

reComputer J4011/J4012 with NVIDIA® Jetson Orin™ NX Module

Unleash advanced AI within compact space, up to 100 TOPS AI performance

reComputer J40 series are the hand-size edge AI boxes built with NVIDIA® Jetson Orin NX module which brings up to 100 TOPS AI performance to the edge, offering up to 5X the performance of Jetson Xavier NX and up to 3X the performance of Jetson AGX Xavier. It simplifies AI product development, and fits for deployment for edge AI solution providers working in video analytics, computer vision, natural language processing, and robotics across industries of smart cities, security, industrial automation, smart factories.

Hardware Feature

Combining the NVIDIA Ampere™ GPU architecture with 64-bit operating capability, the Jetson Orin NX integrates advanced multi-function video and image processing, and NVIDIA Deep Learning Accelerators. The full system includes NVIDIA Jetson Orin™ NX 8GB/16GB production module, a cooling fan with a heatsink, enclosure, and a power adapter, supporting desktop and wall mount carrying, fit in anywhere. It's ready to help you accelerate and scale the next-gen AI product. It has a rich set of IOs including 4x USB 3.2, HDMI 2.1, 2xCSI, 1xRJ45 for GbE, M.2 Key E, M.2 Key M, CAN, and GPIO.

Software Compatibility

The reComputer J40 series all have pre-installed Jetpack 5.1 SDK on the included 128GB NVMe SSD 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 essential frameworks can be referred 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



Computer Vision



Machine Listening



Fleet management



Cloud native deployment



reComputer J4011 Orin NX 8GB

70 TOPS

reComputer J4012 Orin NX 16GB

100 TOPS

reComputer Content

- NVIDIA Jetson Orin NX 8GB/16GB production module x1
- reComputer J401 carrier board x1
- 128GB NVMe SSD x1
- Aluminum heatsink with fan x1
- 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 J40 series with NVIDIA Jetson Orin NX

Specifications	reComputer J4011	reComputer J4012
Module	Jetson Orin NX 8GB	Jetson Orin NX 16GB
SKU	110110144	110110145
AI Performance	70 TOPS	100 TOPS
GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	
GPU Max Frequency	765 MHz	918 MHz
CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
CPU Max Frequency	2 GHz	
Memory	8GB 128-bit LPDDR5 102.4GB/s	16GB 128-bit LPDDR5 102.4GB/s
DL Accelerator	1x NVDLA v2	2x NVDLA v2
DLA Max Frequency	614 MHz	
Vision Accelerator	1x PVA v2	
Storage	128GB M.2 NVMe SSD	
Video Encoder	1x 4K60 (H.265) 3x 4K30 (H.265) 6x 1080p60 (H.265) 12x 1080p30 (H.265)	
Video Decoder	1x 8K30 (H.265) 2x 4K60 (H.265) 4x 4K30 (H.265) 9x 1080p60 (H.265) 18x 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	
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	