Coeus 3808P

Main Features

- 100 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 8-way PoE+ network ports, expandable to 5G, 4G, and Wi-Fi
- 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 3808P is a fan-less design box pc with NVIDIA® Jetson Orin™ NX module. It support POE x 8 and Accelerated computing of up to 100 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

- Ubuntu 20.04
- CUDA Toolkit
- cuDNN
- Multimedia
- VisionWorks
- OpenCV
- TensorRT
- VPI on target
- DeepStream
- Container Runtime

Specifications

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

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

DL Accelerator
- 2 × NVDLA Engines

Vision Accelerator
- 1 × PVA v2

Memory
- 16GB: 16GB LPDDR5

Storage
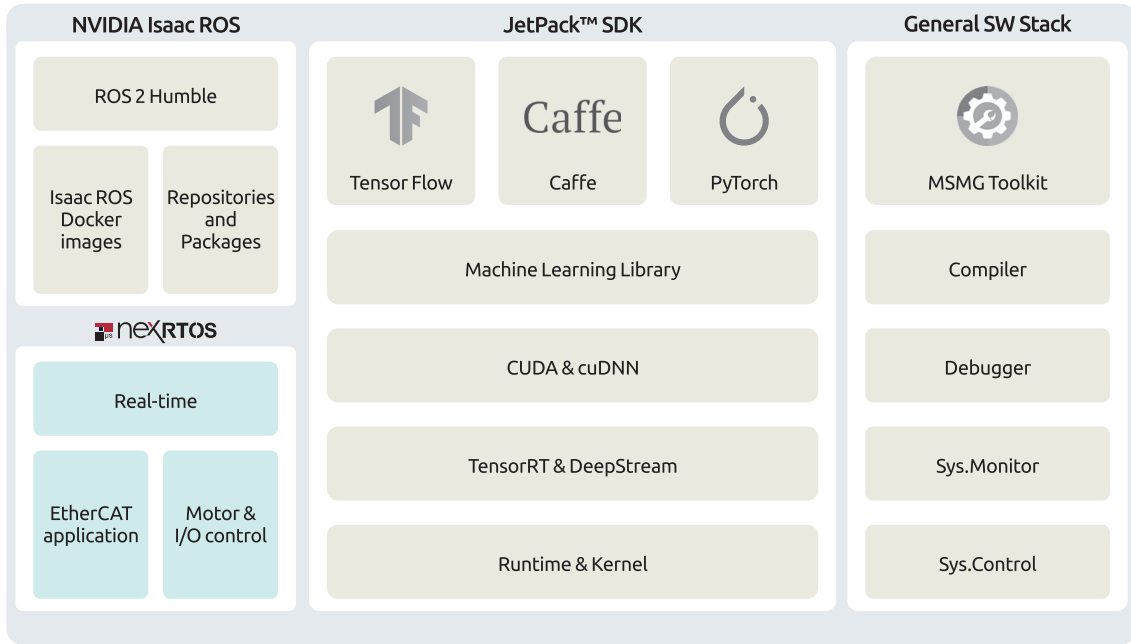- 128GB SSD

I/O Interface-Front
- 2 × USB3.0
- 2 × RJ45LAN
- 8 × RJ45 100M PoE+ network ports, IEEE802.3at, Single port 30W
- 1 × HDMI
- 1 × SYS indicator light
- 1 × PWR indicator light
- 1 × Line Out
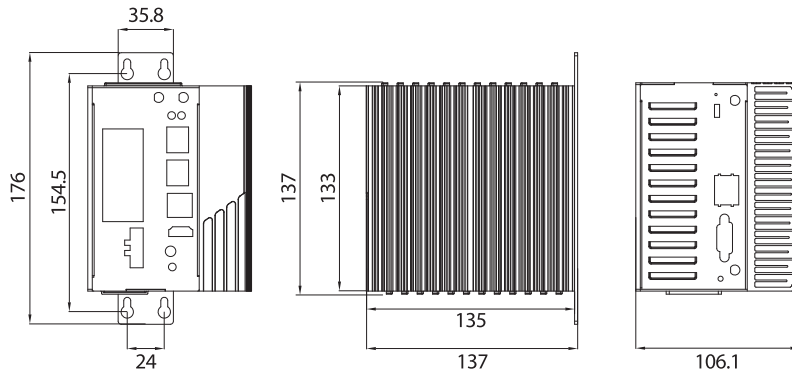- 1 × Power switch
- 2 × Antenna reservation

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

NEXAIOT

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
137
133
135
137
106.1

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

Power Requirement
- DC 48V

Dimensions
- 106.1mm (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

Working humidity
- 40°C, 95% no condensation

Ordering Information

- **Coeus 3808P-16G (P/N: 10C20380800XR)**
  NVIDIA® Jetson Orin™ NX-16GB, 2 x LAN, 1 x HDMI, 8 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)