



Preliminary

iEP-9040VE, iEP-9042VE

Compact Edge AIoT Platform



KEY FEATURES

iEP-9040VE:

- Intel® Core™ Processors (Series 2) with R680E Chipset

iEP-9042VE:

- Intel® Core™ Processors (Series 2) with H610 Chipset

iEP-9040VE:

- 2 x 262-pin DDR5 SO-DIMM up to 96GB (48GB per DIMM)
- 1 x M.2 Key M
- 4 x USB 3.2 Gen2x1, 2 x Internal USB 3.2 Gen2x1,
- 2 x COM, 2 x SATA3, 4 x DI, 4 x DO
- 2 x Intel 1G LAN (LAN1 supports vPro)
- 1 x Displayport, 2 x HDMI 2.0b

iEP-9042VE:

- 2 x 262-pin DDR5 SO-DIMM up to 96GB (48GB per DIMM)
- 4 x USB 3.2 Gen2x1
- 2 x COM, 2 x SATA3, 4 x DI, 4 x DO
- 2 x Intel 1G LAN
- 1 x Displayport, 2 x HDMI 2.0b

Optional Kit:

- PoE Function
- 10BASE-T1S Function

SPECIFICATIONS

Processor System	iEP-9040VE	iEP-9042VE
CPU	Intel® Core™ Processors (Series 2)	
Chipset	Intel® R680E	Intel® H610
Socket	LGA 1700	

Memory

Technology	Dual Channel DDR5 5600MHz (ECC memory supported by R680E + Selected CPU)
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

Audio

Interface	Realtek ALC897, High Definition Audio.
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Ethernet

Controller/ Speed	1 x Intel® i219LM (vPro Support) 1 x Intel® i219V 1 x Intel® i210IT
Connector	2 x RJ45

Storage	iEP-9040VE	iEP-9042VE
M.2 (iEP-9040VE)	1 x M.2 (Key M, 2242/2260/2280/22110/25110) with Gen4 x4 for NVMe SSD	
SATA	2 x SATA3 (6Gb/s), R680E: support RAID 0/1	
CFast (Option)	1 x Type II socket (Shared with SATA3)	

Front I/O

DisplayPort	1	
HDMI	2	
Ethernet	2 x Intel 1G LAN	
USB	4 x USB 3.2 Gen2x1, 2 x Internal USB 3.2 Gen2x1	4 x USB 3.2 Gen2x1
Audio	1 x Line-in, 1 x Line-out	
COM	2 x RS232/422/485	
DIO	4DI/4DOs	

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 for MB Power Input. Ignition Power Input w/ 13-mode condition.
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Environment

Operating Temperature (w/ air flow 0.5~0.8 m/s)	45W CPU: -40°C ~ 55°C (-40°F ~ 131°F) 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	MIL-STD-810H, Method 516.8, Procedure I
Vibration	MIL-STD-810H, Method 514.8
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	200mm (W) x 230mm (D) x 93mm (H) (7.87" x 9.06" x 3.66")
Net Weight	6kg

Others

OS Support	Windows 11 & Windows 10 & Linux
TPM	TPM 2.0
Real-Time Enablement	TSN, TCC support under YOCTO