reComputer J3010/J3011 with NVIDIA® Jetson Orin™ Nano Module

Classic design with long availability, up tp 40 TOPS AI performance

reComputer J30 series are the hand-size edge AI boxes built with NVIDIA® Jetson Orin™ Nano module which delivers up to 40 TOPS AI performance to the edge with low power and low latency, offering 80X AI leap forward than Jetson Nano. It sets the new standard for edge AI solution providers working in video analytics, computer vision, natural language processing, and robotics across industries of smart cities, security, industrial automation, and smart factories.
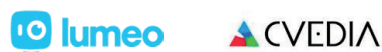
Hardware Feature

The full system includes one NVIDIA Jetson Orin Nano 4GB/8GB production module, one reComputer J401 carrier board, a heatsink, and a power adapter, combining the NVIDIA Ampere™ GPU architecture with 64-bit operating capability. It's ready to help you accelerate and scale the next-gen AI product. It has a rich set of IOs including 4x USB3.2, HDMI 2.1, 2xCSI, 1xRJ45 for GbE, M.2 Key E, M.2 Key M, CAN and GPIO.

Software Compatibility

The reComputer J30 series all have pre-installed Jetpack 5.1 SDK which provides a full development environment and includes CUDA-X accelerated libraries and other NVIDIA technologies to kickstart your development, including the Jetson Linux Driver package which provides the Linux kernel, bootloader, NVIDIA drivers, flashing utilities, sample filesystem, and toolchains for the Jetson platform. It also includes security features, over-the-air update capabilities, and much more. Within the NVIDIA AI software stack, there are many essencial frameworks can be refered to use, such as NVIDIA DeepStream SDK for AI-based multi-sensor processing and video and image understanding, NVIDIA TAO Toolkit model training acceleration, and NVIDIA Riva Speech AI applications.

Support AI Platforms (continuing updating)

Intelligent Video Analytics	lumeo	CVEDIA
Computer Vision	ultralytics	
Machine Listening	cochl.	
Fleet management	allxon	
Cloud native deployment	aws	Microsoft Azure

reComputer J3010 Orin Nano 4GB
20 TOPS

reComputer J3011 Orin Nano 8GB
40 TOPS

reComputer Content

- NVIDIA Jetson Orin Nano 4GB/8GB production module x1
- reComputer J401 carrier board x1
- 128GB NVMe SSD x1
- Aluminum heatsink with fan x1
- Wi-Fi/Bluetooth combo module x1
- Antennas x2
- Aluminum case x1
- Power adapter x1

Interfaces

- 4x USB3.2 Type A
- 1x USB2.0 Type-C
- 1x HDMI 2.1
- 2x CSI
- 1x RJ45 for GbE
- 1x M.2 Key E
- 1x M.2 Key M
- 1x CAN
- 1x 40-Pin Expansion header
- 1x 12-Pin Control and UART header

reComputer J30 series with NVIDIA Jetson Orin Nano

Specifications	reComputer J3010	reComputer J3011
Module	Jetson Orin Nano 4GB	Jetson Orin Nano 8GB
SKU	110110146	110110147
AI Performance	20 TOPS	40 TOPS
GPU	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores	1,024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores
GPU Max Frequency	625 MHz	
CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	
CPU Max Frequency	1.5 GHz	
Memory	4GB 64-bit LPDDR5 34 GB/s	8GB 128-bit LPDDR56 8 GB/s
DL Accelerator	/	
DLA Max Frequency	/	
Vision Accelerator	/	
Storage	128GB M.2 NVMe SSD	
Video Encoder	1080p30 supported by 1-2 CPU cores	
Video Decoder	1x 4K60 (H.265) | 2x 4K30 (H.265) | 5x 1080p60 (H.265) | 11x 1080p30 (H.265)	
Display	1* HDMI 2.1	
CSI Camera	2* CSI (2-lane 15pin)	
Networking	1* Gigabit Ethernet (10/100/1000M)	
USB	4* USB 3.2 Type-A (10Gbps); 1* USB2.0 Type-C (Device Mode)	
M.2 KEY M	1* M.2 Key M	
M.2 KEY E	1* M.2 Key E (WiFi/BT module included)	
Fan	1* 4 pin Fan (5V PWM)	
CAN	1* CAN	
Multifunctional Port	1* 40-Pin Expansion header, 1* 12-Pin Control and UART header	
RTC	RTC 2-pin, RTC socket (supports CR1220 but not included)	
Power	9-19V	
Power Supply	DC 12V/5A(Barrel Jack 5.5/2.5mm)	
Temperature	-10°C~60°C	
Mechanical	130mm x 120mm x 58.5mm	
Package Dimensions	160mm x 146mm x 111mm	