



AI EDGE COMPUTER

# JCO-3000-ORN-A

Mid-Range AI Computer with NVIDIA Jetson Orin™ NX 8G/16G or Nano 8G/4G GPU with 32 Tensor Cores



**Features**

- NVIDIA® Jetson Orin™ NX 8GB/16GB or Nano 8GB/4GB GPU with 32 Tensor Cores
- 1x HDMI 2K (2560 x 1440) 60Hz
- 2x GbE LAN
- 1x External Micro SIM socket
- 1x M.2 (M Key, 2242/2280, PCIe x4, Support NVMe)
- 4x USB 3.0, 1x Micro USB (OTG)
- 4x DI + 4x DO with Isolation
- 12 to 24VDC Wide Range Power Input Supporting AT Mode
- Wide Operating Temperature -20°C to 55°C (25W, NX/Nano Module)



**Specifications**

| System   |   |
|--|---|
| <b>Processor</b>   |   |
| - NVIDIA® Jetson Orin™ NX/Nano GPU with 32 Tensor Cores          |   |
| • 16 GB: 1024-core NVIDIA Ampere architecture GPU (25W/100 TOPS) |   |
| • 8 GB: 1024-core NVIDIA Ampere architecture GPU (20W/70 TOPS)   |   |
| • 8 GB: 1024-core NVIDIA Ampere architecture GPU (15W/40 TOPS)   |   |
| • 4 GB: 512-core NVIDIA Ampere architecture GPU (10W/20 TOPS)    |   |
| LAN Chipset  | GbE1: RGMII<br>GbE2: Intel LAN Chip   |
| Display  |   |
| HDMI   | 1x HDMI 2K (2560*1440) 60Hz   |
| Storage  |   |
| M.2  | 1x M.2 (M Key, 2242/2280, PCIe x4, NVMe) (Default 128GB)  |
| SIM Socket   | 1x External Micro SIM Socket (M.2 B Key attached)   |
| Expansion  |   |
| M.2  | 1x M.2 (B Key, 3042/3052, USB 3.2 Gen1, Support 4G/5G)<br>1x M.2 (E Key, 2230, PCIe x1, USB 2.0, Support Wi-Fi/Bluetooth) |
| I/O  |   |
| CAN  | CAN 2.0 A   |
| COM  | 2x RS-232/485 (Internal, switch by Jumper)  |
| DIO  | 4 in / 4 out (Isolated)   |
| LAN  | 2x RJ45   |
| OoB  | 1x RJ45 (Optional OoB Management Module, Optional, Occupied 1x COM)   |
| USB  | 4x USB 3.0 ( Shared with USB 3.2 Gen 2 Hub)<br>1x Micro USB ( OTG)  |
| Others   | 6x WiFi Antenna Holes<br>1x Power Switch<br>1x CMOS Battery Cable<br>1x 4-Pin FAN Connector                               |
| Operating System   |   |
| Linux  | Linux Ubuntu 20.04 with JetPack   |
| Power  |   |
| Power Adapter  | AC/DC 12V/5A, 60W (Optional)  |
| Power Mode   | AT  |
| Power Supply Voltage   | 12~24V  |
| Power Connector  | 3-pin Terminal Block  |
| Power Protection   | OVP (Over Voltage Protection);<br>OCP (Over Current Protection)<br>Reverse Protection                                     |
| Environment  |   |
| Operating Temperature  | -20°C to 55°C (25W, NX Module)<br>-20°C to 60°C (15W, Nano Module)  |
| Storage Temperature  | -30°C to 85°C   |
| Relative Humidity  | 10% to 95% (non-condensing)   |

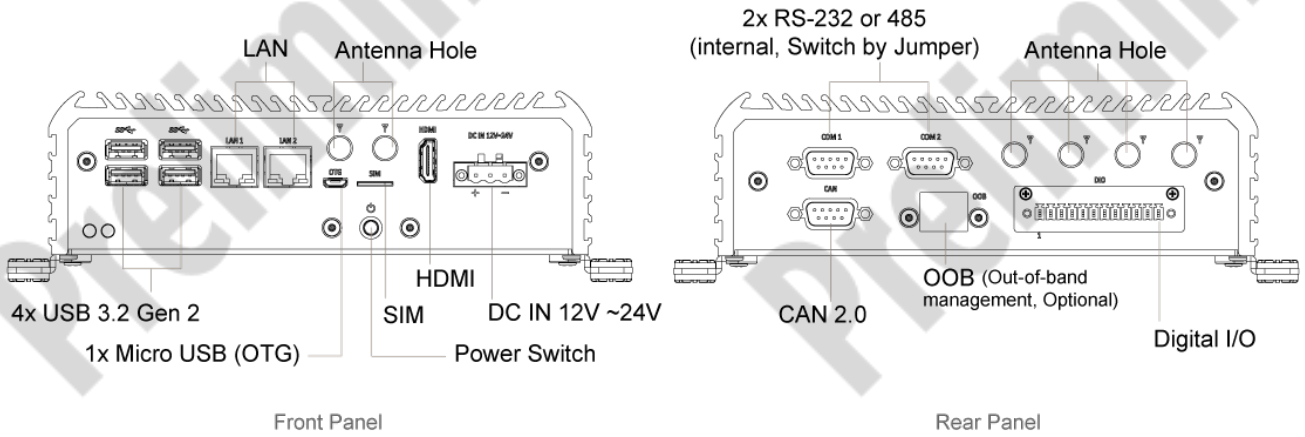
| Certification    | EMC:   |
|------------------|--|
|                  | • CE   |
|                  | • FCC Class A (47 CFR part 15.109 and part 15.107)   |
|                  | • ICES-003   |
|                  | • UKCA   |
|                  | Safety:  |
|                  | • UL Safety Pending: UL62368-1, 3rd Ed., (cULus)   |
|                  | • Test procedure: CB Scheme  |
|                  | • Standard: IEC 62368-1:2018   |
|                  | Green Product:   |
|                  | • RoHS 3.0 (Directive 2015/863/EU)   |
|                  | • REACH  |
| Vibration        | IEC60068-2-64:2008<br>With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis)<br>Designed to comply with MIL-STD-810G Method 514.7 Procedure I                |
| Shock            | IEC60068-2-27:2008<br>With SSD: 50G half-sin 11ms<br>Designed to comply with MIL-STD-810G Method 516.7 Procedure I<br>Package Drop Test: ISTA 2A |
| Physical         |  |
| Dimensions       | 192 (W) x 140(D) x 58(H) mm  |
| Weights          | 2.8 - 3.6 kg   |
| Construction     | Extruded Aluminum with Heavy Duty Metal  |
| Mounting Options | Wall Mounting/DIN rail (Optional)  |

\* All specifications and photos are subject to change without notice.



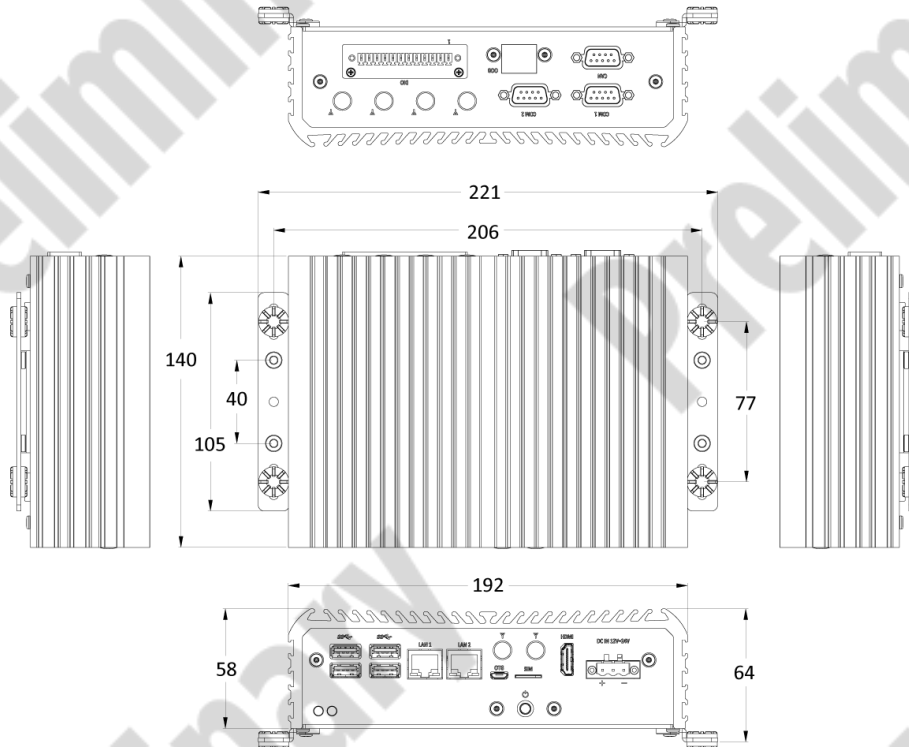
JCO-3000-ORN-A

External I/O Mechanical Layout



Dimension

Unit: mm





## JCO-3000-ORN-A

### Available Models

| Model No.           | Description  |
|---------------------|--|
| JCO-3000-ORN-A-NX16 | Mid-Range AI Computer with NVIDIA® Jetson Orin™ NX 16G, M.2 128G, 1x HDMI, 2x LAN, 4x USB, 1x CAN, 2x COM  |
| JCO-3000-ORN-A-NX8  | Mid-Range AI Computer with NVIDIA® Jetson Orin™ NX 8G, M.2 128G, 1x HDMI, 2x LAN, 4x USB, 1x CAN, 2x COM   |
| JCO-3000-ORN-A-NN8  | Mid-Range AI Computer with NVIDIA® Jetson Orin™ Nano 8G, M.2 128G, 1x HDMI, 2x LAN, 4x USB, 1x CAN, 2x COM |
| JCO-3000-ORN-A-NN4  | Mid-Range AI Computer with NVIDIA® Jetson Orin™ Nano 4G, M.2 128G, 1x HDMI, 2x LAN, 4x USB, 1x CAN, 2x COM |

### Optional Accessories

| Model No.   | Description  |
|-------------|--|
| 1-E09A06008 | Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch |
| 1-TPCD00005 | Power Cord, 3-pin US Type, 180cm                                   |
| 1-TPCD00002 | Power Cord, European Type, 180cm                                   |
| 1-TPCD00001 | Power Cord, 3-pin UK Type, 180cm                                   |

### Packing List

1x JCO-3000-ORN-A\_2LAN Mid-Range AI Computer  
 1x Wall Mount Kit  
 1x Accessory Kit



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