CESIPC
科拉德计算机
Build Your IPC Like LEGO

LEGO MODE TECH

ComputeOps | EA-N500

- NVIDIA Jetson Orin NX
- NVIDIA Jetson Orin Nano

▶ Introduction

The EA-N500 series industrial computer is an edge AI platform based on CESIPC LEGO MODE™ modular architecture, designed for visual inference and real-time AI decision-making in harsh industrial environments. It supports various NVIDIA Jetson Orin™ NX / Nano modules, allowing flexible selection of computing power and interfaces without altering system structure or reliability. The product integrates four industrial-grade PoE Gigabit Ethernet ports for power, data transmission, and centralized management, alongside USB 3.0, serial ports, CAN, and GPIO interfaces, supporting direct connections with robots, production line equipment, and sensor systems. With CESIPC SafeCore™ industrial protection and intelligent thermal management, it operates reliably in complex environments like dust, oil contamination, and electromagnetic interference.

Jetson Orin™ NX

Jetson Orin™ Nano

▶ Features

- ★ Supports Jetson Orin™ NX / Nano AI modules with up to 157 TOPS edge inference capability.
- ★ NVIDIA Ampere GPU for deep learning inference and video analytics.
- ★ 8-core Arm Cortex-A78AEv8.2 CPU for high performance and security.
- ★ Compatible with NVIDIA JetPack SDK, CUDA, TensorRT, cuDNN for easy AI and vision application deployment.
- ★ 4 PoE Gigabit Ethernet ports for integrated power and data for visual terminals.
- ★ Supports PCIe and CSI for vision and data acquisition expansion.
- ★ Full industrial interface system: 4 USB 3.0, serial, CAN, and GPIO.
- ★ Wide 9-36V DC input range for complex power environments.
- ★ Hardware power monitoring and auto-recovery for unattended systems.

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★ CESIPC intelligent thermal management for stable, high-load operation.

★ Supports Wi-Fi / 4G / 5G wireless deployment.

★ High-strength aluminum alloy case for durability and heat dissipation.

► Specification

Spec	Jetson Orin NX 16G	Jetson Orin NX 8G	Jetson Orin Nano 8G	Jetson Orin Nano 4G
AI Performance	157 TOPS	117 TOPS	67 TOPS	34 TOPS
GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores		1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores
GPU Max Frequency	1173MHz	1173MHz	1020MHz	1020MHz
CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	
CPU Frequency	2.0 GHz	2.0 GHz	1.7 GHz	1.7 GHz
TDP	10 W – 25 W	10 W – 20 W	7 W – 15 W	7 W – 10 W
Display Output	1x 8K30 ， HDMI	1x 8K30 ， HDMI 2.1	1x 4K30 ， HDMI 1.4	1x 4K30 ， HDMI 1.4
RAM	16GB LPDDR5	8GB LPDDR5	8GB LPDDR5	4GB LPDDR5
SSD	M.2 NVMe SSD (128GB / 256GB / 512GB)			
Wi-Fi	Intel N6235 300Mbps, 802.11a/b/g/n, 2.4G / 5G			
PoE LAN	4 × PoE Gigabit Ethernet Ports			
USB	4 × USB 3.0			
COM	2 × RS-485/ 2 × RS-232/ 1 × RS-485+1 × RS-232			
CAN	1 × CAN			
GPIO	GPIO × 8 (4-in / 4-out)			
Wireless Network	4G LTE Full Netcom Module M.2 Key-B slot for 4G/5G module support			
DC Input	1 × 3-pin Pluggable Terminal Block for 12V DC			
Power Button	1x ATX Power On/Off Button			
Booting	1x AT/ATX Mode Switch（Internal settings）			
Dimension	229（W）× 160（D）× 64.5（H）mm			
Weight	3 KG N.W.			
Material	6063 High-Strength Aluminum Alloy			

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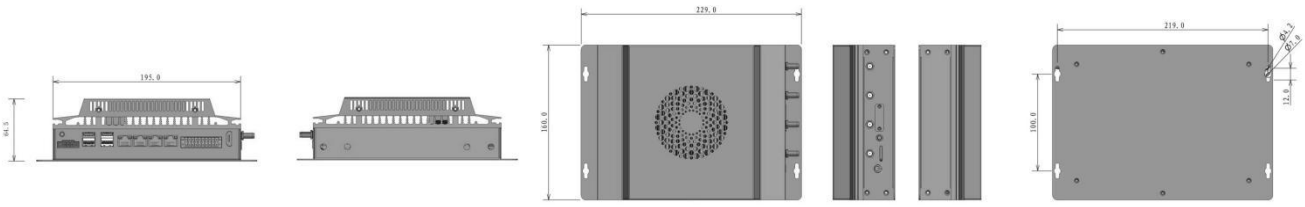
Mechanical Construction	Aluminum Extrusion + Sheet Metal Structure
Clear CMOS Switch	/
Cooling system	CESIPC Intelligent Temperature Control System
Operating Temperature	0~50℃ (-40~70℃ Optional)
Storage Temperature	-10~60℃
Relative Humidity	10%~90% , Non-condensing
EMC	CE, FCC (According to EN 55032 & EN 55035) EN IEC 61000-3-2
Factory	ISO9001: 2015
ODM	BIOS / Boot on LOGO / OEM
MTBF	60,000 Hours
Operating System	JetPack 6.x (Ubuntu 20.04 LTS, L4T)

► Product Images

► Product Sizes



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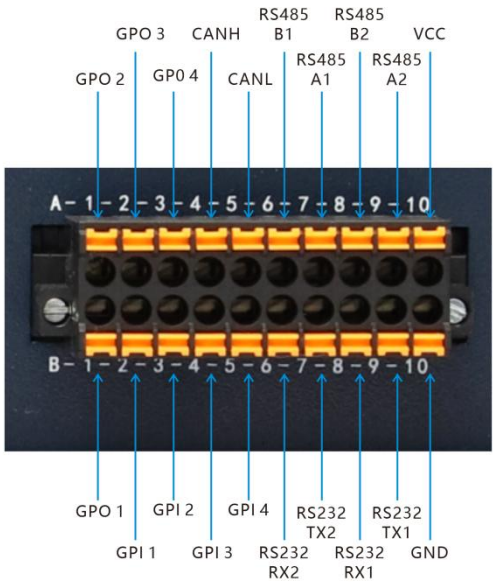
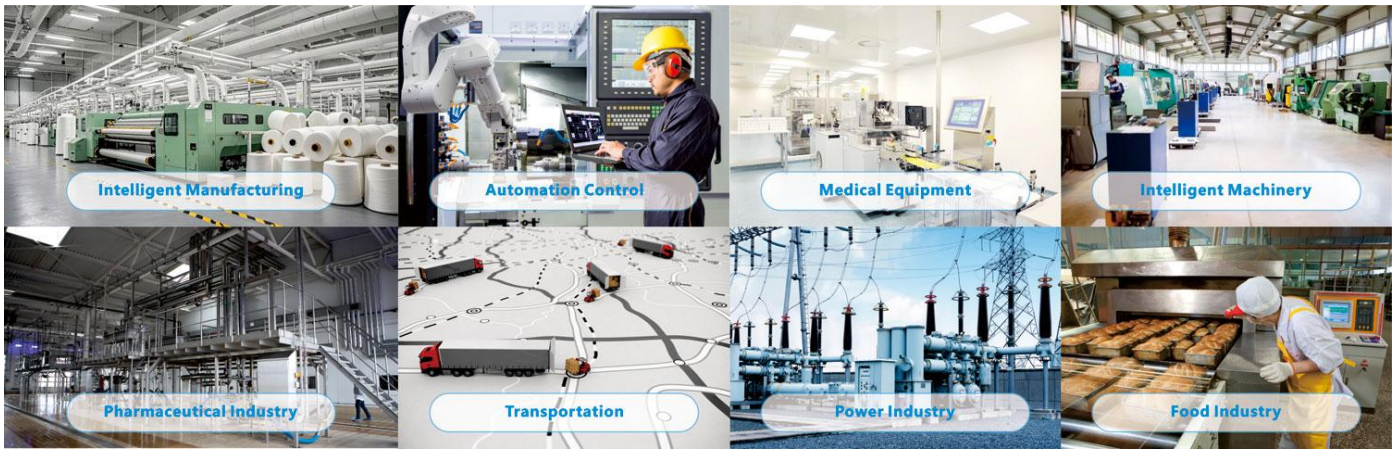
► I/O

Phoenix Terminal
Interface Definition



► Applications



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