Fanless Mini Computer with AMD Ryzen™ Embedded R1000/V1000 Series, 2x LAN, 4x USB

Features

- Support AMD Ryzen™ Embedded R1000/V1000 Series
- 2x 260-pin DDR4 2400 MHz SODIMM, Max. up to 32GB (ECC/non-ECC)
- 2x Intel® GbE (Support Wake-on-LAN and PXE)
- Triple Independent Display by 1x DisplayPort, 1x LVDS, 1x HDMI (Optional)
- 1x M.2 B Key for 4G/5G Communications & Storage
- 1x Full-Size Mini PCIe for expansion modules
- 2x USB 3.2 Gen 2 (1000bps), 2x USB 2.0, 2x RS-232/422/485
- 1x Internal 2.5" SATA HDD Bay, 1x internal SIM socket
- Watchdog timer 1-255s system reset
- TPM 2.0 Supported
- UL Listed

Specifications

System

Processor

- Support AMD Ryzen™ Embedded V1000/R1000 Series
  - AMD Ryzen™ Embedded V1605B with Radeon™ Vega 8 Graphics, 4M Cache, 4 Cores, 8 Threads, Up to 3.6 GHz
  - AMD Ryzen™ Embedded R1606G with Radeon™ Vega 3 Graphics, 4M Cache, 2 Cores, 4 Threads, Up to 3.5 GHz (Optional)

System Chipset

- SoC integrated

LAN Chipset

- GbE1: Intel i210 (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 2400 MHz SODIMM. Max 32 GB

BIOS

- AMI uEFI 64 Mbit SPI flash

Watchdog

- Software Programmable Supports 1~255 Sec. System Reset

TPM

- TPM 2.0

Display

Display Port

- 1x DisplayPort 1.4, DP++, Support resolution 3840 x 2160 @60 Hz

HDMI

- 1x HDMI 2.0b, Support resolution 3840 x 2160 @60 Hz (Optional)

LVDS

- 1x 24-bit dual channel LVDS, Support resolution up to 1920x1200 @60Hz

Multiple Display

- Triple Display

Storage

M.2

- 1x M.2 B Key, 3042, Support SATA

SIM Socket

- 1x Internal SIM socket (M.2 B Key attached)

SSD/HDD

- 1x Internal 2.5" SATA HDD Bay (support H=9.5mm)

Expansion

M.2

- 1x M.2 B Key ( PCIe x1 & USB 3.0, 3042/3052, SATA, USIM, Support 4G/5G)

Mini PCIe

- 1x Full-Size Mini PCIe for expansion modules

I/O

COM

- 2x RS-232/422/485

DIO

- 4 in / 4 out (Isolated)

LAN

- 2x RJ45

Universal I/O Bracket

- 2x Universal I/O Bracket (By mini PCIe/M.2 interface)

USB

- 2x USB 3.2 Gen 2 (10 Gbps)
- 4x USB 2.0 (2x internal)

Others

- 5x WiFi Antenna Holes
- 1x 4-Pin FAN Connector
- 1x RTC battery by cable

Operating System

- Windows 10

Linux

- Linux Kernel 5.x (Fedora 30 or above / Ubuntu 19.04 or above)

Power

Power Adapter

- Optional AC/DC 12V/5A, 60W

Power Mode

- AT, ATX 12VDC

Power Protection

- Reverse Protection

Environment

Operating Temperature

- -20°C to 55°C (25W CPU)

Storage Temperature

- -30 °C to 85 °C

Relative Humidity

- 10% to 95% (non-condensing)

Certification

- UL 62368 Ed. 3, CE, FCC Class A

Vibration

- With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis
- With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis

Shock

- With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis
- With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis

Physical

Dimensions

- 140 (D) x 192 (W) x 57.6 (H) mm

Weights

- 1.5 Kg

Construction

- Extruded Aluminum with Heavy Duty Metal

Mounting Options

- Wall Mounting, DIN-Rail Mounting (Optional)

• All specifications and photos are subject to change without notice.
External I/O Mechanical Layout

- HDD LED
- USB 3.2 Gen 2
- HDMI
- Antenna Hole
- LAN 1
- LAN 2
- USB 2.0
- ATX Power on/off switch
- Power LED
- Antenna Hole
- Expansion Area
- Rear Panel
- DC IN
- Antenna Hole
- Support 1x Universal Slot Only

Dimension

Unit: mm
<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>BCO-2000-RYZ-V1605B-P</td>
<td>Fanless Mini Computer with AMD Ryzen™ Embedded V1605B, 2xLAN, 4x USB, 2x LAN</td>
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<tr>
<td>BCO-2000-RYZ-R1606G-P</td>
<td>Fanless Mini Computer with AMD Ryzen™ Embedded R1606G, 2xLAN, 4x USB, 2x LAN</td>
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<tr>
<th>Model No.</th>
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<td>1-E09A06007</td>
<td>Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch</td>
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<tr>
<td>5FICBL022</td>
<td>Power Cord, 3-pin US Type, 180cm</td>
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<tr>
<td>1-TPCD00002</td>
<td>Power Cord, European Type, 180cm</td>
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<tr>
<td>1-TPCD00001</td>
<td>Power Cord, 3-pin UK Type, 180cm</td>
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<tr>
<td>3-DINR-0004</td>
<td>DIN-Rail Mount Kit</td>
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<tr>
<td>3-BC2000CMKIT-S0</td>
<td>Module Kit with 4x COM for BCO-2000 Series</td>
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<td>3-BC2000U2KIT-S0</td>
<td>Module Kit with 2x USB 2.0 for BCO-2000 Series</td>
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<td>3-BC2000U31IT-S1</td>
<td>Module Kit with 2x USB 3.0 for BCO-2000 Series</td>
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**Packing List**

1x BCO-2000-RYZ-V1605B Fanless Mini Computer
1x Wall Mount Kit
1x Accessory Kit

**Exports And Tariff Codes**

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<th>Code</th>
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