



AI EDGE INFERENCE COMPUTER

# RCO-6000-RPL-2E16-4B7M

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, 65 W  
- 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 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  
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)  
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  
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/15A, 360W (i7/i9 CPU)  
Power Mode AT, ATX  
Power Ignition Sensing Power Ignition Management  
Power Supply Voltage 9-48VDC  
Power Connector 5-pin Terminal Block  
Power Protection OVP (Over Voltage Protection)  
OCP (Over Current 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**

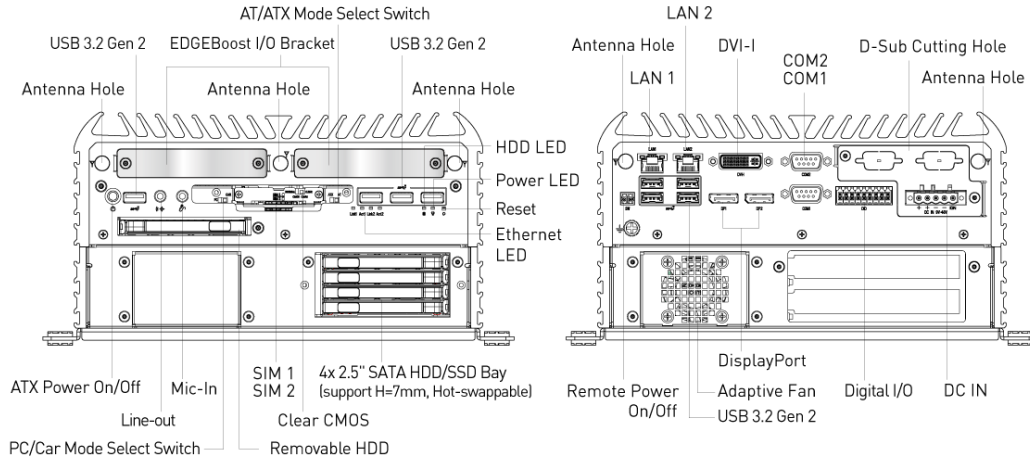
Dimensions 240 (W) x 261 (D) x 126.8 (H) mm  
Weights 6.5 - 7.5 kg  
Construction Extruded Aluminum with Heavy Duty Metal  
Mounting Options Wall Mounting

\* For 12/13/14th Gen Intel CPUs configured to run at 65W, operating temperatures will be limited to 60°C.  
\*\* 65W CPU 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.

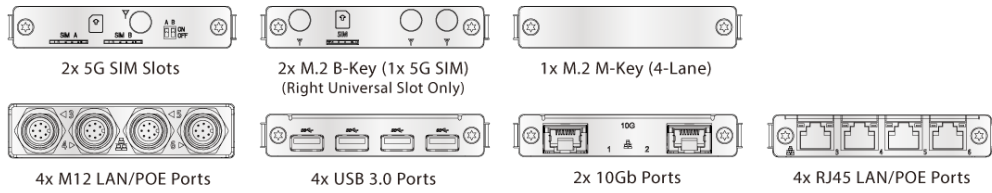


# RCO-6000-RPL-2E16-4B7M

## External I/O Mechanical Layout

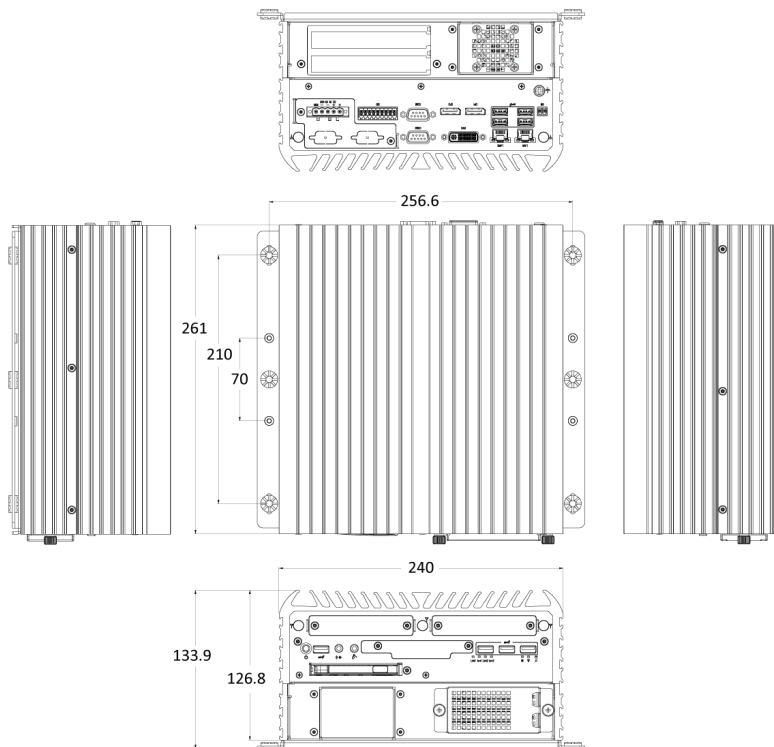


## Available EDGEBoost I/O



## Dimension

Unit: mm





## RCO-6000-RPL-2E16-4B7M

### 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
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
1-TPCD00005	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm
3-EXFANK01S10-S0	External Double Fan Module Kit (for Product shipment)
3-EXFANK01S10-S1	External Double Fan Module Kit (for system assembly)
1-TFAN00005	FAN Extension Cable

### Packing List

1x RCO-6000-RPL-2E-4B7M Series Embedded System  
 1x Wall Mount Kit  
 1x Accessory Kit  
 1x DVI to VGA Adapter



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## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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