

# EAI-I131

Industrial Grade AI Inference System For 5G Edge  
With NVIDIA® Jetson Orin NX/Nano



## ■ Features

- NVIDIA® Jetson Orin NX/Nano
- AI Performance Up To 100 TOPS
- Up To 1024-core NVIDIA CUDA GPU With 32 Tensor Cores
- Support For 4G LTE/ 5G Sub6 & WiFi
- 2x GigE IEEE 802.3 af PoE/ at PoE+ LAN, 2x USB 2.0, 1x HDMI, 2x RS232/422/485 (Optional COM2 For CAN 2.0)
- TPM 2.0 onboard
- TrustZone With Security Boot & OS Protected

## ■ Preliminary Specifications

### Processor System

|     |                                                                           |
|-----|---------------------------------------------------------------------------|
| CPU | 8-core 2.0GHz/6-core 1.5GHz<br>NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU   |
| GPU | Up To 1024-core NVIDIA Ampere Architecture<br>GPU With 16~32 Tensor Cores |

### Memory

|            |                       |
|------------|-----------------------|
| Technology | 128-bit/64-bit LPDDR5 |
| Capacity   | 16/8/4 GB (By SKU)    |

### Ethernet

|           |                                                                                                         |
|-----------|---------------------------------------------------------------------------------------------------------|
| LAN Ports | 2                                                                                                       |
| Speed     | 10/100/1000 Mbps                                                                                        |
| Interface | RJ45                                                                                                    |
| PoE       | GigE PoE LANs With Support For IEEE 802.3af/at<br>PoE(+) Under Max. 30W<br>(Surge Protection Up To 2KV) |

### Storage

|              |                             |
|--------------|-----------------------------|
| Type         | M.2                         |
| Installation | 1x M.2 2280 M-Key (PCIe x4) |

### I/O

|         |                                                                                                                |
|---------|----------------------------------------------------------------------------------------------------------------|
| COM     | 2x RS232/422/485                                                                                               |
| CAN     | Optional COM2 For CAN 2.0                                                                                      |
| Audio   | Line-in, Line-out                                                                                              |
| USB     | 2x USB2.0                                                                                                      |
| Display | 1x HDMI 2.0A/B @ 4Kp60 With Screw Lock                                                                         |
| DIO     | 4x DI (Support PNP/ NPN / Dry Contact) &<br>4x DO (Support Dry / Sink), IEC 61121-2,<br>24V With Maximum 200mA |

### Button

|       |           |
|-------|-----------|
| Reset | 1x Button |
| Power | 1x Button |

### Expansion Interface

|     |                                                                                                                                                     |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| M.2 | 1x M.2 304(5)2 B-Key Socket (USB 3.0) or 5G<br>Sub-6 With Dual SIM Socket Reserved<br>1x M.2 2230 E-Key Socket (USB2.0 & PCIe) for<br>WiFi (By SKU) |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------|

### Fanless

|  |                                                  |
|--|--------------------------------------------------|
|  | Yes<br>(Fanless Design With Corrugated Aluminum) |
|--|--------------------------------------------------|

### Cooling

|           |                      |
|-----------|----------------------|
| Processor | Passive CPU Heatsink |
|-----------|----------------------|

### Power

|                      |                                 |
|----------------------|---------------------------------|
| Power Type           | ATX                             |
| Power Supply Voltage | System Power Input Rated DC 12V |
| Connector            | 1x 3-pin Terminal Block         |

### Environment

|                       |                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------|
| Operating Temperature | 0°C to 40°C<br>-40°C~70°C with LTE<br>-40°C~75°C without LTE<br>-40°C~70/75°C without AC-DC power adapter |
| Storage Temperature   | -40°C To 70°C                                                                                             |
| Relative Humidity     | 5%~90% Operating; 5%~95% Non-Operating                                                                    |

### Miscellaneous

|                                 |                 |
|---------------------------------|-----------------|
| Internal RTC with Li<br>Battery | Yes             |
| TPM                             | Onboard TPM 2.0 |

### Mechanical

|                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| Dimension (W x D x H) | 201 x 65 x 196 mm                                                 |
| Weight                | 2.6 KG                                                            |
| Mounting              | Wallmount (Optional VESA mount),<br>Chassis With Intrusion Design |

### Driver Support

|       |                                 |
|-------|---------------------------------|
| Linux | Linux Open Source On NVIDIA SDK |
|-------|---------------------------------|

### Security

|                               |                             |
|-------------------------------|-----------------------------|
| TrustZone & Security<br>Boot: | U-bootloader & OS Protected |
|-------------------------------|-----------------------------|

### Certification

|     |                    |
|-----|--------------------|
| EMC | CE/FCC Class A, UL |
|-----|--------------------|

## ■ Ordering Information

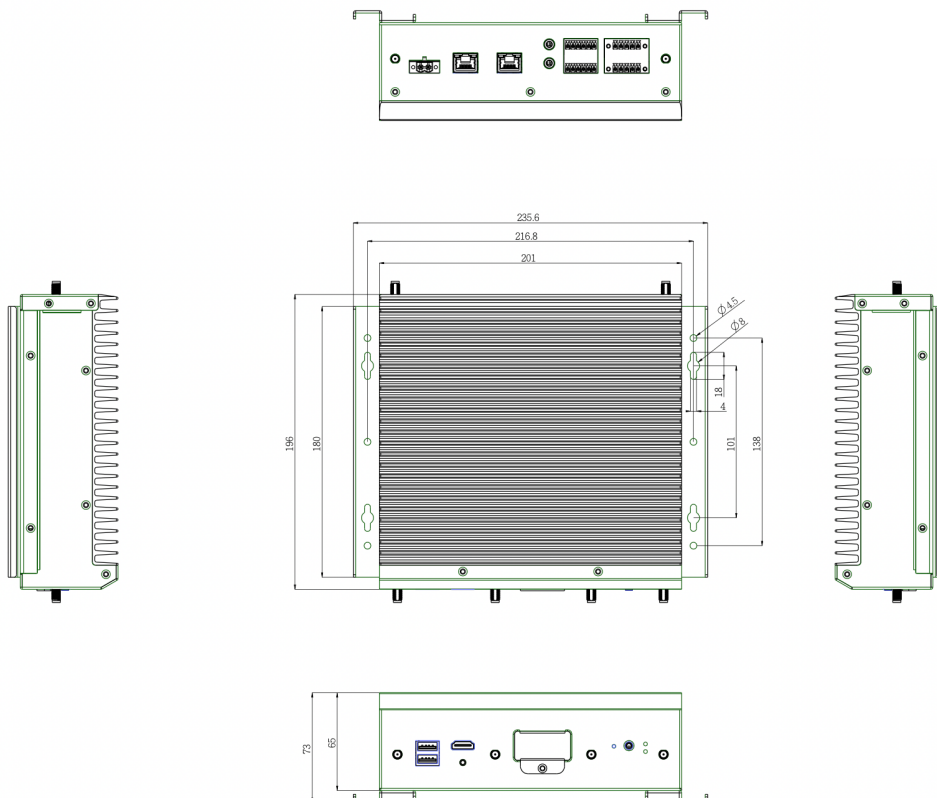
|                  |                                                                                                                                                                                                                                 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EAI-I131A</b> | IPC With NVIDIA Jetson Orin NX (100 TOPs) With 16GB LPDDR5 Memory, 1x M.2 2280 M-Key (PCIex4), 2x GigE PoE LAN, 1x M.2 B 304(5)2 For 5G Sub6, 1x M.2 2230 E-Key For WiFi, 2x COM For RS232/422/485, 1x CAN 2.0 (Optional)       |
| <b>EAI-I131B</b> | IPC With NVIDIA Jetson Orin NX (70 TOPs) With 8GB LPDDR5 Memory, 1x M.2 2280 M-Key (PCIex4), 2x GigE PoE LAN, 1x M.2 B 304(5)2 For 5G Sub6, 1x M.2 2230 E-Key For WiFi, 2x COM For RS232/422/485, 1x CAN 2.0 (Optional)         |
| <b>EAI-I131C</b> | IPC With NVIDIA Jetson Orin Nano (40 TOPs) With 8GB LPDDR5 Memory, 1x M.2 2280 M-Key (PCIex4), 2x GigE PoE LAN, 1x M.2 B 304(5)2 Key For 5G sub6, 1x M.2 2230 E-Key For WiFi, 2x COM For RS232/422/485, 1x CAN 2.0 (Optional)   |
| <b>EAI-I131D</b> | I IPC With NVIDIA Jetson Orin Nano (20 TOPs) With 4GB LPDDR5 Memory, 1x M.2 2280 M-Key (PCIex4), 2x GigE PoE LAN, 1x M.2 B 304(5)2 Key For 5G sub6, 1x M.2 2230 E-Key For WiFi, 2x COM For RS232/422/485, 1x CAN 2.0 (Optional) |

## ■ Product I/O View

Reference images. Please contact Lanner for more information.



## ■ Dimensions (W x D x H) 201 x 65 x 196 mm



V.1-2024.3.5

**Lanner**

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