

# 21640HW

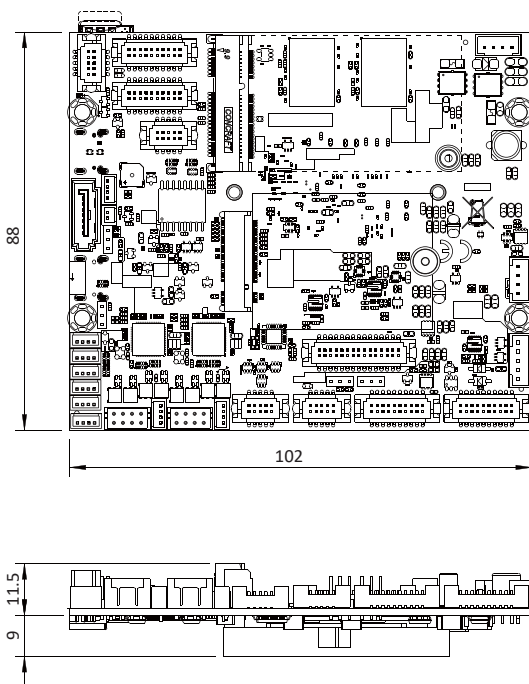
2.5" wafer I/O Embedded IPC Board supports Intel® Elkhart Lake ATOM® x6000E Series HDMI, LVDS, eDP, 2 x Intel 2.5 Gb Ethernet, 6 x USB, Touch Screen, 4 x COM 1 x Mini PCIe, 1 x M.2, 1 x Nano SIM, HD Audio, 4DI / 4DO, SMBus



## Features:

- Intel® Elkhart Lake ATOM® x6413E / J6412 CPU
- On Board LPDDR4 up to 8GB
- Independent display: 1 x HDMI, 1 x LVDS, 1 x eDP
- 2 x Intel 2.5 GbE LAN, 1 x USB 3.0, 5 x USB 2.0
- 4 x COM, 1 x Mini PCIe, 1 x M.2, 1 x Nano SIM, SMBus
- Touch Screen, HD Audio, 4DI / 4DO
- TPM 2.0

## Dimensions: (Unit:mm)



## Specifications :

- CPU  
Intel® Elkhart Lake ATOM® x6413E / J6412 CPU
- MB Chipset  
Intel® Elkhart Lake SoC
- Graphics  
Intel® HD Graphics, Support DirectX 12.1 & OpenGL 4.5
- System Memory  
On Board LPDDR4 3200 MHz, Max. 8GB
- Storage  
1 x M.2 B Key 2242 / 3042 SATA  
1 x SATA
- BIOS  
Insyde UEFI BIOS
- Display  
1 x HDMI, 1 x eDP, 1 x Dual Channel, 48 bits LVDS
- Touch  
USB interface Touch Screen controller
- TPM  
TPM 2.0 (Firmware) ; OEM Optional to Hardware TPM
- LAN  
2 x Intel 2.5 GbE I225 (internal)
- Audio  
High Definition Audio Specification, Support Line-out / Mic-in / Line-in Two channel Class D Audio Amplifier
- Expansion Interface  
1 x Mini PCIe (USB 2.0 / PCIe)  
1 x M.2 B Key 2242 / 3042 (SATA / USB 3.0 / 2.0)  
1 x Nano SIM (M.2)

### Expansion Module

Converter Card	CN066: Mini PCIe to M.2 E key 2230, WiFi 6 + BT
Mini Card	GPS, 3G / 4G, Wi-Fi, 2 / 4 x LAN, 4 x COM, CANBus, SDI / AHD Video
By Cable	Bluetooth, Digital I/O, 2 / 4 PoE, 4 x USB mini card

- USB  
1 x USB 3.0 (type C) ; 5 x USB 2.0 (internal)
- USB Expansion  
USB to COM, Mini Card, M.2, Audio board
- Serial IO  
1 x RS232 / 422 / 485  
3 x RS232  
\*COM1~COM4 pin9 5V / 12V (Option)
- GPIO  
Hardware digital Input & Output, 4 x DI / 4 x DO
- SMBus  
1 x SMBus
- WDT  
Hardware Watch Dog Timer, 0~255 sec programmable
- Power Input  
Wide Range +9~36V
- Dimension  
2.5" (102 x 88 mm)
- Operation Temperature  
-20°C~70°C (100 % CPU Usage)
- Operation Humidity  
5~95%, non-condensing
- Chassis (OEM I/O Expansion by request)  
Box PC: Waterproof Box PC, Waterproof PPC
- OS Support  
Windows® 10 IOT (64bit),  
Ubuntu 16.04.3 above, Fedora 26 above, CentOS 7.4 above

Specification are subject to change without prior notice. ODM / OEM is available.