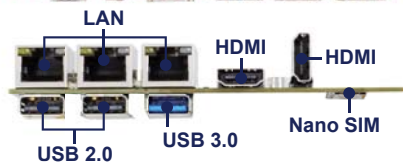


# 21640HL

+ Hailo-8™ edge AI processor

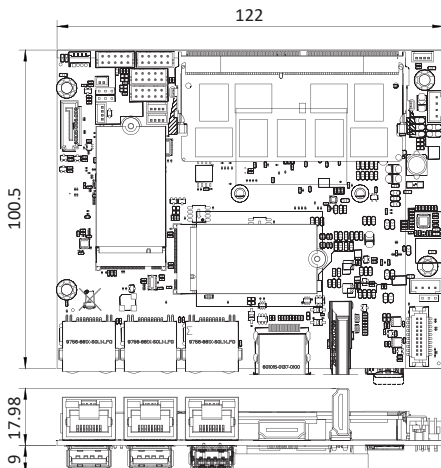
2.5" Plus SBC supports Intel® Elkhart Lake ATOM® x6000E Series  
2 x HDMI, 3 x Intel 2.5 Gb Ethernet, 4DI / 4DO, 5 x USB, 2 x COM,  
2 x M.2, 1 x Nano SIM, SMBus  
Hailo-8™ edge AI processor



## Features:

- Intel® Elkhart Lake ATOM® x6413E / J6412 CPU
- Hailo-8™ edge AI processor
- 1 x DDR4 SODIMM socket, Max. 32GB
- Independent display: 2 x HDMI (1 x OEM to DP), 1 x eDP
- 3 x Intel 2.5 GbE LAN, 1 x USB 3.0, 5 x USB 2.0
- 2 x COM, 4DI / 4DO, 2 x M.2, 1 x Nano SIM
- TPM 2.0 (Firmware), SMBus

## Dimensions: (Unit:mm)



## Specifications :

- CPU
  - Intel® Elkhart Lake ATOM x6413E Quad Core 3.0 GHz CPU
  - Intel® Elkhart Lake Celeron J6412 Quad Core 2.6 GHz CPU
- MB Chipset
  - Intel® Elkhart Lake SoC
- Graphics
  - Intel® HD Graphics, Support DirectX 12.1 & OpenGL 4.5
- AI Accelerator
  - Hailo-8™ edge AI processor
- System Memory
  - 1 x DDR4 3200 MHz SODIMM, Max. 32GB
- Storage
  - 1 x M.2 B Key Type 3042 / 2242 PCIe-SSD / SATA-SSD
  - 1 x M.2 B Key Type 2242 PCIe-SSD
  - 1 x SATA ports 3.0 Data transfer rates up to 6.0 Gb/s (600 MB/s)
- BIOS
  - Insyde UEFI BIOS
- Display
  - 2 x HDMI (1 x OEM to DP), eDP
- TPM
  - TPM 2.0 (Firmware) ; OEM Optional to Hardware TPM 2.0
- LAN
  - 3 x Intel 2.5 GbE I226-IT (external)
- Expansion Interface
  - 1 x M.2 B Key Type 2242 (PCIe x2 / USB 2.0)
  - 1 x M.2 B Key Type 2242 / 3042 (SATA / PCIe / USB 2.0-OEM to USB 3.0), 1 x Nano SIM

### Expansion Options

CN064	M.2 B key 2242 to M.2 E Key 2230, WiFi 6 + BT
CN067	M.2 B key 2242 to M.2 B Key 2252, 4G / 5G (3.7V by BOM Control)
CN059	USB to Line-out / Mic- in
CC007	USB to 4 port COM
CIO116G	SMBus to 8DI + 8DO
PW351	1 port PoE PSE
PW352	2 port PoE PSE
PW301	802.3AF / AT PD module
PW205	Wide Range power board (9~36V) with power Ignition on/off delay
PW206	12V / 24V DC to DC Redundant Power Board
PW022	Wide Range power board (24V / 48V)
DP001	eDP to VGA
eDP003	eDP to DVI
eDP004	eDP to HDMI
eDP001	eDP to LVDS (OEM)

- USB
  - 1 x USB 3.0 (external) ; 2 x USB 2.0 (external) ; 3 x USB 2.0 (internal)
- Serial IO
  - 2 x RS232 / 422 / 485 (internal)
  - \*COM1, COM2 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 +9~24V
- Dimension
  - 2.5" Plus (122 x 100 mm)
- Operation Temperature
  - 40°C~70°C (100 % CPU Usage)
- Operation Humidity
  - 5~95%, non-condensing
- Chassis (OEM I/O Expansion by request)
  - Box PC: SKY 2, NET-III
- OS Support
  - Windows® 10 IOT ; Windows® 11 IOT
  - Ubuntu 22.04 above, Ubuntu 22.04 host OS, Hailo SW via Ubuntu container

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