premio

SMALL FORM FACTOR COMPUTER

RCO-3000-RPL

Small Form Factor Computer with LGA 1700 for 12/13th Gen Intel CPU & Q670E PCH, 2x LAN

Features

- Support 12/13 Gen Intel® RPL S Processor (LGA 1700, 35W TDP)
- Intel® Q670E Express Chipset
- 4x Independent Displays
- 2x Intel® 2.5GbE supporting Wake-on-LAN and PXE, 3x External SIM socket
- 2x 2.5" SATA SSD Bay (1x Internal) with RAID 0, 1, 5 support
- 1x M.2 E Key, 2230 (PCIe x1, USB 2.0)
- 1x M.2 B Key, 2242/3042/3052 (PCIe x2,or PCIe x1 & USB 3.2 Gen1; Support AI Module/NVMe Storage/4G/5G)
- 1x M.2 B Key, 2242/3042/3052 (PCIe x2 or SATA; Support AI Module/NVMe/SATA Storage/4G/5G)
- 3x RS-232/422/485, 6x USB 3.2 Gen 2 (10 Gbps)
- 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)
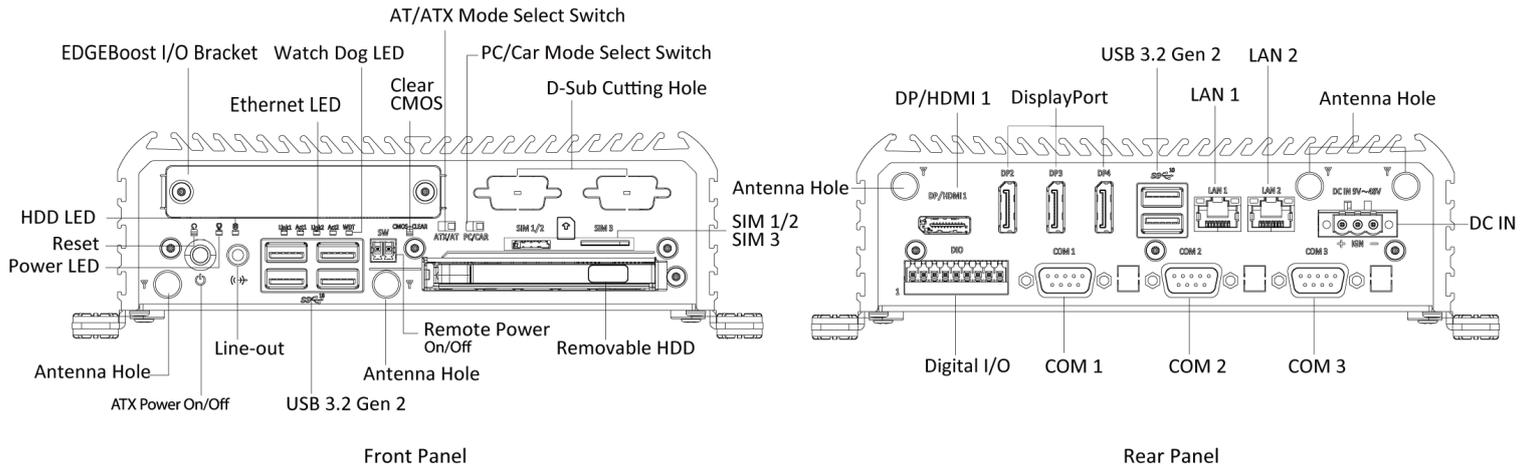- TPM 2.0 Supported

UL CERTIFIED SAFETY US E545432   FC   CE

Specifications

System

Processor	Support 12/13th Gen Intel® ADL & RPL Processor (LGA 1700, 35W TDP) - Intel® Core™ i9-13900TE/i9-12900TE, up to 24 Cores, 36MB Cache, up to 5 GHz, 35W - Intel® Core™ i7-13700TE/i7-12700TE, up to 16 Cores, 30MB cache, up to 4.8 GHz, 35W - Intel® Core™ i5-13500TE/i5-12500TE, up to 14 Core, 24MB Cache, up to 4.5 GHz, 35W - Intel® Core™ i3-13100TE/i3-12100TE, up to 4 Cores, 12MB Cache, up to 4.1 GHz, 35W
System Chipset	Intel® Q670E Express Chipset
LAN Chipset	2.5 GbE1: Intel I226 (Support Wake-on-LAN and PXE, Support TSN) 2.5 GbE2: Intel I226 (Support Wake-on-LAN and PXE, Support TSN)
Audio Codec	Realtek ALC888S
System Memory	1x DDR5 4800/5600MHz SODIMM. Max. up to 32GB
Graphics	Integrated Intel® UHD Graphics 770/730
BIOS	AMI 256Mbit SPI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
AI Accelerator	Supports up to 4x Hailo-8™ modules
TPM	TPM 2.0

Display

Display Port	4x DisplayPort 1.4a, support resolution 4096 x 2304, Up to 7680 x 4320 (1x DP Port Co-layout HDMI Connector)
HDMI	Yes, Shared by 1x DP port
Multiple Display	4x Independent Displays

Storage

SSD/HDD	1x 9mm 2.5" SATA SSD Bay (Internal) 1x 7mm 2.5" SATA SSD Bay (Hot-swappable) Support RAID 0, 1, 5

Expansion

M.2 B-Key	1x M.2 B key Type: 2242/3042/3052 • Support PCIe x2/PCIe x1 & USB 3.2 Gen1 • Support NVMe Storage/Hailo AI Module/4G/5G 1x M.2 B key Type: 2242/3042/3052 • Support PCIe x2/SATA signal • Support NVMe/SATA Storage/Hailo AI Module/4G/5G
M.2 E-Key	1x M.2 E key slot (2230) • Support PCIe x1 & USB 2.0; Support CNVi • Support Wifi Module
SIM Socket	1x External Mini SIM socket 1x External Dual Nano SIM socket

Expansion Modules

EDGEBoost I/O Bracket:
- 4-port 1GbE module with Intel® I350 Chipset, RJ-45 or M12 connector (PoE optional)
- 2-Port 10GbE RJ45 with Intel X710 Chipset
- 4-Port USB with Renesas uPD720201K8 host controller (share PCIe Gen2 x1 bandwidth)
- 1x RJ45 port for OOB Management Module
- 1x M.2 M-Key (PCIe x4 Lane, 2242/2260) for NVMe/AI Module
- 2x M.2 B-Key 2242/3042/3052:
- 2x M.2 (PCIe x2 Lane) for NVMe/AI Module or
- 1x M.2 (PCIe x2 Lane) for NVMe/AI Module and 1x M.2 (PCIe x1 Lane + USB 3.2 Gen 1) for 4G/5G Module, 1x External SIM socket (M.2 attached)

I/O

Audio	1x Line-out
CAN	2x CAN 2.0 A/B 2-pin Internal header
COM	3x RS-232/422/485; 2x RS-232/422/485 Internal header
DIO	8 in / 8 out (Isolated)
LAN	2x 2.5GbE RJ45

USB	6x USB 3.2 Gen 2 (10Gbps)
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 Clear CMOS Switch 1x Mic In Header (Internal)

Operating System

Windows	Windows 10/11
Linux	Linux kernel 5.x

Power

Power Adapter	Optional AC/DC 24V/9.2A, 220W Optional AC/DC 24V/11.67A, 280W
Power Mode	AT, ATX
Power Ignition Sensing	Power Ignition Management
Power Supply Voltage	9~48VDC
Power Connector	3-pin Terminal Block
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection

Environment

Operating Temperature	UL 61010-2: -25°C to 50°C (35W CPU) CE/FCC/IC: -25°C to 70°C (35W CPU)
Storage Temperature	-30°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL 61010-1, 3rd Ed UL 61010-2-201, Edition 2 CE, FCC Class A EMC Conformity with EN50155 & EN50121-3-2
Vibration	With HDD: 1 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis)
Shock	With SSD: 50G half-sin 11ms

Physical

Dimensions	192 (W) x 227 (D) x 60.3 (H) mm
Weights	4.8kg - 5 kg
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	Wall Mounting kit with Vibration Isolation DIN Rail Mounting (optional)

• All specifications and photos are subject to change without notice.

External I/O Mechanical Layout

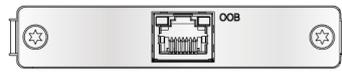Front Panel

Rear Panel

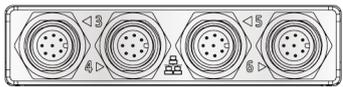## Available EDGEBoost I/O

2x M.2 B-Key (1x 5G SIM)

1x M.2 M-Key (4-Lane)

1x RJ45 OOB Port

4x M12 LAN/POE Ports

4x USB 3.0 Ports

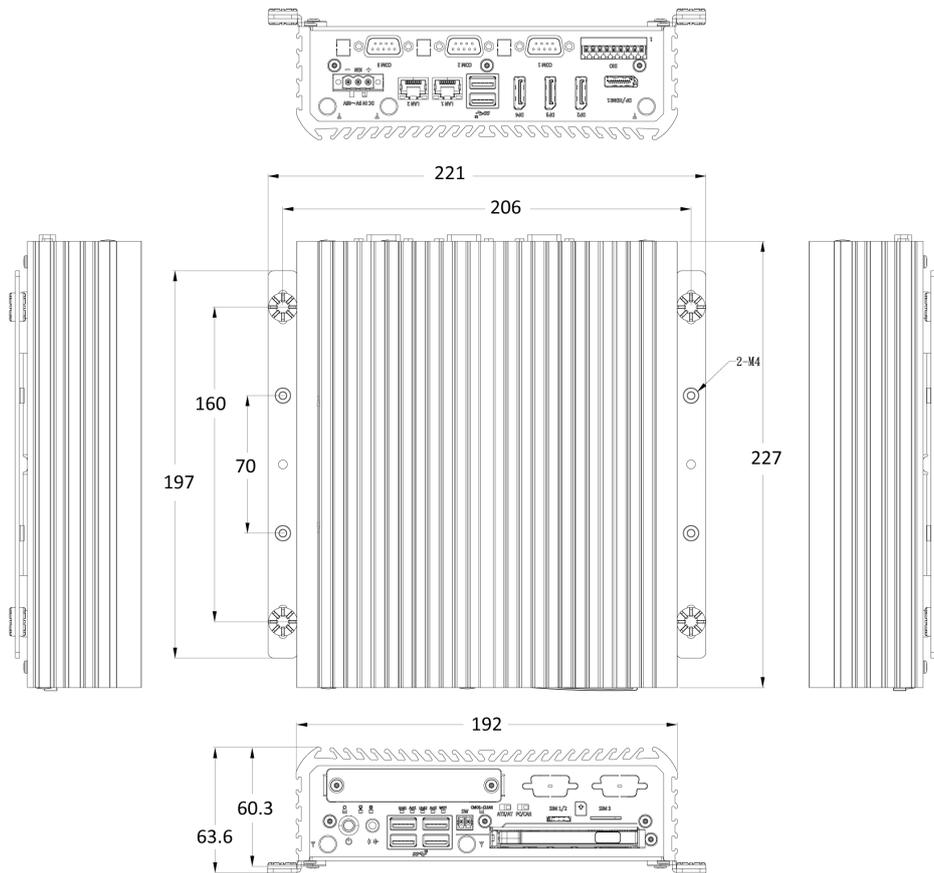2x 10GbE LAN Ports

4x RJ45 LAN/POE Ports

Dimension

Unit: mm

Available Models

Model No.	Description
RCO-3000-RPL-P	Small Form Factor Computer with LGA 1700 for 12/13/14th Gen Intel CPU & Q670E PCH, 2x LAN

Optional Accessories

Model No.	Description
1-E09A22102	Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A22801	Adapter AC/DC 24V 11.6A 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
3-DINR-0004	DinRail-2MountingKit

Packing List
- 1x RCO-3000-RPL
- 1x Wall Mounting kit with Vibration Isolation
- 1x Accessory Kit

Compliances and Standards

Vibration	With HDD: 1 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 5 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: 50G half-sin 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Operating Temperature	UL 61010-2: -25°C to 50°C (35W CPU) CE/FCC/IC: -25°C to 70°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	• FCC Class A • CE • ICES-003 • UKCA • Railway EMC Compliance - EN 50155: 2017 - EN 50121-1: 2017 - EN 50121-3-2: 2016 • Industrial EMC Compliance - EN 61000-4-2: 2009 - EN 61000-4-3: 2020 - EN 61000-4-4: 2012 - EN 61000-4-5: 2014 +A1: 2017 - EN 61000-4-6: 2014
Safety	cULus • UL 61010-1, 3rd Ed. • UL 61010-2-201, 2nd Ed. • CAN/CSA-C22.2 No. 61010-1-12, 3rd Ed. • CSA C22.2 No. 61010-2-201:18, 2nd Ed.
Environmental Compliance	• RoHS 3 (2015/863/EU) • REACH

Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71