

Top View



Bottom View

Main Features

- ♦ Palm size form factor design
- ♦ Onboard Intel Atom® E3826 processor with 2GB DDR3L RAM
- ♦ Onboard Intel® Celeron® J1900 processor with 4GB DDR3L RAM
- ♦ 2 x Intel® I211 GbE LAN ports; support WoL and PXE
- ♦ 1 x RS232/485 with auto flow control
- ♦ Support +24VDC input $\pm 20\%$
- ♦ TPM 2.0 onboard

Product Overview

NEXCOM's NIFE product line comes in a range of form factors and processor configurations including Intel Atom® and Intel® Celeron® processors to suit for different factory automation applications use. For NIFE 104, it positions itself at the entry level of fieldbus controller, and suitable for M2M communication gateway and data server applications. Boosted by Intel® BayTrail E3826/J1900 processor and the palm size form-factor, NIFE 104 is an ideal product for automation controller or smart gateway.

Using libraries of reusable logic and motion functionality, control schemes can be developed with reduced programming efforts for fast deployment of SoftPLC controller and M2M gateway.

Specifications

CPU Support

- ♦ NIFE 104: onboard Intel Atom® processor E3826, Dual Core 1.46GHz
- ♦ NIFE 104M: onboard Intel Celeron® processor J1900, Quad Core 2GHz

Main Memory

- ♦ NIFE 104: onboard type 2GB DDR3L RAM (E3826), un-buffered and non-ECC
- ♦ NIFE 104M: onboard type 4GB DDR3L RAM (J1900), un-buffered and non-ECC

Display Option

- ♦ HDMI

I/O Interface-Front

- ♦ LED for power, battery, TX, RX, WWAN, WLAN, GPO1, GPO2
- ♦ 1 x RS-232/485 with auto flow control (support 2.5KV isolation protection)
- ♦ 2 x Intel® I211 GbE LAN controller (both jumbo frame: 9KB)
- ♦ 1 x USB 3.0 ports (900mA per each)
- ♦ 1 x USB 2.0 ports (500mA per each)

I/O Interface-Top

- ♦ 1 x HDMI port
- ♦ 1 x System reset button
- ♦ 1 x 4-in/4-out 5V GPIO via 10-pin terminal block (5V/TTL type)

Storage Device

- ♦ NIFE 104: onboard 16GB eMMC
- ♦ NIFE 104M: optional mSATA module (no eMMC onboard)

Expansion Options

- ♦ 1 x Full size mini-PCIe socket
 - NIFE 104: USB & PCIe signal
 - NIFE 104M: USB & mSATA signal
- ♦ 1 x Half size mini-PCIe socket for optional Wi-Fi/4G/3.5G/LTE modules (USB signal & PCIe signal)

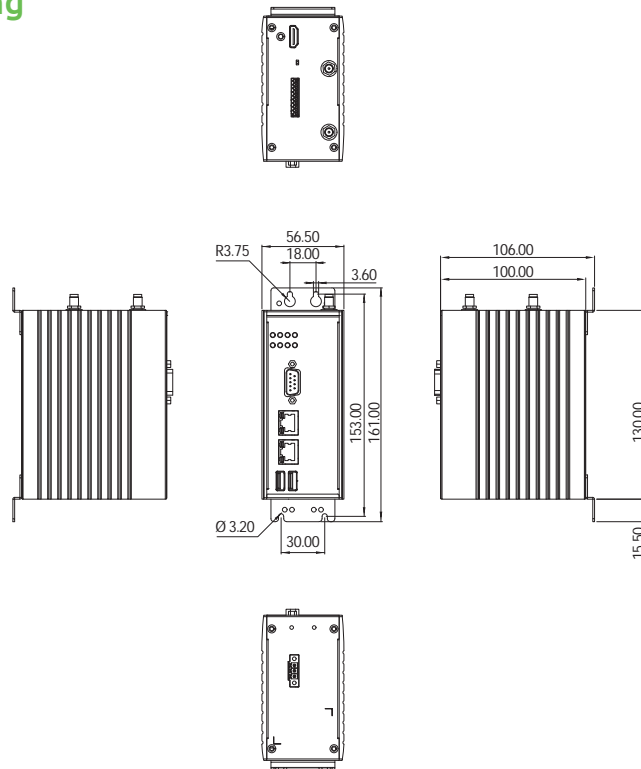
Power Requirement

- ♦ Power input: typical +24VDC $\pm 20\%$
- ♦ 1 x Optional 24V, 60W power adapter

Dimensions

- ♦ 56.5mm (W) x 100mm (D) x 130mm (H)

Dimension Drawing



Construction

- Aluminum and metal chassis with front access design

Environment

- Operating temperature:
 - Ambient with air flow: -5~55°C for NIFE 104
 - Ambient with air flow: -5~50°C for NIFE 104M
 - (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C~80°C
- Relative humidity: 10%~93% (non-condensing)
- Shock protection:
 - mSATA/eMMC: 50G, half sine, 11ms, IEC60068-27
- Vibration protection w/ mSATA or eMMC condition:
 - Random: 2Grms @ 5~500 Hz, IEC60068-2-64
 - Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

Certifications

- CE Approval
 - EN61000-6-2
 - EN61000-6-4
- FCC Class A

Support OS

- Windows 10 IoT Enterprise, 64-bit
- Windows Embedded Standard 7, 32-bit/64-bit
- Linux Kernel version 3.8.0
- Ubuntu 14.04

Ordering Information

- **NIFE 104 (P/N: 10J70010400X0)**
Intel Atom® E3826 (Bay Trail) Factory Automation Fanless System in palm size with 2G memory and 16G eMMC onboard
- **NIFE 104M (P/N: 10J70010401X0)**
Intel® Celeron® J1900 (Bay Trail) Factory Automation Fanless System in palm size with 4G memory onboard (no eMMC)
- **24V, 60W AC/DC power adapter w/o power cord (P/N: 7440060001X00)**