

RCO-6000-RPL-2E16-4B7M

AI EDGE INFERENCE COMPUTER คอมพิวเตอร์เอดจ์อินฟERENCE



AI Edge Inference Computer W/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH, 2x LAN, 6x HDD, 2x PCIe

Features

- LGA 1700 socket for 12/13/14th Gen. Intel® ADL & RPL Processor (65W/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
- 1x 9mm 2.5" SATA SSD (Internal), 1x 7mm 2.5" SATA SSD (Hot-swap)
- 4x 7mm Hot-swappable 2.5" SATA SSD Bay, Support RAID 0, 1, 5, 10
- 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)
- 8x DI + 8x DO with isolation
- 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -25°C to 70°C (35W CPU); -25°C to 60°C (65W CPU)
- TPM 2.0 Supported

Specifications

System	
Processor	Support 12/13th/14th(Non-vPRO) Gen Intel® ADL & RPL Processor (LGA 1700, 65W/35W TDP)
	- Intel® Core™ i9-14900/i9-13900E/i9-12900E, 65W
	- Intel® Core™ i9-14900T/i9-13900TE/i9-12900TE, 35W
	- Intel® Core™ i7-14700/i7-13700E/i7-12700E, 65W
	- Intel® Core™ i7-14700T/i7-13700TE/i7-12700TE, 35W
	- Intel® Core™ i5-14500/i5-13500E/i5-12500E, 65W
	- Intel® Core™ i5-14500T/i5-13500TE/i5-12500TE, 35W
	- Intel® Core™ i3-13100E/i3-12100E, 60W
	- Intel® Core™ i3-14100T/i3-13100TE/i3-12100TE, 35W
	- Intel® Core™ 300T, 35W
	- Intel® Pentium® G7400E, 46W / G7400TE, 35W
	- Intel® Celeron® G6900E, 46W / G6900TE, 35W
System Chipset	
System Chipset	Intel® R680E Express Chipset
LAN Chipset	
LAN Chipset	2.5 GbE1: Intel I226, 2.5 GbE2: Intel I226
	Support Wake-on-LAN and PXE, Support TSN
Audio Codec	
Audio Codec	Realtek ALC888S
System Memory	
System Memory	2x 262-Pin DDR5 4800/5600MHz SODIMM. Max. up to 64GB
Graphics	
Graphics	(ECC and Non-ECC) Intel® UHD Graphics 770/710 AMI
BIOS Watchdog TPM	
BIOS Watchdog TPM	256Mbit SPI BIOS Software Programmable Supports 1~255 sec. System Reset TPM 2.0
Display	
Display Port	2x DisplayPort, Support resolution 5120 x 3200, Up to 7680 x 4320
DVI	
VGA	1x DVI-I, support resolution 1920 x 1200
Multiple Display	Yes (by optional split cable) 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)
SIM Socket	2x External SIM socket (Mini PCIe/M.2 B Key attached)
SSD/HDD	1x 9mm 2.5" SATA/SSD HDD Bay (Internal) 5x 7mm 2.5" SATA HDD/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)
PCIe	• RCO-6000-RPL-2E16-4B7M : 1x PCIe x16 (Gen4), 1x PCIe x1 (Gen3) • RCO-6000-RPL-2E8-4B7M (Optional) : 1x PCIe x16 (8-lane, Gen4), 1x PCIe x8 (8-lane, Gen4)
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	
Card Dimension	235 (L) x 112 (H) mm

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 8x USB 3.2 Gen 2 (10 Gbps)
USB	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 Power	Optional AC/DC 24V/9.2A, 220W Optional
Mode Power Ignition	AC/DC 24V/15A, 360W (i7/i9 CPU) AT, ATX
Sensing Power Supply	Power Ignition Management 9~48VDC 5-pin
Voltage Power	Terminal Block OVP (Over Voltage Protection)
Connector Power	OCV (Over Current Protection)
Protection	Reverse Protection

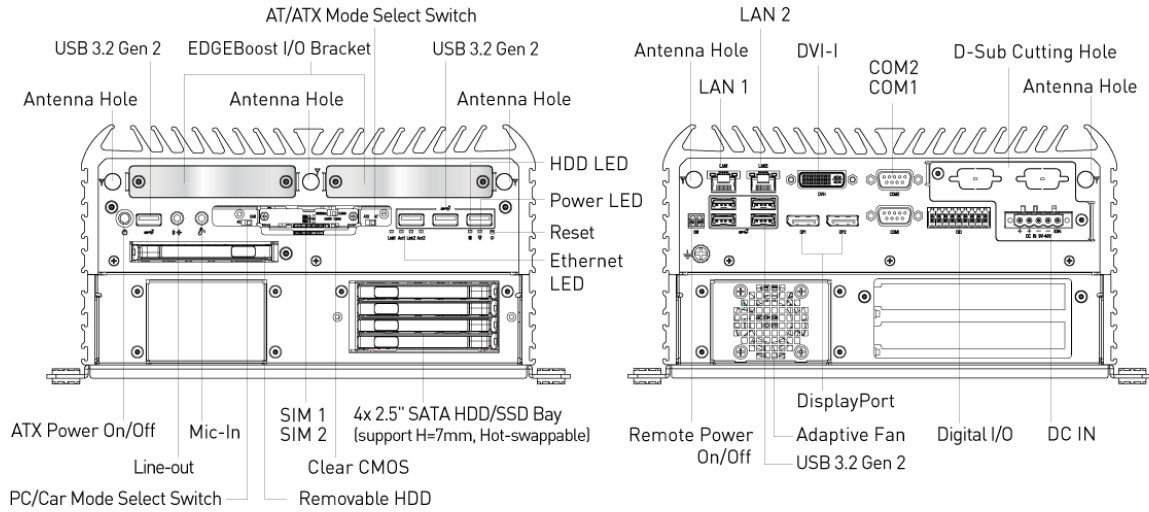
Environment	
Operating Temperature	-25°C to 70°C (35W CPU); -25°C to 60°C (65W CPU) (Optional External Fan Kit: Recommended for i9 CPU/65W)
Storage Temperature	-30°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL 62368 Ed. 3, CE, FCC Class A
Vibration	IEC60068-2-64:2008 With HDD: 1 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 5 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 126.8 (H) mm
Weights	6.5 ~ 7.5 kg
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	Wall Mounting

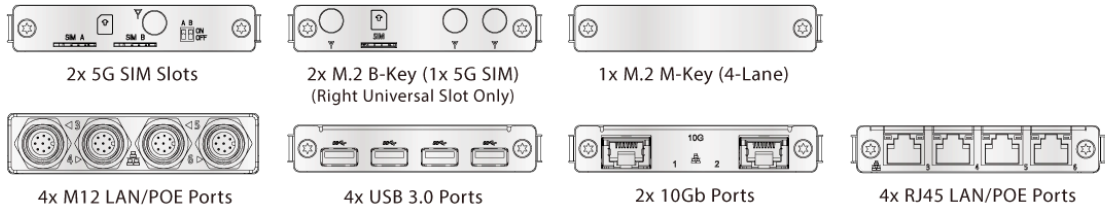
* For 12/13/14th Gen Intel CPUs configured to run at 65W, operating temperatures will be limited to 60°C.
** 65W CPUS may experience thermal throttling depending on extreme application workloads; this is also due to an increase in the physical CPU cores from the Intel silicon (up to 24 cores). Please note, this does not indicate system malfunction or problems in the fanless design. Please consult our embedded engineers for the best configuration to match your application requirements.
*** All specifications and photos are subject to change without notice.



External I/O Mechanical Layout

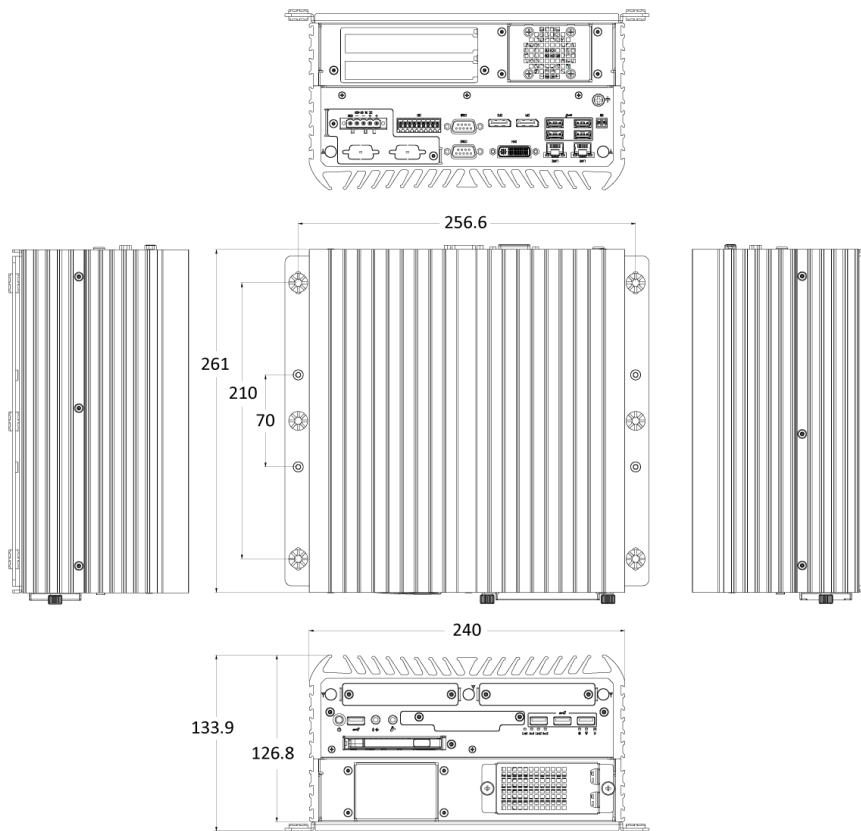


Available EDGEBoost I/O



Dimension

Unit: mm



Available Models

Model No.	Description
RCO-6000-RPL-2E16-4B7M	Flash Storage Computing System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 1x PCIe x16 & x1, 4 Bay 7mm
RCO-6000-RPL-2E8-4B7M	Flash Storage Computing System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 2x PCIe (8-lane), 4 Bay 7mm

Optional Accessories

Model No.	Description
E09A22102	Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug 5.0mm Pitch
E09A22801	Adapter AC/DC 24V/11.67A 280W with 3pin Terminal Block Plug 5.0mm Pitch
E09A36002 SFICBL022	Adapter AC/DC 48V/7.5A 360W with 3pin Terminal Block Plug 5.0mm Pitch
1-TPCD00002	Power Cord, 3-pin US Type, 180cm
TPCD00001	Power Cord, European Type, 180cm
RC6300EXFAN	Power Cord, 3-pin UK Type, 180cm
	External Double FAN KIT

Packing List

- 1x RCO-6000-RPL-2E-4B7M Series Embedded System
- 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	Yes Yes Yes	1 2 2
NVIDIA RTX A2000	12G	3328	70	4x mDP	x16 PCIe		
NVIDIA RTX 4000 SFF	20G	6144	70	4x mDP	4.0 x16 PCIe		
					4.0 x16		

