



RUGGED EMBEDDED COMPUTER

RCO-1000-EHL-30-2P

Fanless Mini Computer With Intel® Atom® X6425E Processor, 2x DP, 2x COM, 1x 2.5" SATA HDD Bay, Dual PoE



Features

- Support Intel® Atom® X6425E
- 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 or Module Expansion)
- 2x PoE. Max. up to 30W
- 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 50°C
- TPM 2.0 Supported
- With 3x Universal Expansion Slots

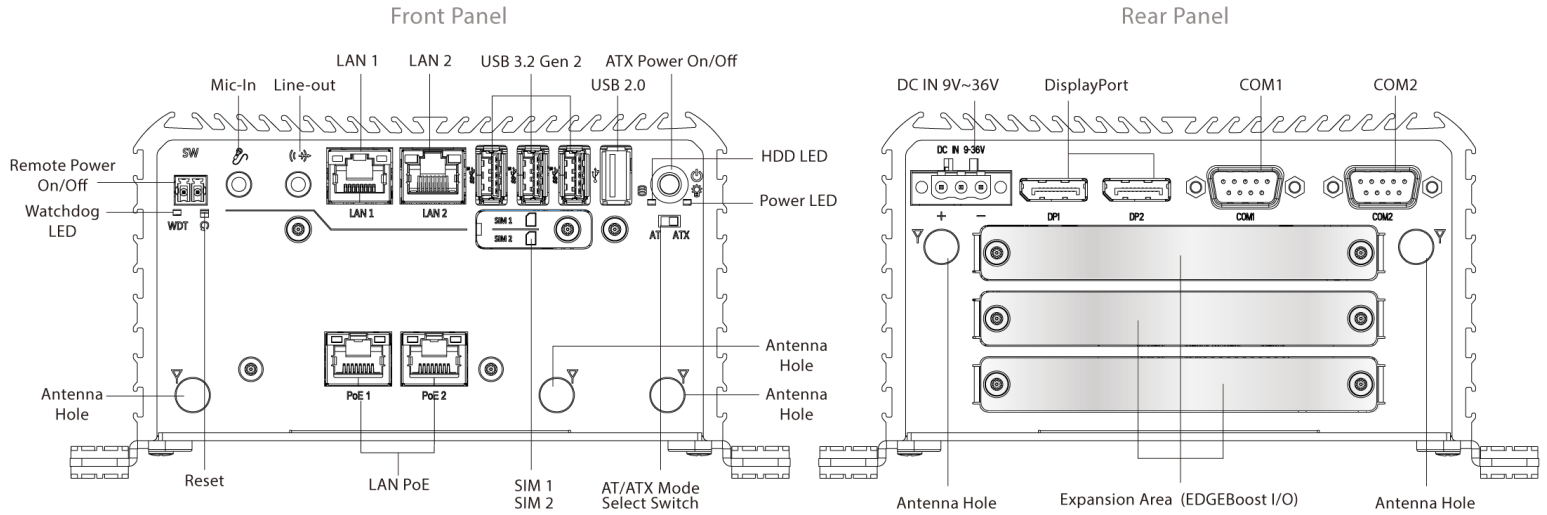
Specifications

| System | |
|--|--|
| Processor | Supports 11th Gen Intel® Atom® Processor (Elkhart Lake) - Intel® Atom® Processor X6425E, Quad Core, 1.5 MB Cache, 1.8 GHz, 12W TDP |
| 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 | |
| Display Port | 2x DisplayPort 1.4, DP++ (4096 x 2160@60Hz) |
| Multiple Display | Dual Display |
| Storage | |
| M.2 | 1x M.2 (B Key, 2242/3042/3052, PCIe1 + USB 3.2 Gen2, Support 4G or Module Expansion) |
| 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 (Occupied by PoE Module) |
| 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) |
| PoE | 2x IEEE 802.3af (15.4W) GbE RJ45, Max up to 30w in total |
| Universal I/O Bracket | 3x Universal I/O Bracket (By mini PCIe interface, 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 10/11 |
| Linux | Linux Kernel |
| Power | |
| Power Adapter | Optional AC/DC 24V 5A, 120W |
| Power Mode | AT, ATX |
| Power Ignition Sensing | Adjustable power ignition management can be achieved through BIOS and optional daughter board. |
| Power Supply Voltage | 9~36VDC |

| Power Connector | 3-pin Terminal Block |
|-----------------------|--|
| Power Protection | OVP (Over Voltage Protection); OCP (Over Current Protection) Reverse Protection |
| Environment | |
| Operating Temperature | -40°C to 50°C |
| Storage Temperature | -40°C to 85°C |
| Relative Humidity | 10% to 95% (non-condensing) |
| 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 |
| Physical | |
| 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) |

- For Intel® Atom® Processor x6425E operating temperature limited -40°C to 50°C
- Intel 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)



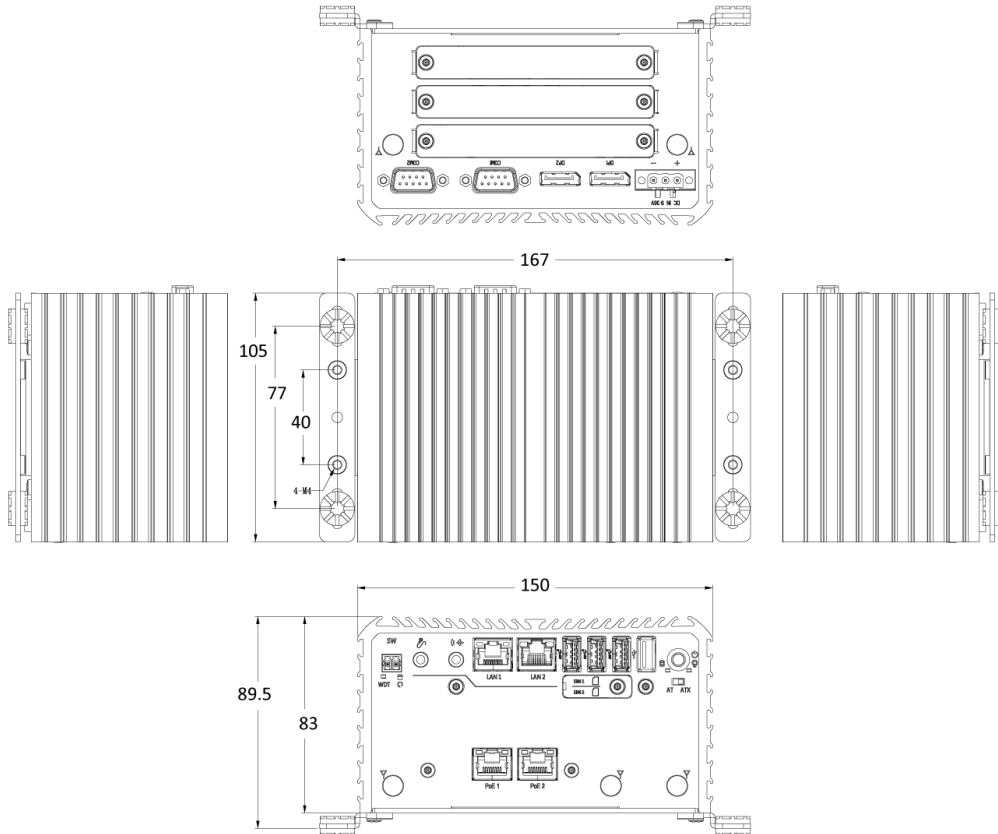
- 4x USB Ports
(Support 1x Universal Slot Only)



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

Dimension

Unit: mm



Available Models

| Model No. | Description |
|-------------------------|---|
| RCO-1000-X6425E-30-2P-P | Fanless Mini PC with Intel® Atom® X6425E (EHL) Processor, 3x EDGEBoost IO, Dual PoE |

Optional Accessories

| Model No. | Description |
|------------------|---|
| 1-E09A12002 | Adapter AC/DC 24V 5A 120W 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 |
| 3-RC1200IGKIT-S0 | MOD, PWR IGNITION, KIT, 1000-EHL |
| EBIO-2COM-34 | MOD, EBIO, 2XCOM, 3, 4, 1000-EHL |
| EBIO-2COM-56 | MOD, EBIO, 2XCOM, 5, 6, 1000-EHL |
| EBIO-4USB | MOD, EBIO, 4XUSB2.0, 1000-EHL |
| EBIO-DP-DIO | MOD, EBIO, DP, DIO, 4IN, 4OUT, 1000-EHL |
| EBIO-HDMI | MOD, EBIO, HDMI, 1000-EHL |

Packing List

1x RCO-1000-EHL-30-2P Series Embedded System
 1x Wall Mount Kit
 1x Accessory Kit

Exports And Tariff Codes

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|-----------|--------------|
| ECCN | 5A992.c |
| HTS | 8471.50.0150 |
| ScheduleB | 84.71 |