

EAC

5000



NVIDIA® Jetson AGX Orin™ Embedded AI Computing System

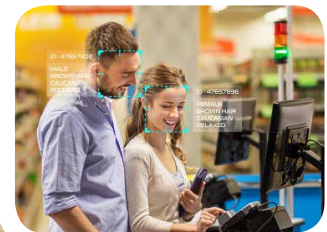


Automated Agricultural Machinery



- Advanced NVIDIA® Jetson AGX Orin™ platform delivers up to 275 TOPS AI performance
- The latest NVIDIA Ampere™ architecture, featuring with 2048 NVIDIA® CUDA® cores and 64 Tensor cores
- Supports 8 GMSL 1/2 automotive cameras with Fakra-Z connectors
- 1 PCIe Gen4 x8 expansion slot supports optional multiple 10GigE/PoE LAN/USB connections
- 2 Isolated CAN Bus support Flexible Data-rate, 2 COM RS-232/422/485
- 2 GigE LAN, 5 USB 3.1, 1 Digital Display supports 8K60
- Supports device remote management by Allxon
- DC 9V to 50V wide range power input, Ignition Power Control

Autonomous Mobile Robots



Real-Time Video Analytics



Specifications

System

CPU	EAC-5000-R32 : 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU EAC-5000-R64 : 12-core Arm® Cortex®-A78AE v8.2 64-bit CPU
GPU	EAC-5000-R32 : 1792-core NVIDIA Ampere™ architecture GPU with 56 Tensor Cores EAC-5000-R64 : 2048-core NVIDIA Ampere™ architecture GPU with 64 Tensor Cores
DL Accelerator	2x NVDLA Engines
Memory	EAC-5000-R32 : 1 32GB LPDDR5 DRAM EAC-5000-R64 : 1 64GB LPDDR5 DRAM
OS	Linux Ubuntu 20.04 with JetPack

I/O Interface

USB	- 1 USB 3.1 Gen 2, supports up to 10Gbps - 4 USB 3.1, support up to 5Gbps
Serial	2 COM RS-232/422/485
CAN Bus	2 Isolated CAN Bus support CAN FD
DIO	16 Isolated DIO (8 DI, 8 DO)
Micro USB	- 1 Micro USB console debug port - 1 Micro USB OS flash port
Button	- 1 Power Button - 1 Force Recovery Button - 1 Reset Button
LED	Power, SSD, 2 User Programmable
SIM	2 SIM Card Socket
Antenna	6 Antenna for WiFi/4G/5G/LTE/GPRS/UMTS

Expansion

PCIe	1 PCIe Gen4 x8 Slot
M.2	- 1 M.2 Key B Socket (3042/3052, PCIe/USB3) - 1 M.2 Key E Socket (2230, PCIe/USB)

Graphics

Interface	1 Digital Display, up to 8K60
Video Encode	EAC-5000-R32 : 1x 4K @60, 3x 4K @30, 6x 1080p @60 (HEVC) EAC-5000-R64 : 2x 4K @60, 4x 4K @30, 8x 1080p @60 (HEVC)
Video Decode	EAC-5000-R32 : 1x 8K @30, 4x 4K @30, 9x 1080p @60 (HEVC) EAC-5000-R64 : 1x 8K @30, 7x 4K @30, 11x 1080p @60 (HEVC)

Camera

GMSL	8 Fakra-Z connectors for GMSL 1/2 automotive cameras
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Storage

M.2	2 M.2 Key M Socket (2280, PCIe x4)
eMMC	1 eMMC 5.1, 64GB
SD	1 Micro SD (External)

Ethernet

LAN 1 to LAN 2	10/100/1000 Base-T Ethernet GigE LAN, RJ45 Connector (Optional X-coded M12 Connector)
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Power

Power Input	DC 9V to 50V
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16-mode Software Ignition Control
Remote Switch	3-pin Remote Switch Terminal Block

Out-of-Band Management

MCU	Nuvoton NUC980
Interface	OOB LAN, 10/100Mb Ethernet LAN, RJ45 Connector
Remote Management	Support Remote Power ON/OFF, Reset and Power Cycling

Mechanical

Dimensions	260 mm x 182 mm x 69 mm (10.23" x 7.16" x 2.72")
Weight	3.8 kg (8.39 lb)
Mounting	- Wallmount - DIN Rail and VESA Mount (Optional)

Environment

Operating Temp.	30W TDP Mode : -20°C to 70°C (-4°F to 158°F) MAXN TDP Mode : -20°C to 55°C (-4°F to 131°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @70°C
Shock	Operating, MIL-STD-810G, Method 516.7, Procedure I
Vibration	Operating, MIL-STD-810G, Method 514.7, Procedure I, Category 4
EMC	CE, FCC, EN50155, EN50121-3-2

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Order Information

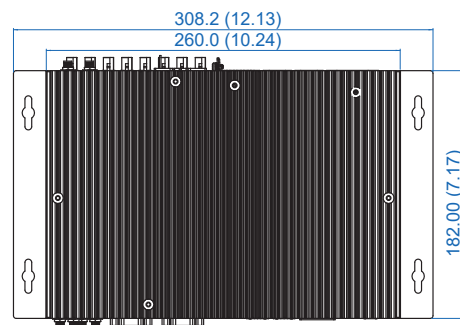
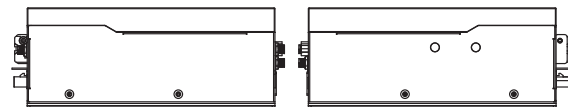
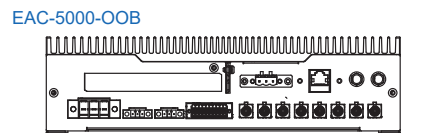
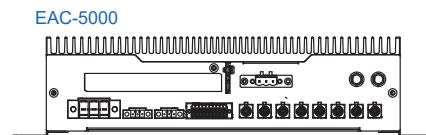
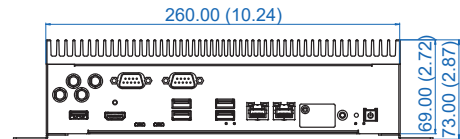
Model Name	Platform	RAM	LAN	USB 3.1	Serial	Iso. CAN	Iso. DIO	PCIe Slot	GMSL	SIM	M.2	OOB
EAC-5000-R32	Jetson AGX Orin	32GB	2	5	2	2	16	1	8	2	4	N
EAC-5000-R64	Jetson AGX Orin	64GB	2	5	2	2	16	1	8	2	4	Y

Accessories

PWA-160WB-WT	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-180WB	180W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-280WB-WT	280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail and VESA Mounting Kit
GMSL Camera Kit	GMSL Camera with Fakra-Z connector
M.2 Storage Module	M.2 Key M/Key B PCIe Storage Module
5G Module	5G Module with Antenna
4G Module	4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

Dimensions & Drawing

Unit : mm (inch)



Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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