



## Main Features

- ♦ 157 TOPS computing power with NVIDIA® Jetson Orin™ NX
- ♦ Supports multiple AI frameworks including TensorFlow, Caffe, and PyTorch
- ♦ Compatible with various AI tools such as TensorRT and DeepStream SDK
- ♦ Supports 5G, 4G, and Wi-Fi
- ♦ Fanless design, supports wide temperature range of -10°C to 55°C, wide voltage input range of DC 9 to 30V Rich I/O interfaces, supportswall-mounting and rail installation

## Product Overview

Coeus 3801T is a fan-less design box pc with NVIDIA® Jetson Orin™ NX module. 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 have Issac ROS (ROS 2 Humble) SDK software stack. For real-time, our NexRTOS + IGH 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, Wi-Fi, etc.
- ♦ Kernel device tree modification.
- ♦ Kernel Customization by Installing Additional Packages/Repackaging Debian Packages.
- ♦ Upgrade to NexRTOS realtime OS for precise latency and Jitter enhance.
- ♦ Support IGH EtherCAT Master application for controlling Servo drive/motor & Distributed I/O.

## Specifications

### CPU Support

- ♦ 16GB: 8-core NVIDIA® Arm® Cortex-A78AE v8.2 64-bit CPU (2MB L2 + 4MB L3)
- ♦ 8GB: 6-core NVIDIA® Arm® Cortex-A78AE v8.2 64-bit CPU (1.5MB L2 + 4MB L3)

### GPU

- ♦ 1024-core NVIDIA® Ampere GPU with 32 Tensor Cores

### DL Accelerator

- ♦ 2 × NVDLA v2

### Vision Accelerator

- ♦ 1 × PVA v2

### RAM

- ♦ 16GB: 16GB LPDDR5
- ♦ 8GB: 8GB LPDDR5

### I/O Interface-Front

- ♦ 2 × USB3.0
- ♦ 2 × RJ45 LAN

- ♦ 1 × HDMI
- ♦ 1 × PWR lamp
- ♦ 1 × SYS lamp
- ♦ 1 × Line Out
- ♦ 1 × Power on/off switch
- ♦ 2 × Antenna reservation

### I/O Interface-Rear

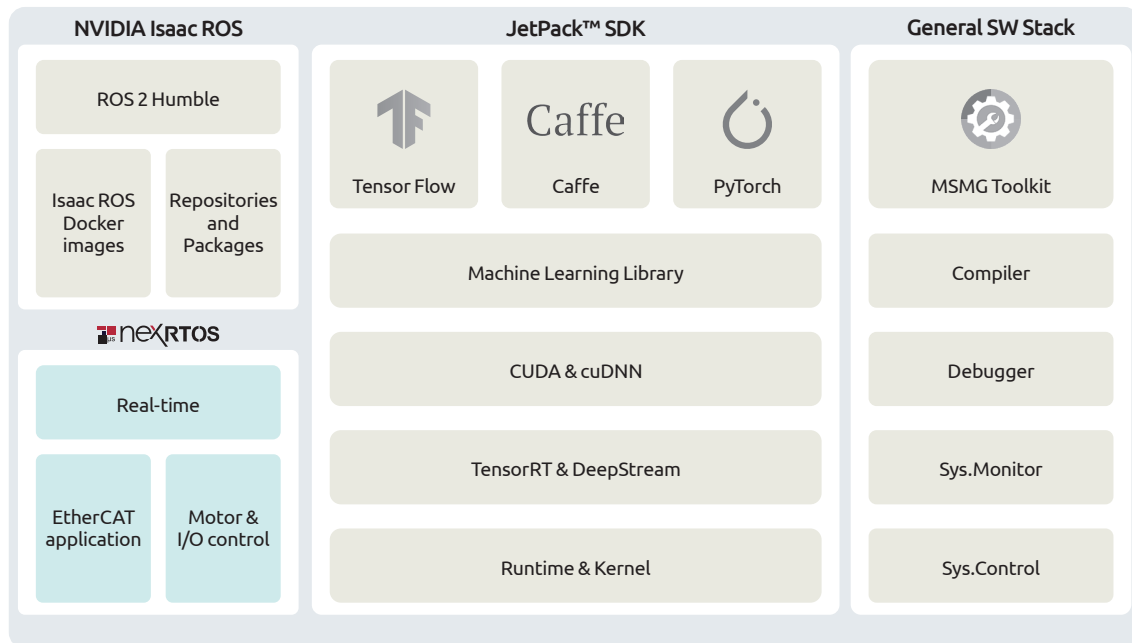
- ♦ 1 × Power connector
- ♦ 1 × GPIO (4DI & 4DO)
- ♦ 2 × COM (Non-full signal, 1\*DB9, COM1 RS-232/422/485, COM2 RS-232)
- ♦ 1 × OTG
- ♦ 1 × Recovery
- ♦ 1 × Ground screw hole

### Expansion

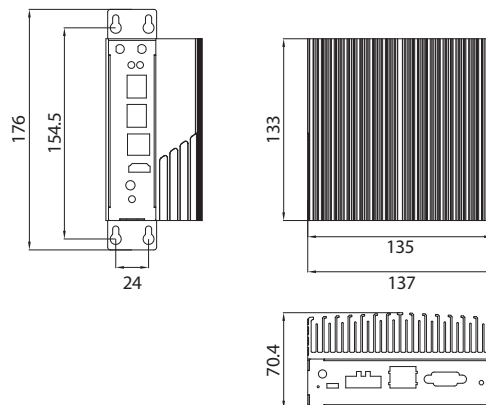
- ♦ 1 × Micro SD
- ♦ 1 × M.2 M Key 2280
- ♦ 1 × M.2 B Key 3052 support 5G, 4G, Wi-Fi
- ♦ 1 × miniPCIe Full-size slot with mSATA support



## Software Application Service



## Dimension Drawing



### Power Requirement

- DC 9 to 30V

### Dimensions

- 70.4mm (W) x 137mm (D) x 176mm (H)

### Installation

- wall-mounting and rail installation

### Operating temperature

- -10°C to 55°C with air flow

### Storage temperature

- -20°C to 80°C

### Relative humidity

- 40°C, 95% (non-condensing)

### CPU board Interface

- LAN1
- COM\*2 (1\*DB9 expand)
- Line Out
- USB\*3

- HDMI
- GPIO (4140)
- Micro USB (OTG)
- M.2 B key (4G/5G)
- Micro SD
- CAN
- 9 to 30V DC Power supply terminals
- Indicator lamps

## Ordering Information

### • Coeus 3801T-16G (P/N: 10JD3801T00XH)

NVIDIA® Jetson Orin™ NX-16GB, 2xLAN, 1xHDMI, 1xLin out, 4xDI, 4xDO, 1xRS232, 1xRS232/422/485, 1xOTG & 128GB SSD

### • Coeus 3801T-8G (P/N: 10JD0380100XH)

NVIDIA® Jetson Orin™ NX-8GB, 2xLAN, 1xHDMI, 1xLin out, 4xDI, 4xDO, 1xRS232, 1xRS232/422/485, 1xOTG & 128GB SSD