

Compact AI Platform with 12th/13th Gen Intel® i9/i7 Processors for Industrial Applications



Features

- 12th/13th Gen Intel® i9/i7/i5/i3 Processors
- DDR4 SODIMM Up to 64GB
- 2x 2.5" Removable HDD/SSD, 1x M.2(SATA) 2242 B-Key, 1x M.2(NVMe) 2280 M-Key
- 2x 2.5GbE RJ45, 1x RJ45 Console, 1x RJ45 LOM (By SKU)
- 2x COM, 8x USB 3.2, 1x HDMI, 1x DP, 4x DI & DO
- 1x PCIe*16, 1x PCIe*4, 3x M.2, 1x mini PCIe, 1x Nano-SIM & eSIM

Preliminary Specifications

Platform

CPU	12th/13th Gen Intel® i9/i7/i5/i3
Chipset	Intel® R680E
BIOS	AMI SPI Flash BIOS

System Memory

Technology	3200Mhz DDR4 ECC / Non-ECC
Max. Capacity	64 GB

Ethernet

Interface	2x 2.5 GbE RJ45
Speed	100M/1G/2.5 GbE

I/O Interface

Reset Button	1
Power Button	1
Serial	1x RJ45 Console, 1x RJ45 LOM (By SKU)
COM	2x DB9 RS232/422/485
Display	1x HDMI, 1x DP 1.4
USB	8x USB 3.2 Gen1 Type A
DIO	4x DI (support PNP/NPN/dry contact) 4x DO (support dry/sink)
Audio	2x Phone Jack for Audio Line-out & Mic-in

Storage

Type	SATA III
Installation	2 x 2.5" Removable HDD/SSD
Onboard Slot	1x M.2(SATA) 2242 B-Key 1x M.2(NVMe) 2280 M-Key

Expansion

mini-PCIe/M.2	1x M.2 2230 E-Key for WiFi 6/6E (BT) 2x M.2 3042/3050/3052 B-Key for LTE/5G 1x mini-PCIe 2242 IAC-MVGA03 (for debug only)
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PCIe Slot	1x PCIe*16 Gen4 1x PCIe*4 Gen3
SIM Card Slot	Nano-SIM x1 (each for LTE/5G module) 1x eSIM

Miscellaneous

Watchdog	Yes
Internal RTC with Li Battery	Yes
TPM	Onboard TPM 2.0

Cooling

Processor	Passive CPU Heatsink
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Environmental Parameters

Temperature	-25~65°C Operating with 35W CPU and without PCIe expansion card -25~45°C Operating with 65W CPU and without PCIe expansion card -40~85°C Ambient storage
Humidity (RH)	5~90% Operating 5~ 95% Non-Operating

System Dimensions

WxHxD	198 mm x 250 mm x 286mm
Weight	TBD
Mounting	Wall mount

Power

Type/Watts	300W
Input	9~20 VDC with 1.5KV isolation protection

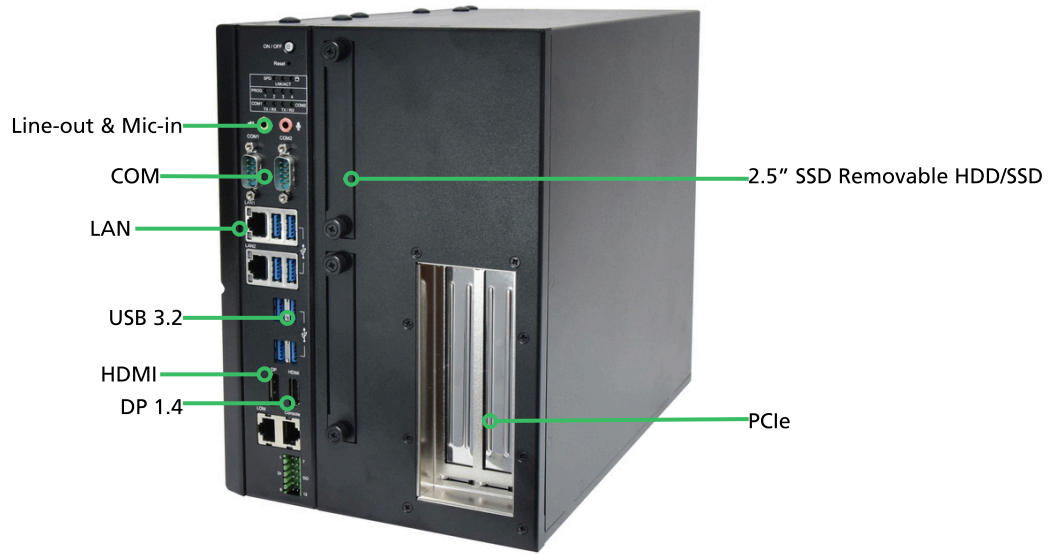
OS

Linux	Dabian 11 pre-installed, Ubuntu 20.04
Windows	Win 10 IoT

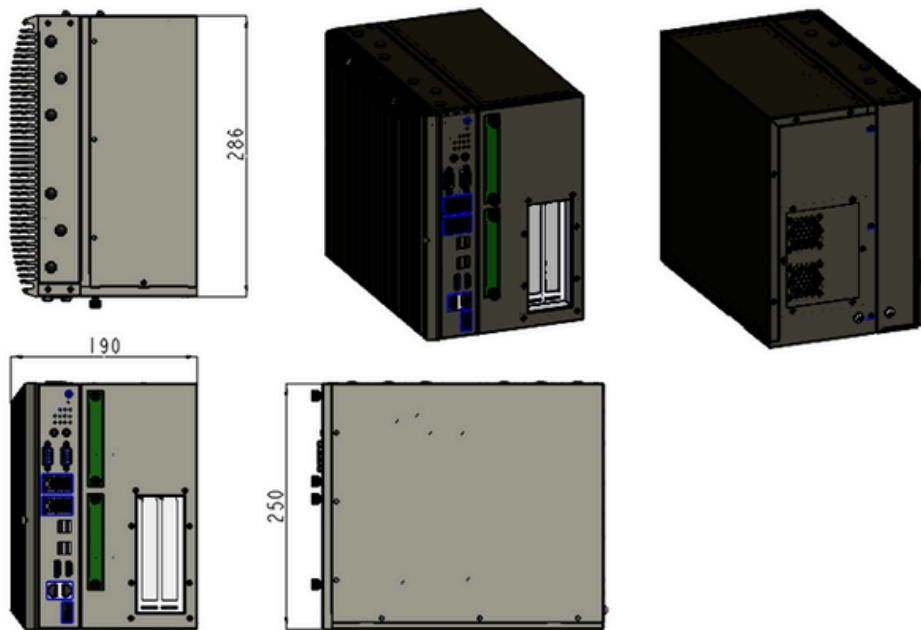
Certification

EMC	CE/FCC Class A, UKCA, UL, CB, RoHS
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Product I/O View



Dimensions (WxHxD): 167 x 179.5 x 30 mm



Ordering Information

SKU	CPU	Memory	Storage	Ethernet	IPMI	Console
EAI-I731A	Intel® i9/i7/i5/i3	2x DDR4 SO-DIMM 3200Mhz	2x 2.5" SSD Removable HDD/SSD 1x M.2(NVMe) 2280 M-Key 1x SATA M.2 2242 B-Key	2x 2.5GbE RJ45	Yes (AST2600)	1 x RJ45
EAI-I731B					N/A	N/A