EAC 5000/5100

NVIDIA® Jetson AGX Orin™ Embedded AI Computing System



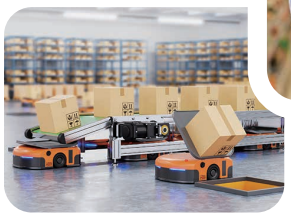


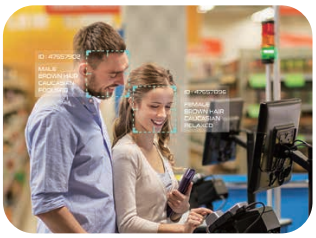
Automated Agricultural Machinery



- 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 Gen3 x8 expansion slot supports optional multiple 10GigE/PoE LAN/USB connections
- 6 GigE LAN with 4 PoE+, 1 Digital Display supports 4K60
- 2 Isolated CAN Bus support Flexible Data-rate, 2 COM RS-232/422/485, 5 USB 3.1
- Supports device remote management by Allxon
- DC 9V to 50V wide range power input, Ignition Power Control

Autonomous Mobile Robots





Real-Time Video Analytics

NVIDIA Partner

GMSL PCIe x8 CAN Isolated SW

Vecow

EAC-5000/5100-20240603

Specifications

System

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

I/O Interface

USB	- 1 USB 3.2 Gen 2, supports up to10Gbps - 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 x16 slot with PCIe 3.0 x8 signal
M.2	- 1 M.2 Key B Socket (3042/3052, USB3) - 1 M.2 Key E Socket (2230, PCIe/USB)

Graphics

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

Camera (EAC-5000)

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

Storage

M.2	2 M.2 Key M Socket (2280, PCIe Gen3 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)

PoE (EAC-5100)

LAN 3 to LAN 6	IEEE 802.3at (25.5W/48V) GigE PoE+ LAN, RJ45 Connector (Optional X-coded M12 Connector)

Total PoE power budget support up to 60W at 25°C, 30W at 70°C

Power

Power Input	DC 9V to 50V
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16-mode Software Ignition Control (non-OOB SKU only)
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 (10.24" x 7.17" x 2.72")
Weight	3.8 kg (8.39 lb)
Mounting	- Wallmount - DIN Rail and VESA Mount (Optional)

Environment

Operating Temp.	30W TDP Mode : -25°C to 70°C (-13°F to 158°F), with 0.63 m/s air flow 40/50W TDP Mode : -25°C to 55°C (-13°F to 131°F), with 0.63 m/s air flow
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 514.6, Procedure I, Category 4
EMC	CE, FCC, EN50155, EN50121-3-2

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Vecow info@vecow.com

Order Information

Model Name	Platform	RAM	LAN	USB 3.1	Serial	Iso. CAN	Iso. DIO	PCIe Slot	GMSL	PoE+	SIM	M.2	OOB
EAC-5000-R32	Jetson AGX Orin	32GB	2	5	2	2	16	1	8	-	2	4	N
EAC-5000-R64		64GB											
EAC-5000-OOB-R32		32GB	2	5	2	2	16	1	8	-	2	4	Y
EAC-5000-OOB-R64		64GB											
EAC-5100-R32		32GB	6	5	2	2	16	1	-	4	2	4	N
EAC-5100-R64		64GB											
EAC-5100-OOB-R32		32GB	6	5	2	2	16	1	-	4	2	4	Y
EAC-5100-OOB-R64		64GB											

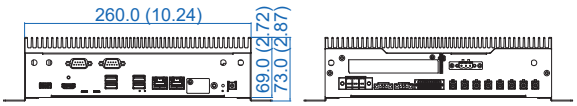
Accessories

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

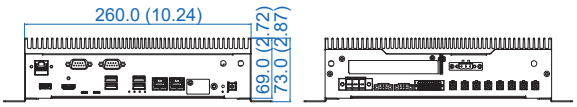
Dimensions & Drawing

Unit : mm (inch)

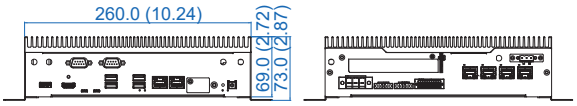
EAC-5000



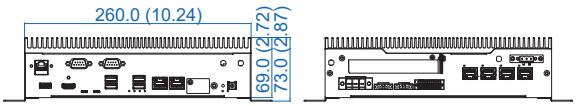
EAC-5000-OOB

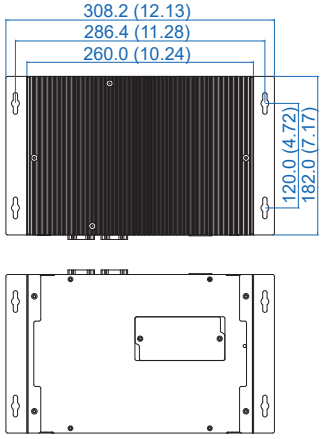


EAC-5100



EAC-5100-OOB





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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