



AI EDGE INFERENCE COMPUTER

RCO-6000-CML-2N2060S

AI Edge Inference Computer w/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2 Bay U.2 15mm, RTX 2060S integrated

Features

- LGA 1200 socket for 10th Gen. Intel® CML S Processor (35W TDP)
- Intel® W480E chipset
- NVIDIA GeForce® RTX 2060 Super Graphics engine based on NVIDIA Turing™ GPU architecture
- 2x DDR4 2666/2933MHz SODIMM. Max. up to 64GB
- 6 Display interface supported by 1x DVI-I, 1x DVI-D, 3x DisplayPort, 1x HDMI
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 1x 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)
- 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
- Edge AI Ready with Hailo-8™ (26 TOPS / 2.5W)
- UL Listed



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, 16MB 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

AI Accelerator Supports 4x Hailo-8™ modules

TPM TPM 2.0

Display

Display Port 3x DisplayPort

DVI 1x DVI-I, 1x DVI-D

HDMI 1x HDMI

Multiple Display 6 Display interfaces

Storage

NVMe 1x Removable Cannister Brick with 2.5" 2 Bay U.2 NVMe SSD
(Support H=15mm)

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, Occupied by GPU)
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 10/11

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/GPU EDGEboost Node

Power Connector 5-pin Terminal Block
4-pin Terminal Block for GPU and 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 UL 62368 Ed. 3, 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

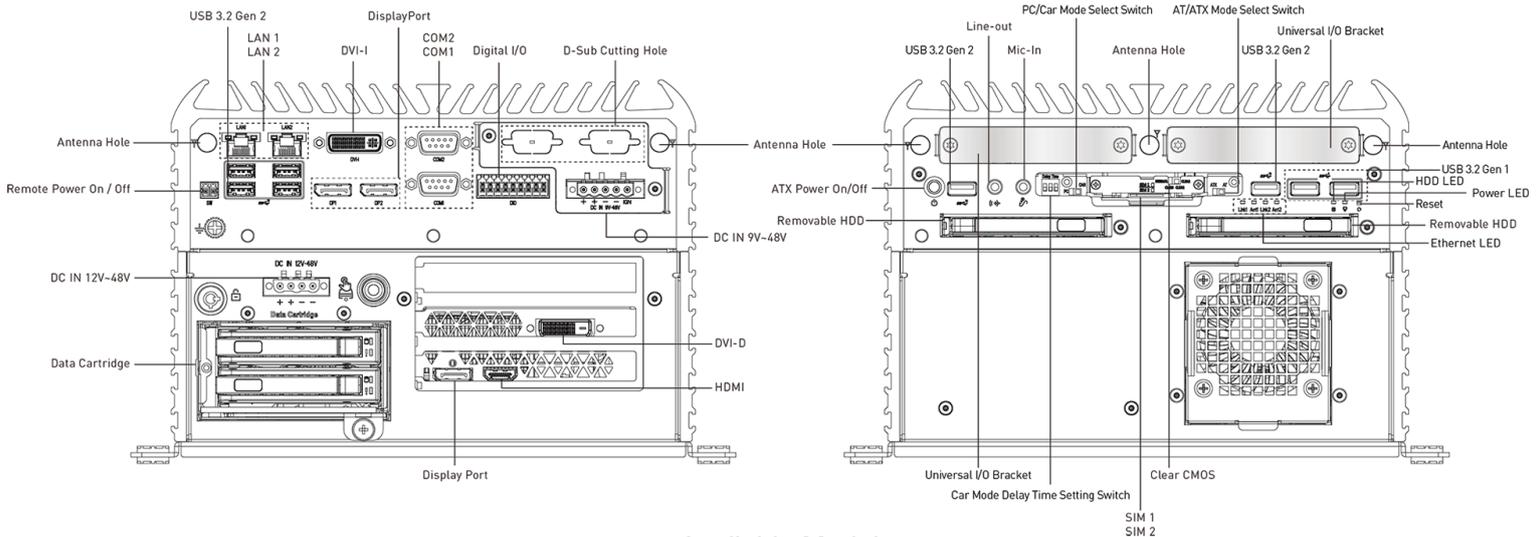
Weights 11.1 kg

Construction Extruded Aluminum with Heavy Duty Metal

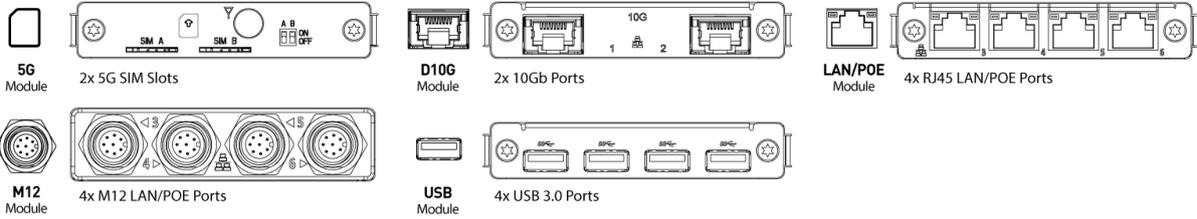
Mounting Options Wall Mounting

- 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

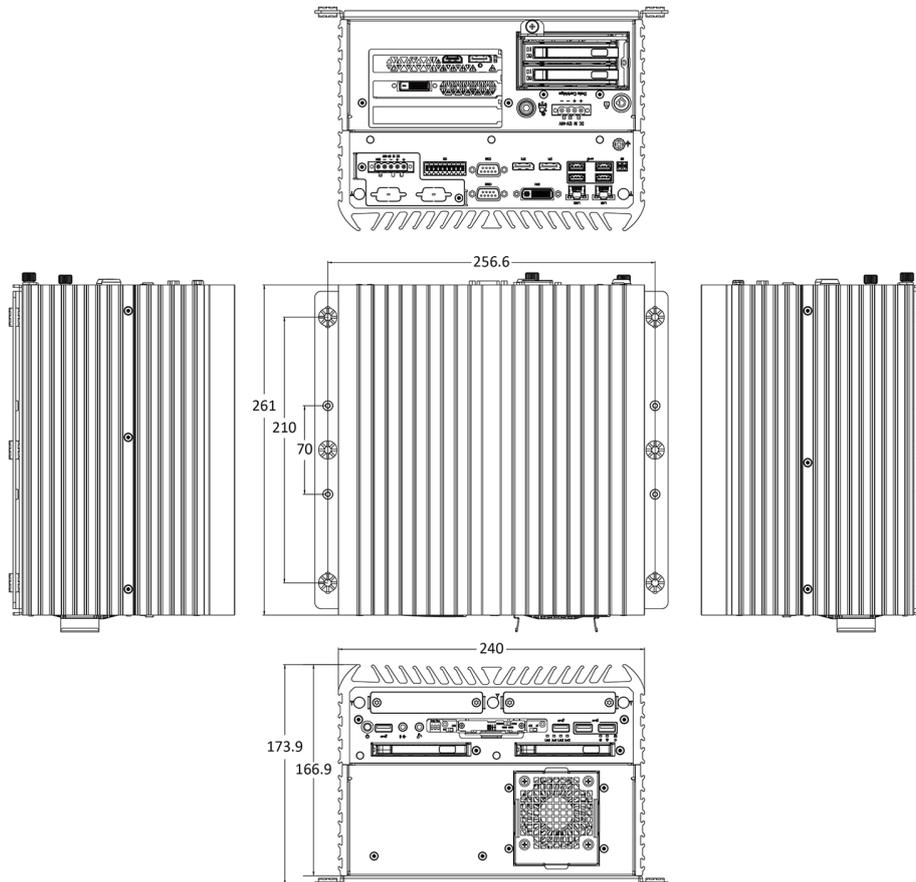


Available Modules



Dimension

Unit: mm



Available Models

Model No.	Description
RCO-6000-CML-2N-2060S-P	AI Edge Inference Computer w/ LGA 1200 for Intel 10th Gen Processor and W480E PCH, 2 Bay U.2 15mm, RTX 2060S integrated

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-2N2060S
- 1x Wall Mount Kit
- 1x Accessory Kit
- 1x DVI to VGA Adapter

Compatible GPU AVL

Model	RAM	CUDA Cores	TDP	TOPS/TFLOPS	Displays	System Interface	Form Factor
NVIDIA T1000	8G	896	50W	5.3 TFLOPS	4x mDP	PCIe 3.0 x16	2.7" H x 6.1" L, Low-Profile Single Slot
NVIDIA RTX A1000	8G	2304	50W	6.74 TFLOPS	4x mDP	PCIe 4.0 x8	2.7" H x 6.4" L, Single slot
NVIDIA RTX A2000	12G	3328	70W	7.99 TFLOPS	4x mDP	PCIe 4.0 x16	2.7" H x 6.6" L, Low Profile, Dual Slot
NVIDIA RTX 2000 ADA	16G	2816	70W	12 TFLOPS	4x mDP	PCIe 4.0 x8	2.7" H x 6.6" L, Dual slot
NVIDIA RTX 4000 SFF ADA	20G	6144	70W	19.2 TFLOPS	4x mDP	PCIe 4.0 x16	2.7" H x 6.6" L, Low Profile, Dual Slot

Compliances and Standards

Vibration	With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 Procedure I
Shock	With SSD: 20G, half sine, 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Operating Temperature	-25°C to 60°C (35W CPU) IEC60068-2-1:2007 (Cold test procedure) IEC60068-2-2:2007 (Dry heat test procedure) IEC60068-2-3:2007 (Damp heat, steady state, test procedure) IEC60068-2-14:2009 (Wide temperature range thermal shock)
EMC	<ul style="list-style-type: none"> • FCC Class A • CE • ICES-003 • UKCA • Industrial EMC Compliance - EN 61000-4-2: 2009 - EN IEC 61000-4-3: 2020 - EN 61000-4-4: 2012 - EN 61000-4-5: 2014 +A1: 2017 - EN 61000-4-6: 2014
Safety	<ul style="list-style-type: none"> • UL Safety: UL62368-1, 3rd Ed., (cULus) • Test procedure: CB Scheme • Standard: IEC 62368-1:2018

Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71