



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

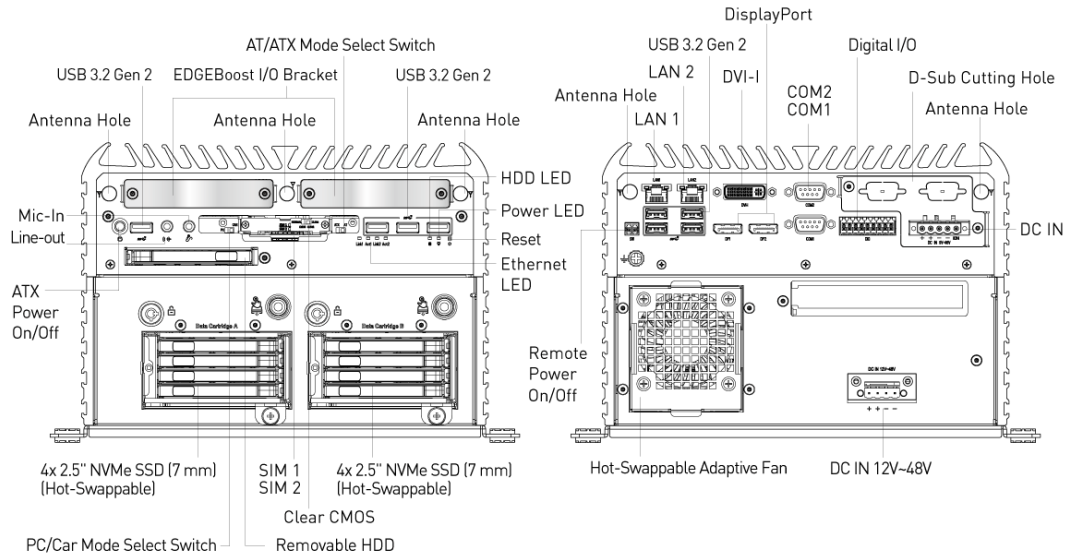
- LGA 1700 socket for 12/13th Gen. Intel® ADL & RPL Processor (35W TDP)
- Intel® R680E Chipset
- 2x DDR5 4800/5600MHz SODIMM. Max. up to 64GB
- Triple Independent Display: 2x DisplayPort, 1x DVI-I
- 2x Intel® 2.5 GbE supporting Wake-on-LAN and PXE
- 1x Full-size Mini PCIe for communication or expansion 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)
- 1x M.2 (B Key, 2242/3042/3052, PCIe x2, Support AI Module/NVMe Storage, PCIe x1 & USB 3.2 Gen1, Support 4G/5G)
- 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



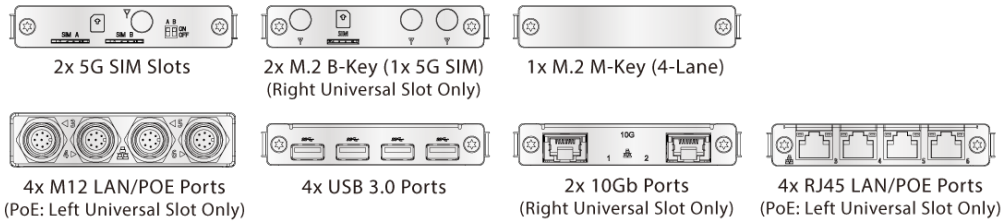
Specifications

System		Others
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		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	With HDD: 1 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 3 Grms (5 - 500 Hz, 0.5 hr/axis)	
Shock	With SSD: 50G half-sin 11ms	
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	
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:		
<ul style="list-style-type: none"> • 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)	

External I/O Mechanical Layout

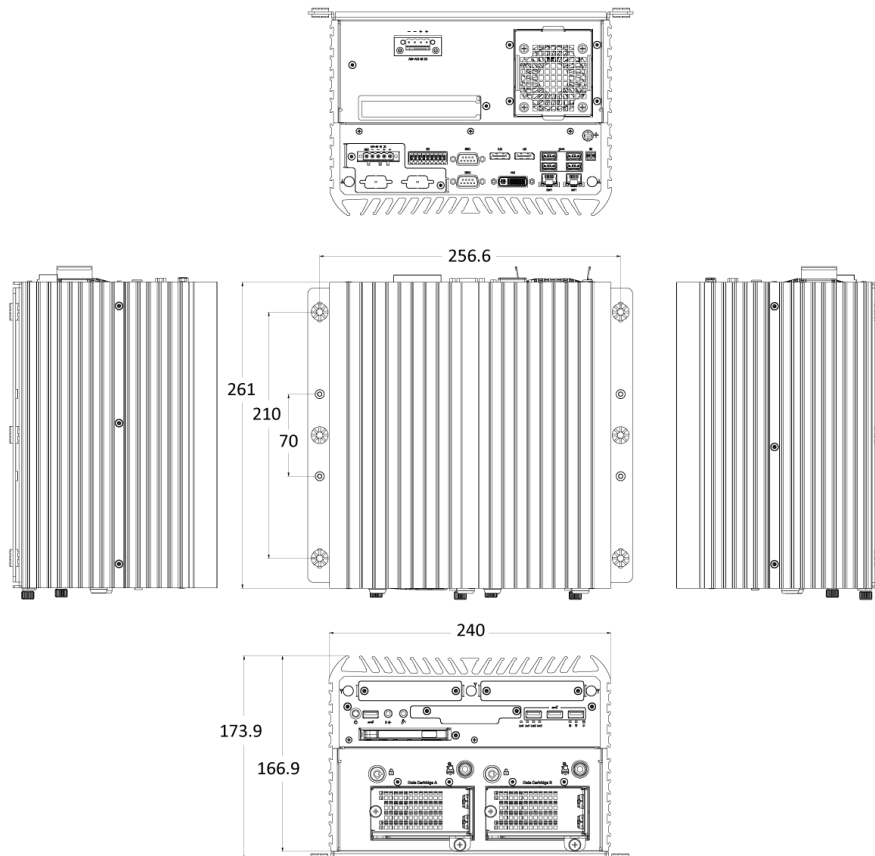


Available EDGEBoost I/O



Dimension

Unit: mm



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	RAM	CUDA Cores	TDP	TOPS/TFLOPS	Displays	System Interface	Form Factor
NVIDIA T1000	8G	896	50W	5.3 TFLOPS	4x mDP	PCIe 3.0 x16	2.7" H x 6.1" L, Low-Profile Single Slot
NVIDIA RTX A1000	8G	2304	50W	6.74 TFLOPS	4x mDP	PCIe 4.0 x8	2.7" H x 6.4" L, Single slot
NVIDIA RTX A2000	12G	3328	70W	7.99 TFLOPS	4x mDP	PCIe 4.0 x16	2.7" H x 6.6" L, Low Profile, Dual Slot
NVIDIA RTX 2000 ADA	16G	2816	70W	12 TFLOPS	4x mDP	PCIe 4.0 x8	2.7" H x 6.6" L, Dual slot
NVIDIA RTX 4000 SFF ADA	20G	6144	70W	19.2 TFLOPS	4x mDP	PCIe 4.0 x16	2.7" H x 6.6" L, Low Profile, Dual Slot

Compliances and Standards

Vibration	With HDD: 1 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 3 Grms (5 - 500 Hz, 0.5 hr/axis) IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 Procedure I
Shock	With SSD: 50G half-sin 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Operating Temperature	-25°C to 60°C 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	<ul style="list-style-type: none"> • 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 style="list-style-type: none"> • UL Safety: UL62368-1, 3rd Ed., (cULus) • Test procedure: CB Scheme • Standard: IEC 62368-1:2018

Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71