



FLASH STORAGE COMPUTING SYSTEM

RCO-6000-CML-2C-4B7M

Flash Storage Computing System W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 7x HDD, 1x PCIe x16, 1x PCI

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 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
- 1x Internal 2.5" SATA/SSD HDD Bay (support H=9mm), 2x 7mm Hot-swappable 2.5" SATA HDD/SSD Bay
- 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)
- 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/65W CPU)
- TPM 2.0 Supported
- Optional: 2x 15mm or 4x 7mm Hot-swappable 2.5" SATA HDD/SSD Bay for Storage Expansion.
- 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

M.2	1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
SIM Socket	2x External SIM socket (Mini PCIE attached)
SSD/HDD	• RCO-6000-CML-2C-4B7M : 1x Internal 2.5" SATA/SSD HDD Bay (support H=9mm) 6x 7mm Hot-swappable 2.5" SATA HDD/SSD Bay • RCO-6000-CML-2C-2B15M (Optional) : 1x Internal 2.5" SATA/SSD HDD Bay (support H=9mm) 2x 7mm, 2x 15mm Hot-swappable 2.5" SATA HDD/SSD Bay Support RAID 0, 1, 5, 10

Expansion

Mini PCIe	2x Full-size Mini PCIe
PCI	1x PCI (Model 2C-4B7M) 2x PCI (Model 2I-4B7M, 2I-2B15M, optional)
PCIe	1x PCIe x16 (Model 2C-4B7M) 2x PCIe x16 (8-lane), (Model 2E-4B7M, 2E-2B15M, optional)

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)

Card Dimension	235 (L) x 112 (H) mm
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I/O

Audio	1x Mic-in, 1x Line-out
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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
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

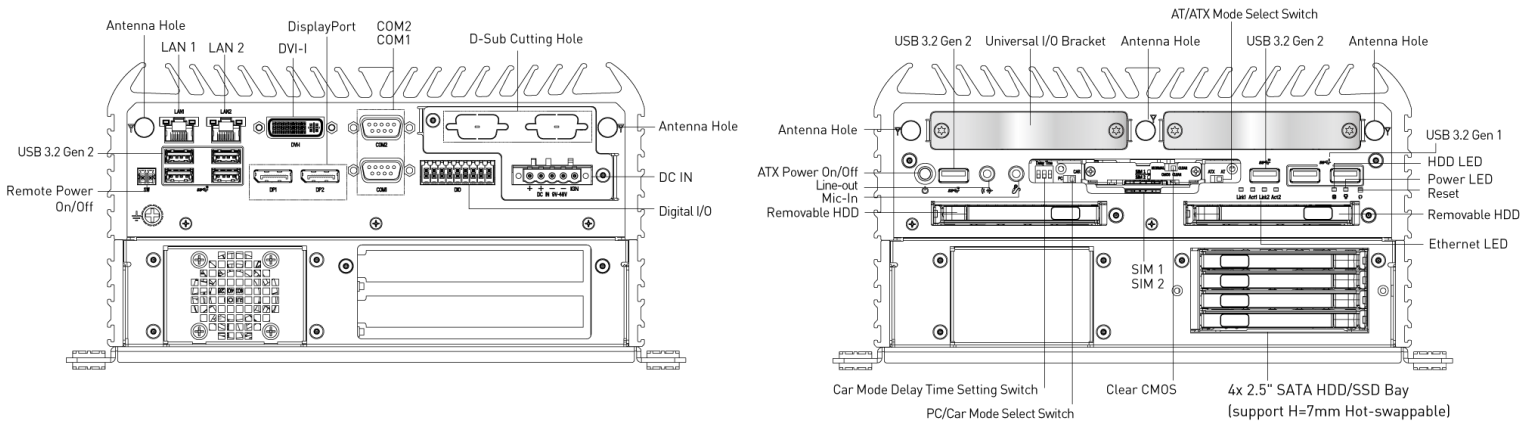
Environment

Operating Temperature	-25°C to 70°C (35W/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: 5 Grms, 5 - 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis
Shock	With SSD: 50G, half sine, 11ms

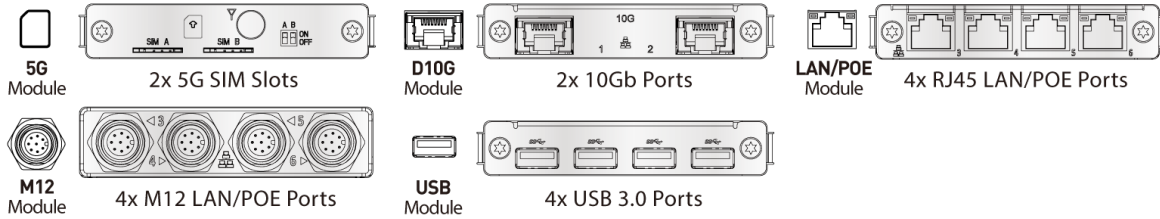
Physical

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

External I/O Mechanical Layout

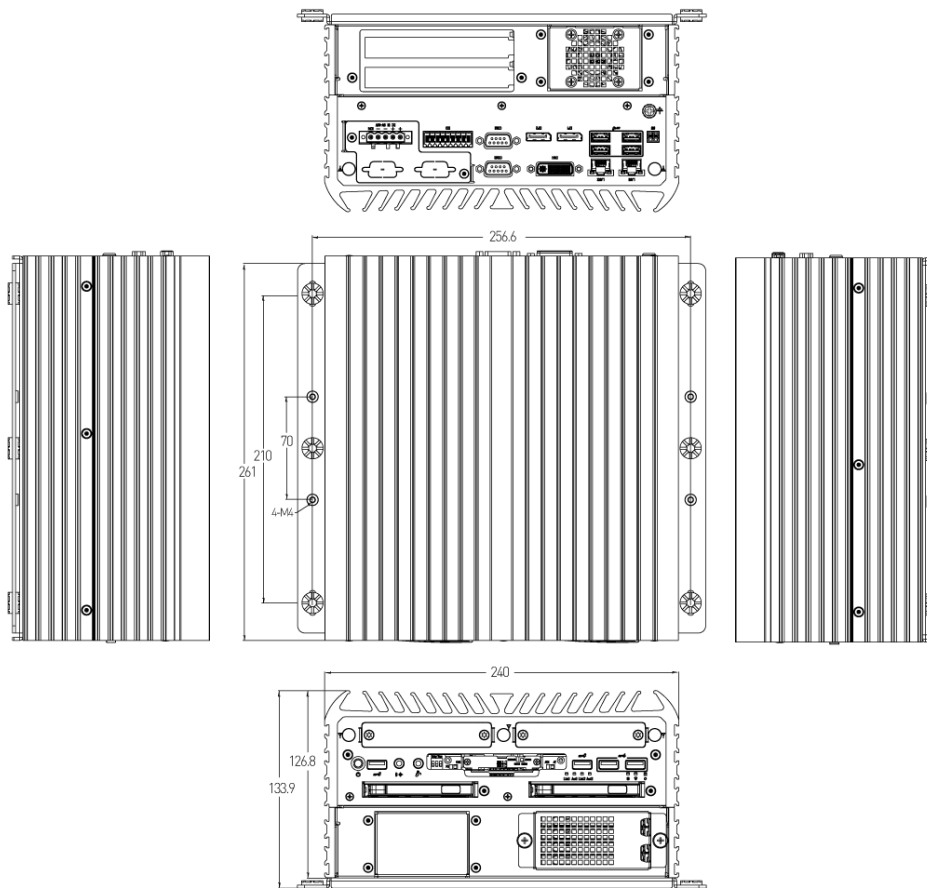


Available Modules



Dimension

Unit: mm



Available Models

Model No.	Description
RCO-6000-CML-2C-4B7M	Flash Storage Computing System W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 1x PCIe x16, 1x PCI, 4 Bay 7mm
RCO-6000-CML-2E-4B7M	Flash Storage Computing System W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 2x PCIe x16 (8-lane), 4 Bay 7mm
RCO-6000-CML-2I-4B7M	Flash Storage Computing System W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 2x PCI, 4 Bay 7mm
RCO-6000-CML-2C-2B15M	Flash Storage Computing System W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 1x PCIe x16, 1x PCI, 2 Bay 15mm
RCO-6000-CML-2E-2B15M	Flash Storage Computing System W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 2x PCIe x16 (8-lane), 2 Bay 15mm
RCO-6000-CML-2I-2B15M	Flash Storage Computing System W/ LGA 1200 for Intel 10th Gen CPU & W480E PCH, 2x LAN, 2x PCI, 2 Bay 15mm

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
SFICBL022	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 Accessory Kit
1x DVI to VGA Adapter