



AI EDGE COMPUTER

JCO-3000-ORN-A_2L

Mid-Range AI Edge Computer with NVIDIA Jetson Orin™ NX/NANO, 2x LAN



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 4, 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

Processor

- NVIDIA® Jetson Orin™ NX/Nano GPU with 32 Tensor Cores
- NX 16 GB: 1024-core NVIDIA Ampere architecture GPU (25W/100 TOPS)
- NX 8 GB: 1024-core NVIDIA Ampere architecture GPU (20W/70 TOPS)
- Nano 8 GB: 1024-core NVIDIA Ampere architecture GPU (15W/40 TOPS)
- Nano 4 GB: 512-core NVIDIA Ampere architecture GPU (10W/20 TOPS)

LAN Chipset GbE1: RGMII
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)
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)
1x Micro USB (OTG)

Others 6x WiFi Antenna Holes
1x Power Switch
1x CMOS Battery Cable
1x 4-Pin FAN Connector

Operating System

Linux Linux Ubuntu 22.04 with JetPack 6.2

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);
OCP (Over Current Protection)
Reverse Protection

Environment

Operating Temperature -20°C to 60°C (15W)
-20°C to 55°C (25W)

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: UL 62368-1, 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
With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis)
Designed to comply with MIL-STD-810H Method 514.8
Procedure I

Shock

IEC60068-2-27:2008
With SSD: 50G half-sin 11ms
Designed to comply with MIL-STD-810H Method 516.8
Procedure I
Package Drop Test: ISTA 2A

Physical

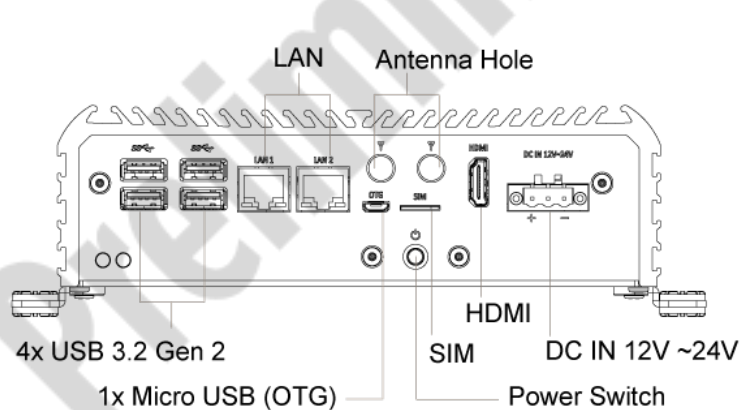
Dimensions 192 (W) x 140(D) x 58(H) mm

Weights 2.8 ~ 3.6 kg

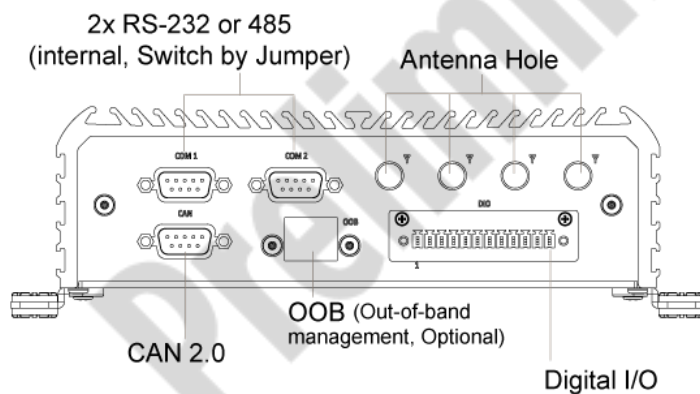
Construction Extruded Aluminum with Heavy Duty Metal

Mounting Options Wall Mounting/DIN rail (Optional)

External I/O Mechanical Layout



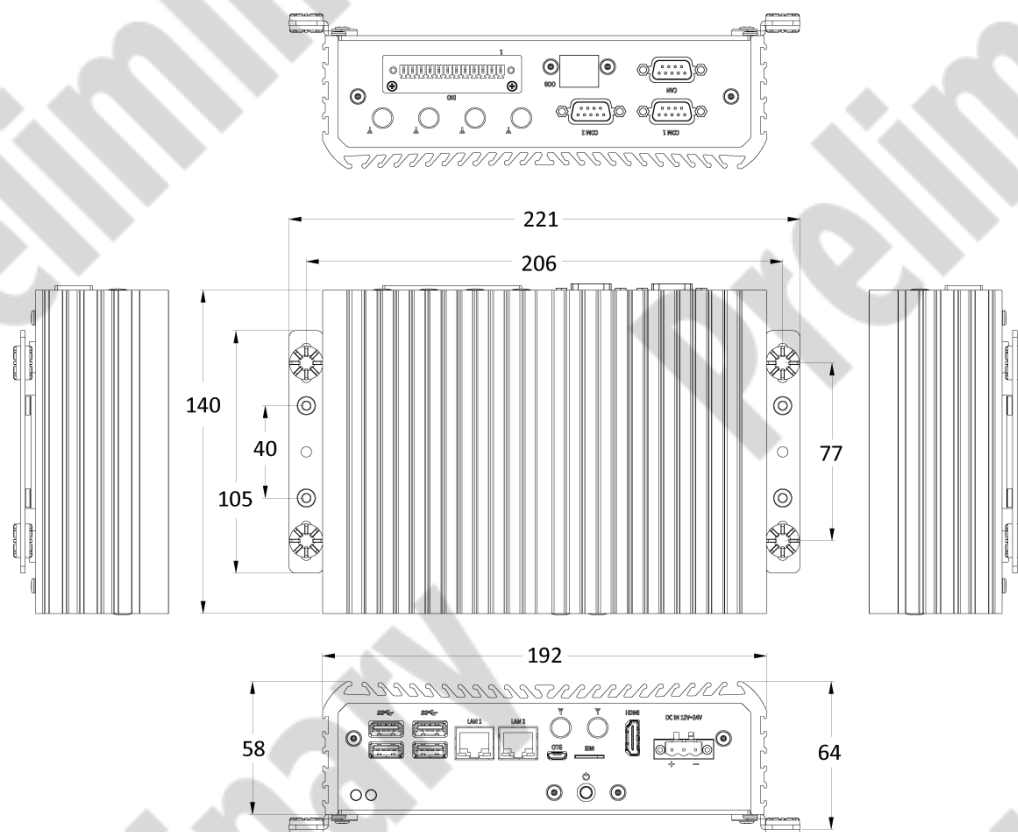
Front Panel



Rear Panel

Dimension

Unit: mm



Compliances and Standards

Shock	IEC60068-2-27:2008 With SSD: 50G half-sin 11ms Designed to comply with MIL-STD-810H Method 516.8 Procedure I Package Drop Test: ISTA 2A IEC60068-2-27:2008 Designed to comply with MIL-STD-810H Method 516.8 Procedure I
Vibration	IEC60068-2-64:2008 With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis) Designed to comply with MIL-STD-810H Method 514.8 Procedure I IEC60068-2-64:2008 Designed to comply with MIL-STD-810H Method 514.8 Procedure I
Operating Temperature	-20°C to 60°C (15W) -20°C to 55°C (25W) IEC60068-2-1:2007 (Cold test procedure) IEC60068-2-2:2007 (Dry heat test procedure) IEC60068-2-3:2007 (Damp heat, steady state, test procedure) IEC60068-2-14:2009 (Wide temperature range thermal shock)
EMI	- FCC Class A (47 CFR part 15.109 and part 15.107) - CE - ICES-003 - UKCA
Safety	- UL Safety: UL62368-1, 3rd Ed., (cULus) - Test procedure: CB Scheme - Standard: IEC 62368-1:2018
Green Product	- RoHS 3.0 (Directive 2015/863/EU) - REACH

Available Models

Model No.	Description
TBD	To Be Determined

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 (120W)
1-TPCD00002	Power Cord, European Type, 180cm (120W)
1-TPCD00001	Power Cord, UK Type, 180cm (120W)

Packing List

1x JCO-3000-ORN-A_2LAN Mid-Range AI Computer
1x Wall Mount Kit