

iEP-9010E

Compact Edge AIoT Platform

Preliminary



KEY FEATURES

- Intel® 12th Gen Core™ Processors with R680E Chipset
- 4 x 260-pin DDR4 SO-DIMM up to 128GB (32GB per DIMM)
- 1 x M.2 Key M, 1 x M.2 Key B, 1 x M.2 Key E, 2 x Mini PCIe
- 6 x USB 3.2 Gen2x1, 6 x COM, 4 x SATA3, 8 x DI, 8 x DO
- 5 x Intel 2.5G LAN (2 support PoE, 1 supports vPro)
- 1 x Displayport, 1 x HDMI 2.0b, 1 x VGA

SPECIFICATIONS

Processor System

| | |
|---------|--|
| CPU | Intel® 12 th Gen Core™, Pentium or Celeron Processors |
| Chipset | Intel® R680E |
| Socket | LGA 1700 |

Memory

| | |
|------------|---|
| Technology | Dual Channel DDR4 2933MHz (ECC memory supported by R680E + Selected CPU) |
| Capacity | 128 GB (32 GB per DIMM) |
| Socket | 4 x 260-pin SO-DIMM |

Graphics

| | |
|-------------|---|
| Controller | Intel® UHD Graphics |
| DisplayPort | DisplayPort 1.4a, DP++ Max resolution up to 4096x2160@60Hz |
| HDMI | HDMI 2.0b Max resolution up to 4096x2160@60Hz |
| VGA | Max resolution up to 1920x1200@60Hz |

Expansion Slot

| | |
|-------------|--|
| Mini-PCIe | 2 x Full/Half size with PCIe Gen3 x1 and USB 2.0 |
| RF& Antenna | 8 x SMA connector hole reserved |
| M.2 | 1 x M.2 (Key E, 2230) with CNVI/PCIe Gen3 x1 and USB2.0 for Wi-Fi/BT module 1 x M.2 (Key B, 2280/3042/3052) with PCIe Gen3 x1 / USB3.2 Gen1x1 for 4G / 5G |
| SIM Socket | 2 x Nano SIM Card slot (1 connected to Mini PCIe, 1 connected to M.2 Key B) |

Audio

| | |
|-----------|--|
| Interface | Realtek ALC897, High Definition Audio. |
|-----------|--|

Ethernet

| | |
|-------------------|---|
| Controller/ Speed | 5 x Intel 2.5G LAN(2 support PoE, each port supports IEEE 802.3AF PoE, PoE output max.15.4W/port),(1 supports vPro) |
| Connector | 5 x RJ45 |

Storage

| | |
|----------------|---|
| M.2 | 1 x M.2 (Key M, 2280) with Gen4/Gen3 x4 for NVMe SSD |
| SATA | 4 x SATA3 (6Gb/s), support RAID 0/1/5/10 4 x 2.5" HDD/SSD Tray |
| CFast (Option) | 1 x Type II socket (Shared with SATA3) |

Rear I/O

| | |
|-------------|--|
| DisplayPort | 1 |
| HDMI | 1 |
| VGA | 1 |
| Ethernet | 5 x 2.5G LAN |
| USB | 6 x USB 3.2 Gen2x1, 1 x USB2.0 internal connector w/ lock function |
| Audio | 1 x Mic-in, 1 x Line-out |
| COM | 4 x RS232/422/485 2 x RS232 |
| DIO | 8DI/8DOs |

Watchdog Timer

| | |
|-----------------|--|
| Output Interval | From Super I/O to drag RESETCON# 256 Segments, 0, 1, 2, ...255sec |
|-----------------|--|

Power Requirements

| | |
|-----------|---|
| Input PWR | 9V~36V VDC with Ignition control and remote power on/off switch. 80V Surge Protection, OVP, UVP, OCP and reverse protection Ignition Power Input w/ 13-mode condition |
|-----------|---|

Environment

| | |
|-----------------------|---|
| Operating Temperature | 35W CPU: -40°C~70°C (-40°F~158°F) 46W~65W CPU: -40°C~50°C (-40°F~122°F) (w/ air flow 0.5~0.8 m/s) |
| Storage Temperature | -40°C~85°C (-40°F~185°F) |
| Humidity | ~95% @ 40°C (non-condensing) |
| Shock | Operating: 50G, half sine 11ms duration with SSD |
| Vibration | Operating: 5 Grms, 5-500 Hz, 3 axes with SSD |
| ESD | Contact +/-4kV, Air +/-8kV |
| EMC | EN61000-6-4/-2, CE & FCC Class A |
| Safety | LVD |

Mechanical

| | |
|--------------|---|
| Construction | Aluminum heatsink + Metal chassis |
| Mounting | Desk Mount |
| Dimensions | 202mm (W) x 244mm (D) x 108.7mm (H) (7.95" x 9.61" x 4.28") |
| Net Weight | 6.5kg |

Others

| | |
|----------------------|--|
| OS Support | Windows 10 & Linux |
| SW Support | ACRN (https://projectacrn.org/) |
| TPM | TPM 2.0 |
| Real-Time Enablement | TSN, TCC support under YOCTO |

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

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.

US

sales@assured-systems.com

Sales: +1 347 719 4508
Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050
Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28
Business Registration Number: 07699660