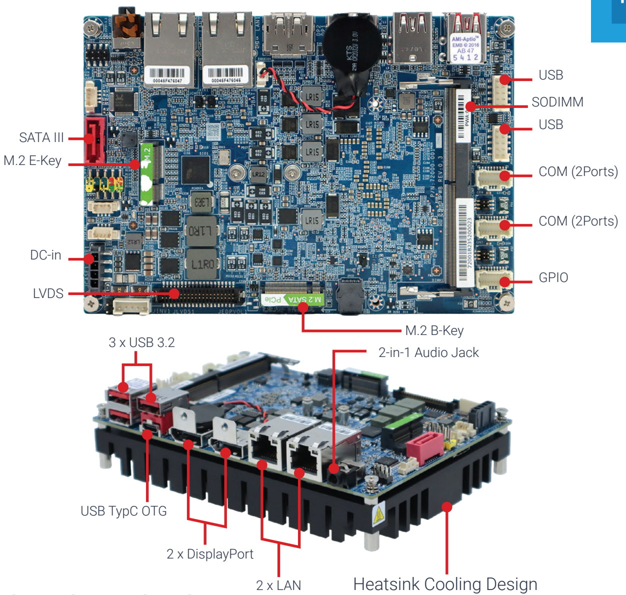
PRODUCT DATASHEET

ECM-ADLN-N97

3.5” SBC with Intel® Processor N97 Quad-core Onboard.
Fanless Operation, Low-profile Design

bcm
ADVANCED RESEARCH

intel. INSIDE



Features

- Intel® Processor N97 onboard, up to 3.60 GHz, up to 12W TDP
- Intel® Alder Lake-N 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 Typc-C OTG
- 3 x USB 3.2 Gen2 Type-A (Red), 4 x USB 2.0, 2 x COM, 1 x SATAIII
- 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 - 12W CPU (Heatsink)
- Optional: Heat Spreader Cooling Design

DDR5 3 Displays Dual LAN 4 COM TPM 2.0

SPECIFICATIONS

System

Processor	Intel® Alder Lake-N Platform Intel® Processor N97, 6M Cache, up to 3.60 GHz, up to 12W TDP
Memory	1 x SO-DIMM socket supports DDR5 4800 MT/s up to 16GB
Ethernet	2 x Intel® Ethernet Controller I226-V (2.5GbE)
Audio Codec	Realtek HD Audio Codec
TPM	TPM 2.0
Expansion	1 x M.2 E-Key 2230, CNVi Support (PCIe x 1 + USB 2.0) 1 x M.2 B-Key 2242/3042 with Nano SIM Card Socket (PCIe x1, SATAIII, & USB) 64GB eMMC Onboard
BIOS	256Mb SPI BIOS
Supported OS	Win 10, Win 11, Linux Ubuntu

Graphics

Chipset	Intel® UHD Graphics
Interface	2 x DisplayPort 1.4b 4K@60Hz 1 x LVDS/eDP
Multi-Display	Supports 3 Independent Displays

External I/O Ports

Display	2 x DisplayPort
USB	3 x USB 3.2 Gen2 Type-A (Red) USB Type-C OTG
LAN	2 x RJ45 LAN
Audio	Combo Audio Jack- Line-out and Mic-in

Internal I/O Connectors

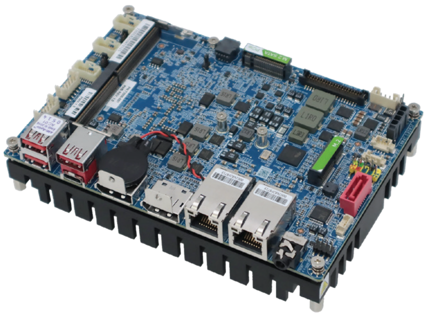
Display	1 x LVDS Header 1 x eDP Header (Optional)
USB	2 x USB 2.0 Headers (4 Ports)
COM/Serial Port	2 x RS232 2 x RS232/422/485
SATA	1 x SATAIII, 1 x SATA Power Connector
Additional I/O	1 x 8-bits GPIO Header 1 x 4-pin DC-in Connector

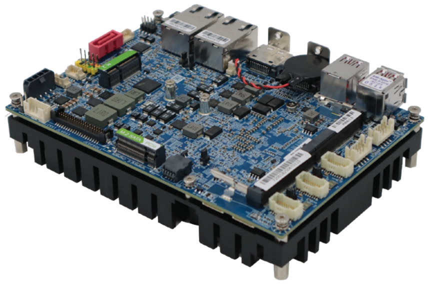
Mechanical, Power, and Environment

Power	12V-24V Wide Range DC-In
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	Standard: Heatsink Cooling Design Optional: Heat Spreader Cooling Design
Certification	FCC Class B/CE RoHS Compliant
Form Factor	3.5” Single Board Computer (SBC)
Dimensions	5.7” x 4” (146mm x 102mm)
Weight	0.44lbs (0.2kg)

* All product specifications and images are subject to change without notice. Last update: 05/12/2025

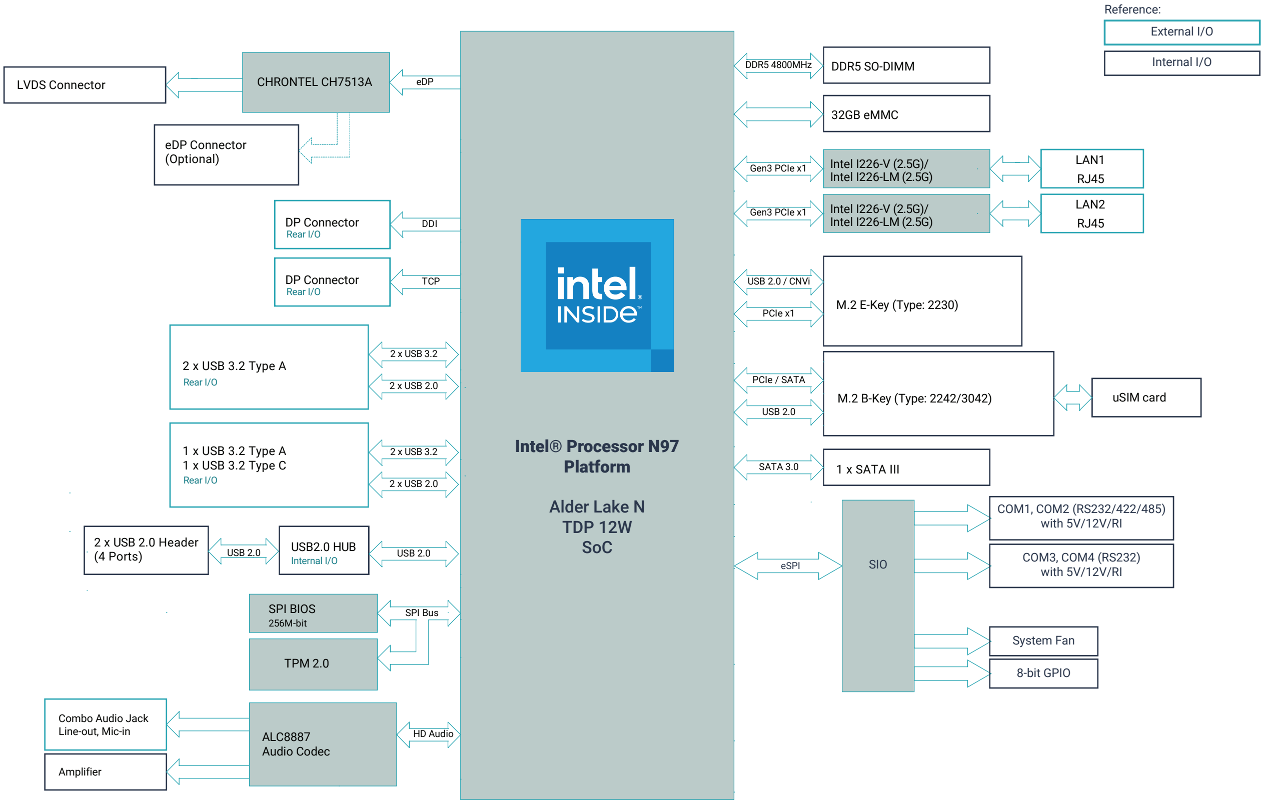
SPECIFICATIONS / ADDITIONAL PRODUCT PHOTOS





Optional Heat Spreader (accessory)
(requires compatible thermal mechanical design)

BLOCK DIAGRAM



ORDERING INFORMATION

Model Name	CPU Onboard / CPU Socket	Memory / Storage	LAN	Display Port
ECM-ADLN-N97	Intel® Processor N97	1 x SO-DIMM socket	2 x 2.5GbE	2 x DP

Model Name	Description
ACC-ECMADLN-HS	Heat Spreader Kit: Aluminum, 0.13 in Thickness, 5.7" x 4" (146mm x 102mm), 1 x Thermal Paste, Screws

PACKING LIST

√ 1 x ECM-ADLN-N97 Motherboard
√ 1 x SATA Power Cable