AI EDGE INFERENCE COMPUTER

RCO-6000-RPL-8NS

AI Edge Inference Computer w/ LGA 1700 for Intel 12/13th Gen CPU & R680E PCH, 8x U.2 7mm NVMe, Software RAID

Features

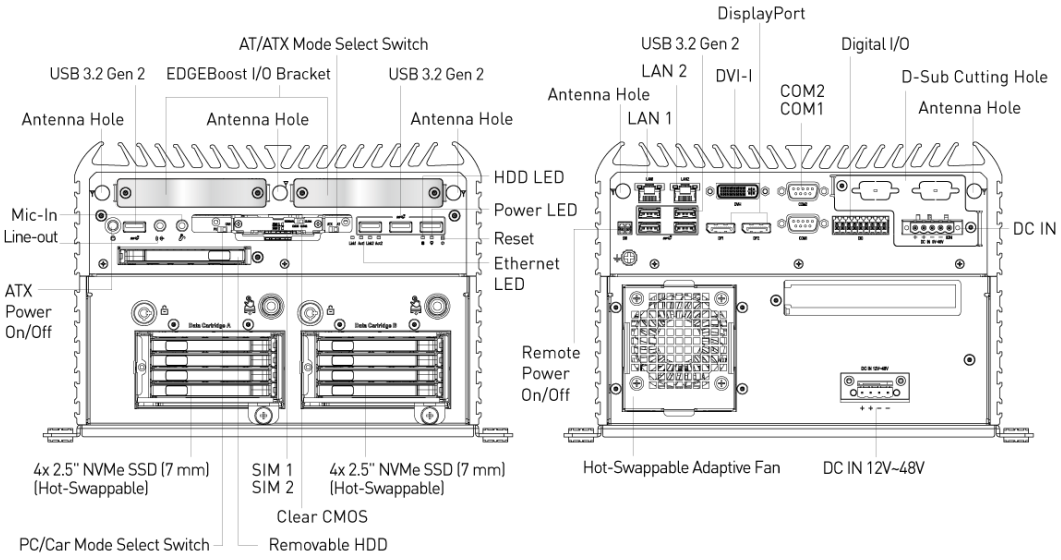
- LGA 1700 socket for 12/13th Gen. Intel® ADL & RPL Processor (35W TDP)
- Intel® R680E Chipset
- 2x DDR5 4800/5600MHz SODIMM. Max. up to 64GB
- Triple Independent Display: 2x DisplayPort, 1x DVI-I
- 2x Intel® 2.5 GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 8x 7mm Hot-swappable U.2 NVMe SSD Module with RAID 0, 1, 5, 10
- 1x 9mm 2.5" SATA SSD (Internal), 1x 7mm 2.5" SATA SSD (Hot-swap)
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230)
- 6x RS-232/422/485 (4x internal), 8x USB 3.2 Gen 2, 1x USB 3.2 Gen 1 (internal)
- 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -25°C to 60°C (35W CPU)
- TPM 2.0 Supported

Specifications

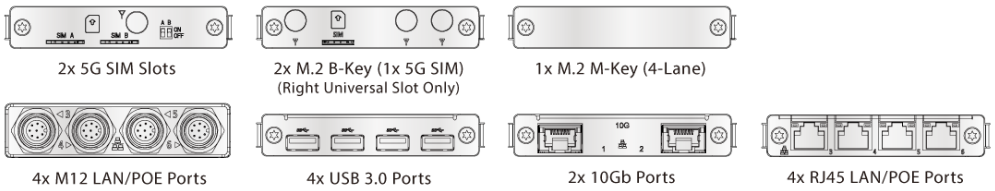
System	
Processor	
Support 12/13th Gen Intel® ADL & RPL Processor (LGA 1700, 35W TDP) - Intel® Core™ i9-13900TE/i9-12900TE, up to 24 Cores, 36MB Cache, up to 5 GHz, 35W - Intel® Core™ i7-13700TE/i7-12700TE, up to 16 Cores, 30MB cache, up to 4.8 GHz, 35W - Intel® Core™ i5-13500TE/i5-12500TE, up to 14 Core, 24MB Cache, up to 4.5 GHz, 35W - Intel® Core™ i3-13100TE/i3-12100TE, up to 4 Cores, 12MB Cache, up to 4.1 GHz, 35W	
System Chipset	Intel® R680E Express Chipset
LAN Chipset	2.5 GbE1: Intel I226, 2.5 GbE2: Intel I226 Support Wake-on-LAN and PXE, Support TSN
Audio Codec	Realtek ALC888S
System Memory	2x 262-Pin DDR5 4800/5600MHz SODIMM. Max. up to 64GB (ECC and Non-ECC)
Graphics	Intel® UHD Graphics 770/710
BIOS	AMI 256Mbit SPI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
AI Accelerator	Supports 3x Hailo-8™ modules
TPM	TPM 2.0
Display	
Display Port	2x DisplayPort, Support resolution 5120 x 3200, Up to 7680 x 4320
DVI	1x DVI-I, support resolution 1920 x 1200
VGA	Yes (by optional split cable)
Multiple Display	Triple Display
Storage	
M.2	1x M.2 B Key, 2242/3042/3052 (PCIe x2, Support AI Module/NVMe Storage) (PCIe x1 & USB 3.2 Gen1, Support 4G/5G)
mSATA	1x mSATA (Shared by 1x Mini PCI Express)
NVMe	2x Removable Cannister Bricks with 2.5" 8 Bay U.2 NVMe SSD (Support H=7mm)
SIM Socket	2x External SIM socket (Mini PCIE/M.2 B Key attached)
SSD/HDD	1x 9mm 2.5" SATA HDD Bay (Internal) 1x 7mm 2.5" SATA HDD Bay (Hot-swappable) 8x 7mm 2.5" NVMe SSD Bay (Hot-swappable) Support RAID 0, 1, 5, 10
Expansion	
M.2	1x M.2 (E Key, PCIe x1, USB 2.0, 2230)
Mini PCIe	1x Full-size Mini PCIe (1x shared by 1x mSATA)
Expansion Modules	
2x EDGEBoost I/O Brackets: • 4-port GbE module with Intel® I350 Chipset, RJ-45/M12 connector (PoE optional) • 2-Port RJ45 10GbE with Intel X710 Chipset • 4-Port USB 3.0 (share PCIe Gen2 x1 bandwidth) • 1x M.2 B-Key, 2242 for AI/NVMe, 1x M.2 B-Key, 3042/3052 for 5G/AI/NVMe • 1x M.2 M-Key, PCIe x4 Lane, 2242/2260 for AI Module/NVMe • 1x M.2 for 5G (B Key, PCIe x1, USB 3.0, 3042/3052), 2x SIM socket, 1x SIM switch	
I/O	
Audio	1x Mic-in, 1x Line-out
CAN	2x CAN 2.0 A/B 2-pin Internal header
COM	2x RS-232/422/485 ; 4x RS-232/422/485 (Internal)
DIO	8 in / 8 out (Isolated)
EDGEBoost I/O Bracket	2x EDGEBoost I/O Bracket (By mini PCIe interface)
LAN	2x RJ45
USB	8x USB 3.2 Gen 2 (10 Gbps) 1x USB 3.2 Gen 1 (5 Gbps, 1x Internal), 2x USB 2.0 (Internal)
Others	5x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch, 1x Remote Power On/Off 1x PC/Car Mode Switch, 1x Delay Time Switch 1x Removable CMOS Battery
Operating System	
Windows	Windows 10/11
Linux	Linux kernel
Power	
Power Adapter	Optional AC/DC 24V/9.2A, 220W Optional AC/DC 24V/11.67A, 280W (GPU/Card Expansion) Optional AC/DC 24V/15A, 360W (i7/i9 CPU/GPU/Card Expansion)
Power Mode	AT, ATX
Power Ignition Sensing	Power Ignition Management
Power Supply Voltage	9~48VDC 12~48VDC for NVMe EDGEboost Node
Power Connector	5-pin Terminal Block 4-pin Terminal Block for NVMe EDGEBoost Node (12V requires 4-pin terminal block)
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection
Environment	
Operating Temperature	-25°C to 60°C
Storage Temperature	-30°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL 62368 Ed. 3, CE, FCC Class A
Vibration	IEC60068-2-64:2008 With HDD: 1 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 3 Grms (5 - 500 Hz, 0.5 hr/axis) Designed to comply with MIL-STD-810G Method 514.7 Procedure I
Shock	IEC60068-2-27:2008 With SSD: 50G half-sin 11ms Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Physical	
Dimensions	240 (W) x 261 (D) x 166.9 (H) mm
Weights	10.5 ~ 11.5 kg
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	Wall Mounting

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

External I/O Mechanical Layout

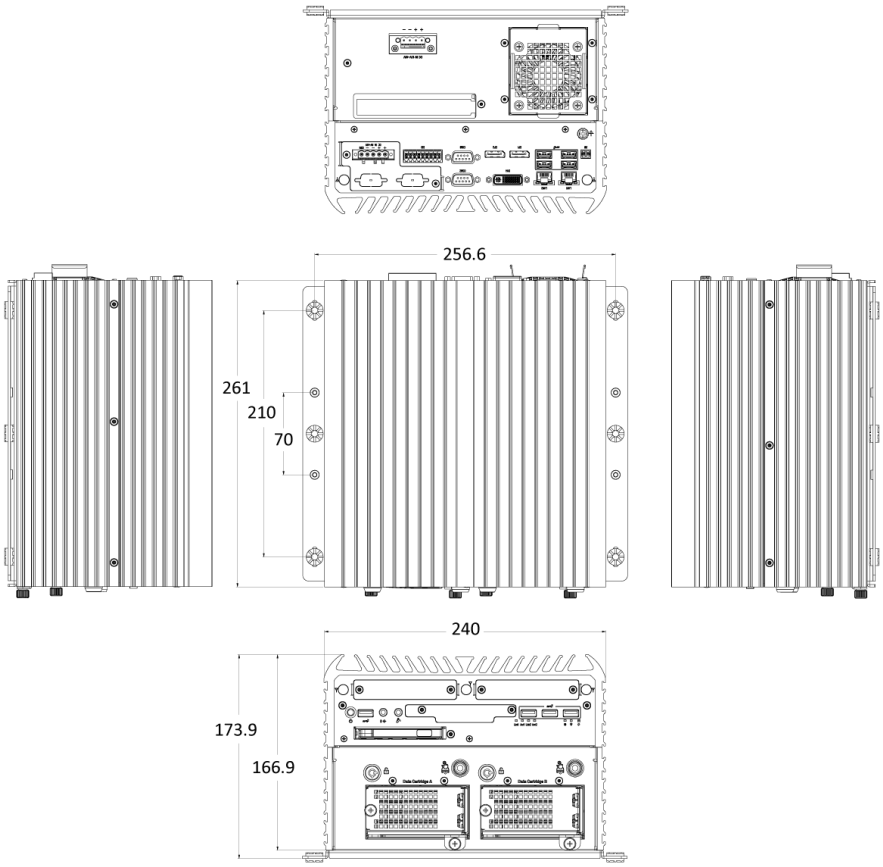


Available EDGEBoost I/O



Dimension

Unit: mm



RCO-6000-RPL-8NS

Available Models

Model No.	Description
RCO-6000-RPL-8NS-P	AI Edge Inference Computer w/ LGA 1700 for Intel® 12/13th Gen CPU & R680E PCH, 2x LAN, 8x U.2 7mm NVMe, Software RAID

Optional Accessories

Model No.	Description
1-E09A22102	Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A22801	Adapter AC/DC 24V/11.67A 280W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A36002	Adapter AC/DC 48V/7.5A 360W with 3pin Terminal Block Plug 5.0mm Pitch
999930	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 RCO-6000-RPL-8NS
1x Wall Mount Kit
1x Accessory Kit
1x DVI to VGA Adapter

Compatible GPU AVL

Model Name	RAM	CUDA Cores	TDP	Display	Interface	Active Cooling	Slots
NVIDIA T1000	8G	896	50	4x mDP	PCIe 3.0 x16	Yes	1
NVIDIA RTX A2000	12G	3328	70	4x mDP	PCIe 4.0 x16	Yes	2
NVIDIA RTX 4000 SFF	20G	6144	70	4x mDP	PCIe 4.0 x16	Yes	2

Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71

Premio Inc.
918 Radecki Ct., City of Industry, CA 91748
Toll Free: 800.977.3646
Email: sales@premioinc.com
https://premioinc.com