (1) AX96410: 1 PCIe x16 + 3 PCIe x4
  - (2) AX96411: 1 PCIe x16 + 1 PCIe x4 + 2 PCI



## Specifications

Standard Color	Silver
Construction	Aluminum extrusion heavy-duty cold-rolled steel, IP40
Processor System	CPU Level 7th/6th gen Intel® Core™ i7/i5/i3 & Celeron® processor up to 65W (Kaby Lake/Skylake)* Chipset Intel® Q170
System Memory	2 x DDR4-2133/2400 un-buffered SO-DIMM, up to 32GB
System I/O	1 x Switch for power On/Off (ATX) 1 x Remote switch 1 x Reset switch 1 x 3-pin terminal block 1 x AT/ATX selectable switch 2 x 10/100/1000 Mbps Ethernet (Intel® i211-AT) 4 x USB 3.0 1 x HDMI 1 x VGA 1 x Audio (Mic-in/Line-out)
Extension System I/O Module	AX93511: 4 x RS-232/422/485 module (default RS-232) AX93512: 2 x RS-232/422/485 with isolated 1.5kVDC & 8-in/8-out with isolated 1.5kVDC DIO module AX93516: 4 x RS-232/422/485 with isolated 2kVDC module AX93519: 1 x 10/100/1000 Mbps (Intel® i211-AT) Ethernet, 2 x RS-232/422/485 and 2 x USB 3.0 module Blank I/O cover
TPM	TPM 2.0

Expansion Interface	AX96410: 1 PCIe x16 + 3 PCIe x4 AX96411: 1 PCIe x16 + 1 PCIe x4 + 2 PCI 1 x full-size PCI Express Mini Card slot with USB & PCIe interface
Storage	2 x 2.5" swappable HDD (15mm height)
System Indicators	1 x Power LED 1 x HDD LED
Power Input	Type: ATX/AT Input: 24 VDC (uMin=19V/uMax=30V)
Operating Temperature	-10°C to +60°C (+14°F to +140°F) with 6th gen Intel® Core™ up to 35W and W.T. HDD/SSD* -10°C to +50°C (+14°F to +122°F) with 6th/7th gen Intel® Core™ up to 65W and W.T. HDD/SSD*
Storage Temperature	-20°C to +80°C (-4°F to +176°F)
Humidity	10% to 90%, non-condensing
Dimensions	188.1 mm (7.39") (W) x 192 mm (7.54") (H) x 230 mm (9.04") (D)
Weight (net/gross)	4.8 Kg (10.56 lb) / 5.9 Kg (12.98 lb)
Certifications	CE, FCC

\* CPU support list please refer to the user's manual.

## Ordering Information

### System

IPC964-512-DC-FL (P/N: E26G964100)	4-slot fanless industrial system with 7th/6th gen Intel® Core™ i7/i5/i3 processor, Intel® Q170, and front-access I/O
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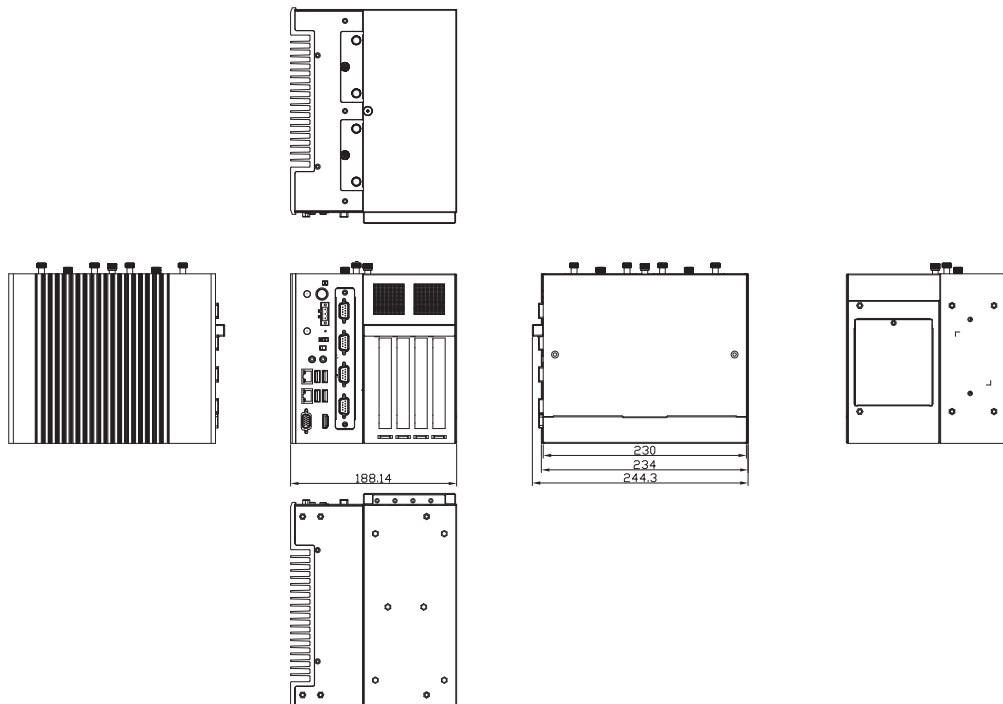
### Extension System I/O Module & Expansion Interface

AX93511 (P/N: 8816G962020E)	4 x RS-232/422/485 module (default RS-232)
AX93512 (P/N: 8816G962060E)	2 x RS-232/422/485 with isolated 1.5kVDC & 8-in/8-out with isolated 1.5kVDC DIO module
AX93516 (P/N: 8816G962030E)	4 x RS-232/422/485 with isolated 2kVDC module
AX93519 (P/N: 8816G964050E)	1 x 10/100/1000 Mbps (Intel® i211-AT) Ethernet, 2 x RS-232/422/485 & 2 x USB 3.0 module
726G9620610E	Blank I/O cover
AX96410 (P/N: 83964101000E)	1 x PCIe x16 + 3 PCIe x4
AX96411 (P/N: 83964111000E)	1 x PCIe x16 + 1 PCIe x4 + 2 PCI

### Optional Accessory

2.5" SATA HDD/SSD	
DDR4-2133/2400 un-buffered SO-DIMM, up to 32GB	
8816G9640A0E	IPC964-512-FL fan module kit
8816G9621A0E	Wall mount bracket kit
50906D24000E	Adaptor 24V/120W, wire only
AX92320 (P/N: E392320100)	4-port PCI Express GbE PoE communication card
AX92351 (P/N: E392351100)	32-in/32-out isolated 1.5kV DIO module

## Dimensions



## Power Protection

### DC Version

OVP (over voltage protection)
SCP (short circuit protection)
OCP (over current protection)

## Packing List

1 x IPC964-512-FL unit
1 x Screw pack
4 x Foot pad
1 x CPU grease
1 x Terminal block
1 x Remote power switch cable
1 x Holder bracket