



Main Features

- Jetson Thor 128GB Module (2070 TFLOPS)
- 2560-core NVIDIA Blackwell architecture GPU with 96 fifth-generation Tensor Cores
- Supports multiple AI frameworks including TensorFlow, Caffe, and PaddlePaddle
- Compatible with various AI tools such as TensorRT and DeepStream SDK
- Supports 5G, 4G, and Wi-Fi interface
- Dual fan design, supports wide temperature range of -10°C to 50°C
- Wide voltage input range of DC 24 ~ 30V
- Rich I/O interfaces
- Supports wall-mounting and rail installation
- NexRTOS real-time OS ready, offer jitter cycle 30 us, time period 1 ms.
- IGH EtherCAT Master ready for IO, Servo, Motor accessing

Product Overview

Coeus-4001T is an industrial box PC with NVIDIA® Jetson Thor™ module (128GB: 2070 TFLOPS). It is designed to run largest and complex AI models to solve problems such as natural language understanding, 3D perception, and multi-sensor fusion. For AMR development, NVIDIA has Issac ROS (ROS 2 Jerry) SDK software stack. For real-time, our NexRTOS offers jitter cycle 30 us, time period 1 ms, plus IGH, we can help you to develop EtherCAT Master application and control Servo drive/motor & Distributed I/O in real time. This is a very ideal solution that can quickly produce artificial intelligence product prototypes and accelerate the time to market.

BSP Customization Service

- Bootloader for customize carrier board.
- Kernel driver fine-tune for new add peripherals, like USB device, Bluetooth, WIFI, etc.
- Kernel device tree modification.
- Kernel Customization by Installing Additional Packages/Repackaging Debian Packages.
- Upgrade to NexRTOS real-time OS for precise latency and Jitter enhance.
- Support IGH EtherCAT Master application for controlling Servo drive/motor & Distributed I/O

Specifications

CPU Support

- 14-core Arm® Neoverse®-V3AE 64-bit, 1MB L2 + 16MB L3, 2.6 GHz

GPU Support

- 2560-core NVIDIA Blackwell architecture GPU with 96 Tensor Cores

Main Memory

- 128GB 256-bit LPDDR5 x 273 GB/s

I/O Interface - Front

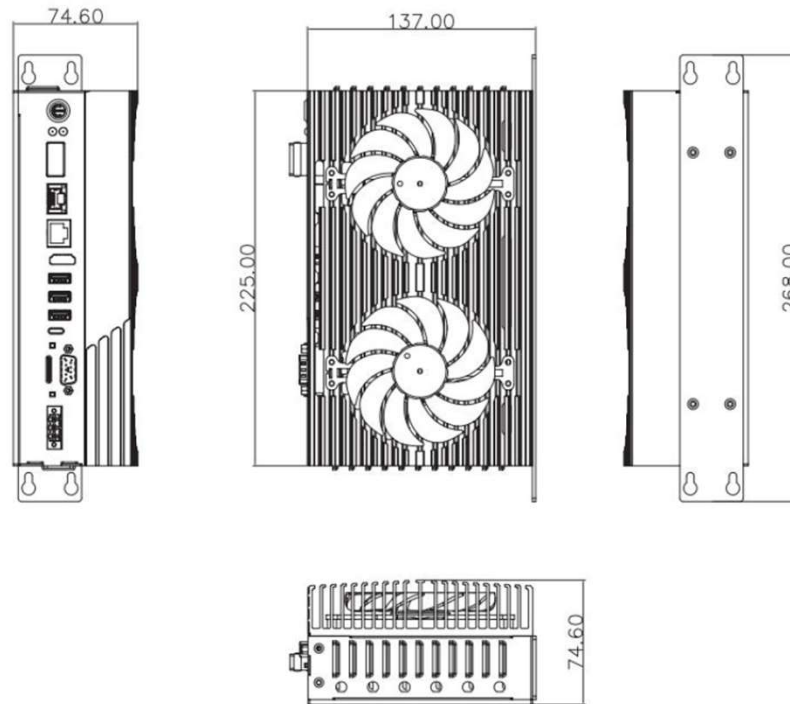
- 1 x Power on/off switch
- 2 x Indicator Lights (PWR, SYS)
- 1x QSFP28 (expandable to 4x25G optical modules)
- 3 x USB3.0
- 2 x RJ45 LAN (2.5 GbE from Intel® I225)

- 2 x COM (Non-full signal, 1*DB9 format, adjustable RS-232/422/485)
- 2 x CAN bus via DB9 (by Request)
- 1 x HDMI
- 1 x Power connector
- 1 x OTG
- 1 x Recovery button
- 1 x Ground screw hole
- 1 x SIM slot
- 1 x Debug button

I/O Interface - Top

- 6 x Antenna holes

Dimension Drawing



Expansion

- 1 x M.2 E-Key 2230 (supports PCIe x1 /USB2.0 signal) for WIFI
- 1 x M.2 M-Key 2280 (supports PCIe x1 signal) for Storage
- 1 x M.2 B-Key 3052 (support USB3.0/USB2.0/SIM signal) for 4G/LTE/5G modules
- 2 x PCIe x 4 slot (I2S, I2C, GPIO, CSI, UART, SPI...) (Customization required)

Dimensions

- System Dimension (WxDxH)
75.8 x 137 x 268 mm (with bracket)
- Carton Dimension (WxDxH)
400x 295 x 195 mm
- Net weight: 2.25 kg
- Gross weight: 3.45 kg

Construction

- Aluminum and metal chassis with fan design
- 2 fans x DC 12V 9015 dual ball bearing fans
- Power Input: DC 24-30V

Environment

- Operating temperature: Ambient with air flow: -10°C to 50°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)

Certifications

- CE approval
 - EN61000-3-3
 - EN61000-3-2
- FCC
- LVD

OS Support

- Ubuntu 24.04, Kernel 6.8
- Jetpack 7.X

Ordering Information

- **Coeus-4001T (P/N: 10JD4001T01XH)**
Nvidia Jetson Thor T5000 128GB, 2xLAN(2.5G), 1x QSFP28 (100G), 1xHDMI, 3xUSB3.0, 2xRS232/422/485, 1x OTG +512GB SSD + 230V Adapter