



AI EDGE INFERENCE COMPUTER

RCO-6000-RPL-2E16-2PWR

AI Edge Inference Computer with LGA 1700 for Intel 12/13th Gen Processor and R680E PCH, 2x PCIe, 2x Power input

Features

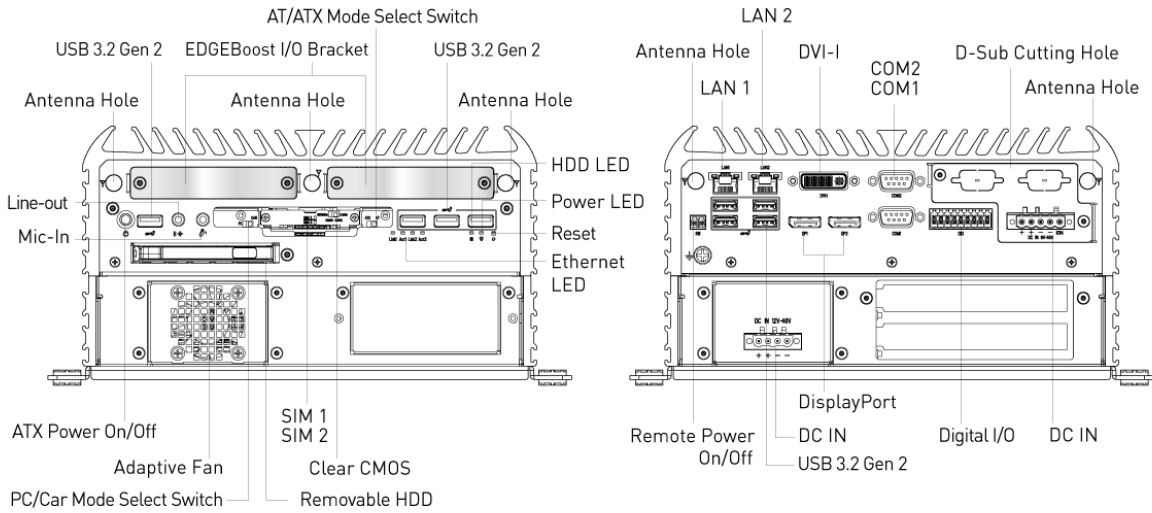
- LGA 1700 socket for 12/13th Gen. Intel® ADL & RPL Processor (65W/35W TDP)
- Intel® R680E Chipset
- 2x DDR5 4800/5600MHz SODIMM. Max. up to 64GB
- Triple Independent Display: 2x DisplayPort, 1x DVI-I
- 2x Intel® 2.5 GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 1x 9mm 2.5" SATA SSD (Internal), 1x 7mm 2.5" SATA SSD (Hot-swap), Support RAID 0, 1
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 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 60°C (35W/65W CPU)
- TPM 2.0 Supported



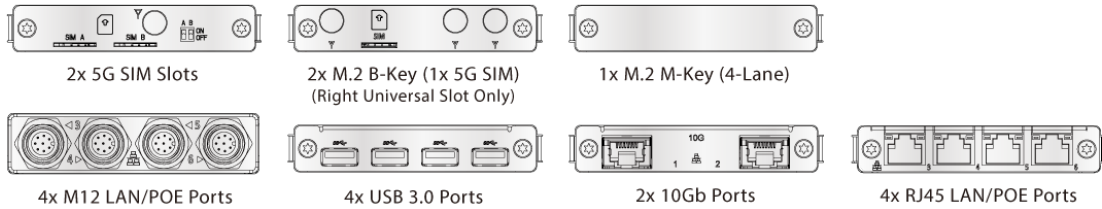
Specifications

System		I/O	
Processor Support 12/13th Gen Intel® ADL & RPL Processor (LGA 1700, 65W/35W TDP) - Intel® Core™ i9-13900E/i9-12900E, up to 24 Cores, 36MB Cache, up to 5.2 GHz, 65W - Intel® Core™ i9-13900TE/i9-12900TE, up to 24 Cores, 36MB Cache, up to 5 GHz, 35W - Intel® Core™ i7-13700E/i7-12700E, up to 16 Core, 30MB Cache, up to 5.1 GHz, 65W - Intel® Core™ i7-13700TE/i7-12700TE, up to 16 Cores, 30MB cache, up to 4.8 GHz, 35W - Intel® Core™ i5-13500E/i5-12500E, up to 14 Cores, 24MB Cache, up to 4.6 GHz, 65 W - Intel® Core™ i5-13500TE/i5-12500TE, up to 14 Core, 24MB Cache, up to 4.5 GHz, 35W - Intel® Core™ i3-13100E/i3-12100E, up to 8 Cores, 12MB cache, up to 4.4 GHz, 60W - Intel® Core™ i3-12100TE/i3-12100TE, up to 4 Cores, 12MB Cache, up to 4.1 GHz, 35W - Intel® Pentium® G7400E, 2 Cores, 6MB Cache, 3.6 GHz, 46W - Intel® Pentium® G7400TE, 2 Cores, 6MB Cache, 3.0 GHz, 35W - Intel® Celeron® G6900E, 2 Cores, 4MB Cache, 3.0 GHz, 46W - Intel® Celeron® G6900TE, 2 Cores, 4MB Cache, 2.4 GHz, 35W		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)	
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		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	
Audio Codec Realtek ALC888S System Memory 2x 262-Pin DDR5 4800/5600MHz SODIMM. Max. up to 64GB (ECC and Non-ECC)		Operating System Windows Windows 10 Linux Linux kernel	
Graphics Intel® UHD Graphics 770/710 BIOS AMI 256Mbit SPI BIOS Watchdog Software Programmable Supports 1~255 sec. System Reset TPM TPM 2.0		Power Power Adapter Optional AC/DC 24V/9.2A, 220W Optional AC/DC 24V/11.67A, 280W Optional AC/DC 24V/15A, 360W (i7/i9 CPU/GPU/Card Expansion)	
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		Power Mode AT, ATX Power Ignition Sensing Power Ignition Management Power Supply Voltage 9~48VDC, 12~48VDC for GPU/Card Expansion Power Connector 5-pin Terminal Block 4-pin Terminal Block for GPU Expansion	
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 HDD Bay (Internal) 1x 7mm 2.5" SATA HDD Bay (Hot-swappable) Support RAID 0, 1		Power Protection OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection	
Expansion M.2 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi) Mini PCIe 1x Full-size Mini PCIe (1x shared by 1x mSATA) PCIe • RCO-6000-RPL-2E16-2PWR : 1x PCIe x16 (Gen4), 1x PCIe x1 (Gen3) • RCO-6000-RPL-2E8-2PWR (Optional) : 1x PCIe x16 (8-lane, Gen4), 1x PCIe x8 (8-lane, Gen4)		Environment Operating Temperature -25°C to 60°C (35W/65W CPU) (Optional External Fan Kit: Recommended for i9 CPU) Storage Temperature -30°C to 85°C Relative Humidity 10% to 95% (non-condensing) Certification CE, FCC Class A Vibration With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis Shock With SSD: 50G, half sine, 11ms	
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 		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	
Card Dimension 235 (L) x 112 (H) mm		* For 12/13th 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

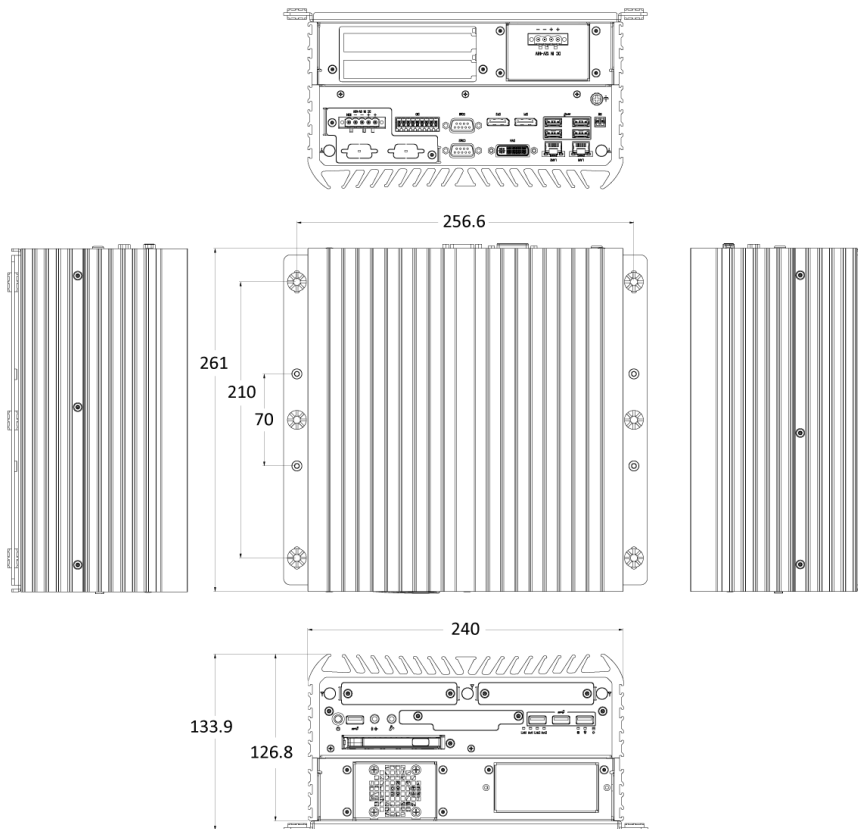


Available EDGEBoost I/O



Dimension

Unit: mm



Available Models

Model No.	Description
RCO-6000-RPL-2E16-2PWR	GPU Computing System w/ LGA 1700 for Intel® 12/13th Gen CPU & R680E PCH, 2x LAN, 1x PCIe x16 & x1, 2x Power input
RCO-6000-RPL-2E8-2PWR	GPU Computing System w/ LGA 1700 for Intel® 12/13th Gen CPU & R680E PCH, 2x LAN, 2x PCIe (8-lane), 2x Power input

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
SFICBL022	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm
3-RC6300EXFAN	External Double FAN KIT

Packing List

1x RCO-6000-RPL-2E-2PWR Series Embedded System
1x Wall Mount Kit
1x Accessory Kit
1x DVI to VGA Adapter