

NIFE 103

Intel® Atom™ E3826 Dual Core Factory Automation Fanless System
with Palm Size form Factor



Top View



Bottom View

Main Features

- Onboard Intel® Atom™ processor E3826 Dual Core 1.46GHz
- 1 x Micro HDMI DisplayPort (type D)
- 2 x Intel® I210-AT GbE LAN ports; support WoL, teaming and PXE
- 1 x USB 3.0 and 1x USB 2.0
- 1 x Full size mini-PCIe socket for optional mSATA/4G/3.5G/LTE modules
- 1 x Half size mini-PCIe socket for optional Wi-Fi module
- 1 x RS232/485 with auto flow control
- Support -5~55 °C operating temperature
- Support +24VDC input ±20%

Product Overview

NEXCOM's NIFE product line comes in a range of form factors and processor configurations including Intel® Atom™ and Intel® Core™ processors to suit different application requirements. For NIFE 103, it positions itself at the entry level of fieldbus controller, and suitable for M2M communication gateway and data server applications. Boosted by Intel® BayTrail-I E3826 Processor and the palm size form-factor, NIFE 103 is suitable entry level automation system which satisfying the needs of steady system performance and installation in gateway field or a small controller cabinet.

NIFE 103 meets PLCopen® specifications and allows softlogic control programming. 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

- Onboard Intel® Atom™ processor E3826 Dual Core 1.46GHz

Main Memory

- On-board type 2GB DDR3L RAM
 - Un-buffered and non-ECC

Display Option

- 1 x Micro HDMI DisplayPort (Type D)

I/O Interface-Front

- LEDs for power LED, battery low LED, WWAN LED, WLAN LED, 1 x programmable GPIO LED
- 1 x RS232/485 support auto flow control
 - RS232 (Tx/Rx/CTS/RTS only)
 - RS485 support auto flow control
 - Support 2.5KV isolation protection
- 2 x Intel® I210-IT GbE LAN ports, support WoL, teaming and PXE
- 1 x USB 3.0 (900mA per each)
- 1 x USB 2.0 (500mA per each)

I/O Interface-Top

- 1 x Micro HDMI DisplayPort (type D)
- 1 x System reset button

I/O Interface-Bottom

- 1 x 4-in/4-out 5V GPIO via 10-pin terminal block

Storage Device

- Onboard 16GB eMMC
- Optional mSATA module

Expansion Options

- 1 x Full size mini-PCIe socket for optional mSATA/4G/3.5G/LTE modules (USB signal only)
- 1 x Half size mini-PCIe socket for optional Wi-Fi module (PCIe and USB signal)

Power Requirement

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

Dimensions

- 56.5mm (W) x 100mm (D) x 120mm (H)

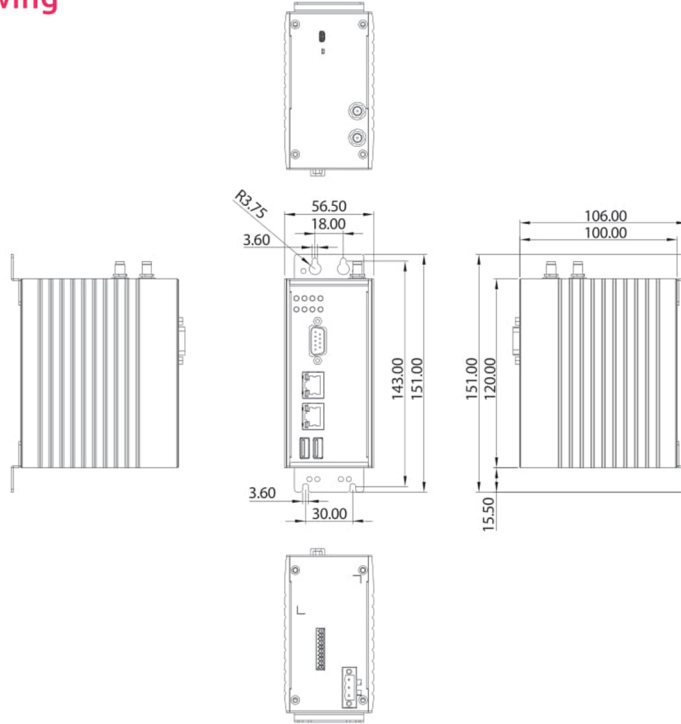
Construction

- Aluminum and Metal Chassis with front access design

Environment

- Operating temperature: Ambient with air flow: -5°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 75°C
- Relative humidity: 10% to 93% (non-condensing)

Dimension Drawing



- 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 7, 32-bit/64-bit
- Windows Embedded Standard 7, 32-bit/64-bit
- Linux Kernel version 3.8.0

Ordering Information

- **NIFE 103 system (P/N: 10J70010300X0)**
Intel® Atom™ processor E3826 Dual Core fanless system
- **24V, 60W AC/DC power adapter w/o power cord (P/N: 7400060033X00)**