

EAI-V330

Fanless In-vehicle AI Inference System
with Intel® Atom™ X6000 series Processors



■ Features

- Intel® Atom™ X6000 Series Processor (codename: Elkhart Lake-I)
- 1x SODIMM DDR4, Up to 32GB
- eMMC 128GB, 1x SATA
- 1x PGN Series Removable Caddy, 1x M.2 304(5)2 B Key socket (USB 3.0/PCIe x1) for 4G LTE/ 5G sub6, 1x M.2 2230 E key socket for Wi-Fi
- 7x RJ45 ports (2x GbE LAN w/1210IT, 4x PoE+w/1x i210IS, 1x OOB (by SKU))
- 3x USB 2.0, 1x USB 3.0, 2x HDMI, 1x TPM 2.0

■ Specifications

Processor System

CPU	Intel® Atom™ x6425E/x6413E/x6211E Processors, 12W/9W/6W (codename: Elkhart Lake-I)
Frequency	2.0 GHz/1.5 GHz/1.3 GHz
Core Number	Quad-core
BIOS	AMI SPI Flash BIOS
Chipset	SoC
Graphic Processor	Intel® UHD Graphics

Fanless

Yes

Memory

Technology	1x SODIMM DDR4/x 3200MT/s
Max. Capacity	Up to 32GB (Default 16G/8G/4G by SKU)
Socket	1x 260pin SODIMM

Ethernet

Controller	Intel® i210IS
Interface	6x RJ45, 1x OOB Port (By SKU)
PoE	4x IEEE 802.3af PoE Ports/ 2x at PoE+ Ports (Under Max. 60W Power Budget)

Audio

Controller	92HD73E1
Interface	1x Mic-in & 1x Line-out

Storage

Type	SATA
Installation	1x SATA (removable 2.5" storage bay)
Type	eMMC
Installation	Onboard eMMC 128GB

I/O

Display	2x HDMI with screw lock
LAN	7x RJ45 Ports (2x GbE LAN w/ i210IT, 4x PoE+ w/ 1x i210IS, 1x OOB by SKU)
CAN	1x CAN 2.0
COM	2x RS-232/422/485

USB	3x USB 2.0 Type A, 1x USB 3.0 Type A
GNSS/G-sensor	u-blox NEO-M9N/ ADXL 345
Digital I/O	12V, 4x DI (support PNP/NPN/dry contact) & 24V, 2x DO (support dry/ sink), 1x IGN_DI to MCU
Antenna	5x SMA antenna hole (includes GNSS)

Expansion

M.2	1x M.2 304(5)2 B Key socket (USB 3.0/ PCIe x1) for 4G LTE/ 5G sub6, (In/Out-of-Band Management by SKU) 1x M.2 2230 E key Socket for Wi-Fi
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Cooling

Processor	Passive CPU heatsink
System	Fanless design with corrugated aluminum

Environment

Operating Temperature	-40~70°C / -40~158°F
Storage Temperature	-40~85°C / -40~185°F
Relative Humidity	5%~90% Operating; 5%~95% Non-Operating

Miscellaneous

Hardware Monitoring	Yes
Internal RTC with Li Battery	Yes

Mechanical

Dimension (W x H x D)	273.8 x 98 x 185 mm
Weight	TBD
Mounting	wall mount kit

Power

Connector	3-pin terminal block (+,-,ignition)
Input	Supports DC 12~48V

Driver Support

Microsoft Windows	Windows 10/11 IoT
Linux	linux kernel 2.6.X or later, Ubuntu 20.04 or later, Debian 10

Certification

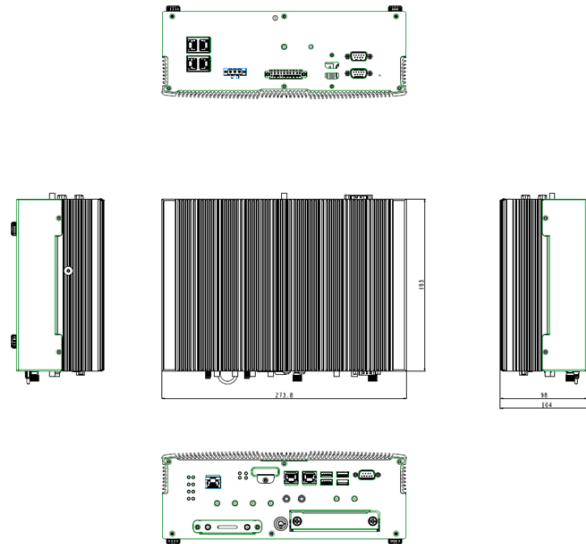
EMC	FCC/CE Class A, UKCA, E13, RoHS
Certified	UL/cUL (UL-62368-1) & CB (DC 24V~60V only), MIL-STD-810G
RoHS	RoHS 3

Product I/O View



- | | | | | |
|------------------------------|-------------------|-----------------------|---------------|----------------------|
| A OOB | D SIM | G USB | J COM | M Power input |
| B PGN caddy | E RJ45 LAN | H CAN | K HDML | N PoE |
| C Removable Drive Bay | F Audio | I Reset button | L DIO | O GPS |

Dimensions 273.8 x 98 x 185 mm (10.78" x 3.86" x 7.28")



Ordering Information

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|------------------|---|
| EAI-V330A | Intel Atom® x6425E 4C/4T 2.0GHz 12W, LPDDR4/x 3200MT/s 16GB (up to 16GB), In/Out-of-Band Management
Default "USB 3.0" for M.2 304(5)2 B Key socket x1 (USB 3.0/PCIe x1) for 4G LTE/ 5G sub6 with dual SIM socket reserved. |
| EAI-V330B | Intel Atom® x6413E 4C/4T 1.5GHz 9W, LPDDR4/x 3200MT/s 8GB (up to 16GB)
Default "USB 3.0" for M.2 304(5)2 B Key socket x1 (USB 3.0) for 4G LTE/ 5G sub6 with dual SIM socket reserved. |
| EAI-V330C | Intel Atom® x6211E 2C/2T 1.3GHz 6W LPDDR4/x 3200MT/s 4GB (up to 16GB)
Default "USB 3.0" for M.2 304(5)2 B Key socket x1 (USB 3.0) for 4G LTE/ 5G sub6 with dual SIM socket reserved. |
| EAI-V330H | Intel Atom® x6425E 4C/4T 2.0GHz 12W, LPDDR4/x 3200MT/s 16GB (up to 16GB), In/Out-of-Band Management
Default "PCIe x1" for M.2 304(5)2 B Key socket x1 (USB 3.0) for 4G LTE/ 5G sub6 with dual SIM socket reserved. |
| PGN-300 | 4G LTE Radio Modem with LTE Cat-6 embedded module, certified with PTCRB, AT&T, Verizon |
| PGN-600 | 4G LTE-Advanced Pro Radio Modem with LTE Cat-12 embedded module, certified with PTCRB, AT&T |
| PGN-750B | Swappable 5G Quectel RM500Q-AE module with antenna/cable kit |
| CAN Bus | CAN Bus 77MT36478 |

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Lanner

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