



SMALL FORM FACTOR COMPUTER

RCO-3000-RPL

Small Form Factor Computer with LGA 1700 for Intel® Core™ (Series 2)/14th/13th/12th Gen Processors & Q670E PCH, 2x LAN



Specifications

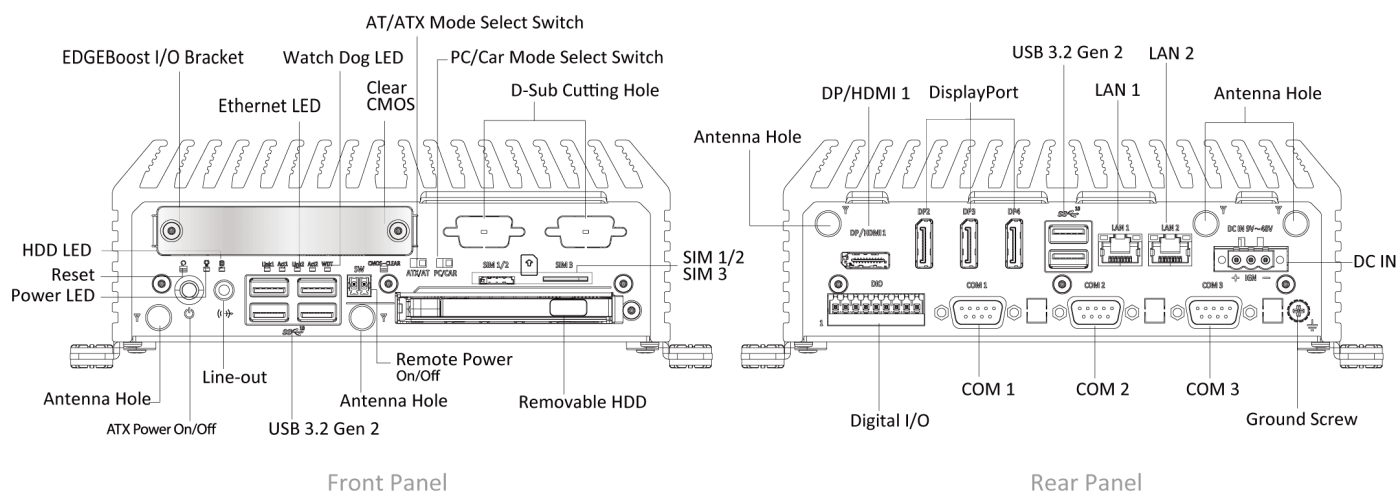
System		I/O	
Processor Standard 13th Gen Intel® Core™ Processors (Raptor Lake-S) - Intel® Core™ i7-13700TE, 35W - Intel® Core™ i5-13500TE, 35W 12th Gen Intel® Core™ Processors (Alder Lake-S) - Intel® Core™ i7-12700TE, 35W - Intel® Core™ i5-12500TE, 35W Project Based - Intel® Core™ 3 / 5 / 7 (Series 2, Bartlett Lake-S, 45W) - 14th Gen Intel® Core™ i3 / i5 / i7 / i9 (Raptor Lake-S Refresh, 35W) - 13th Gen Intel® Core™ i3 / i5 / i7 / i9 (Raptor Lake-S, 35W) - 12th Gen Intel® Core™ i3 / i5 / i7 / i9 (Alder Lake-S, 35W)		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)	
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 4800/5600 MT/s SO-DIMM Max. 48GB 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 2x Hailo-8™ modules TPM TPM 2.0		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 -25°C to 70°C (35W/45W 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 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 69.5 (H) mm Weights 5 - 5.4KG Construction Extruded Aluminum with Heavy Duty Metal Mounting Options Wall Mounting kit with Vibration Isolation	
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/4G			
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/up to 1x 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)			

* Processor Base Power: 35W, 45W (CPU-dependent)

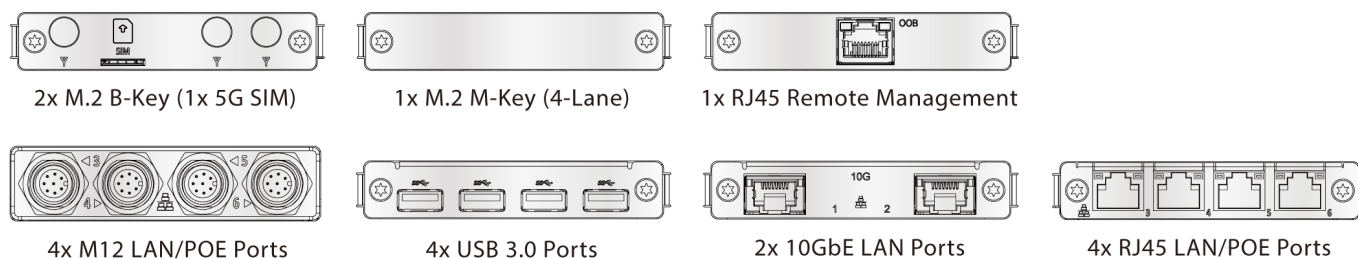
** View appendix for complete supported processors table.

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

External I/O Mechanical Layout

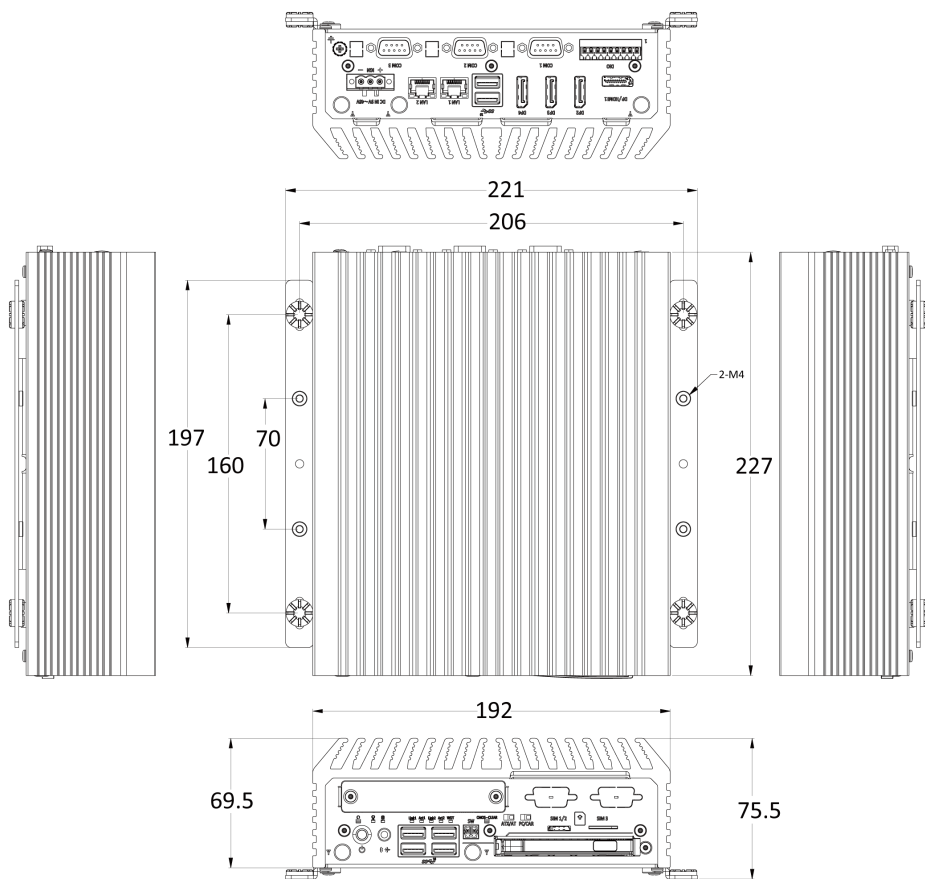


Available EDGEBoost I/O



Dimension

Unit: mm



Compatible CPU Support List

Generation and Code Name	Processor	P + E Cores	P-core Base Frequency	L3 Cache	Base Power
Intel® Core™ Series 2 Bartlett Lake-S	Intel® Core™ 7 Processor 251TE	8P + 16E	1.4 GHz	36 MB	45W
	Intel® Core™ 5 Processor 221TE	6P + 8E	1.8 GHz	24 MB	45W
	Intel® Core™ 3 Processor 201TE	4P	2.9 GHz	12 MB	45W
14th Gen Raptor Lake-S Refresh	Intel® Core™ i9 processor 14900T	8P + 16E	1.1 GHz	36 MB	35W
	Intel® Core™ i7 processor 14700T	8P + 12E	1.3 GHz	33 MB	35W
	Intel® Core™ i5 processor 14500T	6P + 8E	1.7 GHz	24 MB	35W
	Intel® Core™ i3 processor 14100T	4P	2.7 GHz	12 MB	35W
13th Gen Raptor Lake-S	Intel® Core™ i9 processor 13900TE	8P + 16E	1.00 GHz	36 MB	35W
	Intel® Core™ i7 processor 13700TE	8P + 8E	1.10 GHz	30 MB	35W
	Intel® Core™ i5 processor 13500TE	6P + 8E	1.30 GHz	24 MB	35W
	Intel® Core™ i3 processor 13100TE	4P	2.40 GHz	12 MB	35W
12th Gen Alder Lake-S	Intel® Core™ i9 processor 12900TE	8P + 8E	1.10 GHz	30 MB	35W
	Intel® Core™ i7 processor 12700TE	8P + 4E	1.40 GHz	25 MB	35W
	Intel® Core™ i5 processor 12500TE	6P	1.90 GHz	18 MB	35W
	Intel® Core™ i3 processor 12100TE	4P	2.10 GHz	12 MB	35W

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-810H Method 514.8 Procedure I
Shock	With SSD: 50G half-sin 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810H Method 516.8 Procedure I
Operating Temperature	-25°C to 70°C (35W/45W 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

Available Models

Model No.	Description
RCO-3000-RPL-P	Small Form Factor Computer with LGA 1700 for Intel® Core™ Processors (Series 2)/13th Gen (RPL)/12th Gen (ADL) & Q670E PCH, 2x LAN, w/ Power Adapter

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

Packing List

- 1x RCO-3000-RPL
- 1x Wall Mounting kit with Vibration Isolation

US Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71

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