seeed studio

INDUSTRIAL PRODUCT DATASHEET

reComputer Industrial J2012 - AI Device with Jetson™ Xavier NX 16GB module

Industrial edge AI device with Jetson™ Xavier NX 16GB for generative AI, video analytics, machine vision, and AMR, with Seeed-recommended SSD options.

SKU	UPDATED	PRICE
110110189	2026-08-24 03:36:10	$1099.00(Excl. VAT)



Overview



The reComputer Industrial J2012 with Jetson™ Xavier NX 16GB module supports AI video analytics, machine vision, autonomous mobile robots, and generative AI at the edge. For SSD use, Seeed only recommends the 128GB, 256GB, and 512GB versions, as SSD compatibility can vary by JetPack version and market SSD behavior.

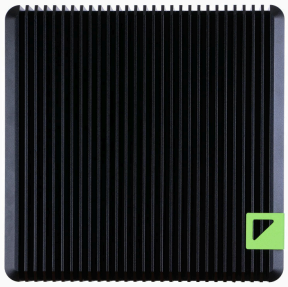
Key Features

Note:

If you want to use SSDs with reComputer, we only recommend you choose the **128GB**, the **256GB**, and the **512GB** versions from Seeed, because some of the SSDs in the market will work with this product under a particular JetPack version and some will not work with a different JetPack version. Even the official NVIDIA dev kits have the same behavior with SSDs.

Product Gallery



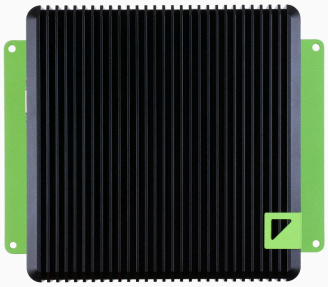




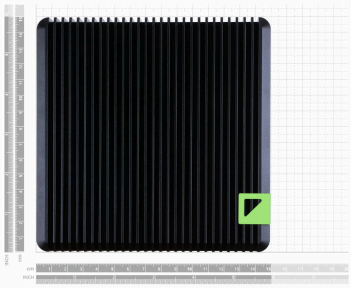










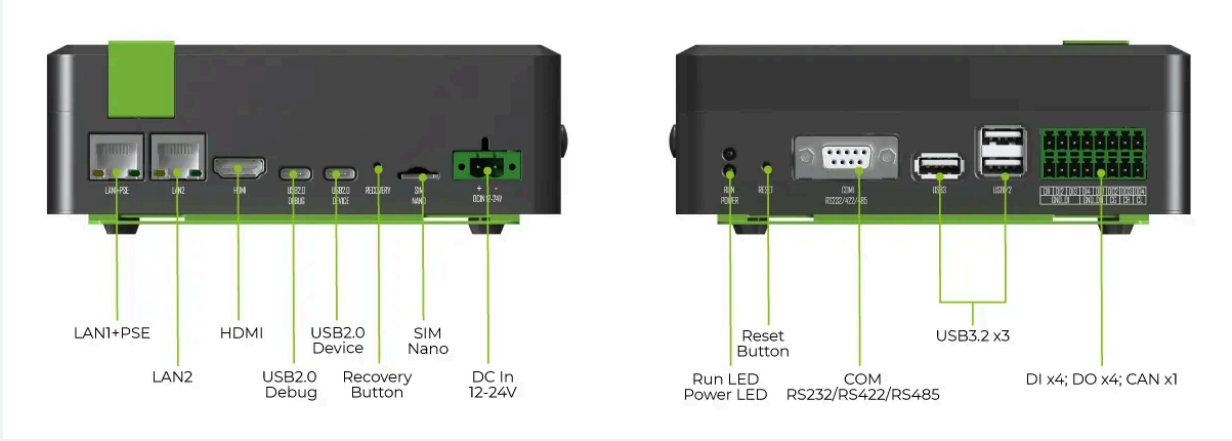


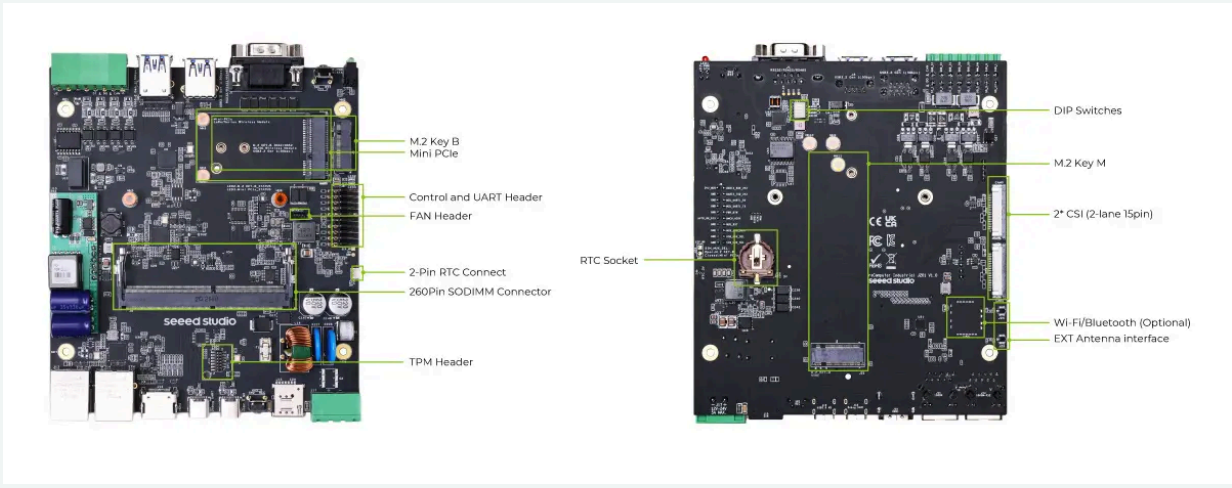
Specification

Jetson Xavier NX System on Module		
AI Performance	reComputer Industrial J2012 - Xavier NX 16GB, 21 TOPS	reComputer Industrial J2011- Xavier NX 8GB, 21 TOPS
GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores	
CPU	6-core NVIDIA Carmel ARM®v8.2 64-bit CPU, 6MB L2 + 4MB L3	
Memory	16GB 128-bit LPDDR4x59.7GB/s (Xavier NX 16GB)	8GB 128-bit LPDDR4x59.7GB/s (Xavier NX 8GB)
Video Decode	2x 8K30 | 6x 4K60 | 12x 4K30 | 22x 1080p60 | 44x 1080p30 (H.265)	
Video Encode	2x 4K60 | 4x 4K30 | 10x 1080p60 | 22x 1080p30 (H.265)	
Carrier Board		
Storage		M.2 Key M PCIe Gen4.0 SSD (M.2 NVMe 2280 SSD 128G included)8G included)
Networking	Ethernet	1x LAN1 RJ45 GbE PoE(PSE 802.3 af 15 W) 1x LAN2 RJ45 GbE (10/100/1000Mbps)
	Wi-Fi	Support SMD Wi-Fi/Bluetooth (Customized production, please contact order@seeed.cc)
	M.2 Key B	M.2 Key B support 4G/5G (Module optional)

I/O	USB	3x USB3.2 Gen1, 1x USB2.0 Type C(Device mode), 1x USB2.0 Type C For Debug UART & RP2040
	DI/DO	4x DI, 4x DO, 3x GND_DI, 2x GND_DO, 1x GND_ISO, 1x CAN
	COM	1x DB9 (RS232/RS422/RS485)
	Display	1x HDMI 2.0 Type A
	SIM	1x Nano SIM card slot
	Wi-Fi	Support SMD Wi-Fi/Bluetooth (Module optional)
	M.2 Key B	M.2 Key B support 4G/5G (Module optional)
	Fan	Fanless, passive heatsink□1x Fan connectors(5V PWM)
	TPM	1x TPM 2.0 connector (Module optional)
	RTC	1x RTC socket, 1x RTC 2-pin
	Camera	2x CSI (2-lane 15pin)
Power	Power Supply	DC 12V-24V Terminal block 2 pin
	Power Adapter	19V Power Adapter(without power cord)
Mechanical	Dimensions (W x D x H)	159mm x 155mm x 57mm
	Weight	1.57kg
	Installation	Desk, DIN rail, wall-mounting, VESA
Environment	Operating Temperature	-20 ~ 60°C with 0.7m/s
	Operating Humidity	95% @ 40 °C (non-condensing)
	Vibration	3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis
	Shock	50G peak acceleration (11 msec)
Warranty		2 Years
IP Rating		IP40

Hardware Overview







DIN Rail



Wall Mount

Applications

- **AI Video Analytics**
- **Machine Vision**
- **Autonomous Mobile Robot (AMR)**
- **Generative AI**
- **Capable of Bringing Generative AI to the Edge:** Now you can build AI agents capable of processing large amounts of live or archived videos and images with Vision-Language Models (VLM) such as LLaVA, this new AI agents help nearly every industry summarize, search, and extract actionable insights from video using natural language.
- **Build Multi-streams AI Video Analytics:** For building video analytics, Jetson Orin NX incorporates the NVIDIA Multi-Standard Video Decoder. This video decoder accelerates video decode, supporting low resolution mobile content, Standard Definition (SD), High Definition (HD) and UltraHD (8K, 4K, etc.) .
- **Fastest Way to Deploy Generative AI and Computer Vision Models:** We have jetson-example (https://github.com/Seeed-Projects/jetson-examples) prepared for you! It offers one-line deploy projects edge AI applications of generative AI including Ollama, Llama3; computer vision including YOLOv8, and others. We have configured all environment for you to provides single command deployment of projects.

Part List

reComputer Industrial J2012 (System Installed)	x1
Mounting bracket	x2
DIN rail bracket	x1
Bracket screw	x1
16-Pin Terminal Block for DIO	x1
19V Power adapter (power cord sold separately)	x1
2-Pin Terminal block power connector	x1

Compliance & Logistics

HSCODE	8471504090
USHSCODE	8517180050
UPC	
EUHSCODE	8471707000
COO	CHINA

FCC Requirement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

15.21

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy.

If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Resource Links

- https://www.seeedstudio.com/reComputer-Industrial-J2012-p-5685.html
- Datasheet
- Schematic
- 3D File
- Assembly Guide
- MTBF Test Report
- Github
- Seeed Nvidia Jetson Product Catalog
- Nvidia Jetson Comparison
- Nvidia Jetson Product Comparison
- Seeed Nvidia Jetson Success Cases
- Seeed Jetson One Pager

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