NET104-CDS

Compact SoftMotion/CNC Controller

Main Features

- Compact and powerful PC-based motion controller with real-time engine.
- Follow the IEC 61131-3, EtherCAT and PLCOPen standards.
- Integrated HMI.
- Support the EtherCAT, PROFINET, EtherNet/IP, Modbus/TCP and SERCOS protocols.
- Onboard Intel® Atom™ dual core D2550 processor, 1.86 GHz
- 1x 204-pin DDR3 SO-DIMM socket, 2GB DDR3 (Default),support up to 4GB DDR3-800/1066, non-ECC and Un-buffered
- Dual Intel® 82574L GbE LAN ports
- 2x RS-232/422/485 and 2x RS-232

Product Overview

Powered by Intel® Atom™ Dual Core D2550 1.86GHz and NM10 PCH, NET104-CDS has higher graphic and computing performance, but 3 Watts less power consumption compared with previous Atom™ platform! With performance enhance, NET104-CDS still follow NISE guideline with fanless and cables-less concept housed in a compact chassis, 185mm (W) x 131mm (D) x 54mm (H). The NET104-CDS offers dual independent display capability through DVI-I and HDMI connectors, Dual Intel® GbE LAN ports, 6 x USB 2.0, 2 x RS232, 2 x RS232/422/485, CFast socket and Mini-PCIe socket for optional wireless module connection, either Wi-Fi or 3.5G module.

With pre-installed CODESYS SoftMotion/SoftMotion CNC, the NET104-CDS performs as a powerful motion controller. Base on the IEC 61131-3, EtherCAT protocol, PLCOpen and runtime engine, the NET104-CDS can easily connect to the drives and distributed I/Os to control the motors with complex motion algorithm in real-time performance. From large scale of control systems to individual machineries, the NET104-CDS is the ideal solution for multi-axes applications, such as packaging machinery, conveyor, robotics and so on.

Specifications

CPU Support
- OnBoard Intel® Atom™ Dual Core D2550 processor, 1.86GHz, 1M L2 cache
- Intel® NM10 Express chipset

Main Memory
- 1 x DDR3 SO-DIMM sockets, support up to 4G DDR3 800/1066 SDRAM, un-buffered and non-ECC

I/O Interface-Front
- ATX power on/off switch
- HDD access/power status LEDs
- 4 x COM ports (COM2& 3: RS232/422/485)
- 2 x USB 2.0 port
- Audio jack (Line-out and Mic-in)
- 2 x antenna holes

I/O Interface-Rear
- Dual Intel® 82574L GbE LAN ports; Support WoL, teaming and PXE
- 4 x USB 2.0 port
- 1 x HDMI
- 1 x DVI-I (support VGA & DVI-D display via cable)
- 1 x 2-pin DC input, Support +10 to 28VDC input
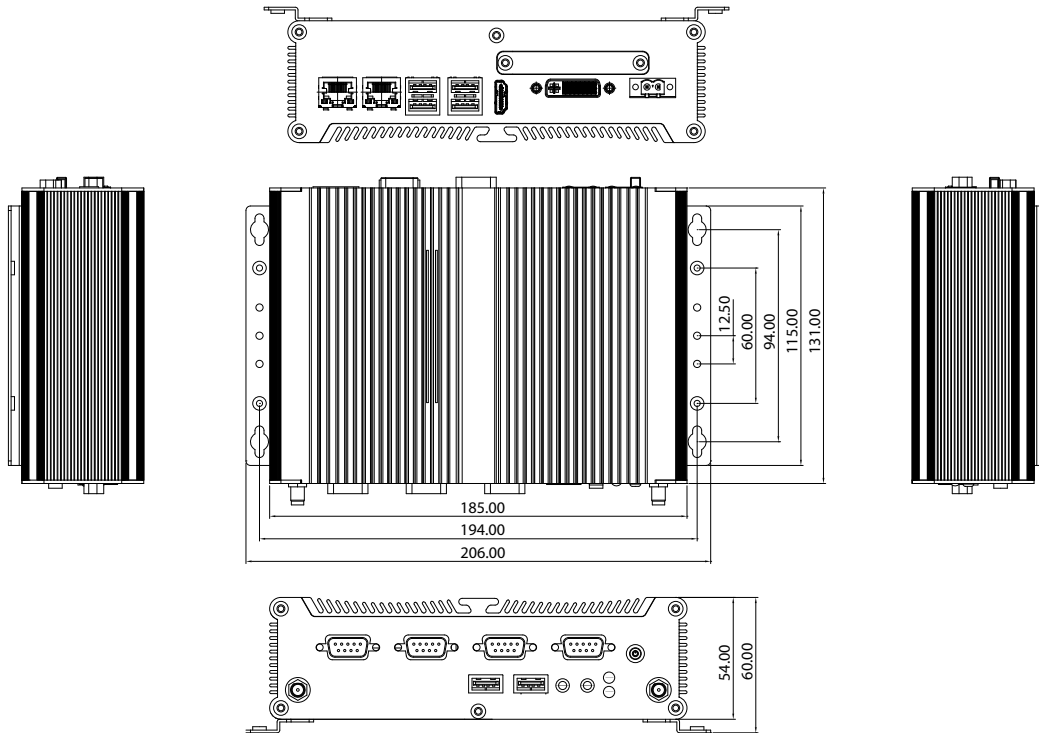- 1 x external screwed type CFast socket

Device
- 1x 2.5" 16GB SSD
- 1 x External CFast Socket
- 1 x Mini-PCIe socket (support optional Wi-Fi or 3.5G module)

Power Requirements
- Support +10 to 28VDC input
- 1 x optional 12V, 60W power adapter

Dimension Drawing

Dimensions
- 185mm (W) x 131mm (D) x 54mm (H) (7.28" x 5.2" x 2.13")

Construction
- Aluminum 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 93% (non-Condensing)
- Shock protection:
- HDD: 20G, half sine, 11ms, IEC60068-2-27
- CFast: 50G, half sine, 11ms, IEC60068-2-27
- Vibration protection w/ HDD Condition
- Random: 0.5Grms @ 5 ~ 500Hz according to IEC60068-2-64
- Sinusoidal: 0.5Grms @ 5 ~ 500Hz according to IEC60068-2-6

Certifications
- CE approval
- FCC Class A
- UL

OS Support List
- windows XP 32bits/64bits
- Windows 7 32bits/64bits
- WinCE 7.0
- Andriod 4.0

Software List
- CODESYS SoftMotion V3.5
- CODESYS SoftMotion CNC V3.5

Ordering Information

Barebone

- **NET104-CDS (P/N: TBD)**
  Compact SoftMotion/CNC Controller

- **12V, 60W AC/DC power adapter w/ o power cord**

  (P/N: 7400060018X00)