Coeus 3804P

Edge AI Computers
Based on NVIDIA® Jetson Orin™ NX Platform

Main Features

- ❶157 TOPS computing power with NVIDIA® Jetson Orin™ NX❶ Supports multiple AI frameworks including TensorFlow, Caffe, andPyTorch
- ❶Compatible with various AI tools such as TensorRT and DeepStream SDK

- ❶ Supports 4-way PoE+ network ports, expandable to 5G, 4G, and Wi-Fi
- ❶ Fanless embedded design, -10°C to 55°C wide temperature operation, DC 48V input, rich I/O interfaces, supports wall hanging and rail installation

Product Overview

Coeus 3804P is a fan-less design box pc with NVIDIA® Jetson Orin™ NX module. It support POE x 4 and Accelerated computing of up to 157 teraflops provides sufficient performance to allow users to parallelize multiple modern neural networks and process data from multiple high-resolution sensors to meet the needs of complete artificial intelligence systems.

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.

AI environment

- ❶ Ubuntu 20.04
- ❶ CUDA Toolkit
- ❶ cuDNN
- ❶ Multimedia
- ❶ VisionWorks

- ❶ OpenCV
- ❶ TensorRT
- ❶ VPI on target
- ❶ DeepStream
- ❶ Container Runtime

Specifications

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

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

DL Accelerator
- ❶ 2 × NVDLA Engines

Vision Accelerator
- ❶ 1 × PVA v2

Memory
- ❶ 16GB: 16GB LPDDR5

Storage
- ❶ 128GB SSD

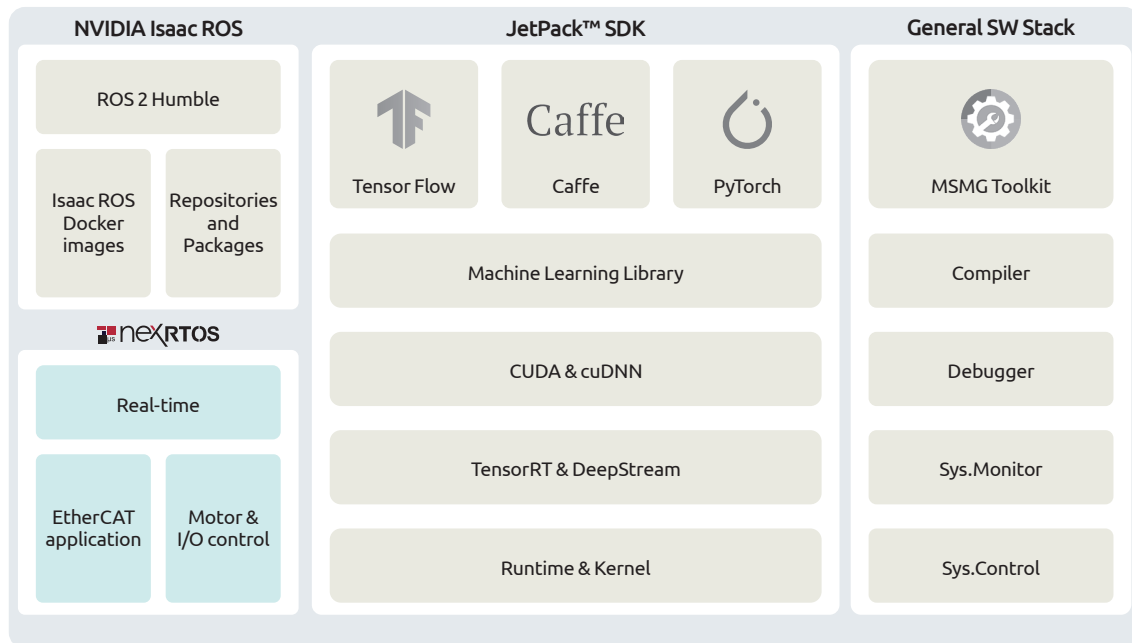### I/O Interface-Front
- ❶ 2 × USB3.0

- ❶ 2 × RJ45LAN
- ❶ 4 × RJ45 100M PoE+ network ports, IEEE802.3at, Single port 30W
- ❶ 1 × HDMI
- ❶ 1 × SYS indicator light
- ❶ 1 × PWR indicator light
- ❶ 1 × Line Out
- ❶ 1 × Power switch
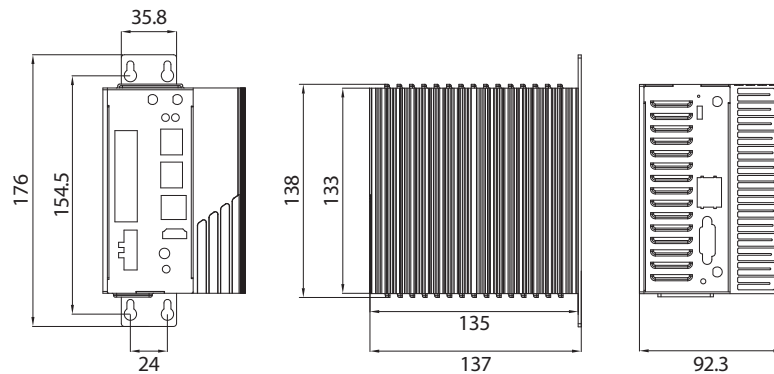- ❶ 2 × Antenna reservation

I/O Interface-Rear
- ❶ 1 × Power connector
- ❶ 1 × GPIO (4DI & 4DO)
- ❶ 2 × COM (Non-full signal, 1*DB9 form lead, COM1 RS-232/422/485; COM2 RS-232)
- ❶ 1 × OTG
- ❶ 1 × Recovery
- ❶ 1 × Ground screw hole

Coeus 3804P

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Software Application Service

| NVIDIA Isaac ROS | JetPack™ SDK | General SW Stack |

NVIDIA Isaac ROS
- ROS 2 Humble
- Isaac ROS Docker images
- Repositories and Packages

nexRTOS
- Real-time
- EtherCAT application
- Motor & I/O control

JetPack™ SDK
- Tensor Flow
- Caffe
- PyTorch
- Machine Learning Library
- CUDA & cuDNN
- TensorRT & DeepStream
- Runtime & Kernel

General SW Stack
- MSMG Toolkit
- Compiler
- Debugger
- Sys.Monitor
- Sys.Control

Dimension Drawing

35.8
176
154.5
24
138
133
135
137
92.3

Expansion
❶ 1 × Micro SD
❶ 1 × M.2 M Key 2280
❶ 1 × M.2 B Key 3052 support 5G, 4G modules
❶ 1 × miniPCIe Full-size slot with mSATA support

Power Requirement
❶ DC 48V

Dimensions
❶ 92.3mm (W) x 137mm (D) x 176mm (H)

Installation
❶ wall-mounting and rail installation

Operating temperature
❶ -10°C to 55°C with air flow

Storage temperature
❶ -20°C to 80°C

Working humidity
❶ 40°C, 95% no condensation

Ordering Information

❶ **Coeus 3804P-16G (P/N: 10C20380400XR)**
NVIDIA® Jetson Orin™ NX-16GB, 2 x LAN, 1 x HDMI, 4 x POE, 1 x Lin out, 4 x DI, 4 x DO, 1 x RS232, 1 x RS232/422/485, 1 x OTG & 128GB SSD (OS Pre-installed)