NIFE 200P2/E2/P2E

Intel® Celeron® J1900 Quad Core 2.0GHz Factory Automation Fanless System with Fieldbus Expansion Ability

Main Features

- Onboard Intel® Celeron® processor J1900 Quad Core 2.0GHz
- Dual independent display from DP and DVI-I
- 2 x Intel® I210-AT GbE LAN ports support WoL, teaming and PXE
- 3 x USB 2.0 & 1 x USB 3.0
- 2 x RS232/422/485

- 2 x mini-PCIe socket for optional Wi-Fi/3.5G/4G LTE/fieldbus modules
- Top access SD card socket
- Support -5~55 degree C operating temperature
- Typical 24V DC input with ±20% range, with reverse polarity protection

Product Overview

Powered by the latest generation of Intel® Celeron® processor J1900 (formerly codenamed "Bay Trail-D"), NIFE 200P2 presents intelligent PC-based controller and IoT gateway for factory automation. NIFE 200P2/P2E supports up to 8G DDR3L memory and have several options on storage devices like SD, mSATA, HDD and SSD. The NIFE 200P2/P2E support operating temperature from -5 up to 55 degree C with typical DC input 24V ±20% range. The NIFE 200P2/P2E has high integration ability with optional mini-PCIe module and 2 x COM ports, which makes it a reliable connection with devices in factory automation applications (with optional PROFIBUS, PROFINET, DeviceNET, EtherCAT, EtherNet/IP, CANopen, SERCOSIII master module), IoT applications (with optional GbE LAN, Wi-Fi, 3.5G/4G LTE module) and communication applications (with optional GPIO, RS232/422/485). NIFE 200P2 is definitely the top choice for M2M intelligent system as a factory automation controller and gateway.

Specifications

CPU Support
- Onboard Intel® Celeron® processor J1900 Quad Core 2.0GHz
- Support Intel® Atom™ E3800 processor family from Single Core E3815, Dual Core E3825/E3826/E3827 and Quad Core E3845 with difference SKUs

Main Memory
- 2 x DDR3L SO-DIMM socket, support DDR3L 1066/1333 8GB RAM max., un-buffered and non-ECC

Display Option
- Dual independent display
  - DVI-I and DP

I/O Interface-Front
- ATX power on/off switch
- LEDs for HDD LED, batty LEDs, power LED, COM port Tx/Rx, 5x programmable GPO LEDs
- 1 x External SD Card
- 1 x SIM card holder
- 2 x Intel® I210-AT GbE LAN ports, support WoL, Teaming and PXE
- 1 x DP display output
- 1 x DVI-I display output
- 1 x USB 3.0 (900mA per each)
- 3 x USB 2.0 (500mA per each)

- 2 x RS232/422/485 support auto flow control
  - Jumper-free setting on RS232/422/485
  - Support 2.5KV isolation protection on COM1
- 1 x 3-pin DC input, typical 24V DC input with ±20% range

Storage Device
- 1 x 2.5" SSD/HDD (SATA 2.0) --front accessible
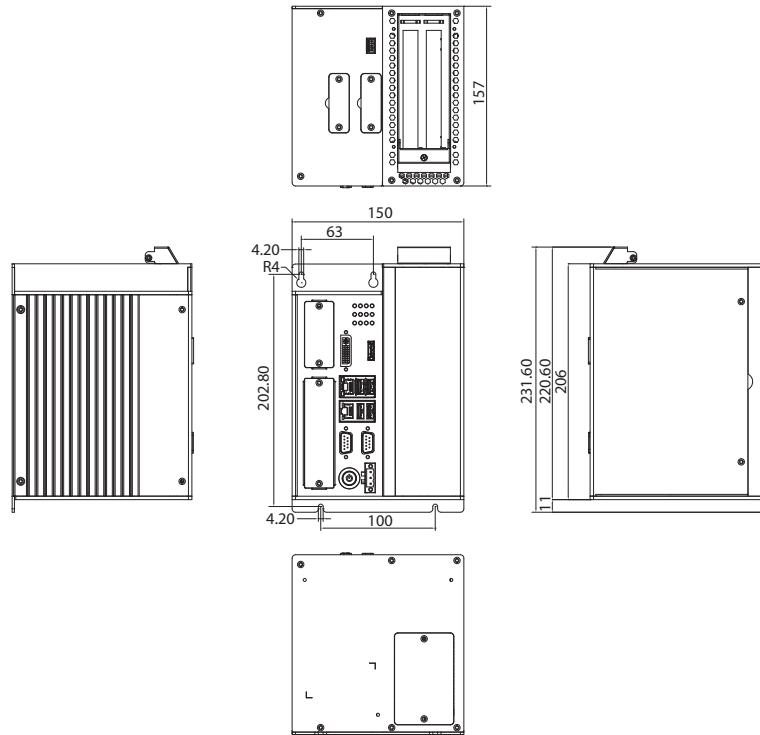- 1 x SD card (data storage only)
- 1 x mSATA

Expansion Slot
- NIFE 200P2: two PCI expansion
  - Add-on card length: 176mm max.
  - Power consumption: 10W/slot max.
- NIFE 200P2E: one PCI and one PCIe x4 expansion
  - Add-on card length: 176mm max.
  - Power consumption: 10W/slot max.
- NIFE 200E2: two PCIe x1 expansion
  - Add-on card length: 176mm max.
  - Power consumption: 10W/slot max.
- 2 x mini-PCIe socket for optional Wi-Fi/3.5G/4G LTE/fieldbus modules

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

Dimension Drawing

Dimensions
- 151mm (W) x 157mm (D) x 230mm (H)

Construction
- Aluminum and metal chassis with fanless 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 80°C
- Relative humidity: 10% to 95% (non-condensing)
- Shock protection:
  - HDD: 20G, half sine, 11ms, IEC60068-2-27
  - SSD: 50G, half sine, 11ms, IEC60068-2-27
- Vibration protection w/ SSD condition:
  - Random: 2Grms @ 5~500Hz, IEC60068-2-64
  - Sinusoidal: 2Grms @ 5~500Hz, IEC60068-2-64

Certifications
- CE approval
  - EN61000-6-2
  - EN61000-6-4
- FCC Class A
- LVD
- UL60950

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 200P2 (P/N: 10J70020001X0)**
  Intel® Atom™ processor J1900 Quad Core 2.0GHz fanless system

- **NIFE 200P2E (P/N: 10J70020002X0)**
  Intel® Atom™ processor J1900 Quad Core 2.0GHz fanless system

- **NIFE 200E2 (P/N: 10J70020019X0)**
  Intel® Atom™ processor J1900 Quad Core 2.0GHz fanless system

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