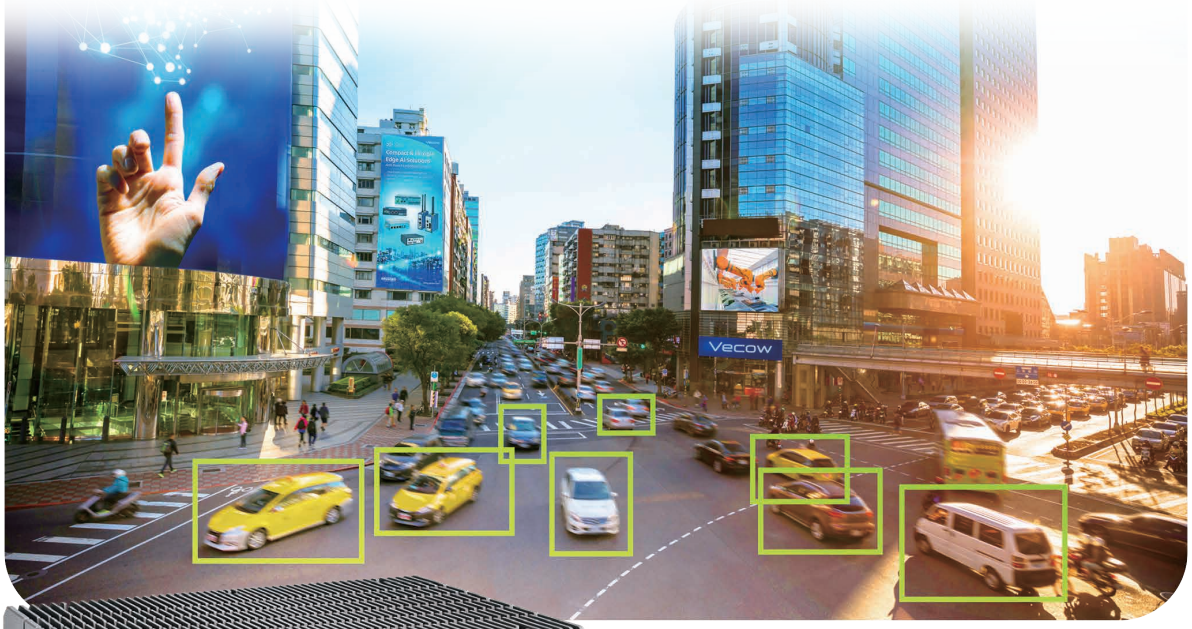
ECX 3000 AI

Intel® Core™ i9/i7/i5/i3 Processor (14th Gen)
Fanless AI Computing Workstation with Hailo-8™ AI Accelerator



Traffic Vision





- Workstation-grade Platform : Intel® Core™ i9/i7/i5/i3 Processor (14th gen, codename : RPL-S Refresh/RPL-S/ADL-S) running with Intel® R680E PCH supports max 65W TDP CPU
- Intel® UHD Graphics 770 driven by Intel® Xᵉ architecture with up to 32 graphics execution units (EUs) delivers immersive interactions with integrated graphics and accelerated AI performance
- Compact Hailo-8™ AI Accelerator supports up to 26 TOPS with best-in-class power efficiency of 3 TOPS/W
- 5 Independent 2.5G LAN with 4 IEEE 802.3at PoE+
- 4 Front-access M.2 SSD Tray, 6 USB 3.2 Gen 2
- DC 9V to 50V Power Input, Software Ignition Control
- Intel® vPro, TCC, Time-Sensitive Networking (TSN), and TPM 2.0
- Optional VHub One-Stop AIoT Solution Service supports OpenVINO based AI accelerator and advanced Edge AI applications



In-Vehicle Computing

Real-time AOI



intel partner Gold IoT Solutions

OpenVINO HAILO

WiFi 6 PoE M.2 SSD TSN 9V~50V SW VHub Vecow

ECX-3000 AI-20240227

Specifications

System

Processor	- 24-core Intel® Core™ i9/i7/i5/i3 Processor (14th gen, Raptor Lake-S Refresh) - 24-core 13th Gen Intel® Core™ i9/i7/i5/i3 Processor (Raptor Lake-S) - 16-core 12th Gen Intel® Core™ i9/i7/i5/i3 Processor (Alder Lake-S)
Chipset	Intel® R680E Chipset
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 3200MHz SO-DIMM, up to 64GB
OS	Windows 11, Windows 10, Linux

AI Accelerator

Processor	Hailo-8™ AI Processor, up to 26 TOPS
Framework	TensorFlow, ONNX

I/O Interface

Serial	Up to 4 COM RS-232/422/485
USB	6 USB 3.2 Gen 2
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO (Optional)
LED	Power, HDD, PoE, Wireless
SIM Card	2 External SIM Card Sockets
RTC Battery	Front-access RTC Battery

Expansion

Mini PCIe	1 Mini PCIe Socket for PCIe/USB/SIM Card/Optional mSATA
M.2	- 1 M.2 Key B Socket (3042/3052, SATA/USB 3, default/USB 2) - 1 M.2 Key E Socket (2230, PCIe x2/USB)
SUMIT	- 2 SUMIT Slot (Optional)

Graphics

Graphics Processor	Intel® UHD Graphics 770/730 driven by Intel® Xᵉ Architecture
Interface	4 independent displays : - 2 DisplayPort : Up to 7680 x 4320 @60Hz/5120 x 2880 @60Hz - 1 DVI-I : Up to 1920 x 1080 @60Hz - 1 HDMI : Up to 1920×1080 @60Hz

Storage

SATA	2 SATA III (6Gbps) support S/W RAID 0, 1
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	- 2 Front-access 2.5" SSD/HDD Tray - 4 Front-access M.2 Key M SSD Tray (**ECX-3000-PoES AI**)

Audio

Audio Codec	Realtek® ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

Ethernet

LAN 1	Intel® I219LM GigE LAN supports iAMT
LAN 2	Intel® I226 2.5GigE LAN supports TSN

2.5G PoE

LAN 3 to LAN 6	2.5GigE IEEE 802.3at (25.5W/48V) PoE⁺ by Intel® I226

Power

Power Input	DC 9V to 50V
Power Interface	- 3-pin Terminal Block : V+, V-, Frame Ground - 4-pin Mini-DIN
Ignition Control	16-mode Software Ignition Control
Remote Switch	3-pin Terminal Block

Others

TPM	Infineon SLB9670 supports TPM 2.0, SPI Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Mgmt.	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	260.0mm x 175.0mm x 79.0mm (10.24" x 6.89" x 3.11")
Weight	3.8 kg (8.38 lb)
Mounting	- Wallmount by mounting bracket - DIN Rail Mount (Optional) - 2U Rackmount (Optional)

Environment

Operating Temp.	**35W TDP CPU :** -40°C to 65°C (-40°F to 149°F), Fanless **65W TDP CPU :** -40°C to 45°C (-40°F to 113°F), Fanless **ECX-3000-PoES AI :** -40°C to 45°C (-40°F to 113°F), Fanless
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @65°C
Shock	- IEC 60068-2-27 - SSD : 50G @wallmount, Half-sine, 11ms
Vibration	- IEC 60068-2-64 - SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	CE, FCC, EN50155, EN50121-3-2

* All product information may subject to change without prior notice.
* The rights of all brand names, product names and trademarks belong to their respective owners.
Copyright © 2024 Vecow Co., Ltd. All rights reserved.

Vecow info@vecow.com

Order Information

Model	LAN			COM	SSD Tray		Isolate DIO (GPIO)
	2.5G	2.5G PoE⁺	GigE		M.2	2.5"	
ECX-3000-PoER AI	5	4	1	4	-	2	16
ECX-3000-PoES AI	5	4		4	4	-	16
ECX-3000-PoE AI	5	4		4	-	-	16
ECX-3000-4R AI	3	-		4	-	2	(16)
ECX-3000-4G AI	3	-		4	-	-	(16)
ECX-3000-2R AI	1	-		4	-	2	(16)
ECX-3000-2G AI	1	-		4	-	-	(16)

* Fan sink modules for ECX-3000 Series are optional. Please contact our sales team if needed.

CPU List

Series	CPU	Cores	GHz	TDP (W)	CPU	Cores	GHz	TDP (W)	ECC
Intel® Core™ (14th Gen)*	i9-14900	24	5.8	65	i9-14900T	24	5.5	35	Y
	i7-14700	20	5.4		i7-14700T	20	5.2		
	i5-14500	14	5		i5-14500T	14	4.8		
	i3-14100	4	4.7		i3-14100T	4	4.4		
Intel® Core™ (13th Gen)	i9-13900E	24	5.2		i9-13900TE	24	5		
	i7-13700E	16	5.1		i7-13700TE	16	4.8		
	i5-13500E	14	4.6		i5-13500TE	14	4.5		
	i3-13100E	4	4.4		i3-13100TE	4	4.1		
Intel® Core™ (12th Gen)	i9-12900E	16	5		i9-12900TE	16	4.8		
	i7-12700E	12	4.8		i7-12700TE	12	4.7		
	i5-12500E	6	4.5		i5-12500TE	6	4.3		
	i3-12100E	4	4.2		i3-12100TE	4	4		

* 14th Gen support PC Client use condition only.

Optional Software

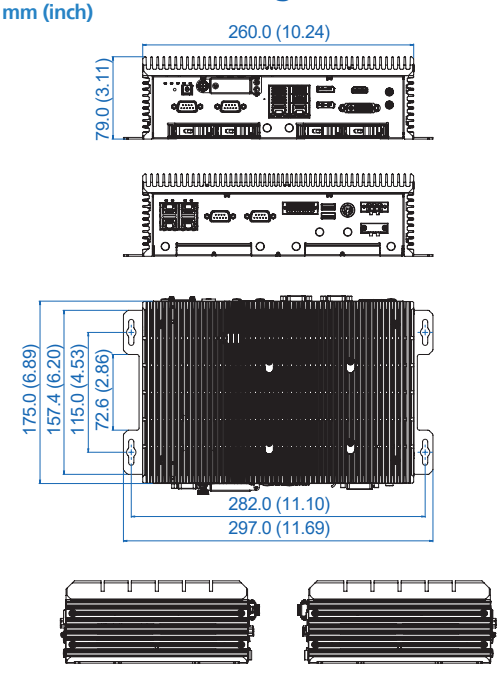
VHub AI Developer	AI Developer Kit
VHub ROS	AMR Developer Kit
VHub EtherCAT	I/O Control Platform

Accessories

DDR4 32G	Certified DDR4 32GB 3200MHz RAM
DDR4 16G	Certified DDR4 16GB 3200MHz RAM
DDR4 8G	Certified DDR4 8GB 3200MHz RAM
DDR4 4G	Certified DDR4 4GB 3200MHz RAM
PWA-120W1	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-120WM4P1	120W, 24V, 90V AC to 264V AC Power Adapter with 4-pin Mini-DIN Connector
PWA-160W-WT	160W, 24V, 85V AC to 264V AC Power Adaptor with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-180W	180W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-280W-WT	280W, 24V, 85V AC to 264V AC Power Adaptor with 3-pin Terminal Block, Wide Temperature -30C to +70C *Recommended when enable turbo mode (35W CPU)
PWA-330W	330W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block *Recommended when enable turbo mode (65W CPU)
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail and VESA Mounting Kit
Rack Mount	2U Rackmount Kit
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
M.2 Storage Module	M.2 Key M 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.

US

sales@assured-systems.com

Sales: +1 347 719 4508
Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050
Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28
Business Registration Number: 07699660