

Industrial Edge AI Computer Powered by NVIDIA® Jetson Orin™

Orin Box Series



Overview

The EnGenius Orin Box Series is a family of industrial Edge AI computers powered by NVIDIA® Jetson Orin™ NX and Orin Nano™ modules, delivering scalable AI performance from efficient edge inference to high-performance AI computing. Designed for real-time video analytics, intelligent automation, and AI-driven decision-making, the series minimizes latency, reduces cloud dependency, and accelerates AI deployment across industrial automation, smart cities, transportation, surveillance, and other edge AI applications. With a rugged fanless design, rich industrial I/O, and optional Wi-Fi connectivity, the Orin Box Series provides the flexibility to meet diverse deployment requirements while lowering infrastructure costs.

Key Features & Benefits

Scalable NVIDIA® Jetson Orin™ AI Computing:

- Choose from Orin NX and Orin Nano platforms with up to 157 TOPS to match different AI workloads and deployment requirements.

Real-Time Edge Intelligence:

- Enable AI-powered video analytics, machine vision, automation, and intelligent decision-making with low latency and reduced cloud dependency.

Comprehensive Industrial Connectivity:

- Dual Gigabit Ethernet, optional Wi-Fi 6 & Bluetooth 5.2, and versatile industrial I/O ensure seamless integration with existing systems.

High-Speed Storage Expansion:

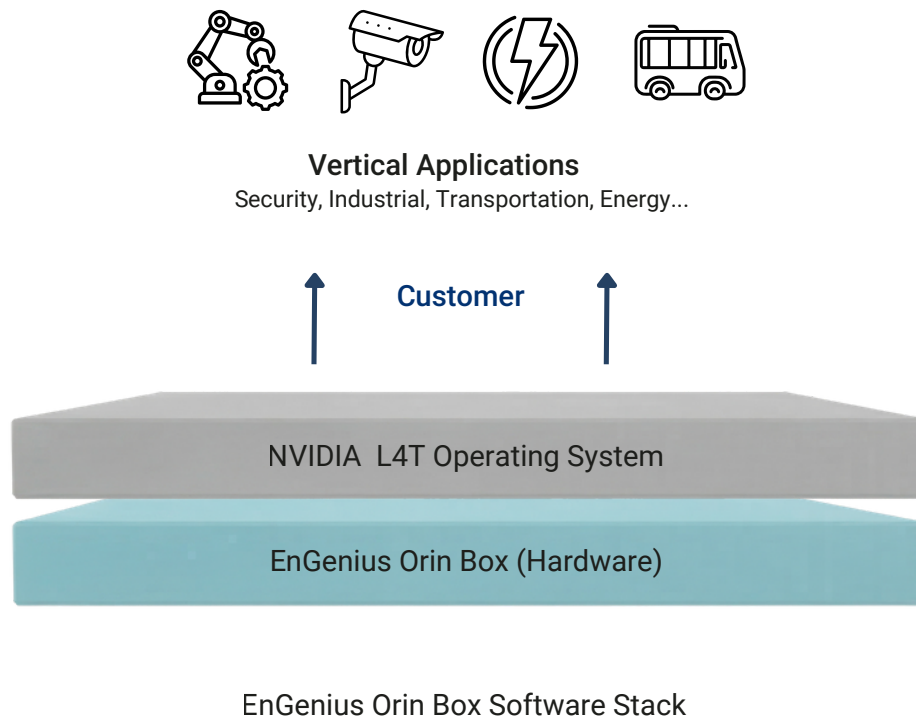
- Dual M.2 NVMe SSD slots support local AI applications, datasets, and video storage with maximum flexibility.

Built for Industrial Reliability:

- Fanless construction and wide operating temperature support deliver stable, maintenance-free operation in demanding environments.

Software Architecture

This product is provided as a hardware-only Edge AI computing platform, pre-installed with NVIDIA® L4T OS, NVIDIA JetPack SDK, BSP, and all required hardware drivers. It is designed to provide a stable and flexible development environment for system integrators and AI software developers. Designed for Bring-Your-Own-AI (BYO-AI) deployments, enabling customers to install and integrate their preferred AI frameworks, models, and applications.

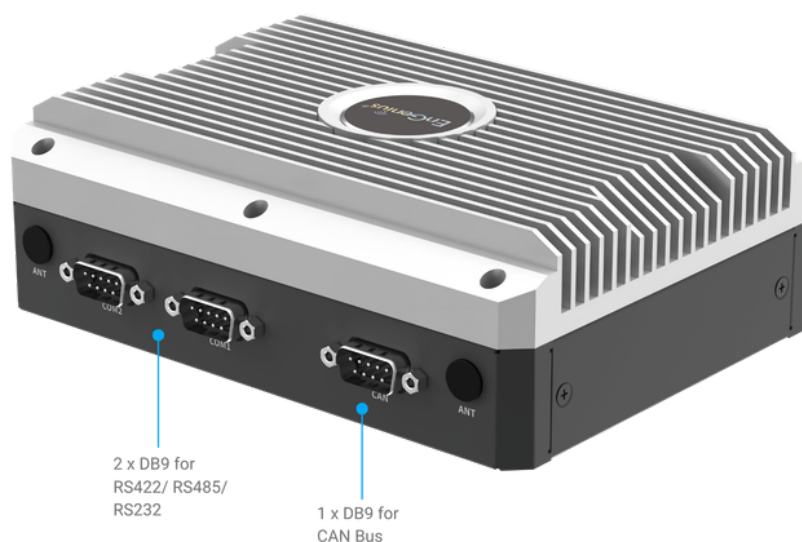
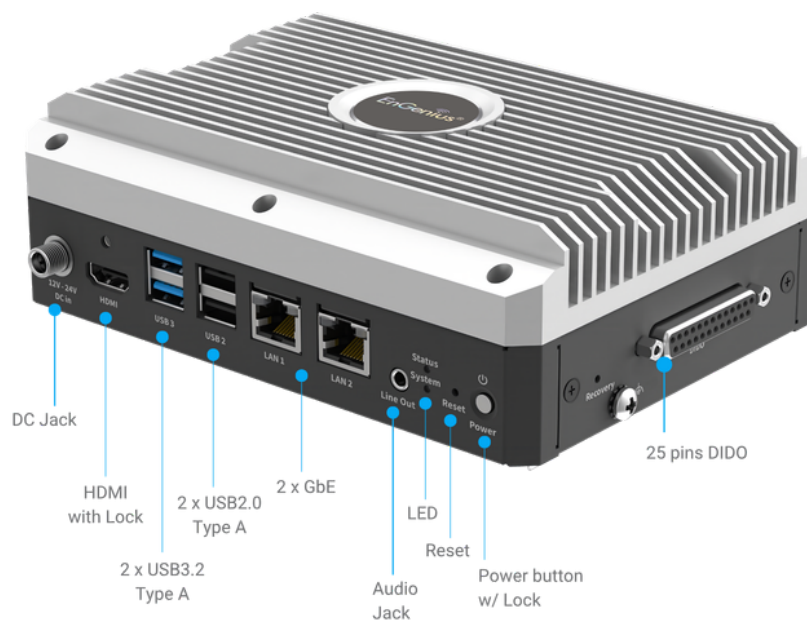


Technical Specifications

Edge AI Computer			
			
Model Name	Orin BOX 67 / Orin BOX 67W	Orin BOX 117 / Orin BOX 117W	Orin BOX 157 / Orin BOX 157W
Model Number	E5-NA08 / E5-NA08W	E5-NB08 / E5-NB08W	E5-NB16 / E5-NB16W
AI Platform	NVIDIA Jetson Orin Nano	NVIDIA Jetson Orin NX	NVIDIA Jetson Orin NX
AI Performance	Up to 67 TOPS	Up to 117 TOPS	Up to 157 TOPS
CPU	6-core Arm Cortex-A78AE, up to 1.5GHz	6-core Arm Cortex-A78AE, up to 2.0GHz	8-core Arm Cortex-A78AE, up to 2.0GHz
GPU	1024-core NVIDIA Ampere GPU, 32 Tensor Cores	1024-core NVIDIA Ampere GPU, 32 Tensor Cores	1024-core NVIDIA Ampere GPU, 32 Tensor Cores
Memory	8GB LPDDR5	8GB LPDDR5	16GB LPDDR5
Operating System	NVIDIA Linux L4T	NVIDIA Linux L4T	NVIDIA Linux L4T
AI Framework	NVIDIA JetPack	NVIDIA JetPack	NVIDIA JetPack
Storage	256GB NVMe SSD	256GB NVMe SSD	256GB NVMe SSD
Expansion	Dual M.2 2280 NVMe	Dual M.2 2280 NVMe	Dual M.2 2280 NVMe
Wireless	N/A / Wi-Fi6 2x2	N/A / Wi-Fi6 2x2	N/A / Wi-Fi6 2x2
Ethernet	2 × Gigabit Ethernet	2 × Gigabit Ethernet	2 × Gigabit Ethernet
USB	2 × USB 3.2, 2 × USB 2.0	2 × USB 3.2, 2 × USB 2.0	2 × USB 3.2, 2 × USB 2.0
Display	1 × HDMI®	1 × HDMI®	1 × HDMI®
CAN Bus	1 × DB9 CAN	1 × DB9 CAN	1 × DB9 CAN
GPIO	DB25 Digital I/O	DB25 Digital I/O	DB25 Digital I/O
Audio	3.5 mm Audio Jack	3.5 mm Audio Jack	3.5 mm Audio Jack
Power Input	12~24V DC	12~24V DC	12~24V DC
NVIDIA Linux L4T	✓	✓	✓
NVIDIA JetPack SDK	✓	✓	✓
Board Support Package (BSP)	✓	✓	✓
Operating Temperature	-20°C ~ 70°C	-20°C ~ 70°C	-20°C ~ 70°C
Storage Temperature	-40°C ~ 85°C	-40°C ~ 85°C	-40°C ~ 85°C
Storage Humidity	5%~95% @ 40° C (non-condensing)	5%~95% @ 40° C (non-condensing)	5%~95% @ 40° C (non-condensing)
Button	1 x Power button, 1 x Reset button, 1 x Recovery button	1 x Power button, 1 x Reset button, 1 x Recovery button	1 x Power button, 1 x Reset button, 1 x Recovery button
LED	2 x LEDs	2 x LEDs	2 x LEDs
Mounting	VESA / DIN Rail / Wall Mount	VESA / DIN Rail / Wall Mount	VESA / DIN Rail / Wall Mount
Dimensions	170 × 125 × 60 mm	170 × 125 × 60 mm	170 × 125 × 60 mm
Weight	1.9kg	1.9kg	1.9kg

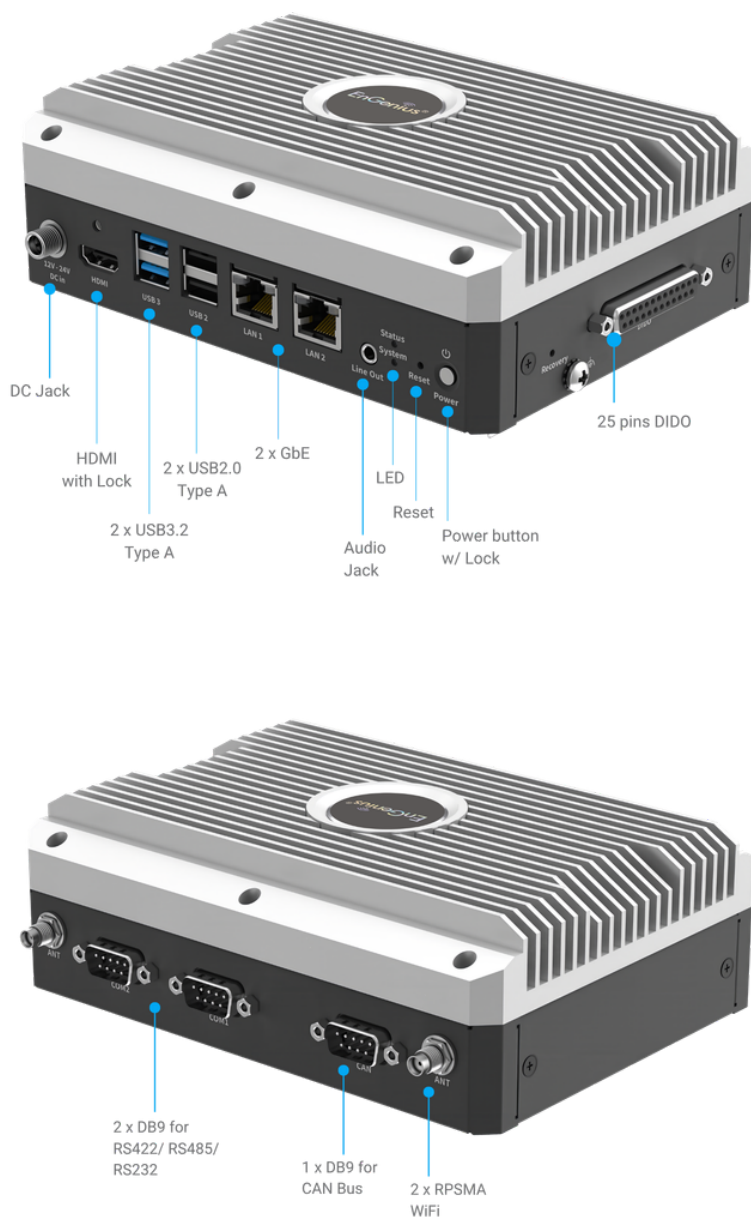
Hardware Overview

E5-NA08/ E5-NB08/ E5-NB16



Hardware Overview

E5-NA08W/ E5-NB08W/ E5-NB16W



Features and specifications subject to change without notice. Trademarks and registered trademarks are the property of their respective owners. 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 and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. Prior to installing any surveillance equipment, it is your responsibility to ensure the installation is in compliance with local, state and federal video and audio surveillance and privacy laws.

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