FPC-8210

Fanless edge computer with Intel® 14th Gen Core™ processor for industrial applications

BRESSNER
A HIPER Global Company

Features

- Intel® 14th/13th/12th Gen Core™ processor
- Intel® H610E chipset for reliable performance
- 2x DDR4-3200 SODIMM up to 64 GB
- Support for multiple video outputs (VGA, DVI-D, DP)
- Optional Wi-Fi 6 and LTE connectivity

FPC-8210 – Rugged and fanless box PC for industrial automation, transportation and Edge AI

The FPC-8210 is a rugged and fanless box PC designed for industrial automation, machine vision, intelligent transportation and edge AI applications. Powered by 14th, 13th or 12th generation Intel® Core™ i9/i7/i5/i3 processors, it delivers exceptional processing performance for tasks requiring real-time data processing, AI inference and multi-camera integration.

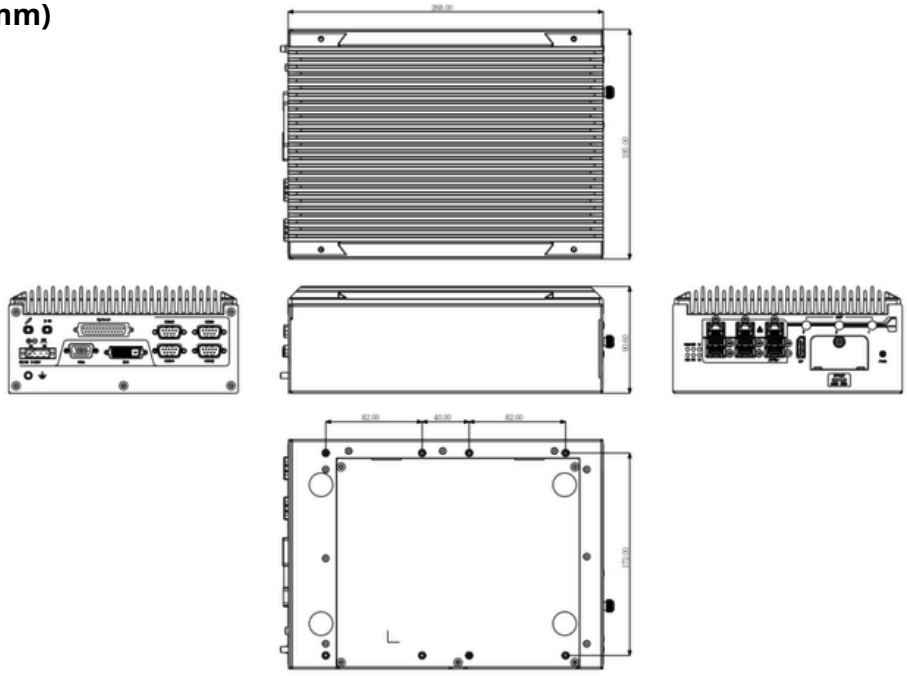
Designed for 24/7 operation in industrial environments, the FPC-8210 features a fanless, dust-tight enclosure that increases durability and minimizes maintenance. Its shock and vibration resistant design makes it suitable for factory automation, railroad systems and in-vehicle data processing, ensuring stable performance even in harsh, highly mobile environments.

Flexible connectivity and expansion
The system offers multiple display interfaces, including VGA, DVI-D and DisplayPort, making it flexible for different industrial display configurations. With optional Wi-Fi 6 or LTE support, it ensures seamless wireless connectivity for remote monitoring and data transfer.

Optimized for Edge AI and IoT gateways
With up to 64 GB DDR5 RAM and optional Wi-Fi 6 or LTE connectivity, the FPC-8210 is ideal for real-time edge computing and AI-driven applications. Its wide-range DC input (9~36V) supports distributed IoT deployments, such as smart surveillance, traffic monitoring and predictive maintenance systems.

Enhanced security and expandability
The TPM 2.0 module ensures secure data encryption, making the FPC-8210 a reliable choice for mission-critical industrial cybersecurity applications. In addition, the modular design enables future upgrades and ensures longevity in evolving industrial environments.

Dimensions (mm)



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Specifications	FPC-8210
SYSTEM	
CPU	Intel® Core™ 14th/ 13th/ 12th Gen. i9/i7/i5/i3 processor (LGA1700 socket)
Chipset	Intel® H610E
Graphics	Integrated Intel® HD Graphics
RAM	2x 260-pin DDR4 SODIMM sockets, supporting 3200 MHz SDRAM, up to 64GB
Storage	2x SATA with 600MB/s HDD transfer rate 2x 2.5" drive bays (Optional support RAID0,1, BTO) 1x CFast socket, outside accessible
Expansion	1x Full-size Mini-card socket interconnected with SIM card socket 1x M.2 2230 E-Key for WiFi (CNVi only) 1x M.2 2242/3052/2280 B-Key with (PCIe x2 + USB 3.0 + SATA) interconnected with SIM for 5G/LTE expansion or for storage
OS Support	Windows 10 IoT / Windows 11 IoT Linux (Ubuntu 22.04)
TPM	Supports TPM 2.0
Watchdog Timer	1~255 levels reset
INTERFACE	
Ethernet	3x Intel® WGI226V 2.5GbE controller (3x RJ-45)
USB	2x USB 3.2 Gen2 (10Gbps) 4x USB 3.2 Gen1 (5Gbps) Support internal USB dongle (optional)
COM	4x RS-232 ports DB-9 (COM1 and COM2 are RS-232/422/485 configurable)
Digital I/O	1x DB25 connector for DIO (8 in/8 out) port or LPT port (either one, default is DIO)
Video	1x DB-15 female connector for Analog RGB 1x DisplayPort 1x DVI-D female connector for digital video output Supports 3 independent displays
Audio	1x Jack for Line-out & Mic-in
Power	1x 4-pin terminal block
ENVIRONMENTAL	
Chassis	Aluminum alloy
Cooling	Fanless
Power Supply	DC 9~36V input with 4-pin terminal block Max. 65W (with 35W TDP CPU, w/o I/O card) Max. 95W (with 65W TDP CPU, w/o I/O card)
Remote Control & LED	Combining remote power on/off switch
Operating Temperature	-20˚C ~ 70°C , ambient w/ air flow (w/ 35W TDP CPU, fanless) -20˚C ~ 55°C, ambient w/ air flow (w/ 65W TDP CPU, fanless)
Storage Temperature	-40° ~ 85°C
Vibration / Shock Resistance	Vibration: 3 Grms / 5~500Hz / random operation w/ SSD Shock: Operating 40G (11ms), Non-operating 60G with SSD
Humidity	10 ~95% @ 55°C, non-condensing
Dimensions (W x D x H)	195 x 268 x 90mm
Weight	4.2kg
Mounting	Wallmount
Certifications	CE/FCC Class A

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Ordering Information	Product Description
FPC-8210	Fanless system, w/o expansion

Optional Accessories	
PAC-120W6B-FSP-ES	120W AC/DC 19V adapter kit w/ 2-pin/3-pin/4-pin block
PAC-180W6B-FSP-ES	180W AC/DC 19V adapter kit w/ 2-pin/3-pin/4-pin block
WMK-7000	Wall-mount kit for FPC-7XXX Series

Optional Configuration (CTOS Kit)[1]	
240GB SSD	Intel® 2.5" 240GB SATAIII SSD kit
MK-4C-4G/8G/16G/32G	DDR4-3200 8GB/16GB/32GB SDRAM DIMM kit
WIFI-IN2550	Intel AX200NGW M.2 Wi-Fi 6 module w/ 2x 30cm internal wires
ANT-H11	1x 2dBi HSUPA antenna
ANT-D11	1x Wi-Fi dual-band 2.4G/5G antenna
Core™ i9-14900	Intel® 14th Gen. Core™ i9-14900 processor, 36M, 2G
Core™ i9-14900T	Intel® 14th Gen. Core™ i9-14900T processor, 36M, 1.1G
Core™ i7-14700	Intel® 14th Gen. Core™ i7-14700 processor, 33M, 2.1G
Core™ i7-14700T	Intel® 14th Gen. Core™ i7-14700T processor, 33M, 1.3G
Core™ i5-14400	Intel® 14th Gen. Core™ i5-14400 processor, 20M, 2.5G
Core™ i5-14500T	Intel® 14th Gen. Core™ i5-14500T processor, 24M, 1.7G
Core™ i3-14100	Intel® 14th Gen. Core™ i3-14100 processor, 12M, 3.5G
Core™ i3-14100T	Intel® 14th Gen. Core™ i3-14100T processor, 12M, 2.7G

[1] CTOS means Configure-to-Order Service