

NVIDIA Jetson Orin™ NX

Performance Optimized, Fanless System for AI at the Edge

Engineered for low-latency execution of AI models at the edge, the NVIDIA Jetson Orin™ NX provides high-performance, power-efficient data inferencing. Supermicro integrates this module into a compact, fanless system optimized for reliability in demanding deployment environments including manufacturing, retail, logistics, healthcare, and more.

Delivering up to 157 TOPS to support multiple concurrent AI pipelines, the ARS-E103-JONX is built to handle complex, real-time workloads. With flexible high-speed I/O options, it enables fast data exchange and seamless integration into distributed infrastructures, making it an ideal platform for many edge AI applications.



System Specs	ARS-E103-JONX-L(2)	ARS-E103-JONX-H(2)
Processor	NVIDIA® Jetson Orin™ NX with 6-core Arm® Cortex® -A78AE processor	NVIDIA® Jetson Orin™ NX with 8-core Arm® Cortex® -A78AE processor
Memory Slots & Capacity	8GB ECC LPDDR5X	16GB ECC LPDDR5X
AI Accelerator	1024 NVIDIA® CUDA® Cores and 32 Tensor Cores onboard, up to 117 TOPS	1024 NVIDIA® CUDA® Cores and 32 Tensor Cores onboard, up to 157 TOPS
I/O Ports	5 RJ45 1 GbE ports (optional PoE) 1 USB 3.2 Gen2 Type-C port 3 USB 3.2 Gen2 Type-A ports 1 HDMI 2.0 port 2 COM RS-232/422/485 ports 1 CANBus port 1 4 DI / 4 DO (terminal block) port Optional 5G/Wi-Fi 6e support	4 RJ45 1 GbE ports (optional PoE) 1 RJ45 10 GbE port 1 USB 3.2 Gen2 Type-C port 3 USB 3.2 Gen2 Type-A ports 1 HDMI 2.0 port 2 COM RS-232/422/485 ports 1 CANBus port 1 4 DI / 4 DO (terminal block) port Optional 5G/Wi-Fi 6e support
Form Factor	DIN Rail Mounted Fanless Embedded 80x185x140 mm (3.15x7.28x5.5")	DIN Rail Mounted Fanless Embedded 80x185x140 mm (3.15x7.28x5.5")
Expansion Slots	1 M.2 B-key (USB 3.0) 3052/3042 1 M.2 E-Key (PCIe x1, USB 2.0) 2230	1 M.2 B-key (USB 3.0) 3052/3042 1 M.2 E-Key (PCIe x1, USB 2.0) 2230
Drive Bays	1 M.2 M-key (PCIe 4.0 x4 NVMe) 2280	1 M.2 M-key (PCIe 4.0 x4 NVMe) 2280
Cooling	Fanless Cooling	Fanless Cooling
Operating Temperature	-25°C~60°C (-40°F~140°F)	-25°C~60°C (-40°F~140°F)
Power	9~36V DC Power Input DC-in connector (-L) or 2-pin terminal connector (-L2)	9~36V DC Power Input DC-in connector (-H) or 2-pin terminal connector (-H2)