



# ECM-TWL-N150

3.5" SBC, Intel® Processor N150 Quad-core  
Onboard, Fanless Operation



## Features

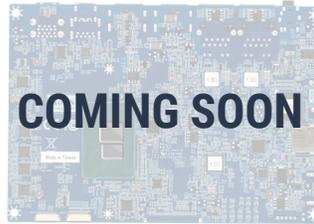
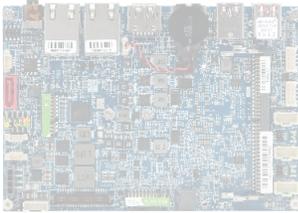
- Intel® Processor N150 onboard 6W TDP, up to 3.60 GHz
- Intel® Twin Lake Platform
- 1 x SO-DIMM socket supports DDR5 4800 MT/s up to 16GB
- 64GB eMMC Onboard
- Supports 3 Independent Displays: 2 x DisplayPort 1.4b 4K@60Hz, LVDS/eDP
- USB Type-C OTG
- 3 x USB 3.2 Gen2 Type-A (Red), 4 x USB 2.0
- 4 x COM
- 2 x Intel® Ethernet Controller I226-V (2.5GbE)
- M.2 B-Key 2242/3042 with Nano SIM Card Socket
- 12V-24V Wide Range DC-in
- Fanless Operation (Heatsink)

## SPECIFICATIONS

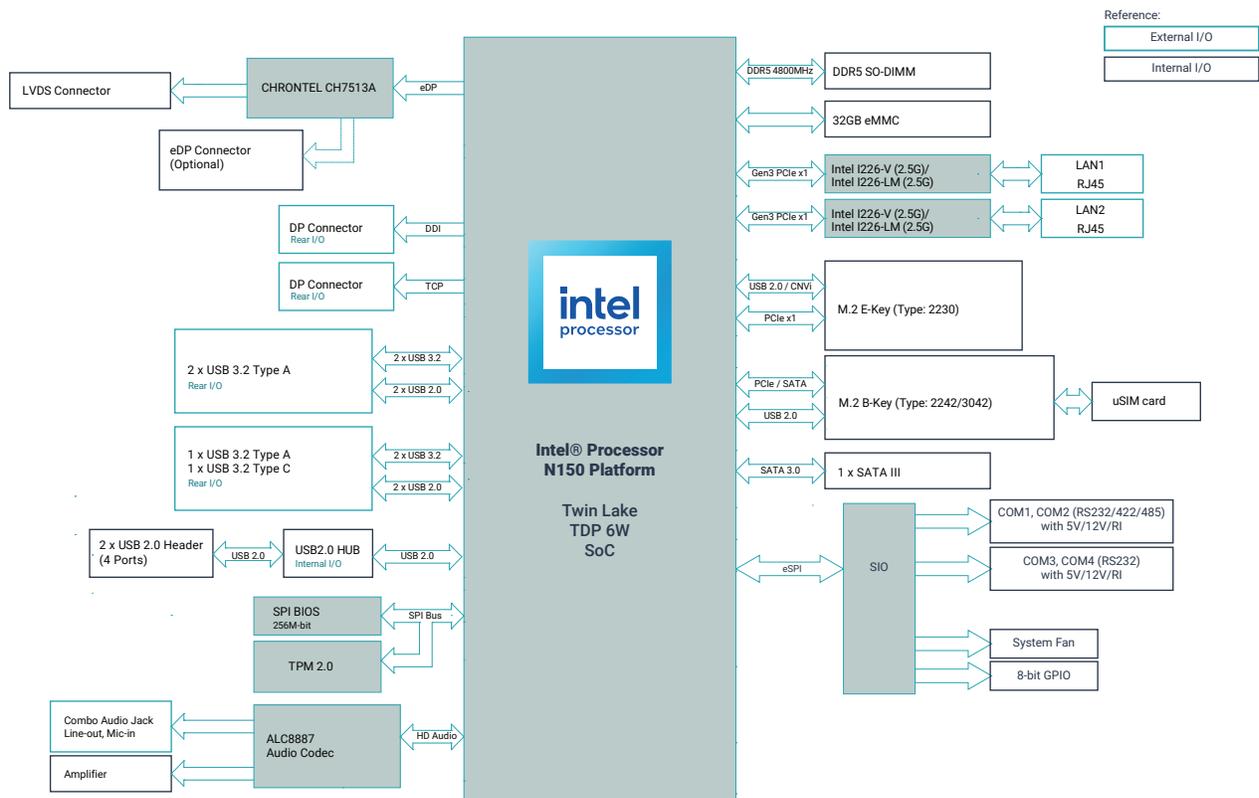
System	
Processor	Intel® Processor N150 Quad-core, 6W TDP, 6M Cache, up to 3.60 GHz, Products formerly Intel® Twin Lake Platform
Memory	1 x SO-DIMM socket supports DDR5 4800MHz up to 16GB
BIOS	256Mb SPI BIOS
Ethernet Controller	2 x Intel® Ethernet Controller I226-LM (2.5GbE)
Audio Codec	Realtek HD Audio Codec 3W Per Channel
Expansion	1 x M.2 E-Key 2230, CNVi Support (PCIe x1 + USB 2.0) 1 x M.2 B-Key 2242/3042 with Nano SIM Card Socket (PCIe x1, SATA III, & USB)
Storage	64GB eMMC Onboard
TPM	TPM 2.0
Supported OS	Win 11, Linux Ubuntu
Graphics	
Chipset	Intel® Graphics
Interface	2 x DisplayPort 1.4b 4K@60Hz 1 x LVDS/eDP
Multi-Display	Support 3 Independent Displays
External I/O Ports	
Display	2 x DisplayPort
USB	3 x USB 3.2 Gen2 Type-A 1 x USB 3.2 Gen2 USB Type-C OTG
LAN	2 x RJ45 LAN
Audio	Combo Audio Jack- Line-out and Mic-in

Internal I/O Connectors	
Display	1 x LVDS Header 1 x eDP Header (Optional)
USB	2 x USB 2.0 Headers (4 Ports)
COM/Serial Port	2 x RS232 2 x RS232/422/485
SATA	1 x SATA III, 1 x SATA Power Connector
GPIO	1 x 8-bits GPIO Header
DC-in	1 x 4-pin DC-in Header
MIO	1 x I2C Header, 1 x SMBus Header, 1 x SPI Header
Mechanical, Power, and Environment	
Power	12V-24V Wide Range DC Power *12VDC adapter requires 5% voltage tolerance
Operating Temp	0°C to 60°C (32°F ~ 140°F)
Storage Temp	-20°C ~ 80°C (-4°F ~ 176°F)
OP Humidity	5% ~ 90% Relative Humidity, Non-condensing
Cooling Design	Heatsink Cooling Design
Regulatory Compliance	FCC Class B/CE/UL Second Edition, RoHS Compliant
Form Factor	3.5" Single Board Computer (SBC)
Dimensions	5.7" x 4" (146mm x 102mm)
Weight	0.44lbs (0.2kg)

# SPECIFICATIONS / ADDITIONAL PRODUCT PHOTOS



## BLOCK DIAGRAM



## ORDERING INFORMATION

Model Name	CPU Onboard / CPU Socket	Memory / Storage	LAN	Display Port
ECM-TWL-N150	Intel® Processor N150 Onboard	1 x SO-DIMM socket	2 x 2.5GbE	2 x DP

## PACKING LIST

- ✓ 1 x Motherboard
- ✓ 1 x SATA Power Cable
- ✓ 1 x Dual COM Port Cable



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