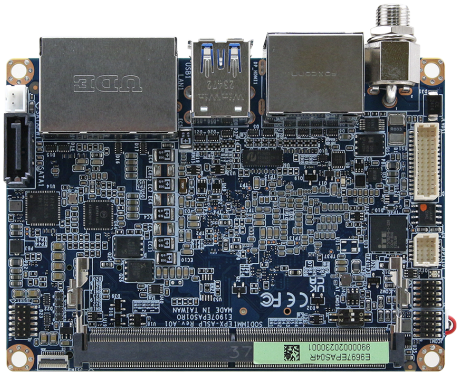
EPX-TWLP

Intel® Processor N-series BGA Processor Pico ITX Motherboard



Product Features

- Intel® Processor N-series
- Triple Display, DP 1.4a, HDMI 2.0b, 1 x 1CH LVDS
- Dual Expansion Slot, M.2 Key-B, M.2 Key-E
- Bottom Layer Soldered Processor
- Dual Intel® Gigabit Ethernet, 2.5GbE
- DC in +12V

Specification

System Information	
Processor	Intel® Processor N-series
System Memory	1 x 262-pin DDR5 4800MHz SO-DIMM socket, supports up to 16GB Max.
I/O Chipset	EC IC: IT5782 or Equivalent Fintek_F81435N or Equivalent for COM port
Watchdog Timer	H/W Reset: 1Sec. ~ 65535Sec./Min. and1 Sec. or 1Min./Step
BIOS	AMI BIOS, 256Mbit SPI Flash ROM
H/W Status Monitor	CPU temperature monitoring Voltages monitoring CPU fan speed control
TPM	Support fTPM
Board	PICO ITX

Expansion	
Expansion	1 x M.2 Type B 2242/3042 with (1 x PCIe x1 or USB3.2 GEN1) or (1 x SATA III + USB3.2 GEN1), USB2.0, SIM Slot for SSD/LTE/IO Cards) *Default is Default: SATA) *1 x 10Pin FPC connector for Micro SIM card adapter *Micro SIM card to SIM card adapter by optional 1 x M.2 Type E 2230 support WiFi module, USB 2.0 Signal, PCIe x1 Signal.

Storage

Storage	1 x M.2 (Type B) 1 x SATA III

Display

Graphic Chipset	Intel® Graphics
Spec. & Resolution	HDMI 2.0b Max resolution 4096 x 2160@60Hz DP 1.4a Max resolution 4096 x 2160@60Hz LVDS 1366 x 768 Single channel 18/24-bits
Multiple Display	Triple Display
LVDS	1CH 18/24bits LVDS 1366x768 Chrontel. CH7511B eDP to LVDS Converter

Ethernet

LAN Chipset	2 x Intel® i226V (i226IT for wide temp version) 2.5 Gigabit Ethernet
Ethernet Interface	2.5 Gigabit Ethernet
LAN Port	2 x RJ45

Software Support

OS	Windows 11, Linux

Certification

Certification Information	CE, FCC, RoHS Compliant

I/O

USB	2 x USB 3.2 Gen2 at IO 4 x USB 2.0 by pin header
COM Port	1 x RS-232 1 x RS-232/422/485
SATA	1 x SATA III
DIO	1 x 4-bit GPIO

Mechanical & Environmental

Operating Temp.	0°C ~ 60°C (-4°F ~ 140°F) with 0.5m/s Air Flow
Storage Temp.	-40°C ~ 75°C (-40°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Weight	0.66lbs (0.3Kgs)

Power Requirement	DC in +12V
Power Mode	AT/ATX (Default Setting: ATX)
Dimension (L x W)	3.94" x 2.83" (100mm x 72mm)

Ordering Information

Ordering Information	Intel® Processor N-series 2.5 Pico ITX SBC Motherboard EPX-TWLP-N150-A1R EPX-TWLP/N150/2COM/6USB/2LAN/A1 EPX-TWLP-N250-A1R EPX-TWLP/N250/2COM/6USB/2LAN/A1