ASSURED EAC-4000 NVIDIA Jetson Orin NX/Nano Compact AI Computing System Datasheet

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AI Computing System Datasheet

- NVIDIA Jetson Orin™ NX/Nano, up to 100 TOPS AI performance
- Up to 16GB LPDDR5 RAM, pre-installed with NVMe SSD up to 1TB
- 1 GigE LAN, 4 USB 3.1, 1 HDMI 2.0
- 2 COM RS-232/422/485
- 1 Full-size Mini PCIe with SIM for 4G/Wi-Fi/BT
- Optional Allxon OOB Support

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Contents

Specifications

System

CPU	XR16 : 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU XR08/AR08/AR04 : 6-core Arm® Cortex®-A78AE v8.2 64-bit CPU
GPU	XR16/XR08/AR08 : NVIDIA Ampere™ architecture w/1024 NVIDIA® CUDA® cores, 32 Tensor cores AR04 : NVIDIA Ampere™ architecture w/512 NVIDIA® CUDA® cores, 16 Tensor cores
DL Accelerator	XR16 : 2 NVDLA Engines XR08 : 1 NVDLA Engines AR08/AR04 : None
Memory	XR16 : 1 LPDDR5 DRAM, 16GB XR08/AR08 : 1 LPDDR5 DRAM, 8GB AR04 : 1 LPDDR5 DRAM, 4GB
Software Support	- Linux - NVIDIA JetPack SDK

I/O Interface

USB	4 USB 3.1 Type A
Micro USB	1 Micro USB Flash Port
Button	- 1 Power Button - 1 Force Recovery Button - 1 Reset Button
LED	Power, SSD
SIM	1 Nano SIM Card Socket
Antenna	2 Antenna for WiFi/4G
Serial	2 COM RS-232/422/485

Expansion

Mini PCIe	1 Mini PCIe (Full-size, PCIe, USB 2.0)

Graphics

Video Encode	XR16/XR08 : - HEVC : 1x 4K @60, 3x 4K @30, 6x 1080p @60, 12x 1080p @30 - H.264 : 1x 4K @60, 2x 4k @30, 5x 1080p @60, 11x 1080p @30
Video Decode	XR16/XR08 : - HEVC : Up to 1x 8K @30, 2x 4K @60, 4x 4K @30, 9x 1080p @60, 18x 1080p @30 - H.264 : Up to 1x 4K @60, 2x 4K @30, 5x 1080p @60, 11x 1080p @30 AR08/AR04 : - HEVC : Up to 1x 4K @60, 2x 4K @30, 5x 1080p @60, 11x 1080p @30 - H.264 : Up to 1x 4K @30, 3x 1080p @60, 7x 1080p @30
Interface	1 HDMI 2.0, up to 4K@60

Storage

M.2	1 M.2 Key M Socket (2242, PCIe 4.0 x4)

Ethernet

LAN	10/100/1000 Base-T GigE LAN, RJ45 Connector

Power

Power Input	12V DC Power Input
Power Interface	3-pin 3.5mm Terminal Block V+, V-

Others

OOB	Out-of-band mgmt by Nuvoton NUC980 (Optional, by Module)
TPM	Infineon SLB9673 supports TPM 2.0 (Optional)

Mechanical

Dimensions	112 x 103 x 45 mm
Weight	0.6 kg (1.32 lb)
Mounting	- Wallmount - DIN Rail (Optional)

Environment

Operating Temperature	15W TDP Mode : -25°C to 55°C 25W TDP Mode : -25°C to 45°C
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @55°C
Shock	Operating, MIL-STD-810G, Method 516.7, Procedure I
Vibration	Operating, MIL-STD-810G, Method 514.6, Procedure I, Category 4
EMC	CE, FCC, EN50155, EN50121-3-2, EN62368-1, MIL-STD-810G

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Order Information

Model	Platform	RAM	LAN	USB 3.1	Serial	SIM	HDMI	Antenna
4000-XR16 -SXXX*	Jetson Orin NX	16GB	1	4	2	1	1	2
4000-XR08 -SXXX*		8GB						
4000-AR08 -SXXX*	Jetson Orin Nano	8GB	1	4	2	1	1	2
4000-AR04 -SXXX*		4GB						

*A NVMe SSD is included in default. Please refer to NVMe SSD List to select NVMe SSD capacity.
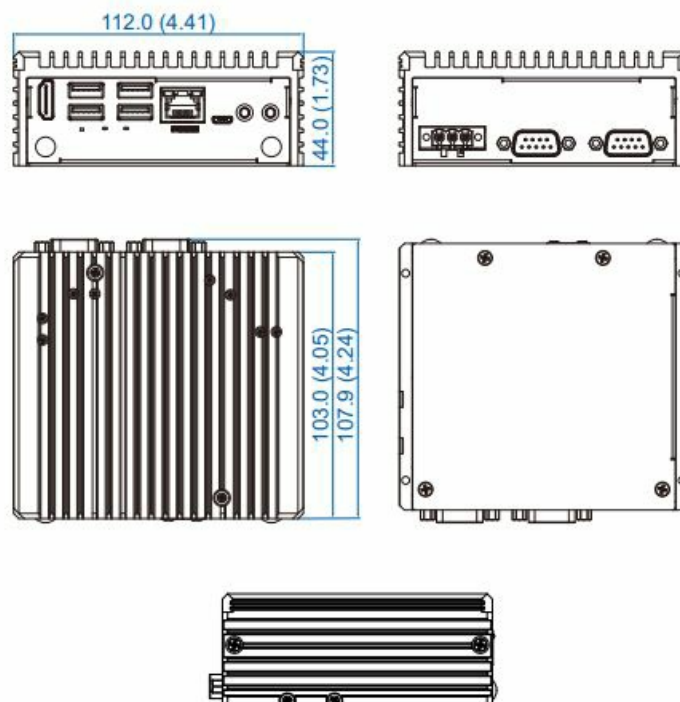
NVMe SSD List

S128	128GB NVMe SSD	S512	512GB NVMe SSD
S256	256GB NVMe SSD	S01T	1TB NVMe SSD

Accessories

PWA-60WP3-WT-12V	60W, 12V, 90V AC to 264V AC Power Adaptor for 3 PIN 5.0mm Terminal Block, -30°C~+70°C
PWA-135W-WT-12V	135W, 12V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
DIN-RAIL	DIN Rail Kit
M.2 Storage Module	M.2 Key M/Key B PCIe Storage Module
4G Module	4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

Dimensions & Drawing

Unit : mm (inch)

Assured Systems

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Documents / Resources

	ASSURED EAC-4000 NVIDIA Jetson Orin NX/Nano Compact AI Computing System [pdf] Datasheet EAC-4000 NVIDIA Jetson Orin NX Nano Compact AI Computing System, EAC-4000 NVIDIA Jetson Orin NX Nano Compact AI Computing System, Jetson Orin NX Nano Compact AI Computing System, NX Nano Compact AI Computing System, Compact AI Computing System, AI Computing System, Computing System, System

References

- ⊕ **Industrial Embedded Computers and Displays - Assured Systems**
- ⊕ **Industrial Embedded Computers and Displays - Assured Systems**
- ⊕ **Industrial Embedded Computers and Displays - Assured Systems**
- **User Manual**