

EC3020 Edge AI Computer

NVIDIA® Jetson Orin NX / Nano Series



Features

- NVIDIA® Jetson Orin NX™ and Nano™ Series module
- 1x HDMI 4Kp60 for Orin NX™, 1x HDMI 4Kp30 for Orin Nano™
- 2x GbE LAN
- 1x Micro USB (supports OS flash)
- 2x USB 3.2 Gen2 Type-A
- 2x USB 2.0 Type-A
- 2x I²C, 2x UART, 4x GPIOs, 1x CAN
- 1x M.2 2230 E-Key for WiFi/BT, 1x M.2 2280 M-Key for NVMe
- 2x 4 lane MIPI CSI-2
- Supports PSE board/OOB board/5G daughter board (optional)
- Wide power input range +12V to +24V DC
- Supports Ubuntu 22.04 OS

Specifications

System Mainboard	NVIDIA® Jetson Orin NX™ 16 GB/ 8 GB NVIDIA® Jetson Orin Nano™ 8 GB/ 4GB Module Compatibility with carrier board
CPU Type	Jetson Orin NX™ 16 GB: 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3 Jetson Orin NX™ 8 GB: 6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3 Jetson Orin Nano™ 8 GB/ 4 GB: 6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3
System Speed	EC3020-NANO-8/ EC3020-NANO-4: 1.7 GHz
Memory	NVIDIA® Jetson Orin NX™: 16GB/ 8GB 128-bit LPDDR5 102.4 GB/s NVIDIA® Jetson Orin Nano™: 8GB 128-bit LPDDR5 102 GB/s NVIDIA® Jetson Orin Nano™: 4GB 64-bit LPDDR5 51 GB/s
AI Inference Computing Power	NX 16GB delivery up to 100 TOPS NX 8GB delivery up to 70 TOPS Nano 8GB delivery up to 40 TOPS Nano 4GB delivery up to 20 TOPS
Front Panel External I/O	2x Gigabit Ethernet (10/100/1000), RJ45 with LED 1x HDMI Type-A 2x USB 3.2 Gen2 Type-A 1x USB 2.0 Type-C for Recovery 1x Power button 1x Recovery button
Rear Panel External I/O	2x Antenna 1x 12-24V DC Jack input with Lock
Expansion Slot	1x M.2 2230 E-Key for WiFi/BT, 1x 20-pin Expansion Terminal Block supports 2x I2C, 2x UART, 4x GPIOs, 1x CAN PSE Board/OOB Board/5G Daughter Board (Optional)
Storage	1x M.2 2280 M-Key for NVMe
Power Requirement	DC 12~24V
Power Supply	90W
Construction	Aluminum & steel
Chassis Color	Black & Red
Mounting Type	wall mount
Dimensions	126mm (W) x 96mm (D) x 73.9mm (H)
Weight	1.25 kg
Operating Temperature	-15°C~55°C (-5°F~131°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)

Relative Humidity	5%~95% (non-condensing)
Vibration	Operating: 1 grms / 3~500Hz / random operation
Shock	Operating: 20 g / 11 ms Non-operating: 40 g / 11 ms
Certification	CE/FCC Class B
Operating System	Ubuntu 22.04 JetPack 6.2

Ordering Information

EC3020-NX-16	NVIDIA® Jetson Orin™ NX 16 GB, 1x HDMI, 2x GbE, 2x USB 3.2, 1x USB 2.0 Type C for recovery 1x M.2 2230 E Key for wifi, 12V to 24V DC Input, -15°C ~ +55°C operating temperature, with power adapter, with RTC battery
EC3020-NX-8	NVIDIA® Jetson Orin™ NX 8 GB, 1x HDMI, 2x GbE, 2x USB 3.2, 1x USB 2.0 Type C for recovery 1x M.2 2230 E Key for wifi, 12V to 24V DC Input, -15°C ~ +55°C operating temperature, with power adapter, with RTC battery
EC3020-NANO-8	NVIDIA® Jetson Orin Nano™ 8GB, 1x HDMI, 2x GbE, 2x USB 3.2, 1x USB 2.0 Type C for recovery 1x M.2 2230 E Key for wifi, 12V to 24V DC Input, -15°C ~ +55°C operating temperature, with power adapter, with RTC battery
EC3020-NANO-4	NVIDIA® Jetson Orin Nano™ 4GB, 1x HDMI, 2x GbE, 2x USB 3.2, 1x USB 2.0 Type C for recovery 1x M.2 2230 E Key for wifi, 12V to 24V DC Input, -15°C ~ +55°C operating temperature, with power adapter, with RTC battery

Remarks: 1. Specifications are subject to change without prior notice *picture for representation only, may differ
2. ODM/OEM is available. 3. For user manual & datasheet download, visit www.ibt.ca