



Features

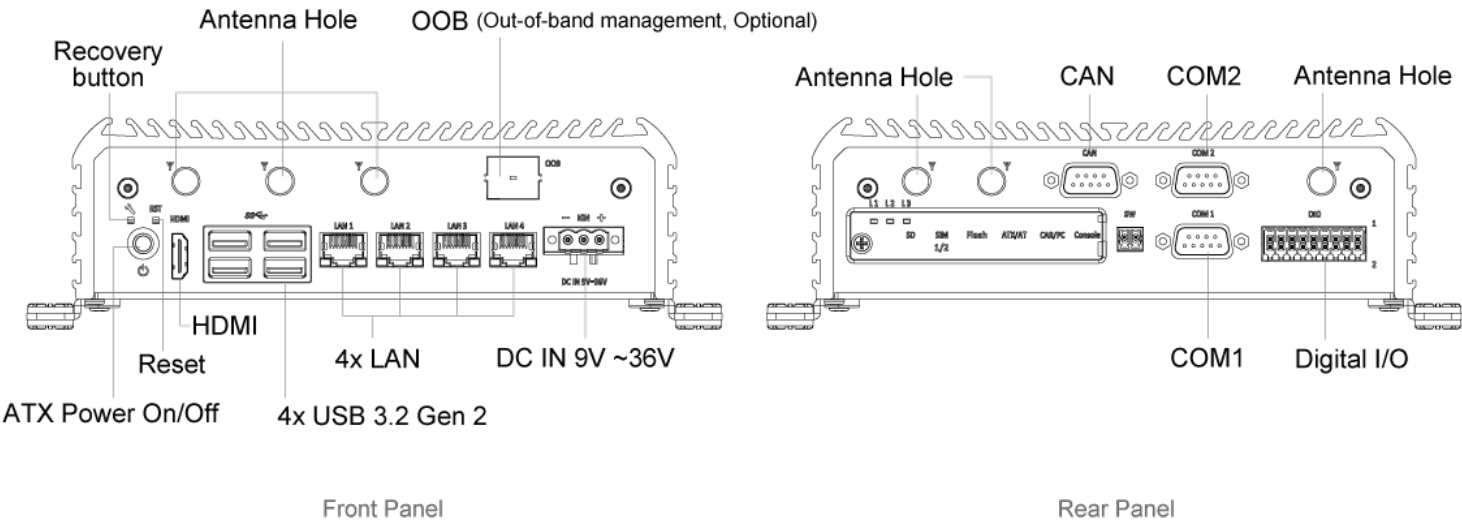
- NVIDIA® Jetson Orin™ NX 8GB/16GB or Orin Nano Super 8GB/4GB
- 1x HDMI 4K, 3840 x 2160 @ 60Hz
- 4x GbE RJ45 LAN with Optional PoE option
- 1x External Dual Nano SIM socket
- 1x M.2 (M Key, 2242/2280, PCIe 4, Support NVMe)
- 4x USB 3.2 Gen 2, 1x USB Type-C
- 8x DI + 8x DO with isolation
- 9 to 36VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -20°C up to 60°C

Specifications

System	
Processor	
- NVIDIA® Jetson Orin™ NX GPU or Orin™ Nano Super GPU	
• NX 16G: 1024-core NVIDIA Ampere architecture GPU (25W/100 TOPS)	
• NX 8G: 1024-core NVIDIA Ampere architecture GPU (20W/ 70 TOPS)	
• Nano Super 8G: 1024-core NVIDIA Ampere architecture GPU (25W/67 TOPS)	
• Nano Super 4G: 512-core NVIDIA Ampere architecture GPU (25W/34 TOPS)	
LAN Chipset	GbE1: RGMII GbE2~4: Intel LAN IC
System Memory	8G/16G LPDDR5 @ 3200 MHz on SOM
TPM	TPM 2.0
Display	
HDMI	1x HDMI 4K (3840*2160) 60Hz
Storage	
M.2	1x M.2 (M Key, 2242/2280, PCIe x4, NVMe) (Default 128GB)
SD	1x Micro SD Slot
SIM Socket	1x External Dual Nano SIM socket (M.2 B Key attached)
Expansion	
M.2	1x M.2 (B Key, 2242/3042/3052, 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 B
COM	2x RS-232/422/485 (Switch by MCU)
DIO	8 in / 8 out (Isolated)
LAN	4x RJ45 LAN
OOB	1x RJ45 (Optional OOB Management Module, Occupied 1x COM & Micro USB Console Port)
PoE	4x RJ45 (Optional, PoE+ 120W Module, Type 2, Max 25W per Port)
USB	4x USB 3.2 Gen 2 (10 Gbps, Shared with USB 3 Hub) 1x Micro USB (Console) 1x USB Type-C (USB 2.0, For Flash OS)
Others	6x WiFi Antenna Holes 1x Power Switch, 1x Reset Switch, 1x Force Recovery Switch 1x 2P Terminal block for Remote Power SW 1x CMOS Battery Cable 1x 4-Pin FAN Connector
Operating System	
Linux	Linux Ubuntu 22.04 with JetPack 6.2
Power	
Power Adapter	Optional AC/DC 12V/5A, 60W Optional AC/DC 24V/5A, 120W (For PoE Model) Optional AC/DC 24V/9.2A, 220W (For PoE Model)
Power Mode	AT, ATX
Power Ignition Sensing	Adjustable Power Ignition Management
Power Supply Voltage	9~36VDC 12V: PoE Power Budget Supports Up to 60W 24V: PoE Power Budget Supports Up to 120W
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

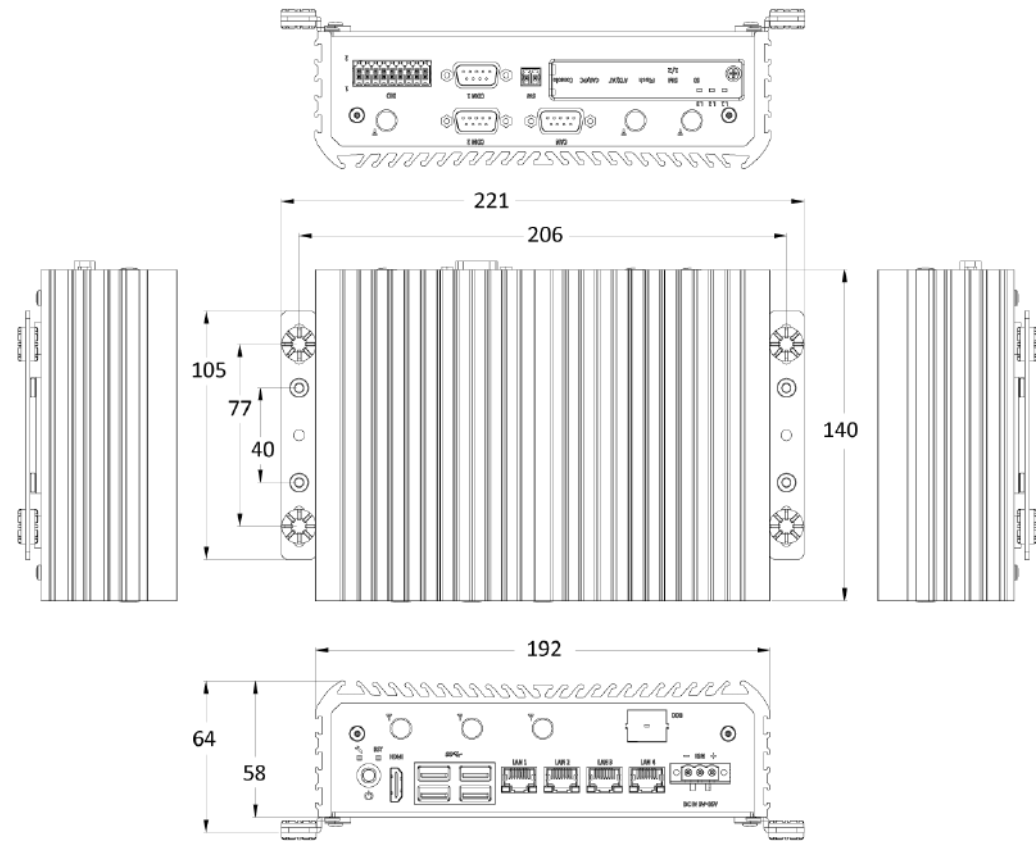
Relative Humidity	10% to 95% (non-condensing)
Certification	• CE, FCC Class A • UL 62368-1, 3rd Ed. • E-mark (E24) • RoHS 3.0, REACH
Vibration	With SSD: 5 Grms (5 ~ 500 Hz, 0.5 hr/axis)
Shock	With SSD: 50G half-sin 11ms
Physical	
Dimensions	192 (W) x 140(D) x 58(H) mm
Weights	2.8 ~ 3.6 kg
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	Wall Mounting/DIN rail (Optional)

External I/O Mechanical Layout



Dimension

Unit: mm



Available Models

Model No.	Description
JCO-3000-ORN-B-NX16	Mid-Range AI Computer with NVIDIA® Jetson Orin™ NX 16G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x LAN
JCO-3000-ORN-B-NX8	Mid-Range AI Computer with NVIDIA® Jetson Orin™ NX 8G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x LAN
JCO-3000-ORN-B-NN8	Mid-Range AI Computer with NVIDIA® Jetson Orin™ Nano 8G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x LAN
JCO-3000-ORN-B-NN4	Mid-Range AI Computer with NVIDIA® Jetson Orin™ Nano 4G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x LAN
JCO-3000-ORN-B-NX16-00B	Mid-Range AI Computer with NVIDIA® Jetson Orin™ NX 16G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x LAN, 1x RJ45 00B
JCO-3000-ORN-B-NX8-00B	Mid-Range AI Computer with NVIDIA® Jetson Orin™ NX 8G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x LAN, 1x RJ45 00B
JCO-3000-ORN-B-NN8-00B	Mid-Range AI Computer with NVIDIA® Jetson Orin™ Nano 8G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x LAN, 1x RJ45 00B
JCO-3000-ORN-B-NN4-00B	Mid-Range AI Computer with NVIDIA® Jetson Orin™ Nano 4G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x LAN, 1x RJ45 00B
JCO-3000-ORN-B-NX16-4P	Mid-Range AI Computer with NVIDIA® Jetson Orin™ NX 16G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x PoE RJ45
JCO-3000-ORN-B-NX8-4P	Mid-Range AI Computer with NVIDIA® Jetson Orin™ NX 8G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x PoE RJ45
JCO-3000-ORN-B-NN8-4P	Mid-Range AI Computer with NVIDIA® Jetson Orin™ Nano 8G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x PoE RJ45
JCO-3000-ORN-B-NN4-4P	Mid-Range AI Computer with NVIDIA® Jetson Orin™ Nano 4G, M.2 128G, 1x HDMI, 2x COM, 4x USB, 1x CAN, 4x PoE RJ45

Optional Accessories

Model No.	Description
1-E09A06008	Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A12002	Adapter AC/DC 24V 5A 120W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A22102	Adapter AC/DC 24V 9.2A 220W 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-B_4LAN Mid-Range AI Computer
1x Wall Mount Kit
1x Accessory Kit

Compliances and Standards

Shock	With SSD: 50G half-sin 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Vibration	With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis) IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 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)
EMC	• FCC Class A • CE • ICES-003 • UKCA • Industrial EMC Compliance - EN 61000-4-2: 2009 - EN IEC 61000-4-3: 2020 - EN 61000-4-4: 2012 - EN 61000-4-5: 2014 +A1: 2017 - EN 61000-4-6: 2014
Safety	• UL Safety: UL 62368-1, 3rd Ed., (cULus) • Test procedure: CB Scheme • Standard: IEC 62368-1:2018 • E-mark (E24)