

iEPF-9042S-EW4, iEP-9042E

Compact Edge AIoT Platform



iEPF-9042S-EW4



iEP-9042E

KEY FEATURES

- Intel® Core™ Processors (Series 2) with H610 Chipset
- 2 x 262-pin DDR5 SO-DIMM up to 96GB (48GB per DIMM)
- 1 x M.2 Key M, 2 x M.2 Key B, 1 x M.2 Key E
- 4 x USB 3.2 Gen2x1, 2 x USB 2.0 Gen2x1, 6 x COM, 4 x SATA3, 8 x DI, 8 x DO
- 4 x Intel 2.5G LAN (2 support PoE)
- 1 x Displayport, 1 x HDMI 2.0b, 1 x VGA

Only for iEPF-9042S-EW4:

- 1 x PCIe x16 (PCIe Gen5)
- Powerful Edge AI acceleration enabled by the most flexible mechanical, thermal, and power design, with support for 275mm x 138 mm x 60 mm (D x H x W) max. and up to 600W graphic card

SPECIFICATIONS

Processor System

CPU	Intel® Core™ Processors (Series 2)
Chipset	Intel® H610
Socket	LGA 1700

Memory

Technology	Dual Channel DDR5 5600MHz
Capacity	96 GB (48 GB per DIMM)
Socket	2 x 262-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

Audio

Interface	Realtek ALC897, High Definition Audio
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Expansion Slot

PCIe (iEPF-9042S-EW4 Only)	1 x PCIe Gen5 x16 (single x16), PCIe x16 slot with default power cable can support up to 180W graphic card (275mm x 113mm x 60mm (D x H x W), if remove the card holder, it can be limited on 275mm x 138mm x 60mm) Graphic card can be up to 600W with optional VGA module
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Preliminary

Expansion Slot

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 B1, 2280/3042/3052) with PCIe Gen3 x1 / USB3.2 Gen1x1 and USB2.0 for 4G / 5G 1 x M.2 (Key B2, 3042/3052) with PCIe Gen3 x1 / USB3.2 Gen1x1 and USB2.0 for 4G / 5G
SIM Socket	2 x Nano SIM Card slot (2 connected to M.2 Key B)

Ethernet

Controller/ Speed	2 x Intel® i226IT 2 x Intel® i226IT (PoE Support, each port supports IEEE 802.3AT PoE, PoE output max.30W/single port or 30W/two ports shared)
Connector	4 x RJ45

Storage

M.2	1 x M.2 (Key M, 2242/2280/22110/25110) with Gen3 x1 for NVMe SSD
SATA	1 x SATA3 (6Gb/s) 4 x 2.5" HDD/SSD Tray (Default 1 piece)
Cfast (Option)	1 x Type II socket (Shared with SATA3)

Front I/O

DisplayPort	1
HDMI	1
VGA	1
Ethernet	4 x Intel 2.5G LAN
USB	4 x USB 3.2 Gen2x1, 2 x USB 2.0 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 (COM1, COM2- optional Card w/ Isolation Protection, COM5- Isolation Protection, COM6) 2 x RS232 (COM3, COM4)
DIO	8DIs/8DOs

Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	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
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Environment

Operation Temperature (w/ air flow 0.5~0.8 m/s) (iEPF-9042S-EW4)	46W~65W CPU: -40°C~55°C (-40°F~131°F) (with FAN inside, without Add-on Card)
Operation Temperature (w/ air flow 0.5~0.8 m/s) (iEP-9042E)	46W~65W CPU: -40°C~50°C (-40°F~122°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Humidity	~95% @ 40°C (non-condensing)
Shock	Operating: 50 G, half sine 11ms duration with SSD (More stringent than MIL-STD-810H)
Vibration	Operating: 5 Grms, 5-500 Hz, 3 axes with SSD (More stringent than MIL-STD-810H)
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 (iEPF-9042S-EW4)	209.8mm (W) x 290.8mm (D) x 207.1mm (H) (8.26" x 11.45" x 7.94")
Dimensions (iEP-9042E)	201.7mm (W) x 244.8mm (D) x 109.5mm (H) (7.94" x 9.64" x 4.31")
Net Weight	iEPF-9042S-EW4: 10kg iEP-9042E: 6.5kg

Others

OS Support	Windows 10 & Linux
TPM	TPM 2.0
Real-Time Enablement	TSN, TCC support under YOCTO