Edge AI Box Powered by NVIDIA® Jetson Orin™

EEP-150N-X16

EEP-150N-X16 delivers up to 157 TOPS of AI performance in a fanless compact chassis, supporting Super Mode (40W) operation at 50°C ambient without throttling. Engineered with comprehensive industrial I/O — GbE, USB 3.2/2.0, HDMI®, COM, CAN bus, and DIDO — the EEP-150N-X16 streamlines edge integration for factory automation and intelligent surveillance.

SOM
NVIDIA® Jetson Orin™ NX 16 GB SOM

AI Boost
Up to 157 TOPS AI performance (INT8)

Performance
Super Mode (40W) operation at 50°C (0.7 m/s airflow)

I/O
Rich I/O for diverse vertical requirements, 2 x GbE, 4 x USB, 2 x DB9 for serial, 1 x DB9 for CAN bus, 1 x DB25 for DIDO

Thermal
Fanless

Mechanical
Dimension: 170 x 125 x 62.5 mm

Mounting
VESA / Wall mount kits

Software
NVIDIA® JetPack 6.2.1 L4T r36.4.4

Ecosystem
Optional Emplus AI Service (EAS) middleware for surveillance — REST API, MQTT, vector database

Real-Time
Optional Real-time Linux + 3rd-party EtherCAT® framework

Technical Specifications

Edge AI Box	
Model Name	EEP-150N Series
Model Number	EEP-150N-X16
Electrical Specifications	
CPU Module	NVIDIA® Jetson Orin™ NX 16 GB SOM
CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit, Max. 2 GHz
GPU	1024-core NVIDIA® Ampere architecture GPU with 32 Tensor Cores, Max. 918 MHz
RAM	16 GB 128-bit LPDDR5
AI Performance	Up to 157 TOPS (INT8)
DL Accelerator	2 x NVDLA v2
SOM Power Consumption	10–25W, 40W super mode
Storage	Default 256 GB M.2 2280 NVMe SSD (PCIe Gen3.0 x 4)
TPM	NA
WiFi/BT	802.11a/b/g/n/ac/ax 2.4/5 GHz Wireless LAN 2T2R with BT 5.2
Cellular	NA
Power Button	Press once: On/off Long press for 10 seconds: Force to power off
Reset Button	Press once: system reset (hole)
Recovery Button	Press and hold, then push reset button to enter recovery mode
RTC	1 x CR2032 battery
DIDO	4 x DI(Digital In), 4 x DO(Digital Output), 3.3V
Interfaces	
Expansion on PCBA (Internal)	1 x M.2 M key 2280 for NVMe SSD for system image 1 x M.2 M key 2280 for secondary NVMe SSD for data storage 1 x M.2 E key 2230 socket for Wi-Fi
HDMI	1 x HDMI® 1.4 output (Lockable)
USB	2 x USB 3.2 Gen1 (5 Gbps) Type A & 2 x USB 2.0 Type A
Ethernet	2 x RJ45, Gigabit Ethernet
CAN	1 x DB9 for CAN port

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Model Name	EEP-150N Series
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Serial	2 x DB9 for RS422/ RS485/ RS232 combo port
DIDO	1 x DB25 GPIO (DIx4/ DOx4/ I2Cx1/ SPIx1 / UARTx1(TX/RX))
SIM	NA
DC	1 x DC jack, lockable
Power Button	1 x power button
Reset Button	1 x keyhole
Recovery Button	1 x keyhole
LED	2 x LED (software define)
Audio	1 x 3.5 mm audio jack
Antenna Connector	2 x RP-SMA for Wi-Fi
Fan	Fan-less
Environmental & Physical	
Power in	12–24V DC in
Operating Temperature	-20–70°C with 0.7 m/s airflow, at 10W -20–60°C with 0.7 m/s airflow, at 25W -20–50°C with 0.7 m/s airflow, at 40W (Industrial grade SSD is required to support high temperature operation)
Storage Temperature	-40–85°C
Storage Humidity	5–95% RH at 40°C, non-condensing
Dimensions & Weight	
Dimension	170 x 125 x 62.5 mm
Weights	Weight: 4.19 lb (1.9 kg) Length: 6.69 in (170 mm) Width: 4.92 in (125 mm) Height: 2.46 in (62.5 mm)

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Model Name	EEP-150N Series
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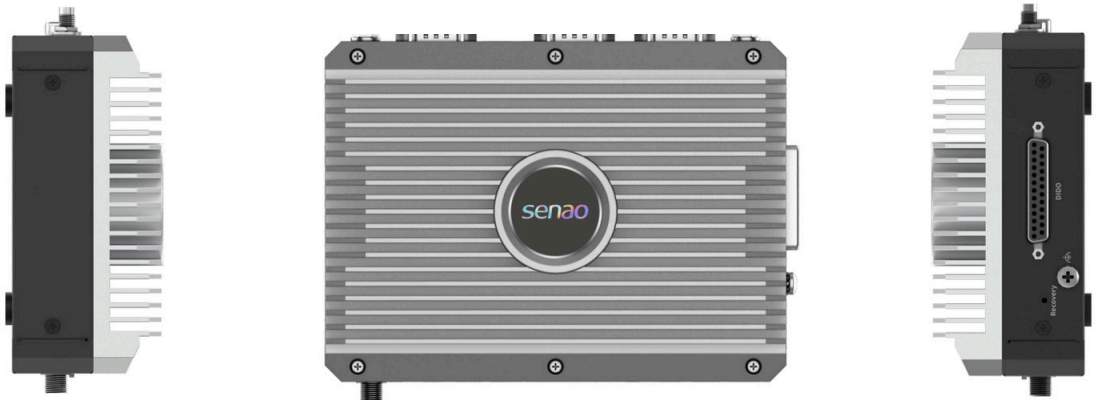
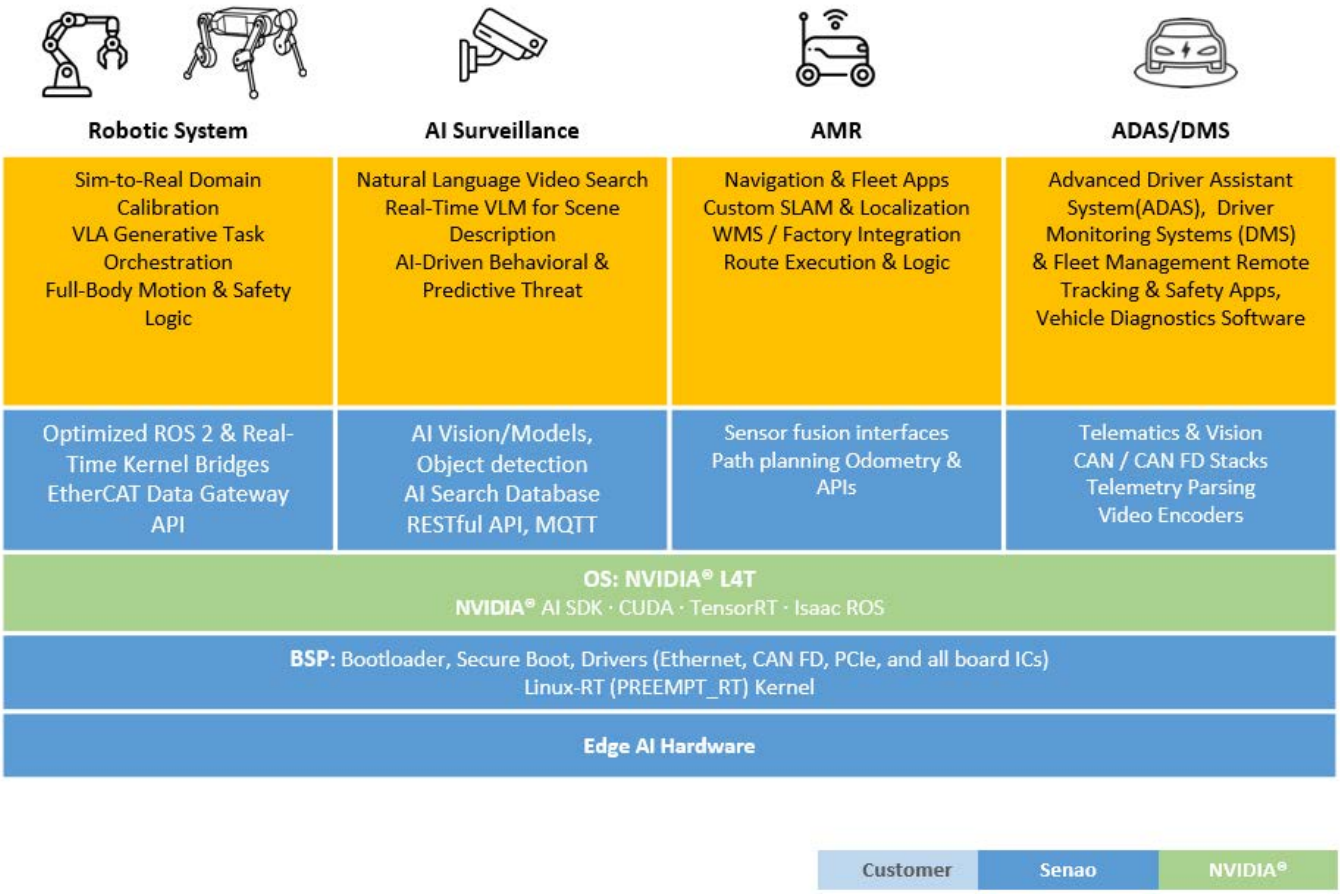
Package Contents	Power adapter 19V/3.4A 65W Power cord HDMI® Cable, Lockable VESA Mount Kit Wall Mount Kit 2.4/5 GHz Dual Band 2 dBi Wi-Fi Antennas (x2)
Compliance	
Certification	FCC/CE/UKCA/CB/NCC/BSMI
Software	
NVIDIA® SDK	NVIDIA® JetPack 6.2.1
OS	NVIDIA® L4T r36.4.4
EtherCAT	Real-time Linux supported & 3rd party EtherCAT framework integration

Hardware Overview

EEP-150N-X16 (Edge AI Box)



Software Stack



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