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INDUSTRIAL PRODUCT DATASHEET

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

The reComputer Rugged J4012 is a ruggedized IP66 edge AI computer with NVIDIA® Jetson Orin™ 16GB for autonomous vehicles in harsh environments and outdoor video analytics.

| SKU | UPDATED | PRICE |
| --- | --- | --- |
| 100046979 | 2026-10-27 04:06:41 | $2299.00(Excl. VAT) |



# Overview




The reComputer Rugged J4012 is a ruggedized edge AI computer with IP66 rating and NVIDIA® Jetson Orin™ 16GB, featuring lockable and waterproof M12 connectors for all interfaces and a wide operating range of -20°C to 60°C at 25W mode. Pre-installed with JetPack 5.1.3 and equipped with WiFi6 module, it is ideal for rapid development of autonomous vehicles in harsh environments (AGV, AMR, trucks) and for outdoor video analytics applications such as remote monitoring stations.

# 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





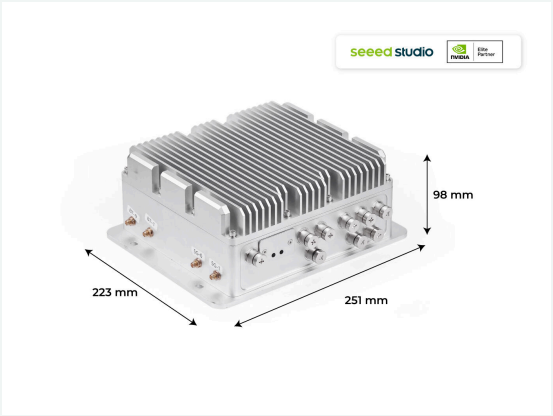









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98 mm
223 mm
251 mm

# 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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