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INDUSTRIAL PRODUCT DATASHEET

reComputer Rugged J4012 - Ruggedized IP66 Edge AI Computer with NVIDIA® Jetson Orin™ 16GB

reComputer Rugged J4012 is a ruggedized edge box powered by NVIDIA® Jetson Orin™ NX 16GB.

SKU	UPDATED	PRICE
100046979	2026-11-17 08:11:36	$2299.00(Excl. VAT)



Overview



reComputer Rugged J4012 is a ruggedized edge box powered by NVIDIA® Jetson Orin™ NX 16GB. It is equipped with M12 and sealed connectors, providing IOs such as USB, Ethernet (including PSE), CAN, RS-232/422/485 and DI/DO. It has M.2 Key B slot for 5G modules, making it ideal to be used in ruggedized applications, such as AMR, robotics, agriculture, industrial and maritime applications. It can be directly used in 48V systems and has interfaces for most common sensors. [Discount on First 5 Only] From the 6th unit onward, the original price will apply.

Key Features

01 **Ruggedized Hardware Design**

Ruggedized edge AI computer with IP66 rating that can be deployed in harsh environment

02 **Lockable and Waterproof connectors**

M12 for all interfaces (Ethernet (PSE), DI, DO, RS-232/422/485, and CAN), plus lockable/waterproof USB connectors.

03 **Application and Benefit**

Ideal for rapid development of autonomous vehicles in harsh environments(AGV, AMR,trucks), accelerating time-to-market with ready-to-use interfaces and optimized AI frameworks.

04 **Ready to Use**

Pre-installed with JetPack 5.1.3 and equipped with WiFi6 module.

05 **Wide Operating Range**

Operates reliably across a temperature range of -20°C to 60°C at 25W mode

Product Gallery





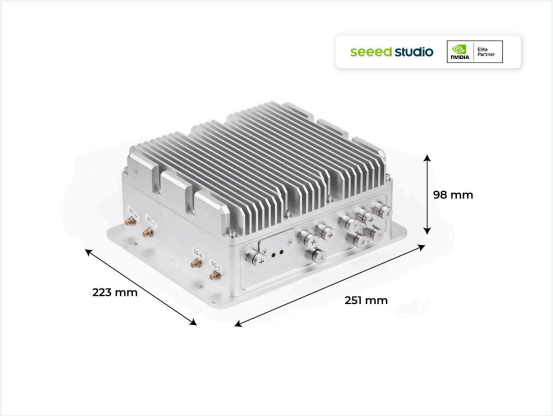









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98 mm
223 mm
251 mm

Hardware Overview

Side View 1



1. Antenna x 4
2. DC 19~ 48 V
3. Reset and Recovery Button
   USB Type-C x 2 (Debug+Recovery)
4. 1 GbE x 1
5. 1 GbE (PSE) x 4
6. CAN x 2
7. RS-232/422/485 x 1
8. DI x 2 DO x 2

Side View 2



1. Power LED
2. SSD LED
3. Vent Valve
4. USB 3.1 x 2
5. Display
6. USB 3.1 x 2

Applications

- **Outdoor video analytics:** For outdoor video analytics and monitoring, equipment must operate reliably outdoors despite constant exposure to UV radiation, moisture, temperature fluctuations, and mechanical vibration. With its IP66-rating enclosure, reComputer Rugged can be used in outdoor environments for such purposes. Paired with computing power of NVIDIA Jetson Orin modules, reComputer Rugged J40 is a powerful edge AI gateway for remote monitoring stations.
- **Autonomous Logistics:** Outdoor AMRs are increasingly deployed in urban and facility management environments to perform autonomous security patrols and last-mile delivery services. These multi-purpose robots are designed to navigate seamlessly through both indoor and outdoor environments. Therefore they need reComputer Rugged with NVIDIA® Jetson Orin™ as brain of AI-powered navigation systems that combine LiDAR, ultrasonic sensors, cameras, and GPS to map complex environments and avoid pedestrians, vehicles, and obstacles in real-time.

Resource Links

- https://www.seeedstudio.com/reComputer-Rugged-J4012-p-6920.html
- User Manual & Datasheet
- Carrier Board Schematic
- PSE Board Schematic
- 3D File
- Seeed NVIDIA Jetson Product Catalog
- Nvidia Jetson Comparison
- Seeed Nvidia Jetson Success Cases
- Seeed Jetson One Pager

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