



## Main Features

- 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
- Front access CFast socket and RTC battery
- Support NVRAM 1Mb
- Support -20 ~ 70 °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"), NIFE101 presents intelligent PC-based controller and Modbus RTU/TCP gateway for factory automation. NIFE101 support ACP ThinManager that offers management solutions for the modern factory by simplifying management. NIFE 101 supports up to 4G DDR3L memory and have several options on storage devices like CFast and SSD. The NIFE 101 support extended operating temperature from -20 upto 70 degree C with typical DC input 24V +/-20% range. The NIFE 101 has high integration ability with optional Mini-PCIe module and 2 x COM ports with Isolation 2.5kv protect, which makes it a reliable connection with devices in IOT applications (with optional GbE LAN, Wi-Fi, 3.5G/4G LTE module). NIFE 101 is definitely the top choice for IOT/M2M intelligent system.

## 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 programming 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

### Power Requirement

- Typical 24V DC input with +/-20% range
- 1 x optional 24V, 60W power adapter

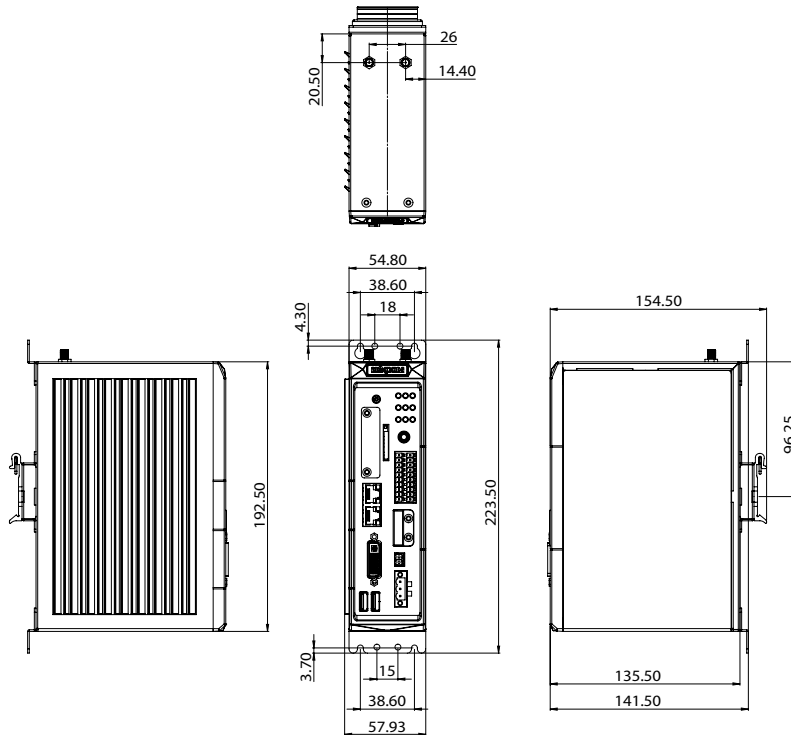
### Dimensions

- 58mm (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:
  - HDD: 20G, half sine, 11ms, IEC60068-27
  - CFast: 50G, half sine, 11ms, IEC60068-27
- Vibration protection w/ HDD condition:
  - Random: 0.5Grms @ 5 ~ 500Hz, IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5 ~ 500Hz, IEC60068-2-6
- 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, 32bit/64bit
- Windows Embedded Standard 8, 32bit/64bit
- Windows 7, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Linux Kernel version 3.8.0
- Moon Island

## Ordering Information

- **NIFE 101 (P/N: 10J70010100X0)**  
Intel® Atom™ processor E3826 Dual Core fanless system
- **24V, 60W AC/DC power adapter w/ o power cord (P/N: 7400060024X00)**

### Optional Fieldbus kit

88J50090E05X0	(w/15 cm Cable) DeviceNet Master Module Kit	FBI 90E-DNM KIT
88J50090E06X0	(w/15 cm Cable) EtherCAT Master Module Kit	FBI 90E-ECM KIT
88J50090E07X0	(w/15 cm Cable) Ethernet IP Master Module Kit	FBI 90E-EP KIT
88J50090E08X0	(w/15 cm Cable) Profibus Master Module Kit	FBI 90E-PBM KIT
88J50090E09X0	(w/15 cm Cable) ProFINET Master Module Kit	FBI 90E-PNM KIT
88J50090E14X0	(w/15 cm Cable) SERCOSIII Master Module Kit	FBI 90E-S3M KIT
88J50090E16X0	(w/15 cm Cable) CANopen Master Module Kit	FBI 90E-COM KIT

### Optional WiFi/GSM module

88J70010100X0	NIFE101 3.5G Module Kit SIERRA: MC8705	-
88J70010101X0	NIFE101 Wifi Module Kit INTEL: 7260.HMWWB.R	Dual Band Wireless-AC 7260, 2x2 AC+BT,HMC
88J70010102X0	NIFE101 Wifi Module Kit INTEL: 7260.HMWBWNB.R	WLAN+ BLUETOOTH COMBO MODULE