



Top View



Bottom View

Main Features

- Onboard Intel® N97/x7433RE Processor
- 1 x HDMI® display
- 3 x Intel® I226-IT 2.5GbE LAN port; supports WoL, teaming and PXE
- 2 x USB 3.2 Gen2, 1 x USB-C (5V/3A, can support up to 15W)
- 4-Channel Isolated Digital I/O (4 In/4 Out)
- 2 x RS-232/485 with auto flow control (TX, RX, CTX, RTX), supports 2.5KV isolation protection
- Onboard TPM 2.0
- 1 x Mini PCIe full-size (PCIe x1, USB 2.0, SATA, SIM)
- 1 x M.2 2242/3052 Key B (PCIe x1, SATA, USB 3.0, SIM)
- Support -10°C to 60°C operating temperature
- Support typical +12/24V DC ±20%

Product Overview

Introducing the NIFE 106-A02/04: a compact yet powerful system for entry-level automation needs. The system comes equipped with an Intel® processor N97/x7433RE, 8GB LPDDR5-4800 SDRAM memory, and 64GB eMMC storage, providing optimal performance. It features multiple I/O ports including three LAN ports, two RS-232/485 COM ports, and two USB 3.2 Gen2 ports, offering unmatched integration flexibility. The NIFE 106-A02/04 model adds even more flexibility with mSATA storage, USB-C, 4-channels isolated digital I/O (4 In/4 Out), and slots for mPCIe and M.2, making it ideal for complex setups. With onboard TPM 2.0 for security and compliance with industrial standards EN 61000-6-2 (EMS) and EN 61000-6-4 (EMI), it guarantees reliability and safety. The NIFE 106-A02/04 can be easily installed on a DIN-rail, and has a wide operating temperature range of -10°C to 60°C, making it the perfect industrial automation solution.

Enhance your automation capabilities with the NIFE 106-A02 - a compact device that delivers performance, reliability, and versatility!

Specifications

CPU Support

- Intel® processor N97, embedded (NIFE106-A02)
- Intel Atom® x7433RE processor, embedded (NIFE106-A04)

Main Memory

- Onboard LPDDR5 4800 SDRAM, default 8GB (optional by DBOM up to 16 GB), with In-band ECC

Storage Device

- Onboard eMMC 64GB

Display Output

- 1 x HDMI® port, resolution up to 3840 x 2160@30Hz
- 1 x USB-C port, supports USB PD 5V/3A, up to 15W

Front I/O Interface

- 1 x HDMI port
- 3 x Intel® I226-IT 2.5 GbE LAN port; supports WoL, teaming and PXE
- 2 x USB 3.2 Gen2 (900mA)
- 1 x DB9, supports RS-232/485 with auto-flow control (TX, RX, CTX, RTX), supports 2.5KV isolation protection
- 1 x ATX power on/off switch

Bottom I/O Interface

- 1 x DB9, supports RS-232/485 with auto-flow control (TX, RX, CTX, RTX), supports 2.5KV isolation protection

- 1 x USB-C, supports USB PD 5V/3A, up to 15W
- 4-Channel Isolated Digital I/O (4 In/4 Out), DI: 2mA, DO: 200mA per port, four channels 800mA

Top I/O Interface

- 1 x Fieldbus slot & 1 x Antenna hole
- 4 x Antenna hole (If Fieldbus is not used)

Internal I/O Interface

- N/A

Expansion

- 1 x Mini PCIe full-size (PCIe x1, USB 2.0, SIM)
- 1 x M.2 2242/3052 Key B for LTE/ Storage (PCIe x1, SATA, USB 3.0, SIM) (Default) or 1 x Mini PCIe full-size (PCIe x1, USB 2.0, SATA, SIM) (Optional by DBOM)

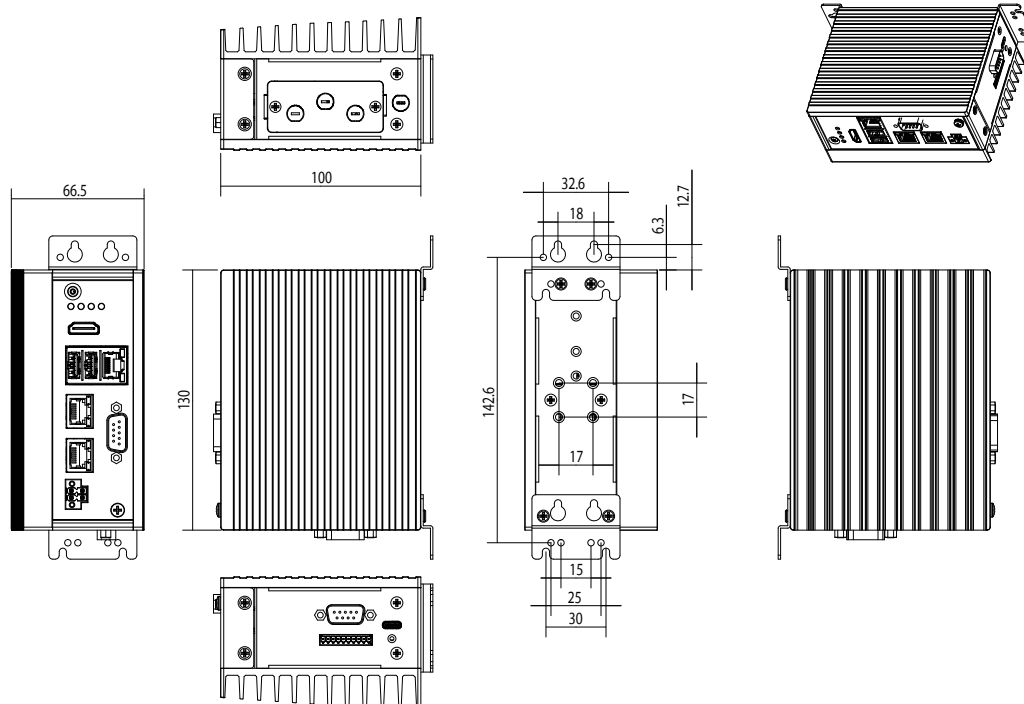
Status LED

- 4 x LED status indicator for power, battery, Tx, Rx

Power Requirement

- Power input: typical +12/24VDC ±20%
- 1 x Optional 24V, 60W power adapter
- 1 x Optional 24V, 120W power adapter

Dimension Drawing



Dimensions

- 66.5 (W) x 100 (D) x 130 (H) mm

Construction

- Aluminum and metal chassis with front access design

Environment

- Operating temperature
 - Ambient with low airflow: -10~60°C (Default), (according to IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14) (Tolerance +/- 2°C) for industry-grade
 - Ambient with low airflow: -10~55°C (according to IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14) (Tolerance +/- 2°C) for CB/CCC/UL
- Storage temperature: -20°C~80°C
- Relative humidity: 10%~95% (non-condensing)
- Shock protection
 - eMMC: 50G, half sine, 11ms, IEC 60068-27
- Vibration protection w/eMMC condition
 - Random: 2Grms@5~500Hz, IEC 60068-2-64
 - Sinusoidal: 2Grms@5~500Hz, IEC 60068-2-6

Weight

- Gross weight: 1.75 kg
- Net weight: 1 kg

Certifications

- CE approval
 - EN 61000-6-2
 - EN 61000-6-4
- FCC Class A
- UL/cUL (By request)
- CCC (By request)

Support OS

- Windows 11
- Windows 10 Enterprise, 64-bit
- Linux Kernel 4.19

Ordering Information

♦ NIFE 106-A02

(P/N: 10J70010603X0, P/N: 10J70010603XE)

Intel® Processor N97 Quad Core factory automation fanless system with onboard 8GB memory, 64GB eMMC, M.2 2242/3052 Key B, mPCIe, and bottom side I/O

♦ NIFE 106-A04 (P/N: 10J70010605X0)

Intel Atom® x7433RE Processor Quad Core factory automation fanless system with onboard 8GB memory, 64GB eMMC, M.2 2242/3052 Key B, mPCIe, and bottom side I/O

♦ 24V, 60W AC/DC power adapter w/o power cord (P/N: 7400060077X00)

♦ 24V, 120W AC/DC power adapter w/o power cord (P/N: 7400120036X00)