



AI EDGE INFERENCE COMPUTER

RCO-6000-CML-4NS

AI Edge Inference Computer w/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 4x U.2 15mm NVMe, Software RAID



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 by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 2x Removable 2 Bay NVMe SSD Module with RAID 0, 1 (Support H=15mm)
- 3x 2.5" SATA HDD Bay (1x Internal) and with RAID 0, 1, 5 support
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 8x RS-232/422/485 (6x internal), 6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal)
- 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -25°C to 60°C (35W CPU)
- TPM 2.0 Supported

Specifications

| System | |
|--|--|
| Processor | |
| Support 10th Gen Intel® CML S Processor (LGA 1200, 35W TDP) | |
| - Intel® Xeon® W-1290TE, 10 Cores, 20MB Cache, up to 4.5 GHz | |
| - Intel® Core™ i9-10900TE, 10 Cores, 20MB Cache, up to 4.5 GHz | |
| - Intel® Core™ i7-10700TE, 8 Cores, 116MB cache, up to 4.4 GHz | |
| - Intel® Core™ i5-10500TE, 6 Core, 12MB Cache, 3.7 GHz | |
| - Intel® Core™ i3-10100TE, 4 Cores, 9MB Cache, up to 3.6 GHz | |
| System Chipset | Intel® W480E Chipset |
| LAN Chipset | GbE1: Intel I219 (Support Wake-on-LAN and PXE) GbE2: Intel I210 (Support Wake-on-LAN and PXE) |
| Audio Codec | Realtek ALC888S |
| System Memory | 2x 260-Pin DDR4 2666 /2933MHz SODIMM. Max. up to 64GB (ECC and Non-ECC) |
| Graphics | Intel® UHD Graphics 630 |
| 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 4096 x 2304, DP++ |
| DVI | 1x DVI-I, support resolution 1920 x 1200 |
| Multiple Display | Triple Display |
| VGA | Yes (by optional split cable) |
| Storage | |
| M.2 | 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi) |
| NVMe | 2x Removable Cannister Bricks with 2.5" 4 Bay U.2 NVMe SSD (Support H=15mm) with Software RAID 0, 1, 5, 10 |
| SIM Socket | 2x External SIM socket (Mini PCIe attached) |
| SSD/HDD | 1x Internal 2.5" SATA/SSD HDD Bay (support H=9mm) 2x Removable 2.5" SATA HDD Bay (support H=7mm, Hot-swappable) Support RAID 0, 1, 5 |
| Expansion | |
| Mini PCIe | 2x Full-size Mini PCIe |
| PCIe | 1x PCIe x16 (8-lane) 1x PCIe x4 (1 Lane) |

Expansion Modules

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)
- 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)

| 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 ; 6x RS-232/422/485 (internal) |
| DIO | 8 in / 8 out (Isolated) |
| LAN | 2x RJ45 |
| Universal I/O Bracket | 2x Universal I/O Bracket (By mini PCIe interface) |
| USB | 6x USB 3.2 Gen 2 (10 Gbps) 3x USB 3.2 Gen 1 (5 Gbps, 1x Internal) 2x USB 2.0 header (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 4x 4-Pin Power Connector, 1x 4-PIN FAN Connector |
|--------|--|

| Operating System | |
|------------------|--------------|
| Windows | Windows 10 |
| Linux | Linux kernel |

| Power | |
|------------------------|--|
| Power Adapter | Optional AC/DC 24V/5A, 120W Optional AC/DC 24V/9.2A, 220W Optional AC/DC 24V/11.67A, 280W (For GPU/Card Expansion) |
| Power Mode | AT, ATX |
| Power Ignition Sensing | Power Ignition Management |
| Power Supply Voltage | 2x Power Input 9~48VDC 12~48VDC for NVMe EDGEboost Node |
| Power Connector | 5-pin Terminal Block 4-pin Terminal Block for NVMe EDGEBoost Node (12V requires 4-pin terminal block) |
| Power Protection | OVP (Over Voltage Protection); OCP (Over Current Protection) Reverse Protection |

| Environment | |
|-----------------------|--|
| Operating Temperature | -25°C to 60°C (35W 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: 20G, half sine, 11ms |

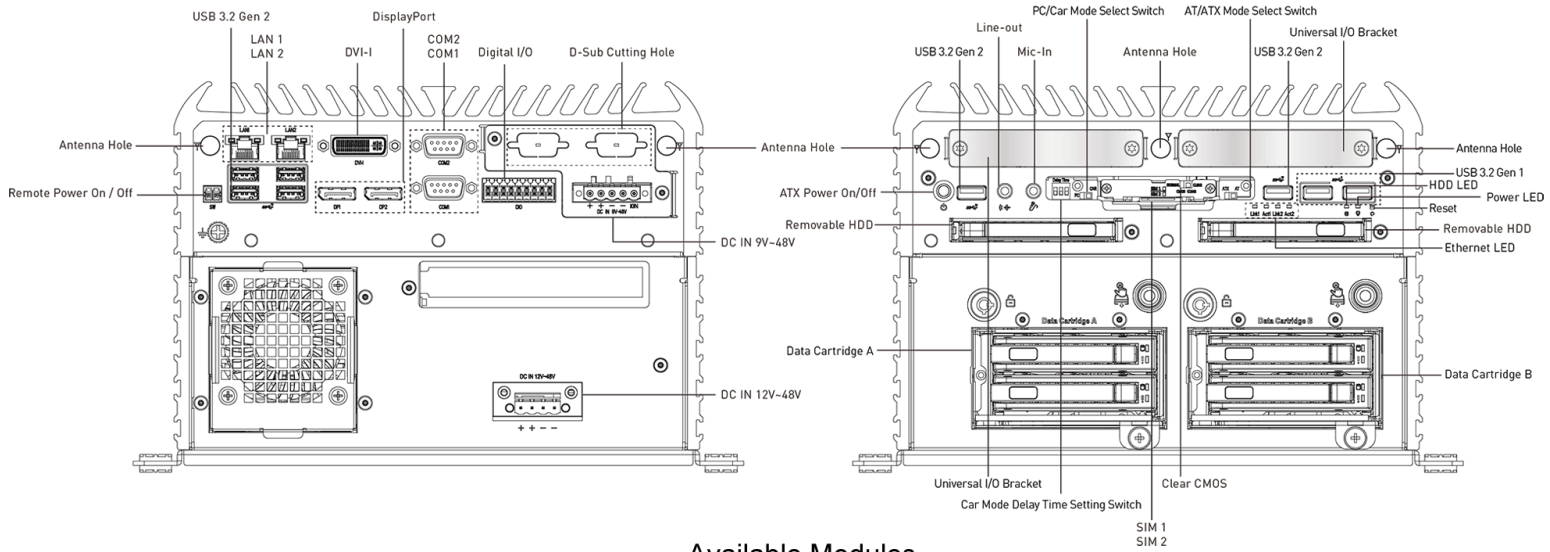
| Physical | |
|------------------|---|
| Dimensions | 240 (W) x 261 (D) x 166.9 (H) mm |
| Weights | 10.2 kg |
| Construction | Extruded Aluminum with Heavy Duty Metal |
| Mounting Options | Wall Mounting |

* For 10th Gen Intel CPUs configured to run at 65W, operating temperatures will be limited to 60°C.

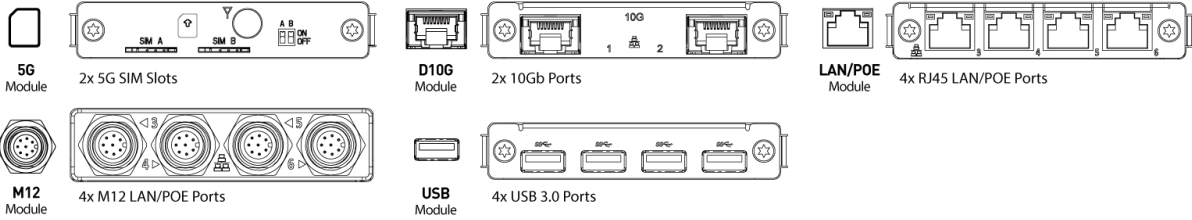
** 65W CPUS may experience thermal throttling depending on extreme application workloads; this is also due to an increase in the physical CPU cores from the Intel silicon (up to 10 cores). Please note, this does not indicate system malfunction or problems in the fanless design. Please consult our embedded 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

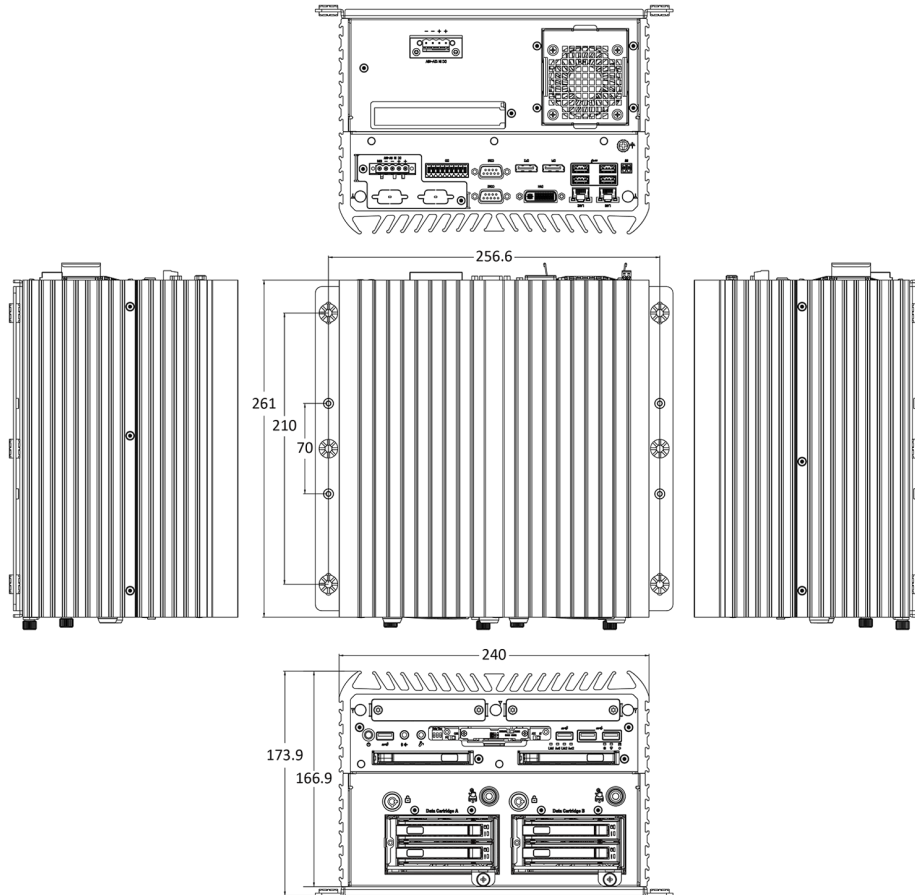


Available Modules



Dimension

Unit: mm



Available Models

| Model No. | Description |
|--------------------|--|
| RCO-6000-CML-4NS-P | AI Edge Inference Computer w/ LGA 1200 for Intel 10th Gen Processor and W480E PCH, 4x U.2 15mm NVMe, Software RAID |

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 |
| 1-E09A22801 | Adapter AC/DC 24V/11.67A 280W 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-4NS
1x Wall Mount Kit
1x Accessory Kit
1x DVI to VGA Adapter

Exports And Tariff Codes

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