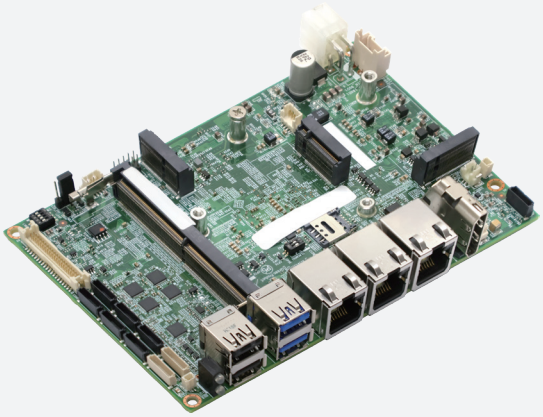
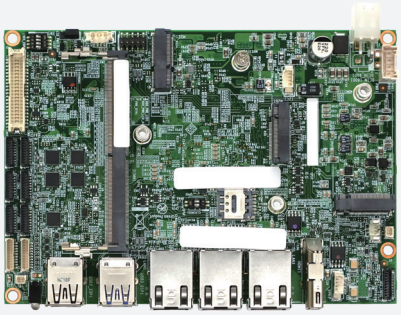
X105-N150

3.5" Embedded Computing Board
Powered by Intel® Processor N-series





Main Features

- Intel® Processor N-series
- 1 x DDR5 SO-DIMM, up to 32GB
- Support 1 x HDMI® 1.4, 4K@30Hz and a dual channel 18/24-bits LVDS connector, up to 1920x1080@60Hz
- TPM 2.0
- Rich I/O connectivity: 3 x 2.5GbE LAN, 4 x USB port, 6 x COM
- Variety expansion: 1 x M.2 Key B , 1 x M.2 Key E
- Support DC 12V power input

Product Overview

The X105-N150 is a 3.5" single-board computer designed with a multi-core Intel® processor N150. The X105 series targets embedded applications with its advanced computing performance, low power consumption, and rich I/O features.
It supports one HDMI® 1.4 output, one LVDS (2K), three 2.5GbE LAN ports, two USB 3.2 Gen 2 ports, two USB 2.0 ports, two RS-232/422/485 ports, and four RS-232 ports.
In addition, it supports a variety of M.2 and Mini PCIe expansion slots, making it compatible with a wide range of modules for diverse industrial applications, such as smart parking, EV charging stations, vending machines, and kiosks.
The X105 series supports a wide operating temperature range from -40°C to 85°C, making it an ideal choice for semi-outdoor and outdoor embedded applications.

Specifications

Processor

- Intel® processor N150, PBP 6W

Integrated Graphics

- Intel® UHD Graphics

Display Interface

- 1 x HDMI® 1.4, up to 3840x2160@30Hz
- Support dual/single channel LVDS (up to 1920x1080@60Hz) or eDP

Memory

- 1 x DDR5 4800 SO-DIMM, up to 32GB, non-ECC, unbuffered

Storage

- 1 x M.2 Key M 2242 storage for supporting SATA signal

I/O Interface Side

- 3 x 2.5GbE RJ45 port with LEDs, Intel® I226-IT
- 1 x HDMI® 1.4 output
- 2 x USB 3.2 Gen 2
- 2 x USB 2.0

I/O Interface Internal

- 1 x 9-pin header for COM1~2, supports RS-232/422/485
- 1 x 9-pin header for COM3~6, supports RS-232
- 1 x 10-pin header for GPIO, 4 x GPI, 4 x GPO
- 1 x 4-pin connector for smart fan
- 1 x 10-pin header for 2 x USB 2.0 port
- 1 x 9-pin header for mic in/line out
- 1 x 4-pin header for speaker out (6W)

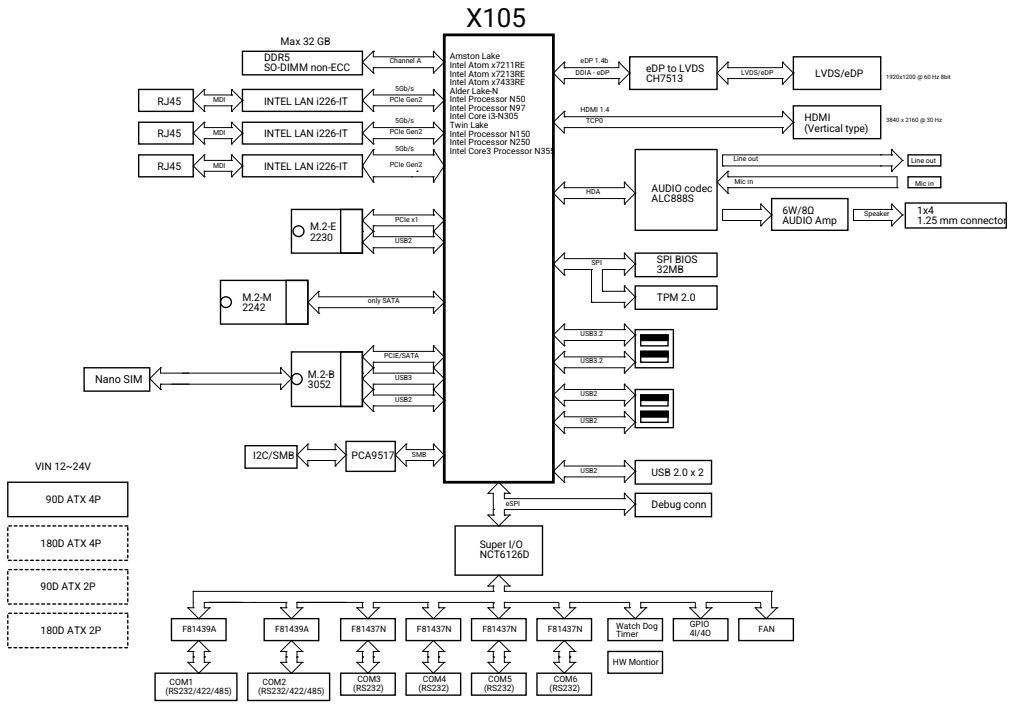
Expansion Slot

- 1 x M.2 Key B 3042/3052 for an optional 5G/LTE module (PCIe 3.0, SATA, USB 2.0, USB 3.2)
- 1 x M.2 Key E 2230 for an optional Wi-Fi + BT module (PCIe 3.0, USB 2.0)
- 1 x SIM slot, supports Key B + M, 5G/LTE module

Power Supply

- Support DC 12V power Input via 1 x 4-pin ATX connector

Block Diagram



Environment

- Operating temperature: -40°C~85°C in chamber with airflow 0.7m/s
- Storage temperature: -40°C~85°C
- Relative humidity: 95% (non-condensing)

Mechanical

- Dimensions: 146mm (L) x 102mm (W) (5.7" x 4.0")
- Net weight: 0.15kg

Package Information

- Dimensions: 460mm (W) x 373mm (D) x 211mm (H)
- Gross weight: 2.8kg (10 units per carton)

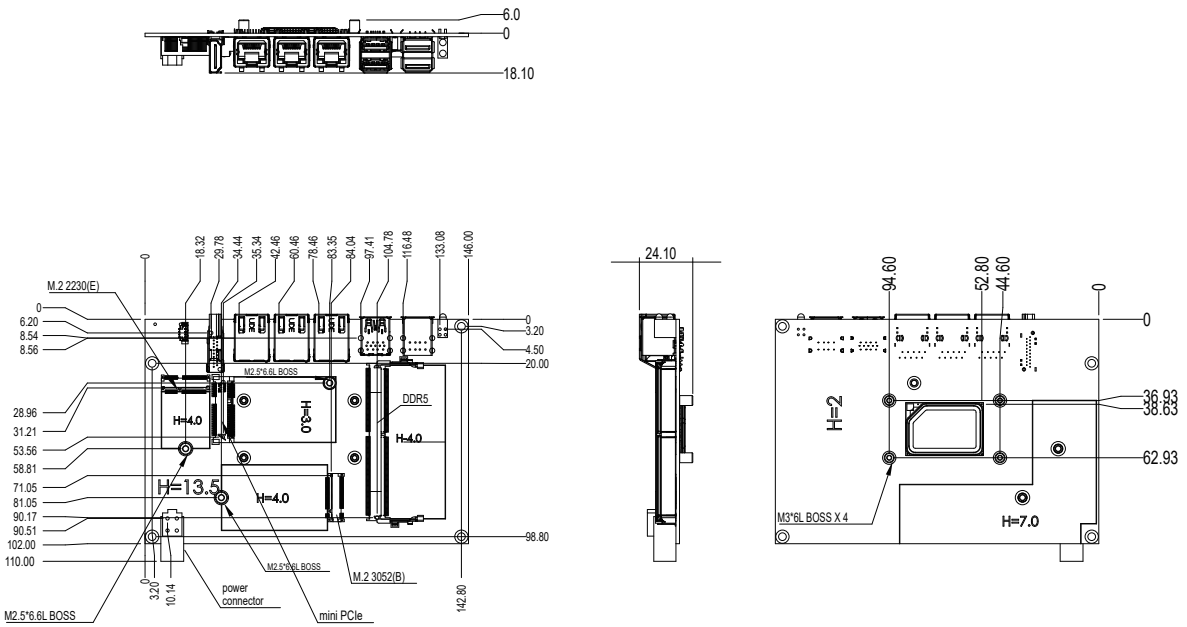
Certifications

- CE (EN 55035 + EN 55032)
- FCC Class A (EMI Part 15B)

Operating System

- Windows 11
- Windows 10, 64bit
- Linux 4.1 above

Dimension Drawing



Ordering Information

- **X105-N150 (P/N: 10W10X10502X0)**
  Embedded computing board powered by Intel® processor N150, 1 x HDMI®, 1 x LVDS, 3 x LAN, 6 x COM port