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, PCIex 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)

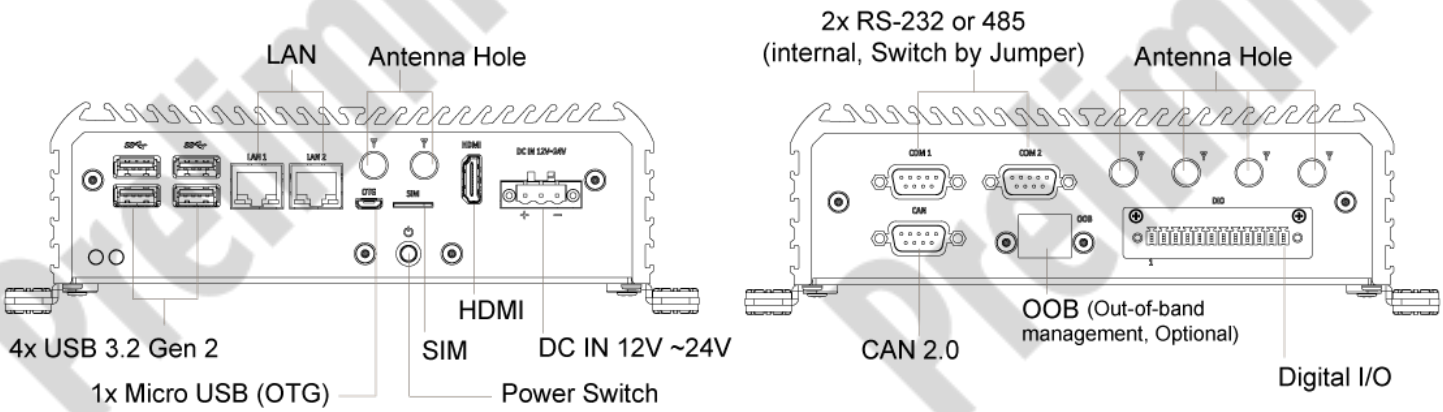
Specifications

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)

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

Preliminary

External I/O Mechanical Layout

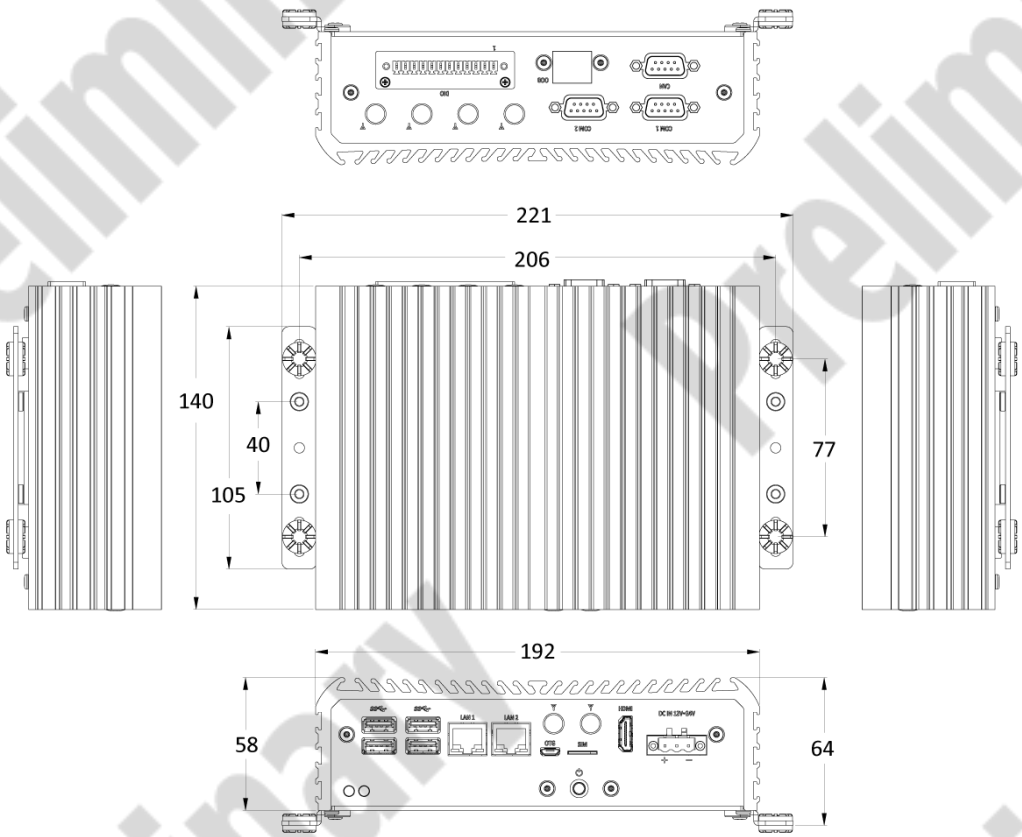


Front Panel

Rear Panel

Dimension

Unit: mm



Preliminary

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
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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 prcedure: 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

Preliminary

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