



COMPACT FANLESS EMBEDDED SYSTEMS

RCO-1000-EHL-30

Compact fanless embedded system with Intel Atom™/Celeron® CPU, 2x DP, 2x COM, 1x 2.5" SATA HDD Bay



Features

- Support Intel Atom™/Celeron® Processor
- 1x 260-pin DDR4 SODIMM. Max. up to 32GB
- Dual Independent Display by 2x Display Port
- 1x 2.5GbE, 1x GbE supporting (Wake-on-LAN and PXE)
- 1x 2.5" SATA HDD Bay, 1x mSATA,
- 1x M.2 (B Key, 2242/3042/3052, Support 4G/5G)
- 1x Full-size mini PCIe for communication or expansion modules
- 2x RS-232/422/485, 3x USB 3.2 Gen2, 1x USB 2.0
- 9 to 36VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -40°C to 70°C
- TPM 2.0 Supported
- With 5x Universal Expansion Slots

Specifications

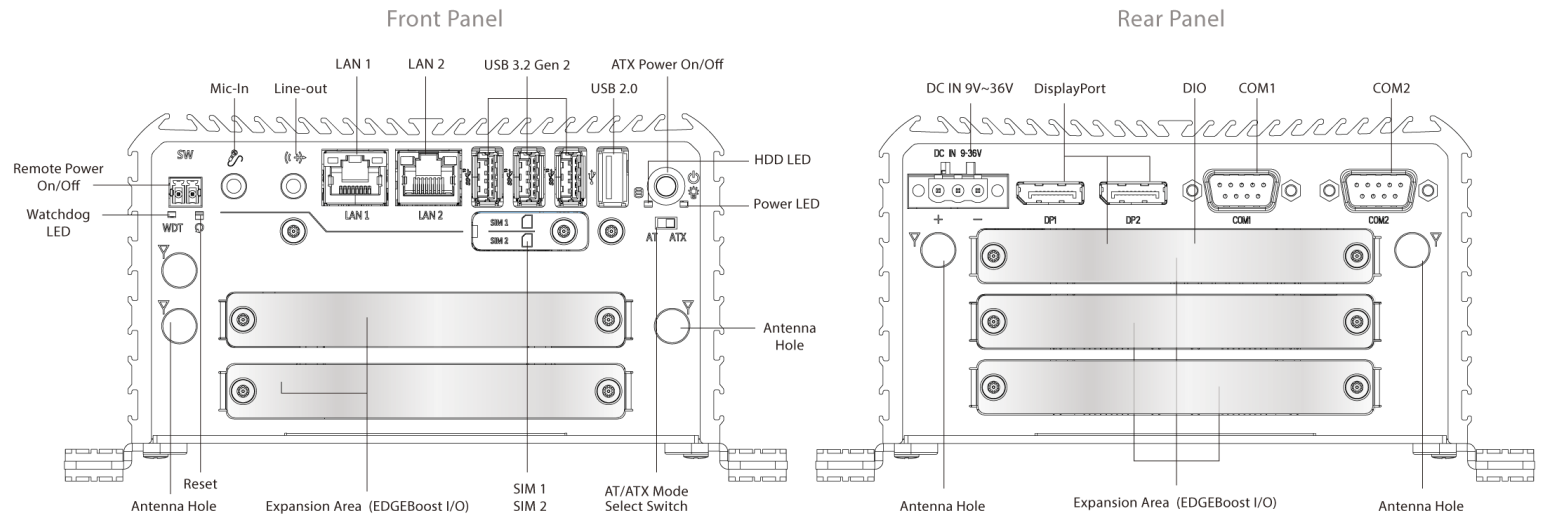
System		Power Protection	OVP (Over Voltage Protection); OCP (Over Current Protection) Reverse Protection
Processor			
Support Intel® EHL Processor (Up to 12W TDP)			
-Intel® Atom® Processor x6425E, Quad Core, 1.5 MB Cache, 2.0 GHz, ECC supported			
-Intel® Celeron® Processor J6413, Quad Core, 1.5 MB Cache, 1.8 GHz			
System Chipset		SoC integrated	
LAN Chipset		1 GbE1: Intel I210 (Support Wake-on-LAN and PXE) 2.5 GbE2: Intel I225 (Support Wake-on-LAN and PXE)	
Audio Codec		Realtek ALC888S	
System Memory		1x 260-Pin DDR4 2400/2667/3200MT/s SODIMM. Max. up to 32 GB	
Graphics		Intel® UHD Graphics	
BIOS		AMI 256Mbit SPI BIOS	
Watchdog		Software Programmable Supports 1~255 sec. System Reset	
TPM		TPM 2.0	
Display		Environment	
Display Port		Operating Temperature -40°C to 70°C	
2x DisplayPort 1.4, DP++ (4096 x 2160@60Hz)		Storage Temperature -40°C to 85°C	
Multiple Display		Relative Humidity 10% to 95% (non-condensing)	
Dual Display		Certification 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	
		Dimensions	
		150 (W) x 105 (D) x 83 (H) mm	
		Weights	
		1.2 kg	
		Construction	
		Extruded Aluminum with Heavy Duty Metal	
		Mounting Options	
		Wall Mounting SIDE / VESA / DIN-Rail Mounting (Optional)	
Storage			
M.2		1x M.2 (B Key, 2242/3042/3052, PCIe1 + USB 3.2 Gen2, Support 4G/5G Module)	
mSATA		1x mSATA (shared by 1x Mini PCI Express)	
SIM Socket		2x External SIM socket	
SSD/HDD		1x Internal 2.5" SATA HDD Bay (support H=9.5 mm)	
Expansion			
Mini PCIe		1x Full-size Mini PCIe	
Expansion Modules			
Optional:			
• 2-port COM module with Super I/O Chipset, Support 2x Universal Slot Only			
• 4-Port USB module with USB hub, Support 1x Universal Slot Only			
• 1-Port DP 1.4 and DIO (4 in / 4 out, Isolated), Support 1x Universal Slot Only			
• 1-Port HDMI 2.0, Support 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	
LAN		2x RJ45 (2.5 & 1 GbE)	
Universal I/O Bracket		5x Universal I/O Bracket (By mini PCIe interface, C&T Proprietary Module)	
USB		3x USB 3.2 Gen 2 (10 Gbps) 1x USB 2.0	
Others		5x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch, 1x Remote Power On/Off 1x Internal CMOS Battery Cable 1x 4-PIN FAN Connector	
Operating System			
Windows		Windows 10	
Linux		Linux Kernel	
Power			
Power Adapter		Optional AC/DC 12V/5A, 60W	
Power Mode		AT, ATX	
Power Ignition Sensing		6-mode and Adjustable Power Ignition Management, Optional	
Power Supply Voltage		9~36VDC	
Power Connector		3-pin Terminal Block	

* For configured to run at 12W, operating temperatures will be limited to 70°C.

** 12W 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 4 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 Expansion Module Options for Rear Panel



- 1x DP Port and 1x DIO (4 in / 4 out, Isolated)
(Support 1x Universal Slot Only)



- 1x HDMI Port
(Support 1x Universal Slot Only)



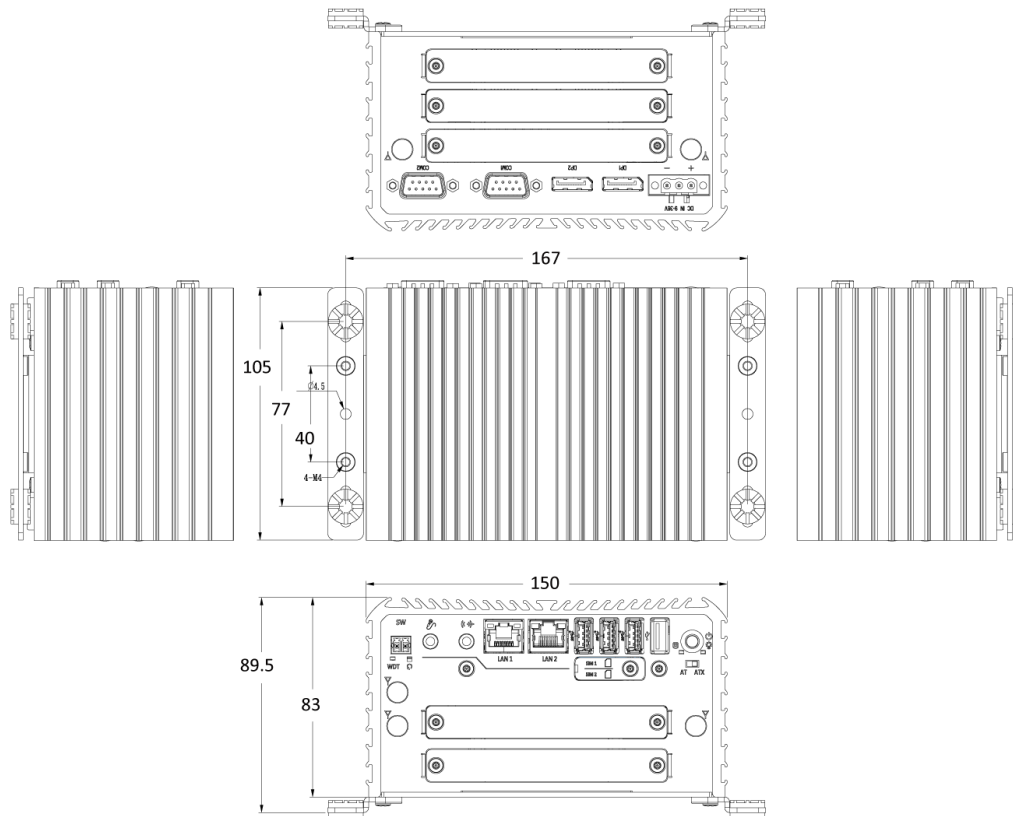
- 4x USB Ports
(Support 1x Universal Slot Only)



- 2x COM Ports
(Support 2x Universal Slot Only)

Dimension

Unit: mm



Available Models

Model No.	Description
RCO-1000-EHL-X6425E-30C	Compact fanless embedded system with Intel x6425E CPU, 3x DP, 2x COM, DIO, 1x 2.5" SATA HDD Bay
RCO-1000-EHL-J6413-30C	Compact fanless embedded system with Intel J6413 CPU, 3x DP, 2x COM, DIO, 1x 2.5" SATA HDD Bay

Optional Accessories

Model No.	Description
1-E09A06007	Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm
SFICBL022	Power Cord, 3-pin US Type, 180cm
3-SIDE-0004	RCO-1000-EHL-30 Series Side Mount Kit
3-VESA-0003	RCO-1000 Series VESA Mount Kit
3-DINR-0004	Din Rail-2 Mounting Kit

Packing List

1x RCO-1000-EHL-30 Series Embedded System
1x Wall Mount Kit
1x Accessory Kit