



AI EDGE INFERENCE COMPUTER

RCO-6000-RPL

Industrial Computer w/ LGA 1700 for Intel 12/13/14th Gen CPU & R680E PCH



Features

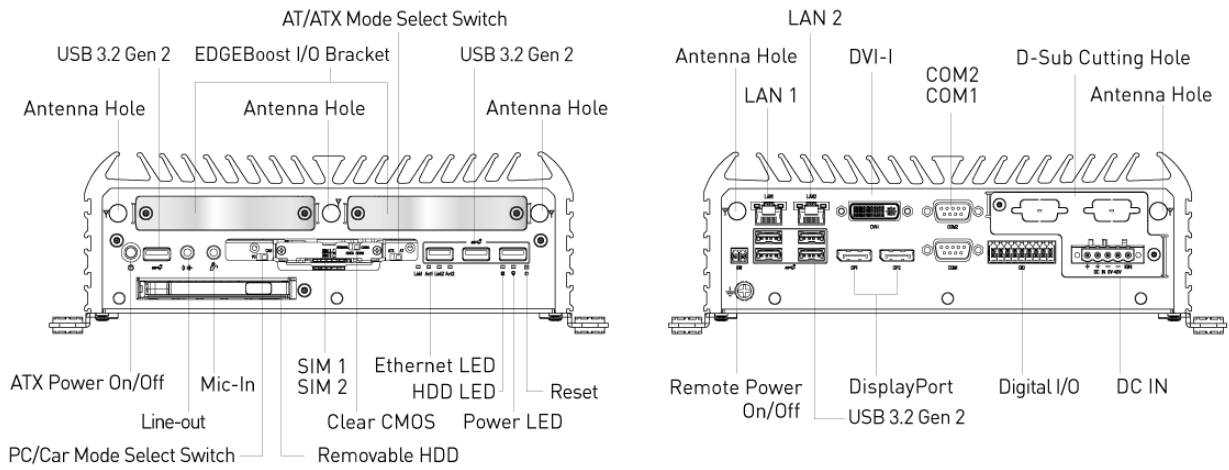
- LGA 1700 socket for 12/13/14th Gen. Intel® ADL & RPL Processor (65W/35W TDP)
- Intel® R680E Chipset
- 2x DDR5 4800/5600MHz SODIMM. Max. up to 64GB
- Triple Independent Display: 2x DisplayPort, 1x DVI-I
- 2x Intel® 2.5 GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe for communication or 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)
- 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

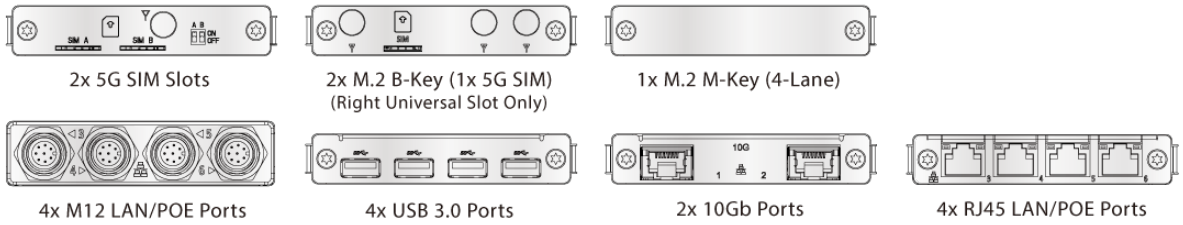
System		EDGEBoost I/O Bracket	2x EDGEBoost I/O Bracket (By mini PCIe interface)
Processor		LAN	2x RJ45
Support 12/13th/14th(Non-vPRO) Gen Intel® ADL & RPL Processor (LGA 1700, 65W/35W TDP)		USB	8x USB 3.2 Gen 2 (10 Gbps) 1x USB 3.2 Gen 1 (5 Gbps, 1x Internal), 2x USB 2.0 (Internal)
- Intel® Core™ i9-14900/i9-13900E/i9-12900E, 65W		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
- Intel® Core™ i9-14900T/i9-13900TE/i9-12900TE, 35W		Operating System	
- Intel® Core™ i7-14700/i7-13700E/i7-12700E, 65W		Windows	Windows 10/11
- Intel® Core™ i7-14700T/i7-13700TE/i7-12700TE, 35W		Linux	Linux kernel
- Intel® Core™ i5-14500/i5-13500E/i5-12500E, 65 W		Power	
- Intel® Core™ i5-14500T/i5-13500TE/i5-12500TE, 35W		Power Adapter	Optional AC/DC 24V/9.2A, 220W Optional AC/DC 24V/15A, 360W (i7/i9 CPU)
- Intel® Core™ i3-13100E/i3-12100E, 60W		Power Mode	AT, ATX
- Intel® Core™ i3-14100T/i3-13100TE/i3-12100TE, 35W		Power Ignition Sensing	Power Ignition Management
- Intel® Core™ 300T, 35W		Power Supply Voltage	9~48VDC
- Intel® Pentium® G7400E, 46W / G7400TE, 35W		Power Connector	5-pin Terminal Block
- Intel® Celeron® G6900E, 46W / G6900TE, 35W		Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection
System Chipset Intel® R680E Express Chipset		Environment	
LAN Chipset 2.5 GbE1: Intel I226, 2.5 GbE2: Intel I226		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)
Support Wake-on-LAN and PXE, Support TSN		Storage Temperature	-30°C to 85°C
Audio Codec Realtek ALC888S		Relative Humidity	10% to 95% (non-condensing)
System Memory 2x 262-Pin DDR5 4800/5600MHz SODIMM.		Certification	UL 62368 Ed. 3, CE, FCC Class A
Max. up to 64GB (ECC and Non-ECC)		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
Graphics Intel® UHD Graphics 770/710		Shock	IEC60068-2-27:2008 With SSD: 50G half-sin 11ms Designed to comply with MIL-STD-810G Method 516.7 Procedure I
BIOS AMI 256Mbit SPI BIOS		Physical	
Watchdog Software Programmable Supports 1~255 sec. System Reset		Dimensions	240 (W) x 261 (D) x 79 (H) mm
TPM TPM 2.0		Weights	4.5 kg
Construction Extruded Aluminum with Heavy Duty Metal		Mounting Options	Wall Mounting
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)		
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		
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)		

* 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

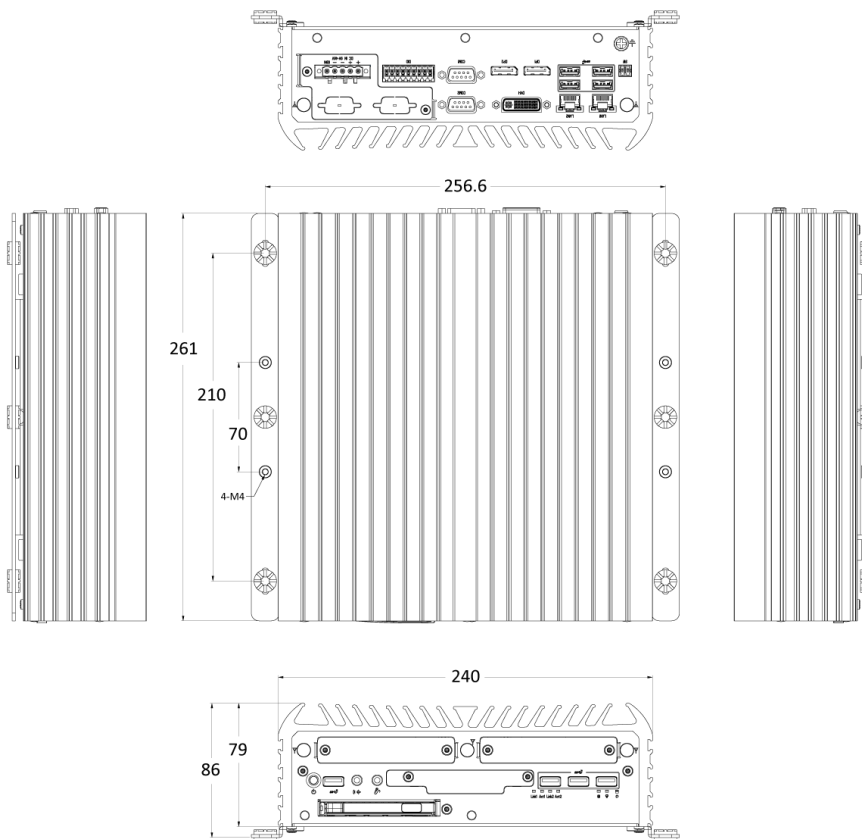


Available EDGEBoost I/O



Dimension

Unit: mm



Available Models

Model No.	Description
RCO-6000-RPL	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN
RCO-6000-RPL-4L	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 6x LAN
RCO-6000-RPL-4LM12	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 4x M12 LAN
RCO-6000-RPL-4P	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 4x PoE
RCO-6000-RPL-4PM12	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 4x M12 PoE
RCO-6000-RPL-8L	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 10x LAN
RCO-6000-RPL-8LM12	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 8x M12 LAN
RCO-6000-RPL-8P	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 8x PoE
RCO-6000-RPL-8PM12	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 8x M12 PoE
RCO-6000-RPL-D10G	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 2x 10G LAN
RCO-6000-RPL-4U3	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 12x USB
RCO-6000-RPL-8U3	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 16x USB
RCO-6000-RPL-5G	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 5G Module
RCO-6000-RPL-2M2BK	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 3x M.2 B-Key
RCO-6000-RPL-M2MK	Superior Fanless Embedded System w/ LGA 1700 for Intel® 12/13/14th Gen CPU & R680E PCH, 2x LAN, 1x M.2 M-Key

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 Series Embedded System
 1x Wall Mount Kit
 1x Accessory Kit
 1x DVI to VGA Adapter