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INDUSTRIAL PRODUCT DATASHEET

reServer Industrial J4012-Fanless AI-enabled NVR Server with NVIDIA Jetson Orin™ NX 16GB module

reServer J4012 brings AI-enabled NVR to the edge and features NVIDIA Jetson Orin™ NX 16GB for 100 TOPS AI performance, has a fanless design, 5xRJ45 GbE with PoE, 2x Drive bays for 2.5" HDD/SSD, 1xRS232/RS422/RS485, 4xDI/DO, 1xCA...

SKU	UPDATED	PRICE
114110247	2026-11-11 09:44:27	$1899.00(Excl. VAT)



Overview



reServer J4012 brings AI-enabled NVR to the edge and features NVIDIA Jetson Orin™ NX 16GB for 100 TOPS AI performance, has a fanless design, 5xRJ45 GbE with PoE, 2x Drive bays for 2.5" HDD/SSD, 1xRS232/RS422/RS485, 4xDI/DO, 1xCAN, Pre-installed JetPack System.

Key Features

01 **Fanless Compact Edge AI Server**

Powered by NVIDIA Jetson Orin Nx 16GB SoM with 100 TOPS AI performance, wider temperature range from -20 ~ 60°C with 0.7m/s airflow,

02 **Multi-Stream Processing**

5x GbE RJ45(4 for 802.3af PSE), handles multiple streams with real-time processing.

03 **Expandable Storage**

2x drive bays for 2.5" SATA HDD/SSD, plus an M.2 2280 socket for NVMe SSD.

04 **Industrial Interfaces**

Includes COM port, DI/DO ports, CAN port, USB3.1, and optional TPM2.0 module.

05 **Hybrid Connectivity**

Supports 5G/4G/LTE/LoRaWAN® (module optional) with Nano SIM card slot.

Product Gallery









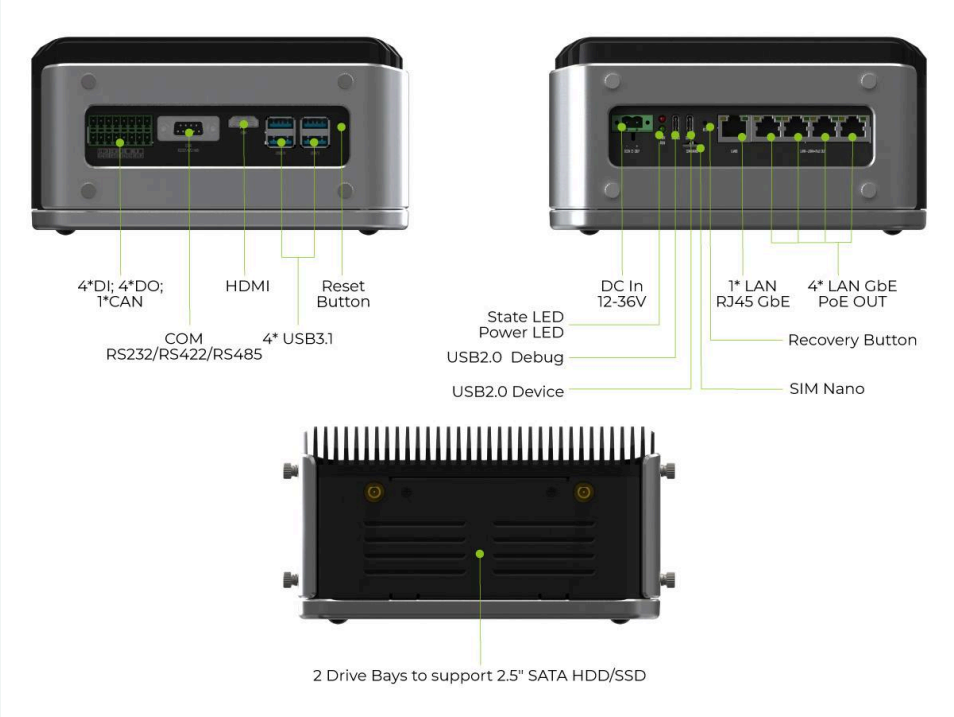


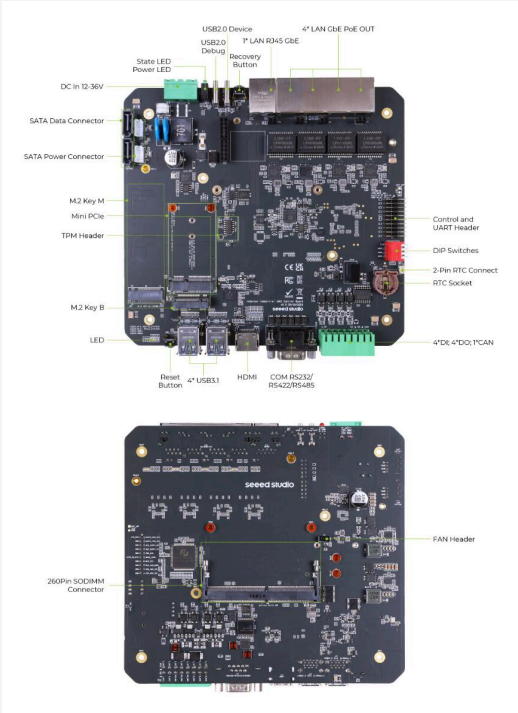





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Hardware Overview





Applications

- **Unlock AI capabilities for existing cameras and VMS:** Powered by the NVIDIA Jetson Orin NX 16GB processor, delivering up to 100 TOPS of AI performance, and capable of processing multiple video streams in real-time. The reServer empowers you to apply high-performance filters for critical insights across vast video footage.
- **Smart Storage Solutions:** Store and upload only noteworthy recordings for further processing. With two 2.5-inch hard drive bays, the reServer Industrial provides ample storage capacity, ensuring you have the space needed for expanding data requirements.
- **Create custom analytics made it easy**
- **Out-of-box tailor AI solution:** CVEDIA-RTcomes with various AI models for face detection, vehicle and people detection, crowd estimation, and more.
- **Build video analytics workflow in a no-code way.**
- **Effortlessly create custom video analytics solutions using Lumeo's innovative drag and drop tools.**
- **End to end Computer Vision Development:** Our wiki help you start with the computer vision software and development tools during each step of your application.
- **obtain data for training**
- **label data for dataset preparation**
- **train AI models**
- **optimize models to run the best on the edge device**
- **deploy the model on the edge**

Resource Links

- https://www.seeedstudio.com/reServer-industrial-J4012-p-5747.html
- Datasheet
- Schematic
- 3D File
- Assembly Guide
- Seeed Nvidia Jetson Product Catalog
- Nvidia Jetson Comparison
- Nvidia Jetson Product Comparison
- Seeed Nvidia Jetson Success Cases
- Seeed Jetson One Pager
- Flash BSP for Jetson

Seeed Technology Co.,Ltd.
9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676
Web: www.seeed.cc
Shop: www.seeedstudio.com