NIFE 100

Intel® Atom™ E3826 Dual Core Factory Automation Fanless System
with Fieldbus Expansion Ability

Microsoft Azure Certified

Optional Module Kit

FBI90E Series Fieldbus Modules   GSM   Wi-Fi

PLC & Remote I/O Module as the option
FBI Fieldbus Module Kit as the option

- Onboard Intel® Atom™ processor E3826 Dual Core 1.46GHz
- 1 x DVI display output or 1x VGA converted from DVI-I
- 2 x Intel® I210IT GbE LAN ports support WoL, teaming and PXE
- 1 x USB 2.0 & 1 x USB 3.0
- 2 x RS232/422/485 with 2.5KV isolation protection

- 1 x mini-PCIe socket for optional Wi-Fi/3.5G/4G LTE/fieldbus modules
- Front access CFast socket and RTC battery
- Support -20 ~ 70 degree C extended operating temperature
- Typical 24V DC input with ±20% range

Product Overview

Powered by the latest generation of Intel® Atom™ processor E3826 (formerly codenamed "Bay Trail-I"), NIFE100 presents intelligent PC-based controller and IOT gateway for factory automation. NIFE100 support ACP ThinManager that offers management solutions for the modern factory by simplifying management and also support Indusoft for HMI and SCADA. Up to 4G DDR3L memory, NIFE100 have several options on storage devices like CFast and SSD. The NIFE 100 support extended operating temperature from -20 upto 70 degree C with typical DC input 24V ±20% range. The NIFE 100 has high integration ability with optional mini-PCIe module and 2 x COM ports with 2.5KV isolation protect, which makes it a reliable connection with devices in factory automation applications (with optional PROFIBUS, PROFINET, DeviceNET, EtherCAT, EtherNet/IP master module), IOT applications (with optional GbE LAN, Wi-Fi, 3.5G/4G LTE module) and communication applications (with optional GPIO, RS232/422/485). NIFE100 is definitely the top choice for M2M intelligent system as a factory automation controller and gateway.

Specifications

CPU Support
- Onboard Intel® Atom™ processor E3826 Dual Core 1.46GHz
- Support Intel® Atom™ E3800 processor family from single core E3815, Dual Core E3825/E3826/E3827 and Quad Core E3845 with difference SKUs

Main Memory
- 1 x DDR3L SO-DIMM socket, support DDR3L 1066/1333 4GB RAM max., un-buffered and non-ECC

Display Option
- 1 x DVI display output
- 1 x VGA display output (converted from DVI-I to VGA adapter)

I/O Interface-Front
- ATX power on/off switch
- LEDs for power status, HDD access, battery Low, 2 x programing LEDs, 4x Tx/Rx LEDs
- 1 x External CFast socket
- 1 x SIM card holder
- 2 x Intel® I210IT GbE LAN ports, support WoL, Teaming and PXE
- 1 x DVI-I display output
- 1 x USB 3.0 (900mA per each)

- 1 x USB 2.0 (500mA per each)
- 2 x RS232/422/485 with 2.5KV isolation protection, support auto flow control
  - Jumper-free setting on RS232/422/485
  - Support RI function on COM2
- 1 x 2-pin remote power on/off switch
- 1 x 3-pic DC input, Typical 24V DC input with ±20% range

Storage Device
- 1 x CFast (SATA 2.0)
- 1 x 2.5" SSD (SATA 2.0)

Expansion Slot
- 1 x mini-PCIe socket for optional Wi-Fi/3.5G/4G LTE/fieldbus modules

Power Requirement
- Typical 24V DC input with ±20% range
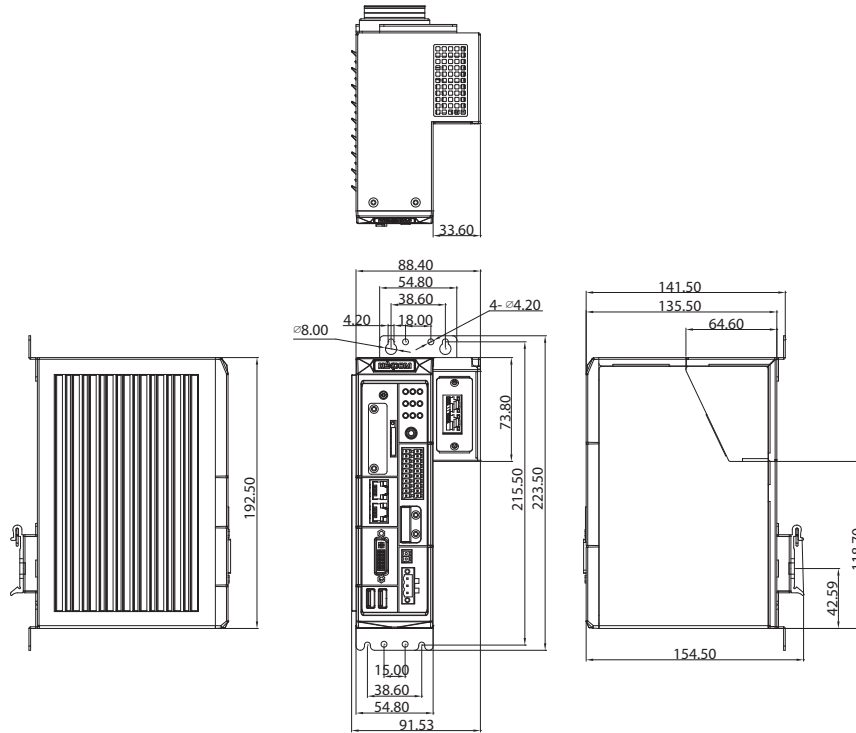- 1 x Optional 24V, 60W power adapter

Dimensions
- 92mm (W) x 135.5mm (D) x 192.5mm (H)

Construction
- Aluminum and metal chassis with fanless design

Dimension Drawing

Environment

- Operating temperature:
  Ambient with air flow: -20°C to 70°C with industrial grade device (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -30°C to 85°C
- Relative humidity: 10% to 95% (non-condensing)
- Shock protection:
  - SSD: 20G, half sine, 11ms, IEC60068-2-27
  - CFast: 50G, half sine, 11ms, IEC60068-2-27
- Vibration protection w/ CFast & SSD condition:
  - Random: 2Grms @ 5~500Hz, IEC60068-2-64
  - Sinusoidal: 2Grms @ 5~500Hz, IEC60068-2-6

Certifications

- CE
- FCC Class A

Support OS

- Windows 8, 32-bit/64-bit
- Windows Embedded Standard 8, 32-bit/64-bit
- Windows 7, 32-bit/64-bit
- Windows Embedded Standard 7, 32-bit/64-bit
- Linux Kernel version 3.8.0
- Wind River® Intelligent Device Platfrom XT 2.0

Ordering Information

- **NIFE 100 (P/N: 10J70010000X0)**
  Intel® Atom™ processor E3826 Dual Core fanless system

- **24V, 60W AC/DC power adapter w/o power cord (P/N: 7400060033X00)**

Optional fieldbus kit

88J50090E05X0	DeviceNet master module kit (w/ 15 cm cable)	FBI 90E-DNM KIT
88J50090E06X0	EtherCAT master module kit (w/ 15 cm cable)	FBI 90E-ECM KIT
88J50090E07X0	EtherNet/IP master module kit (w/ 15 cm cable)	FBI 90E-EP KIT
88J50090E08X0	PROFIBUS master module kit (w/ 15 cm cable)	FBI 90E-PBM KIT
88J50090E09X0	PROFINET master module kit (w/ 15 cm cable)	FBI 90E-PNM KIT
88J50090E14X0	SERCOSIII master module kit (w/ 15 cm cable)	FBI 90E-S3M KIT
88J50090E16X0	CANopen master module kit (15 cm cable)	FBI 90E-COM KIT

Optional W-iFi/GSM module

88J70010004X0	NIFE100 3.5G module kit SIERRA: MC8705	-
88J70010005X0	NIFE 100 Wi-Fi module kit INTEL: 7260.HMWWB.R	Dual Band Wireless-AC 7260, 2x2 AC+BT,HMC
88J70010006X0	NIFE 100 Wi-Fi module kit INTEL: 7260.HMWBNWB.R	WLAN + Bluetooth COMBO MODULE

Optional DIN Rail kit

88J70010000X0	NIFE 100/101 series DIN Rail kit	@Shock 20G