

FPC-8211/12/13

Robust Box PC with Intel® 13th Generation Core™ i9/i7/i5/i3 Processor



Features

- Fanless Design
- Wide Range DC Power Input (9 ~36V)
- Various Video Interfaces (VGA + DVI-D+DP)
- TPM2.0 support
- Optional Wi-Fi6 or LTE/5G Wireless Connectivity
- Rugged Design for Shock/Vibration Protection
- Memory support up to 64GB

System

CPU	Intel® 13 th generation Core™ i9/i7/i5/i3 processor in LGA1700 socket
Memory	2 x 260-pin DDR4 SO-DIMM sockets, supporting 3200 MHz SDRAM up to 64GB
Chipset	Intel® H610E
Graphics	Integrated Intel® HD Graphics
ATA	2 x Serial ATA ports with 600MB/s HDD transfer rate
LAN Chipset	3 x Intel® WGI226V 2.5GbE controllers
Watchdog Timer	1~255 levels reset

I/O

Serial Port	4 x RS-232 ports DB-9 connectors. (COM1 and COM2 are RS-232/422/485 configurable)
Selectable Port	1 x DB25 connector for DIO (8 in/8 out) port or LPT port (either one, default is DIO)
USB Port	2 x USB 3.2 Gen2 ports (10Gbps) 4 x USB 3.2 Gen1 ports (5Gbps) Support internal USB dongle (Optional)
LAN	3 x RJ-45 ports for 2.5GbE 1 x DB-15 female connector for Analog RGB 1 x DP
Video Port	1 x DVI-D female connector for digital video output * Support 3 independent display

Audio Mic-in/Line-out

Expansion Bus	1 x Mini-card socket interconnected with SIM card socket (Full size) 1 x M.2 E Key (2230) for WiFi (CNVi Only) 1 x M.2 B key (2242/3052/2280) w/ (PCIex2+USB3.0+SATA) interconnected with SIM for 5G / LTE expansion or for storage 1 x PCIe x16 slot +1 x PCI slot (FPC-8211) 1 x PCIe x16 slot +1 x PCIe x 8 slot (via x 1 lanes) (FPC-8212) 2 x PCI (FPC-8213)
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Environmental

Operating Temp.	-20 ~ 70°C (-4 ~ 158°F), ambient w/ air flow (w/ 35W TDP CPU, fanless) -20 ~ 55°C (-4 ~ 131°F), ambient w/ air flow (w/ 65W TDP CPU, fanless)
Storage Temp.	-40 ~ 85°C (-40 ~ 185°F)
Operating Humidity	10 ~ 95% @ 55°C (non-condensing)
Vibration	3 Grms/5~500Hz/random operation w/ SSD
Shock	Operating 40G (11ms), Non-operating 60G with SSD

Qualification

Certification	CE, FCC Class A
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Power Requirement

Power Input	DC 9~36V input (w/ 4-pin terminal block, combining remote power on/off switch)
Power Consumption	MAX 65W (w/35W TDP CPU, w/o I/O card) MAX 95W (w/65W TDP CPU, w/o I/O card)

Storage

Type	2 x 2.5" drive bays (Optional support RAID0,1, BTO) 1 x CFast socket, outside accessible
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Mechanical

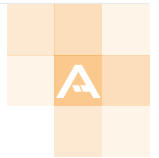
Construction	Aluminum alloy
Mounting	Wall-mount
Weight	5.8 kg (12.78 lb)
Dimensions (W x D x H)	268 x 195 x 125 mm

OS Support

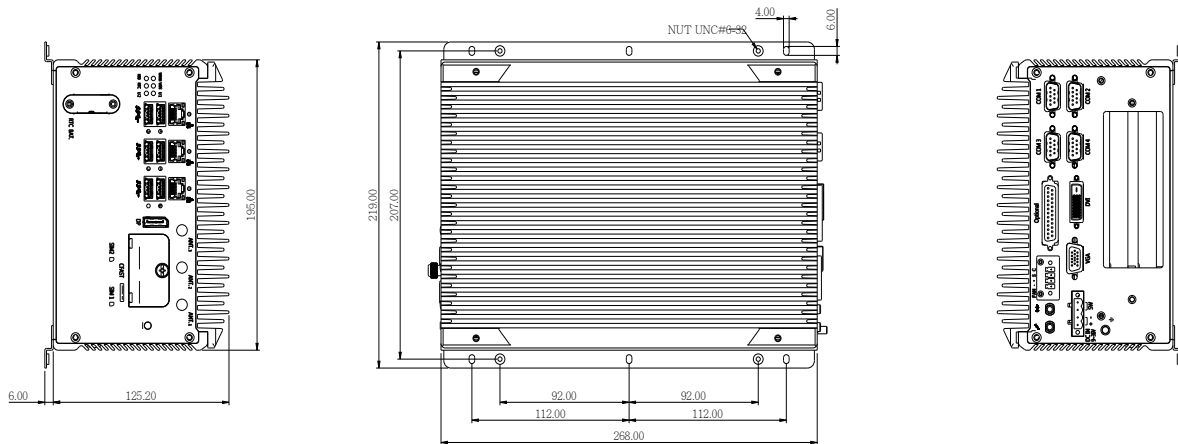
Windows 10 IOT
Linux (Ubuntu 22.04)

Ordering Information

FPC-8211	Fanless system w/ 1x PCI + 1 x PCIe x 16
FPC-8212	Fanless system w/ 1x PCIe x 8 + 1 x PCIe x 16
FPC-8213	Fanless system w/ 2x PCI



Dimensions



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)

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/ 2 x 30cm internal wires

ANT-H11 1 X 2dBi HSUPA antenna

ANT-D11 1 x Wi-Fi dual-band 2.4G/5G antenna



Core™ i9-13900E Intel® 13th Gen. Core™ i9-13900E processor, 36M, 1.8G

Core™ i9-13900TE Intel® 13th Gen. Core™ i9-13900TE processor, 36M, 1.0G

Core™ i7-13700E Intel® 13th Gen. Core™ i7-13700E processor, 30M, 1.9G

Core™ i7-13700TE Intel® 13th Gen. Core™ i7-13700TE processor, 30M, 1.1G

Core™ i5-13500E Intel® 13th Gen. Core™ i5-13500E processor, 24M, 2.4G

Core™ i5-13500TE Intel® 13th Gen. Core™ i5-13500TE processor, 12M, 1.3G

Core™ i3-13100E Intel® 13th Gen. Core™ i3-13100E processor, 12M, 3.3G

Core™ i3-13100TE Intel® 13th Gen. Core™ i3-13100TE processor, 12M, 2.4G



*CTOS means Configure-to-Order Service.

Last update: 3/1/2024

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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