



## AI EDGE INFERENCE COMPUTER

## RCO-6000-CML-2-4B7M

AI Edge Inference Computer W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 4x 7mm HDD, 1x PCIe x16, 1x PCI

## Features

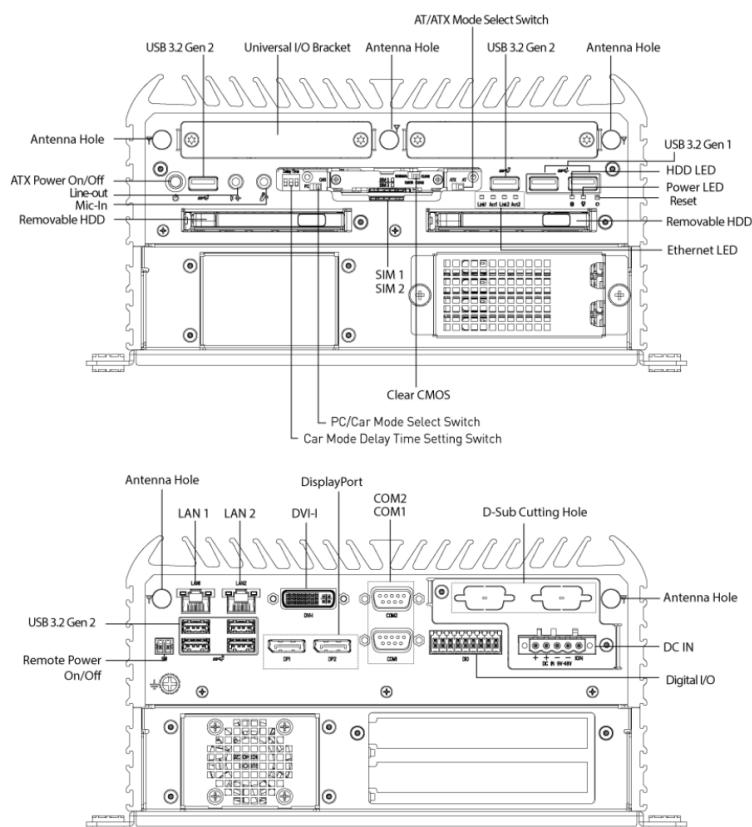
- LGA 1200 socket for 10th Gen. Intel® CML S Processor (35W TDP)
- Intel® W480E chipset
- 2x DDR4 2666/2933MHz SODIMM. Max. up to 64GB
- Triple Independent Display: 2x DisplayPort, 1x DVI-I
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 7x 2.5" SATA HDD Bay (1x Internal) and with RAID 0, 1, 5, 10 support
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230)
- 8x RS-232/422/485 (6x internal), 6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x 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)
- TPM 2.0 Supported
- Edge AI Ready with Hailo-8™ (26 TOPS / 2.5W)
- UL Listed



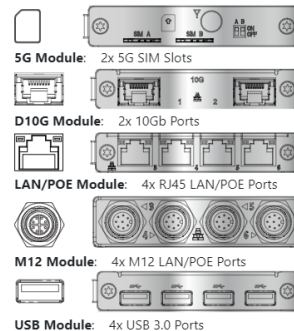
## Specifications

| System                                                                                                                      |                                                                                                  | Operating System                                 |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|
| Processor                                                                                                                   |                                                                                                  | Windows                                          | Windows 10/11                                                                          |
| Support 10th Gen Intel® CML S Processor (LGA 1200, 35W TDP)                                                                 |                                                                                                  | Linux                                            | Linux kernel                                                                           |
| - Intel® Xeon® W-1290TE, 10 Cores, 20MB Cache, up to 4.5 GHz                                                                |                                                                                                  | Power                                            |                                                                                        |
| - Intel® Core™ i9-10900TE, 10 Cores, 20MB Cache, up to 4.5 GHz                                                              |                                                                                                  |                                                  |                                                                                        |
| - Intel® Core™ i7-10700TE, 8 Cores, 16MB cache, up to 4.4 GHz                                                               |                                                                                                  | Power Adapter                                    | Optional AC/DC 24V/5A, 120W<br>Optional AC/DC 24V/9.2A, 220W                           |
| - Intel® Core™ i5-10500TE, 6 Core, 12MB Cache, 3.7 GHz                                                                      |                                                                                                  | Power Mode                                       | AT, ATX                                                                                |
| - Intel® Core™ i3-10100TE, 4 Cores, 9MB Cache, up to 3.6 GHz                                                                |                                                                                                  | Power Ignition Sensing                           | Power Ignition Management                                                              |
| System Chipset                                                                                                              | Intel® W480E Chipset                                                                             | Power Supply Voltage                             | 9~48VDC                                                                                |
| LAN Chipset                                                                                                                 | GbE1: Intel I219 (Support Wake-on-LAN and PXE)<br>GbE2: Intel I210 (Support Wake-on-LAN and PXE) | Power Connector                                  | 5-pin Terminal Block                                                                   |
| Audio Codec                                                                                                                 | Realtek ALC888S                                                                                  | Power Protection                                 | OVP (Over Voltage Protection), OCP (Over Current Protection),<br>Reverse Protection    |
| System Memory                                                                                                               | 2x 260-Pin DDR4 2666 /2933MHz SODIMM.<br>Max. up to 64GB (ECC and Non-ECC)                       | Environment                                      |                                                                                        |
| Graphics                                                                                                                    | Intel® UHD Graphics 630                                                                          |                                                  |                                                                                        |
| BIOS                                                                                                                        | AMI 256Mbit SPI BIOS                                                                             | Operating Temperature                            | -25°C to 70°C (35W CPU)                                                                |
| Watchdog                                                                                                                    | Software Programmable Supports 1~255 sec. System Reset                                           | Storage Temperature                              | -30°C to 85°C                                                                          |
| AI Accelerator                                                                                                              | Supports 4x Hailo-8™ modules                                                                     | Relative Humidity                                | 10% to 95% (non-condensing)                                                            |
| TPM                                                                                                                         | TPM 2.0                                                                                          | Certification                                    | UL 62368 Ed. 3, CE, FCC Class A                                                        |
| Display                                                                                                                     |                                                                                                  | Vibration                                        | With SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis<br>With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis |
|                                                                                                                             |                                                                                                  | Shock                                            | With SSD: 50G, half sine, 11ms                                                         |
|                                                                                                                             |                                                                                                  | Physical                                         |                                                                                        |
|                                                                                                                             |                                                                                                  |                                                  |                                                                                        |
| Storage                                                                                                                     |                                                                                                  | Dimensions                                       | 240 (W) x 261 (D) x 126.8 (H) mm                                                       |
|                                                                                                                             |                                                                                                  | Weights                                          | 5.7~5.85 kg                                                                            |
|                                                                                                                             |                                                                                                  | Construction                                     | Extruded Aluminum with Heavy Duty Metal                                                |
|                                                                                                                             |                                                                                                  | Mounting Options                                 | Wall Mounting                                                                          |
| SIM Socket                                                                                                                  |                                                                                                  | Expansion                                        |                                                                                        |
| 2x External SIM socket (Mini PCIE attached)                                                                                 |                                                                                                  |                                                  |                                                                                        |
| SSD/HDD                                                                                                                     |                                                                                                  |                                                  |                                                                                        |
| 1x Internal 2.5" SATA/SSD HDD Bay (support H=9mm)<br>6x 7mm Hot-swappable 2.5" SATA HDD/SSD Bay<br>Support RAID 0, 1, 5, 10 |                                                                                                  |                                                  |                                                                                        |
| M.2                                                                                                                         |                                                                                                  |                                                  |                                                                                        |
| 1x M.2 (E Key, PCIe x1, USB 2.0, 2230)                                                                                      |                                                                                                  |                                                  |                                                                                        |
| Mini PCIe                                                                                                                   |                                                                                                  |                                                  |                                                                                        |
| 2x Full-size Mini PCIe                                                                                                      |                                                                                                  |                                                  |                                                                                        |
| PCIe                                                                                                                        |                                                                                                  |                                                  |                                                                                        |
| 1x PCIe x16                                                                                                                 |                                                                                                  |                                                  |                                                                                        |
| PCI                                                                                                                         |                                                                                                  |                                                  |                                                                                        |
| 1x PCI                                                                                                                      |                                                                                                  |                                                  |                                                                                        |
| Expansion Modules                                                                                                           |                                                                                                  | I/O                                              |                                                                                        |
| Occupied One Universal I/O Slot:                                                                                            |                                                                                                  |                                                  |                                                                                        |
| • 4-port GbE module with Intel® I350 Chipset, RJ-45 or M12 connector (PoE optional)                                         |                                                                                                  |                                                  |                                                                                        |
| • 2-Port RJ45 10GbE with Intel X710 Chipset                                                                                 |                                                                                                  |                                                  |                                                                                        |
| • 4-Port USB with Renesas uPD720201K8 host controller (share PCIe Gen2 x1 bandwidth)                                        |                                                                                                  | Audio                                            |                                                                                        |
| • 1x M.2 for 5G (B Key, PCIe x1, USB 3.0, 3042/3052), Including 2x SIM socket, 1x SIM switch (1x Universal Slot Only)       |                                                                                                  |                                                  |                                                                                        |
| Card Dimension                                                                                                              |                                                                                                  |                                                  |                                                                                        |
| 235 (L) x 112 (H) mm                                                                                                        |                                                                                                  |                                                  |                                                                                        |
| CAN                                                                                                                         |                                                                                                  | LAN                                              |                                                                                        |
| 2x CAN 2.0 A/B 2-pin Internal header                                                                                        |                                                                                                  |                                                  |                                                                                        |
| COM                                                                                                                         |                                                                                                  |                                                  |                                                                                        |
| 2x RS-232/422/485 ; 6x RS-232/422/485 (internal)                                                                            |                                                                                                  |                                                  |                                                                                        |
| DIO                                                                                                                         |                                                                                                  | Universal I/O Bracket                            |                                                                                        |
| 8 in / 8 out (Isolated)                                                                                                     |                                                                                                  |                                                  |                                                                                        |
| LAN                                                                                                                         |                                                                                                  |                                                  |                                                                                        |
| 2x RJ45                                                                                                                     |                                                                                                  |                                                  |                                                                                        |
| USB                                                                                                                         |                                                                                                  | Others                                           |                                                                                        |
| 6x USB 3.2 Gen 2 (10 Gbps)                                                                                                  |                                                                                                  |                                                  |                                                                                        |
| 3x USB 3.2 Gen 1 (5 Gbps, 1x Internal)                                                                                      |                                                                                                  |                                                  |                                                                                        |
| 2x USB 2.0 header (internal)                                                                                                |                                                                                                  |                                                  |                                                                                        |
| 5x WiFi Antenna Holes                                                                                                       |                                                                                                  | 4x 4-Pin Power Connector, 1x 4-PIN FAN Connector |                                                                                        |
| 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                                                                                                   |                                                                                                  |                                                  |                                                                                        |
| 4x 4-Pin Power Connector, 1x 4-PIN FAN Connector                                                                            |                                                                                                  |                                                  |                                                                                        |

## External I/O Mechanical Layout

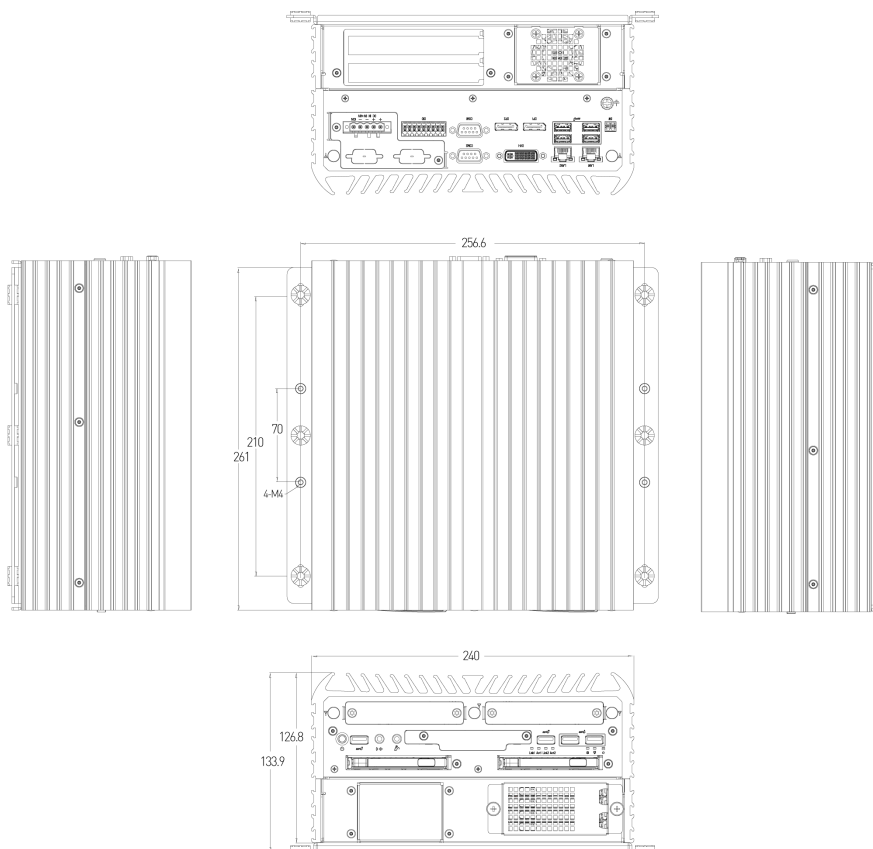


### Available Modules



## Dimension

Unit: mm





# RCO-6000-CML-2-4B7M

## Compatible GPU AVL

| Model                          | GPU Memory           | Memory Bandwidth | CUDA Cores | Tensor Cores | RT Cores | AI TOPS | Dimensions            | Power & Thermal |
|--------------------------------|----------------------|------------------|------------|--------------|----------|---------|-----------------------|-----------------|
| RTX 4000 SFF Ada Generation    | 20GB GDDR6 ECC       | 320 GB/s         | 6144       | 192          | 48       | 307     | 2.7" x 6.6" LP   DS   | 70 W            |
| NVIDIA RTX 2000 Ada Generation | 16 GB GDDR6 with ECC | 224 GB/s         | 2816       | 88           | 22       | 192     | 2.7" x 6.6" LP   DS   | 70 W            |
| NVIDIA RTX A1000               | 8GB GDDR6            | 192 GB/s         | 2304       | 72           | 18       | 108     | 2.7" H x 6.4" LP   SS | 50 W            |

## Compliances and Standards

|                       |                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vibration             | With SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis<br>With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis<br>IEC60068-2-64:2008<br>Designed to comply with MIL-STD-810H Method 514.8 Procedure I                                                                                                                                                                          |
| Shock                 | With SSD: 50G, half sine, 11ms<br>IEC60068-2-27:2008<br>Designed to comply with MIL-STD-810H Method 516.8 Procedure I                                                                                                                                                                                                                                  |
| Operating Temperature | -25°C to 70°C (35W CPU)<br>IEC60068-2-1:2007 (Cold test procedure)<br>IEC60068-2-2:2007 (Dry heat test procedure)<br>IEC60068-2-3:2007 (Damp heat, steady state, test procedure)<br>IEC60068-2-14:2009 (Wide temperature range thermal shock)                                                                                                          |
| EMC                   | <ul style="list-style-type: none"><li>• FCC Class A</li><li>• CE</li><li>• ICES-003</li><li>• UKCA</li><li>• Industrial EMC Compliance<ul style="list-style-type: none"><li>- EN 61000-4-2: 2009</li><li>- EN IEC 61000-4-3: 2020</li><li>- EN 61000-4-4: 2012</li><li>- EN 61000-4-5: 2014 +A1: 2017</li><li>- EN 61000-4-6: 2014</li></ul></li></ul> |
| Safety                | <ul style="list-style-type: none"><li>• UL Safety: UL62368-1, 3rd Ed., (cULus)</li><li>• Test procedure: CB Scheme</li><li>• Standard: IEC 62368-1:2018</li></ul>                                                                                                                                                                                      |

## Available Models

| Model No.              | Description                                                                                                                         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| RCO-6000-CML-2C-4B7M-P | AI Edge Inference Computer W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 1x PCIe x16, 1x PCI, 4 Bay 7mm, w/ Power Adapter |

## Optional Accessories

| Model No.   | Description                                                           |
|-------------|-----------------------------------------------------------------------|
| 1-E09A12002 | Adapter AC/DC 24V 5A 120W with 3pin Terminal Block Plug 5.0mm Pitch   |
| 1-E09A22102 | Adapter AC/DC 24V 9.2A 220W 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-CML Series Embedded System  
 1x Wall Mount Kit  
 1x DVI to VGA Adapter

## US Exports And Tariff Codes

|           |              |
|-----------|--------------|
| ECCN      | 5A992.c      |
| HTS       | 8471.50.0150 |
| ScheduleB | 84.71        |

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