

FPC-8211/12/13

Robust Box PC with Intel® 14th/13th/12th 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® 14 th /13 th /12 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 1 lanes) (FPC-8212) 2 x PCI (FPC-8213)

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

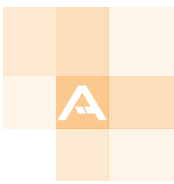
Construction	Aluminum alloy
Mounting	Wall-mount
Weight	5.8 kg (12.78 lb)
Dimensions (W x D x H)	268 x 195 x 125 mm

OS Support

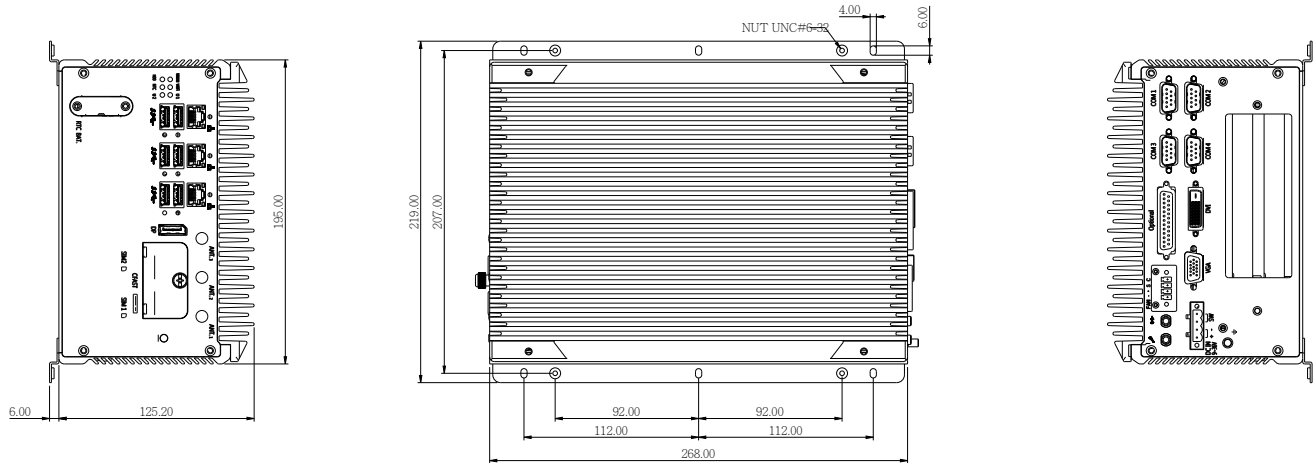
Windows 10 IOT	
Linux (Ubuntu 22.04)	

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™ i9-14900	Intel® 14 th Gen. Core™ i9-14900 processor, 36M, 2G	
Core™ i9-14900T	Intel® 14 th Gen. Core™ i9-14900T processor, 36M, 1.1G	
Core™ i7-14700	Intel® 14 th Gen. Core™ i7-14700 processor, 33M, 2.1G	
Core™ i7-14700T	Intel® 14 th Gen. Core™ i7-14700T processor, 33M, 1.3G	
Core™ i5-14400	Intel® 14 th Gen. Core™ i5-14400 processor, 20M, 2.5G	
Core™ i5-14500T	Intel® 14 th Gen. Core™ i5-14500T processor, 24M, 1.7G	
Core™ i3-14100	Intel® 14 th Gen. Core™ i3-14100 processor, 12M, 3.5G	
Core™ i3-14100T	Intel® 14 th Gen. Core™ i3-14100T processor, 12M, 2.7G	

*CTOS means Configure-to-Order Service.