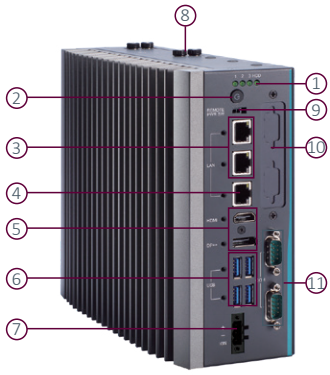
IPC920

Fanless Industrial System with Intel® Core™ Processors Series 2 & 14th/13th/12th Gen Core™ i Processor, socket LGA-1700 supported, Intel® H610E/R680E, and Front-access I/O



▲ Front view

▲ Rear view

1. 1 x HDD/SSD access LED & 3 x user's LED
2. Power on/off button with LED
3. 2 x 2.5GbE LAN (Intel® I226-V)
4. 1 x GbE LAN (Intel® I219-LM)
5. 1 x HDMI, 1 x DisplayPort++
6. 4 x USB 3.2
7. 3-pin terminal block for DC input
8. 2 x HDD/SSD tray
9. 1 x remote power switch
10. Flexible I/O window
11. 2 x RS-232/422/485
12. 1 x PCIe x16 slot
13. 3 x antenna opening

Wide Temp. | DDR5 | Dual-View | Fanless | IP40 | 2.5GbE

Features

- Intelligent power management: ignition and USB power on/off control
- Supports Intel® RAID (R680E)
- Easy expansion via flexible I/O window
- Supports connectors with pull-resistance design
- Optional DIN-rail, bookshelf and wall mount kit
- EN 61000-6-2 certified

Specifications

CPU	Intel® Core™ Processors Series 2 & 14th/13th/12th Gen Core™ i Processor, up to 65W*	
Chipset	Intel® H610E/R680E	
System Memory	2 x 262-pin DDR5 4800 ECC/non-ECC SO-DIMM, up to 96GB**	
System I/O Outlet	Ethernet	2 x RJ-45 2.5GbE LAN (Intel® I226-V) 1 x RJ-45 GbE LAN (Intel® I219-LM); with Intel® AMT (R680E)
	Serial	2 x RS-232 (4-wire)/422/485 (default RS-232), DB9 (by BIOS selection)
	USB	Intel® H610E: 2 x USB 3.2 Gen 2 (10G) Type-A 2 x USB 3.2 Gen 1 (5G) Type-A 1 x USB 2.0 180D Type-A (internal, up to 30 mm) Intel® R680E: 4 x USB 3.2 Gen 2 (10G) Type-A 1 x USB 2.0 180D Type-A (internal, up to 30 mm)
	Display	1 x DisplayPort++ 1.2 with support for 4096 x 2160 resolution 1 x HDMI 1.4b with support for 4096 x 2160 resolution
	Others	1 x power on/off button with LED (default ATX) 1 x remote power switch 3 x antenna opening

Specifications

Storage	2 x 2.5" HDD/SSD bay (7/9.5 mm height); supporting RAID 0, 1 (R680E) 1 x M.2 Key M 2280 socket (PCIe x4)
Expansion Interface	1 x full-size PCI Express Mini Card socket (USB & PCIe interface) with SIM slot 1 x M.2 Key E 2230 socket 1 x PCIe x16 Gen 3 slot (up to 150W power for add-in card)
TPM	dTPM2.0
BIOS	AMI
Watchdog Timer	255 levels, 1 to 255 sec.
System Indicators	1 x HDD/SSD access LED 3 x user's LED
Power Input	Input: 18 to 36 VDC 1 x 3-pin terminal block for DC input, ignition control, and AT/ATX mode by BIOS setting
Power Consumption (Max.)	IPC920-H-F1, IPC920-R-F1: 171W (with 24 VDC) IPC920-R-F1E: 210W (with 24 VDC)
Operating Temperature	-20°C to +60°C with Intel® Core™ Processors Series 2 & 14th/13th/12th Gen Core™ i Processor and industrial wide temperature SSD, 0.7m/s airflow***
Storage Temperature	-20°C to +80°C
Relative Humidity	10% to 90% relative humidity, non-condensing
Shock (Operation)	IEC 60068-2-27 (with SSD: 50G, half-sine, and 11 ms duration) MIL-STD-810H, Method 516.8, and Procedure I
Vibration (Operation)	IEC 60068-2-64 (with SSD: 3Grms, random, 5 to 500 Hz, IPC920-H-F1, IPC920-R-F1) IEC 60068-2-64 (with SSD: 1Grms, random, 5 to 500 Hz, IPC920-R-F1E) MIL-STD-810H, Method 514.8, and Category 20 (IPC920-H-F1, IPC920-R-F1, IPC920-R-F1)
IP Rating	IPC920-H-F1, IPC920-R-F1: IP40 with connector cables installed
Construction	Aluminum extrusion heavy-duty cold-rolled steel
Dimensions (W x D x H)	IPC920-H-F1, IPC920-R-F1: 83.5 x 192 x 230 mm (3.29" x 7.56" x 9.06") IPC920-R-F1E: 118.5 x 192 x 230 mm (4.67" x 7.56" x 9.06")
Packing Dimensions (W x D x H)	398 x 351 x 254 mm (15.67" x 13.82" x 10")
Weight (net/gross)	IPC920-H-F1, IPC920-R-F1: 3.2 kg (7.06 lbs)/4.9 kg (10.8 lbs) IPC920-R-F1E: 3.7 kg (8.16 lbs)/5.4 kg (11.91 lbs)
Mounting Type	Wall mount/DIN-rail
Certifications	CE (EN 61000-6-4/EN 61000-6-2), FCC
OS Support	Win 10, Win 11, Win 10 IoT, Win 11 IoT, and Linux OS

*Please refer to the user manual for the supported CPU list.
**Intel® Core™ Series 2 processors (Bartlett Lake-S) and the 14th Gen processors support a maximum single SO-DIMM capacity of 48GB.
***CPU power settings can be adjusted in the BIOS to optimize performance and operating temperature.

Ordering Information

IPC920-H-F1 (P/N: E26G920100)	Industrial fanless system with Intel® H610E, without Axiomtek logo
IPC920-R-F1 (P/N: E26G920101)	Industrial fanless system with Intel® R680E, without Axiomtek logo
IPC920-R-F1E (P/N: E26G920103)	Industrial fanless system with Intel® R680E, and 1 PCIe x16 slot, without Axiomtek logo
IPC920-H-F1E (P/N: E26G920102)	Industrial fanless system with Intel® H610E, and 1 PCIe x16 slot, without Axiomtek logo (project-based support)
Optional	
2.5" SATA HDD/SSD	
M.2 Key M 2280 NVMe SSD	
DDR5 ECC/non-ECC SO-DIMM	
50906A24000E	AC to DC adapter 24V 230W Wire type
509000001500	AC to DC adapter 24V 120W Wire type
E29R127144	DIN-rail mounting kit
E29R127126	Wall mount kit
	Bookshelf mounting kit (project-based support)
	Front I/O cable-lock kit (project-base support)

Ordering Information

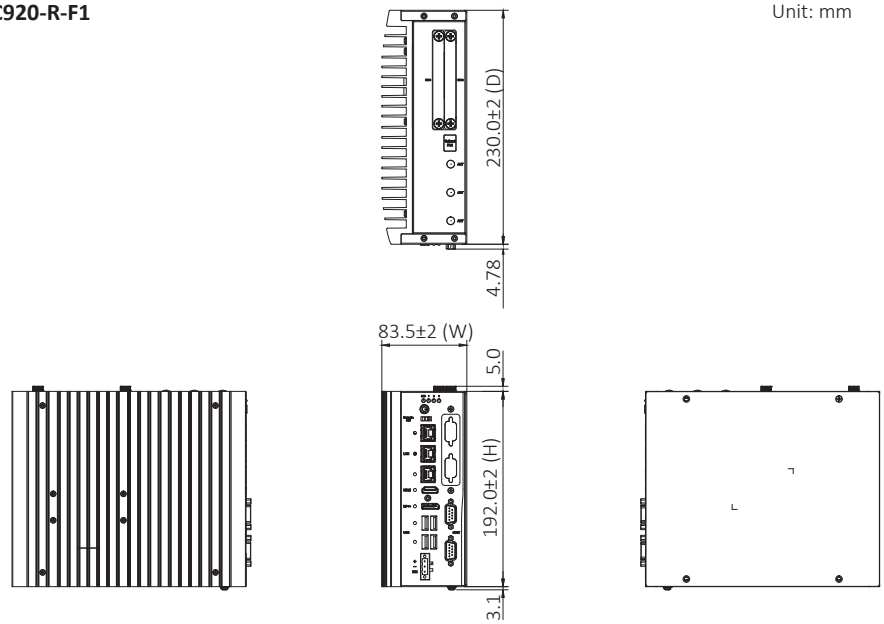
Optional Flexible I/O Modules

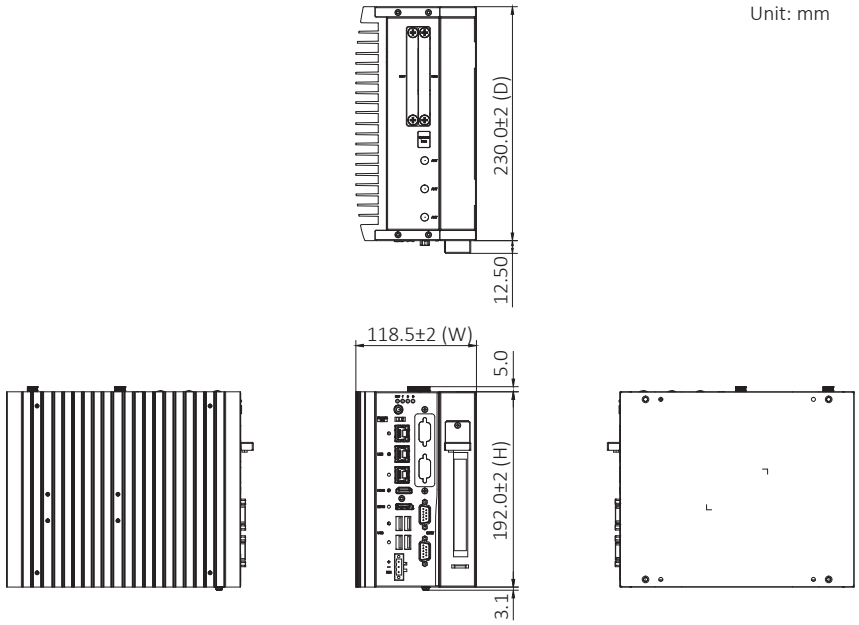
E39Q108100	2 x CAN bus PCI Express Mini Card module (CAN 2.0 A/B) with cable
E392902107	1 x GbE LAN (Intel® I210-IT) PCI Express Mini Card module with bracket kit
590000068400	8-bit programmable DIO wire cable
591000003100	2 x RS-232 (4-wire)/422/485 wire cable

Dimensions

IPC920-H-F1, IPC920-R-F1

Unit: mm



IPC920-R-F1E

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