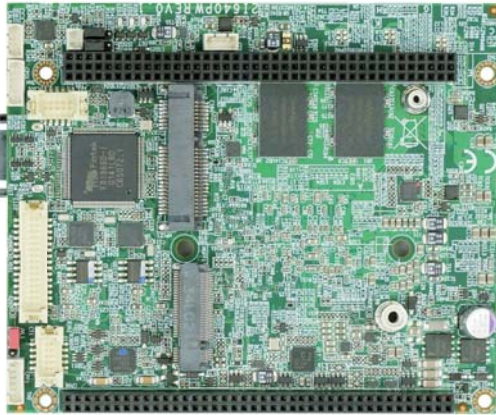


# 2I640PW

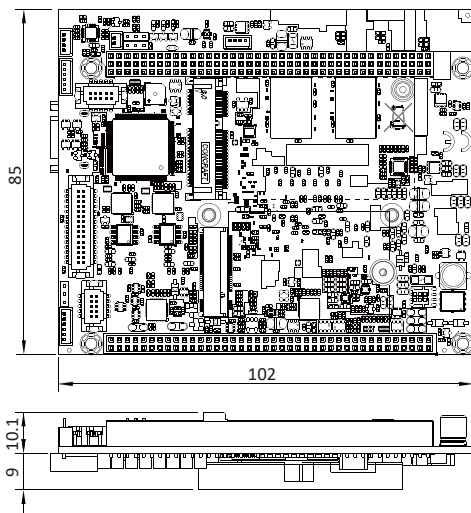
**Pico Express Computer on Module supports**  
**Intel® Elkhart Lake ATOM® x6413E / J6412 CPU**  
**HDMI®, LVDS, 2 x Intel 2.5 Gb Ethernet, 7 x USB, Touch Screen,**  
**4 x COM, 1 x M.2, 1 x Mini PCIe, HD Audio, 4DI / 4DO**



## Features:

- Intel® Elkhart Lake ATOM® x6413E / J6412 CPU
- On Board LPDDR4 4GB or 8GB
- Independent display: 1 x HDMI®, 1 x LVDS, 1 x VGA
- 2 x Intel 2.5 GbE LAN, 2 x USB 3.0, 5 x USB 2.0
- 4 x COM, 1 x Mini PCIe, 1 x M.2
- 1 x PCIe x1, 1 x PCIe x2 (Pico-Express)
- 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, 4GB or 8GB
- Storage  
1 x M.2 B Key-SSD  
1 x SATA
- BIOS  
Insyde UEFI BIOS
- Display  
1 x HDMI®, 1 x VGA, 18 / 24bits 2-channel LVDS
- Touch  
USB interface Touch Screen controller
- TPM  
TPM 2.0 (Firmware) ; OEM Optional to Hardware TPM
- LAN  
2 x Intel 2.5 GbE I226 (internal)
- Audio  
High Definition Audio Specification, Support Line-out / Mic-in / Line-in  
Two channel Class D Audio Amplifier
- Expansion Interface  
1 x M.2 B Key Type 3042 (USB 2.0 / PCIe / SATA)  
1 x Mini PCIe (USB 2.0 / PCIe)  
1 x PCIe x1 & 1 x PCIe x2 of Pico Express 200-pin connector

### Expansion Module IO expanded via 160-200 pin connector

#### Carrier Board:

- DK001:** DVI, VGA, 5 x USB, 2 x LAN, 4 x COM, 4 x Mini PCIe, 4 x SIM
- DK002:** HDMI, VGA, 5 x USB, 2 x LAN, 4 x COM, 2 x Mini PCIe, 2 x SIM
- DK005:** HDMI, VGA, 5 x USB, 4 x COM, 8 x PoE, 1 x GbE, 4 x Mini PCIe, 2 x SIM
- DK006:** VGA, 5 x USB, 2 x LAN, 4 x COM, 4 x BNC Board
- DK007:** VGA, 5 x USB, 4 x COM, 2 x PoE, 2 x Mini PCIe, 2 x SIM
- DM001:** M12 Board  
(mini HDMI, VGA, 2 x USB, 4 x COM, 8 x PoE, 1 x GbE, 3 x Mini PCIe, 1 x SIM)
- DM002:** M12 Board (mini HDMI, VGA, 2 x USB, 4 x COM, 2 x GbE, 1 x Mini PCIe, 1 x SIM)
- DK008:** HDMI, VGA, 2 x LAN, 5 x USB, 4 x COM, 1 x mini card,  
1 x M.2 B-Key 3042 / 2280, Audio

- USB  
2 x USB 3.0 ; 5 x USB 2.0
- Serial IO  
4 x RS232 / 422 / 485
- GPIO  
Hardware digital Input & Output, 4 x DI / 4 x DO
- SMBus  
1 x SMBus
- I2C  
1 x I2C
- WDT  
Hardware Watch Dog Timer, 0~255 sec programmable
- PS2 KB/MS  
PS2 Keyboard / Mouse
- Power Input  
Wide Range +9~36V
- Dimension  
2.5" Plus (102 x 85 mm) ; Weight: 80g
- Operation Temperature  
-20°C~70°C (100 % CPU Usage) ; -40°C by x6413E CPU
- Operation Humidity  
5~95%, non-condensing
- Chassis (OEM I/O Expansion by request)  
Box PC: TERA, SKY 2, ARK
- OS Support  
Windows® 10 IOT ; Windows® 11 IOT  
Ubuntu 22.04 above, Fedora 36 above