



FLASH STORAGE COMPUTING SYSTEM

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 (65W/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
- 2x Removable 2 Bay NVMe SSD Module with RAID 0, 1, 5, 10 (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)
- 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/65W CPU)
- TPM 2.0 Supported
- UL Listed



Specifications

System

Processor

- Support 10th Gen Intel® CML S Processor (LGA 1200, 65W/35W TDP)
- Intel® Xeon® W-1290TE, 10 Cores, 20MB Cache, up to 4.5 GHz
- Intel® Xeon® W-1270TE, 8 Cores, 16MB Cache, up to 4.4 GHz
- Intel® Xeon® W-1250TE, 6 Cores, 12MB Cache, up to 3.8 GHz
- Intel® Core™ i9-10900E, 10 Cores, 20MB Cache, up to 4.7 GHz
- Intel® Core™ i9-10900TE, 10 Cores, 20MB Cache, up to 4.5 GHz
- Intel® Core™ i7-10700E, 8 Core, 16MB Cache, up to 4.5 GHz
- Intel® Core™ i7-10700TE, 8 Cores, 16MB cache, up to 4.4 GHz
- Intel® Core™ i5-10500T, 6 Cores, 12MB Cache, up to 4.2 GHz
- Intel® Core™ i5-10500TE, 6 Core, 12MB Cache, 3.7 GHz
- Intel® Core™ i3-10100T, 4 Cores, 6MB cache, up to 3.8 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

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

M.2 1x M.2 (E Key, PCIe x1, USB 2.0, 2230)

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)

OCF (Over Current Protection)

Reverse Protection

Environment

Operating Temperature -25°C to 60°C (35W/65W CPU)

Storage Temperature -30°C to 85°C

Relative Humidity 10% to 95% (non-condensing)

Certification UL, 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

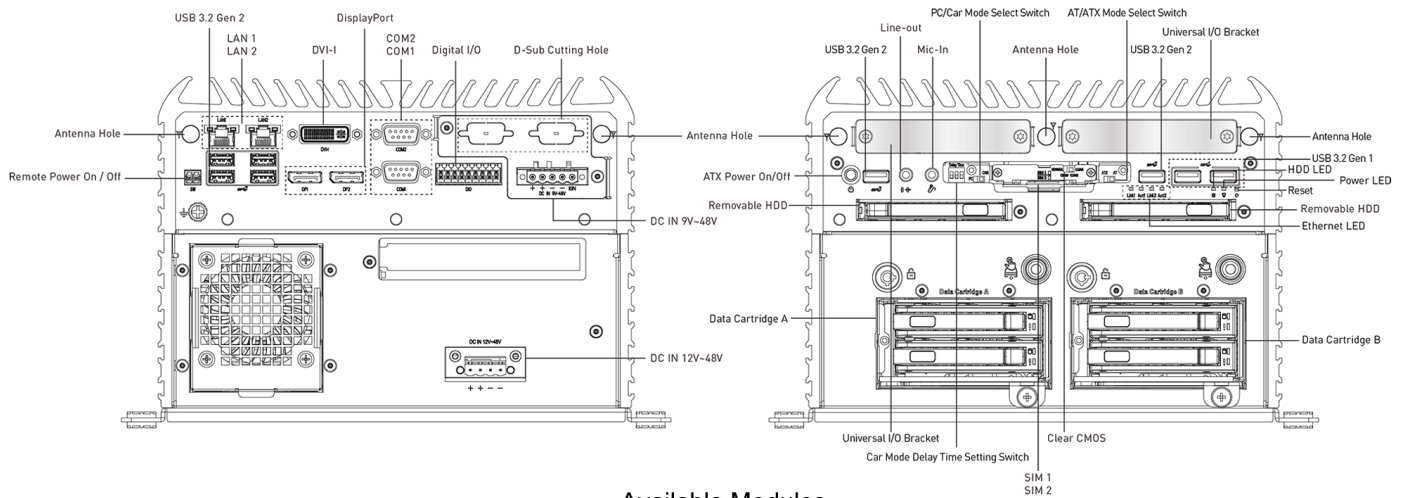
Mounting Options Wall Mounting

• 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.

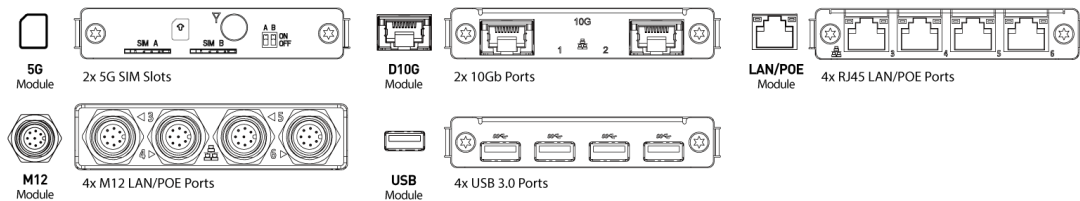


RCO-6000-CML-4NS

External I/O Mechanical Layout

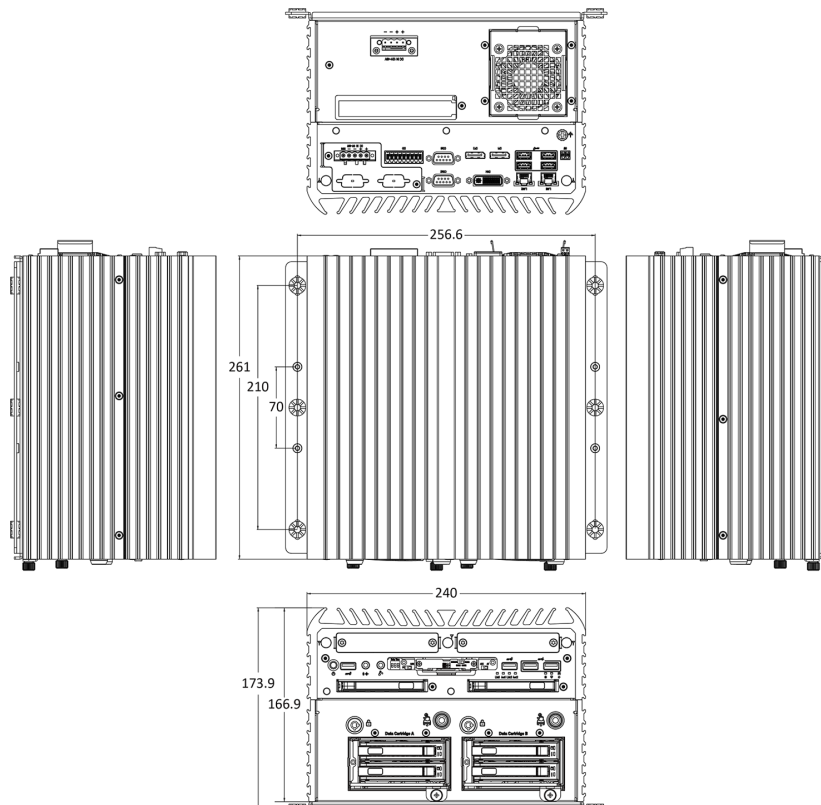


Available Modules



Dimension

Unit: mm





RCO-6000-CML-4NS

Available Models

Model No.	Description
RCO-6000-CML-4NS	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
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

Packing List

1x RCO-6000-CML-4NS
1x Wall Mount Kit
1x Accessory Kit
1x DVI to VGA Adapter



C&T Solution Inc.

18F, No.176, Jianyi Road, Zhonghe Dist., New Taipei City 235603, Taiwan (R.O.C.)

Toll Free: +886-2-7731-7888 Fax: +886-2-7731-7855

Email: info@candtsolution.com

<https://www.candtsolution.com>

Assured Systems

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US

sales@assured-systems.com

Sales: +1 347 719 4508

Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050

Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28

Business Registration Number: 07699660