Features

- PCI Express 4.0 x16 GPU Support
- Mainboard CPU Fanless Design for some Processors and GPU Card Expansion with Smart Fan support
- Intel 9th Gen. Core i7/i5/i3 Processors / Intel Xeon Processor
- Removable drive-bays for easy data storage maintenance
- Flexible expansion through I/O module with miniPCIe

Technical Specifications

Primary Components

Processor Family	Intel Core-I Series 9th Generation Coffee Lake
Processor Model	Xeon Options E-2278GEL; E-2278GE
Processor Speed	Up to 4.7 GHz Turbo
Memory Type	2x DDR4 SO-DIMM
Memory Support	Up to 32GB (i3), Up to 64GB (i5/i7)
Storage Type	1x M.2 SATA3 2280 Slot, 2x 2.5" SATA Drive Bay for SSD/HDD (easily accessible), 2x 2.5" SATA Drive Bay for SSD/HDD (Internal)
Storage Support	32GB-1TB, M.2: 64GB-1TB

Display

Resolution	Supports Up to 4096 x 2160 for HDMI Output, Supports Up to 4096 x 2304 for DP Output

External I/O Ports

USB	1x USB 2.0 (Internal Type A on Motherboard), 2x USB 2.0, 4x USB 3.1 Gen.1 (Lockable)
Serial / Com	2x COM
Serial Protocol Detail	RS-232/422/485 DB-9, Default RS-232
Ethernet / LAN	2x RJ45 GbE LAN
Video Outputs	1x DisplayPort 1.2, 1x HDMI
Other Ports	1 x 8-bit GPIO (4x in, 4x out, Isolated 2500Vrms, NPN/PNP Selected, Default NPN)
Audio Ports	1x Audio Line-Out, 1x Mic-In
Power Input Port	3-Pin DC-In (Phoenix Type)

Power

Input Voltage Range	DC 12-36V (Default 24V)
Max Power Consumption	250W for PC, up to 400W reserved for PCIe Cards
Standard Power Adapter	AC100~240V Input, (24V/25A), US AC Power Cord

Operating Systems

Windows	Windows 10 IoT, Windows 10 Pro, Windows 11
Linux	Linux 4.20.2+

Compatibility

Security Hardware	TPM 2.0

Expansion Slots

Internal M.2	1x M.2 for NVME SSD Support

Thermal & Environmental

Operating Temperature	0°C - 45°C (32°F – 113°F (i7)), 0°C - 50°C (32°F – 122°F (i3/i5))
Storage Temperature	-40°C - 85°C (-40°F – 185°F)
Cooling Solution	35W CPU (Fanless), 65W CPU (External Fan)
Humidity Range	10% – 90% Non-condensing
Storage Humidity	10% – 90% Non-condensing

Enclosure

Material	Metal Steel Chassis
Color	Black
Led Indicator Light	Power
Control Buttons	Power Switch
Mounting Options	Desktop Stand, Wall Mount

Peripherals & Wireless Connectivity

WiFi	Optional WIFI b/g/n/ac
Bluetooth	Optional Bluetooth 4.0
Sim Card	1x Micro SIM Card Slot

Weight / Dimensions

Weight	7 kg (15.4 lbs)
Dimensions	200 x 200 x 350 mm (7.9 x 7.9 x 13.8 in)

Certification

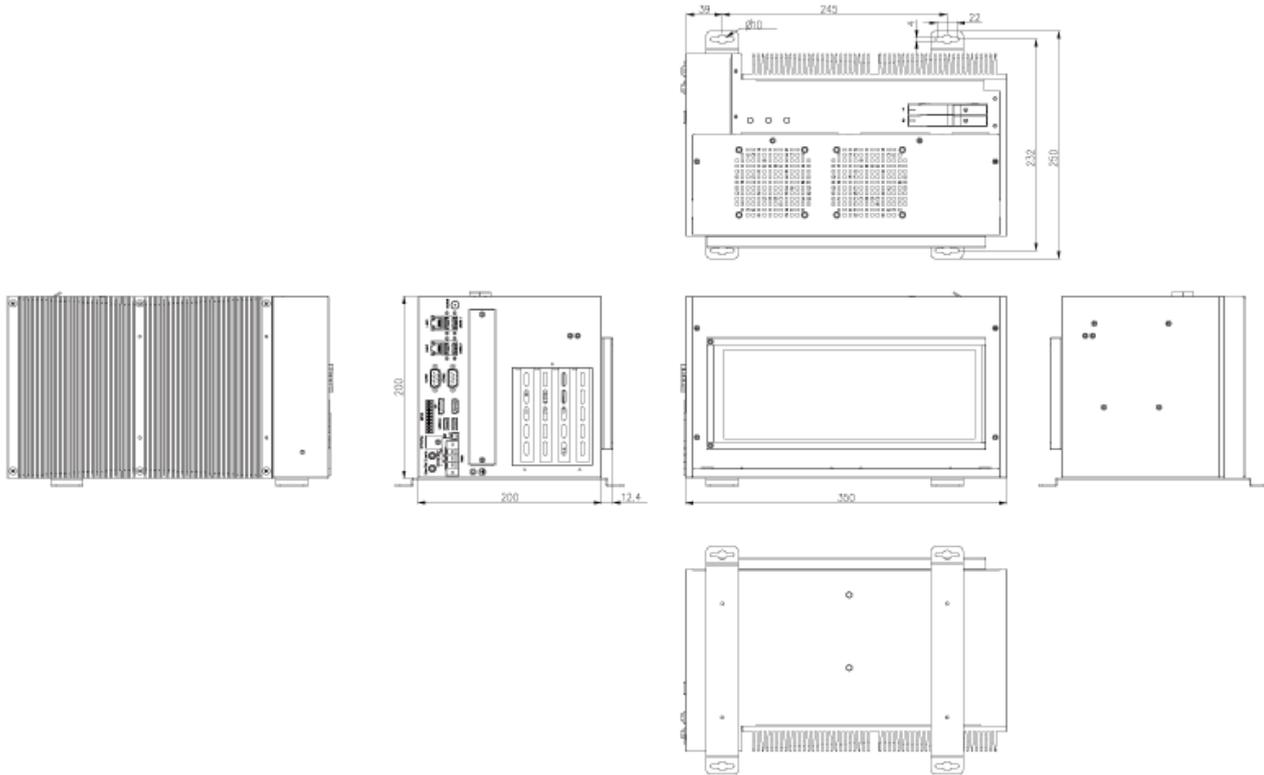|	
Certifications	CE, FCC Class A

Warranty

Warranty	Up to 5 Years

I/O Diagram Images
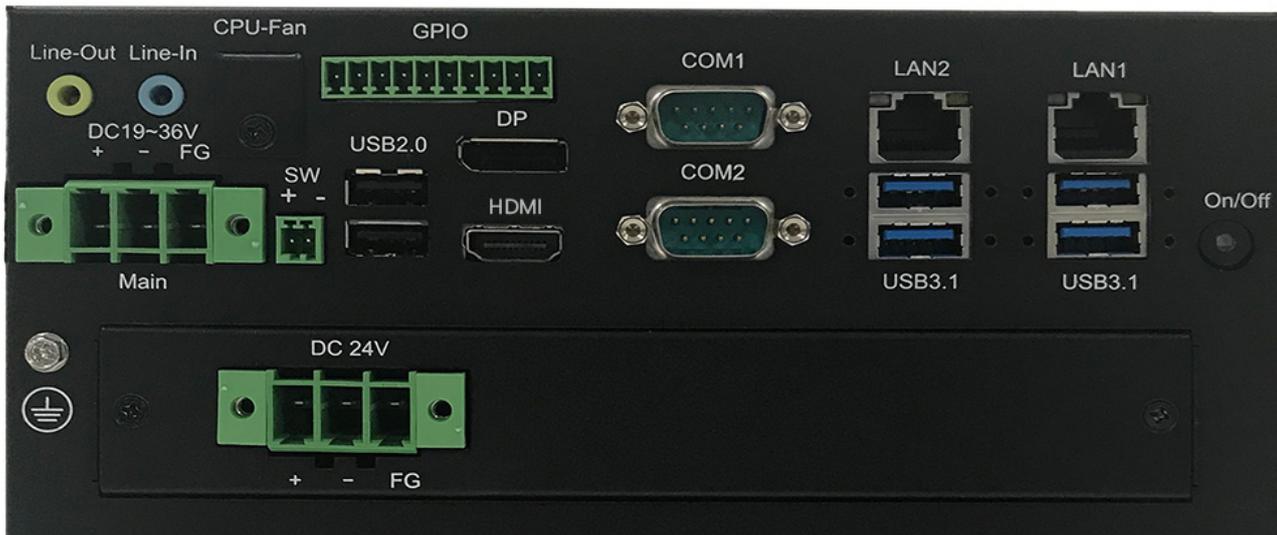
Tech Diagram Images

All specifications are subject to change without notice.