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INDUSTRIAL PRODUCT DATASHEET

reComputer J601 Carrier Board for Jetson AGX Thor™ T5000 / T4000

reComputer J601 is a compact yet powerful edge AI carrier board for Jetson AGX Thor modules, delivering up to 2070 TFLOPS.

SKU	UPDATED	PRICE
100066562	2026-11-20 10:22:01	$579.00(Excl. VAT)



Overview



reComputer J601 is a compact yet powerful edge AI carrier board for Jetson AGX Thor modules, delivering up to 2070 TFLOPS. Built for embodied AI development and production, it features M.2 Key E/M/B, 4x 10Gb RJ45, 4×USB 3.2, HDMI 2.1, 8×GMSL, and various IO's, ensuring seamless integration. It can be served as brain of humanoid. Supporting LLM & Physical AI frameworks like NVIDIA Isaac, Hugging Face, PyTorch, and ROS2/1, it bridges AI and robotics. With optimized real-time processing, it can run vision AI, VLA, and multimodal models, unlocking advanced AI for edge devices.

Key Features

01 **Powerful embodied AI Platform**

Compatible with the Jetson AGX Thor module, offering up to 2070 TFLOPS. Perfect edge platform for embodied AI development.

02 **Compact Footprint 168mm x 153mm footprint, suitable for robot prototyping and development, especially robots that has tight footprint such as humanoids**

03 **Wide Voltage Input Range Can be used in 48V battery power system (max 54V input)**

04 **Rich IO capabilities**

Includes most common IOs used in robotics prototyping, such as USB, 10G Ethernet, CAN, RS-485 and I2S

05 **Vision AI Support**

Features 4x 4-lane CSI output, and can be connected up to 8x GMSL2 cameras, making it ideal for vision AI applications such as BEV, Occupancy Grid, SLAM etc

Product Gallery



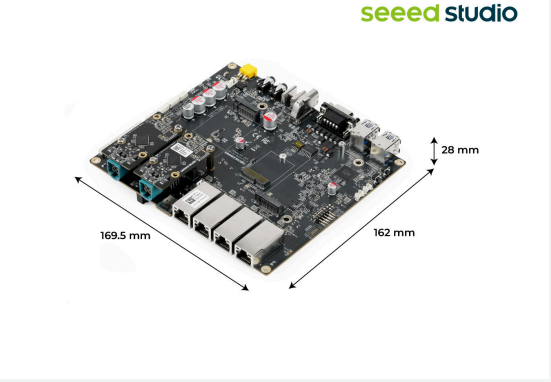






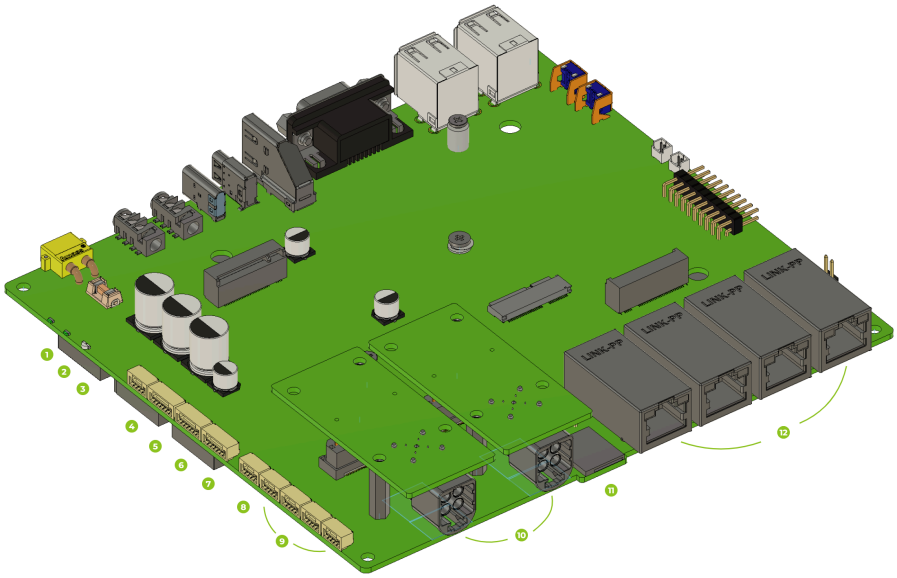





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28 mm
169.5 mm
162 mm

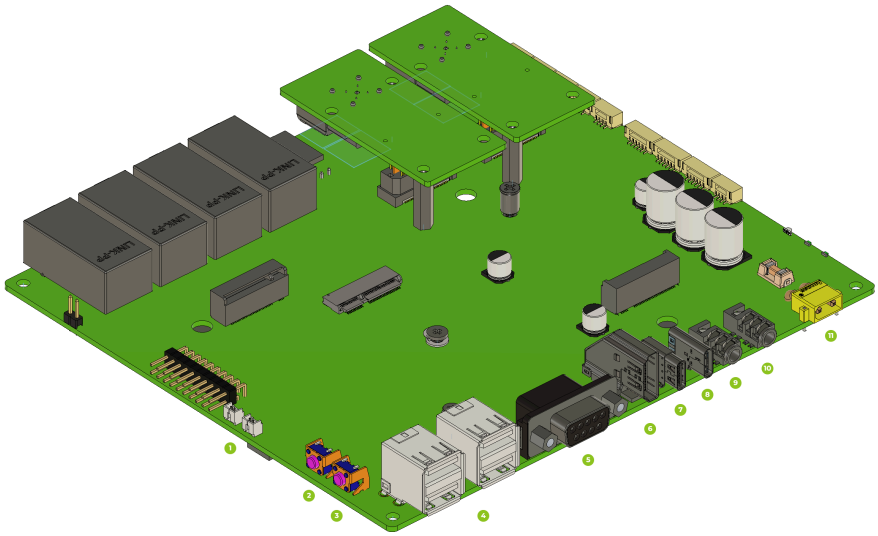
Hardware Overview

Side View 1



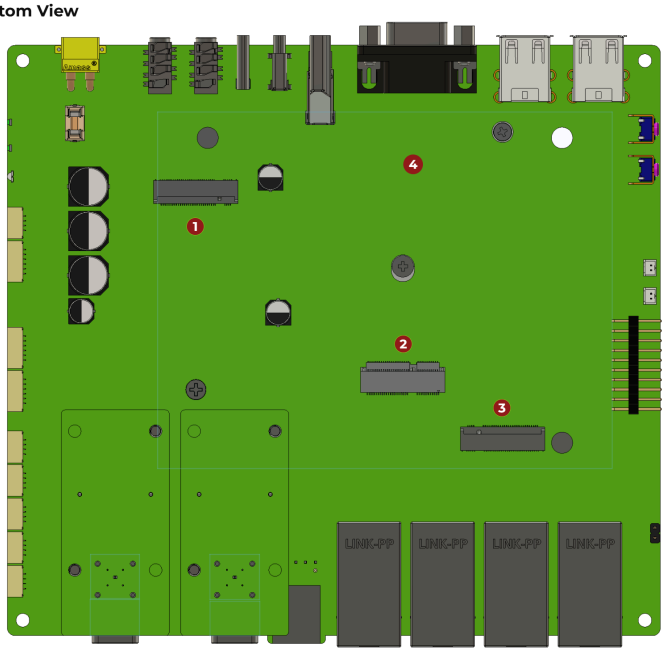
1. ACT LED x 1
2. Power LED x 1
3. SSD LED x 1
4. I2C x 1
5. I2S x 1
6. GPI x 4
7. GPO x 4
8. RS-485 x 1
9. CAN x 4
10. GMSL2 x 8
11. Nano SIM
12. 10 GbE x 4

Side View 2



1. RTC 2-pin Connector
2. Recovery Button
3. Reset Button
4. USB 3.2 x 4
5. RS-232/422/485 x 1
6. Display
7. USB Type-C Recovery
8. USB Type-C Debug
9. Audio Input
10. Audio Output
11. DC 19~ 48 V

Bottom View



1. M.2 Key B Slot
2. M.2 Key E Slot
3. M.2 Key M Slot
4. RS-232/422/485 Mode Switch

Applications

- **Humanoid Robotics:** reComputer J601 offers all necessary I/O's for humanoid development, such as CAN, 10Gb Ethernet, RS485, Audio etc. Along with NVIDIA Jetson AGX Thor modules, reComputer J601 serves as the onboard state-of-the-art "brain" for these machines, enabling them to perceive, reason, plan, and act in real-time.
- **VLA development:** Jetson Thor is the edge platform purpose-built for physical AI, transforms VLA models from research curiosities into production-ready intelligence. It eliminates the cost, complexity, and latency of external GPU dependency. It enables robots that understand natural language, perceive complex environments, and act with human-like fluidity. And it does all of this at the edge—secure, responsive, and scalable. NVIDIA provides a seamless end-to-end workflow for VLA development on Jetson Thor. The Isaac GR00T foundation model family—including GR00T N1.5, N1.6, and N1.7—offers cutting-edge VLA capabilities that bridge perception and execution. With JetPack 7.x, CUDA 13, and TensorRT acceleration, developers can fine-tune models on cloud infrastructure and deploy them directly to Thor with minimal friction.
- **Production AI and Automation:** Jetson AGX Thor brings server-class AI inference directly to the factory floor. It enables robots that visually inspect products, understand verbal instructions, and coordinate with other machines simultaneously—all without offloading processing to the cloud. Equipped with a rich array of I/O interfaces—including 10Gb Ethernet, GMSL, and RS-485—the reComputer J601 serves simultaneously as a sensor hub and a real-time processing platform, enabling rapid deployment and production-ready integration.
- **Agentic AI on edge:** Jetson AGX Thor brings server-class reasoning to the factory floor, the warehouse, and the inspection line. It enables AI agents that don't just answer questions, but also take action. Paired with NVIDIA Nemoclaw, NVIDIA provides a complete, production-grade agentic AI software stack. So reComputer J601 can be your AI agent on the edge without burning tokens. It can monitor, decide, coordinate, and execute. And it does it all at the edge—secure, responsive, and scalable.

Resource Links

- https://www.seeedstudio.com/reComputer-J601-Carrier-Board-for-Jetson-AGX-Thor-p-6937.html
- Datasheet
- Carrier Board Schematic
- 3D File
- Seeed Nvidia Jetson Product Catalog
- Seeed Nvidia Jetson Success Cases
- Seeed Jetson AGX One Pager

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