

## BCO-1000-ADLN

Basic Fanless Embedded Computer with Intel 12th<sup>®</sup> CPU, 1x DP, 2x COM, 2x LAN, 1x 2.5" Drive Bay

## Features

- Support 12th Gen Intel<sup>®</sup> IoTG Alder Lake-N Processor N97, QC, 12W
- DDR5 SODIMM. Max. up to 16GB (Default: 8GB)
- Dual Independent Display by 1x Display Port, 1x HDMI
- 2x Intel<sup>®</sup> I225-V 2.5GbE LAN
- 1x 2.5" Drive Bay
- 1x M.2 (B Key, (2242/ 2280/ 3042) (Default: 128GB M.2 SSD)
- 2x COM, 2x USB 3.2 Gen2, 2x USB 3.2 Gen1, 2x USB 2.0
- 9 to 36VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature 0°C to 50°C (12W CPU)
- TPM 2.0 Supported
- CE, FCC Class A



## Specifications

## System

|                |  |
|----------------|--|
| Processor      | Support 12th Gen Intel <sup>®</sup> IoTG Alder Lake-N Processor N97, QC, 12W |
| System Chipset | SoC integrated   |
| LAN Chipset    | 2x Intel <sup>®</sup> I225-V 2.5GbE LAN                                      |
| Audio Codec    | Realtek ALC897   |
| System Memory  | DDR5 4800MT/s SODIMM. Max. up to 16 GB (Default: 8GB)                        |
| Graphics       | Intel <sup>®</sup> UHD Graphics  |
| BIOS           | AMI UEFI BIOS  |
| Watchdog       | Software Programmable Supports 1~255 sec. System Reset                       |
| TPM            | TPM 2.0  |

## Display

|                  |   |
|------------------|---|
| Display Port     | 1x DisplayPort 1.4a<br>Max Resolution 4096 x 2304 @60Hz |
| HDMI             | 1x HDMI 1.4b<br>Max Resolution 3840 x 2160 @30Hz        |
| Multiple Display | 2x Independent Displays                                 |

## Storage

|      |   |
|------|---|
| M.2  | 1x M.2 B Key slot (2242/2280/3042)<br>• Supports PCIe x1 signal<br>• Supports B+M Key SSD<br>• Default: 128GB |
| SATA | 1 x 2.5" Drive Bay (7mm or 9mm)   |

## Expansion

|    |  |
|----|--|
| M2 | 1x M.2 E Key slot (2230)<br>(Support PCIe x1 & USB 2.0; Support CNVi)<br>Devices Supported:<br>Intel <sup>®</sup> AX210 Wi-Fi 6E & BT-5.1 (vPro Supported) |
|----|--|

## I/O

|        |  |
|--------|--|
| Audio  | Line-in/Line-out/Mic-in  |
| COM    | 2x DB9<br>COM1: RS232/422/485<br>COM2: RS232"                    |
| DIO    | 1x 8 GPIO  |
| LAN    | 2x RJ45 (2.5GbE)   |
| USB    | 2x USB 3.2 Gen2<br>2x USB 3.2 Gen1<br>2x USB 2.0 Type-A          |
| Others | 2x Antenna Holes<br>1x Power button<br>1x HD LED<br>1x Power LED |

## Operating System

|         |               |
|---------|---------------|
| Windows | Windows 10/11 |
| Linux   | Linux Kernel  |

## Power

|                      |                              |
|----------------------|------------------------------|
| Power Adapter        | Optional AC/DC 24V/9.2A, 60W |
| Power Mode           | AT, ATX<br>(Default ATX)     |
| Power Supply Voltage | 9~36VDC                      |
| Power Connector      | 3-pin Terminal Block         |

## Environment

|                       |   |
|-----------------------|---|
| Operating Temperature | 0°C to 50°C (12W CPU)<br>Tested according to:<br>IEC60068-2-1:2007 (Cold test procedure)<br>IEC60068-2-2:2007 (Dry heat test procedure)<br>IEC60068-2-3:2007 (Damp heat, steady state, test procedure)<br>IEC60068-2-14:2009 (Wide temperature range thermal shock) |
|-----------------------|---|

|                     |               |
|---------------------|---------------|
| Storage Temperature | -30°C to 85°C |
|---------------------|---------------|

|                   |                             |
|-------------------|-----------------------------|
| Relative Humidity | 10% to 95% (non-condensing) |
|-------------------|-----------------------------|

|               |      |
|---------------|------|
| Certification | EMC: |
|---------------|------|

- CE
- FCC Class A (47 CFR part 15.109 and part 15.107)
- ICES-003
- UKCA

## Green Product:

- RoHS 3.0 (Directive 2015/863/EU)
- REACH

|           |                    |
|-----------|--------------------|
| Vibration | IEC60068-2-64:2008 |
|-----------|--------------------|

With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis)  
Designed to comply with MIL-STD-810G Method 514.7 Procedure I

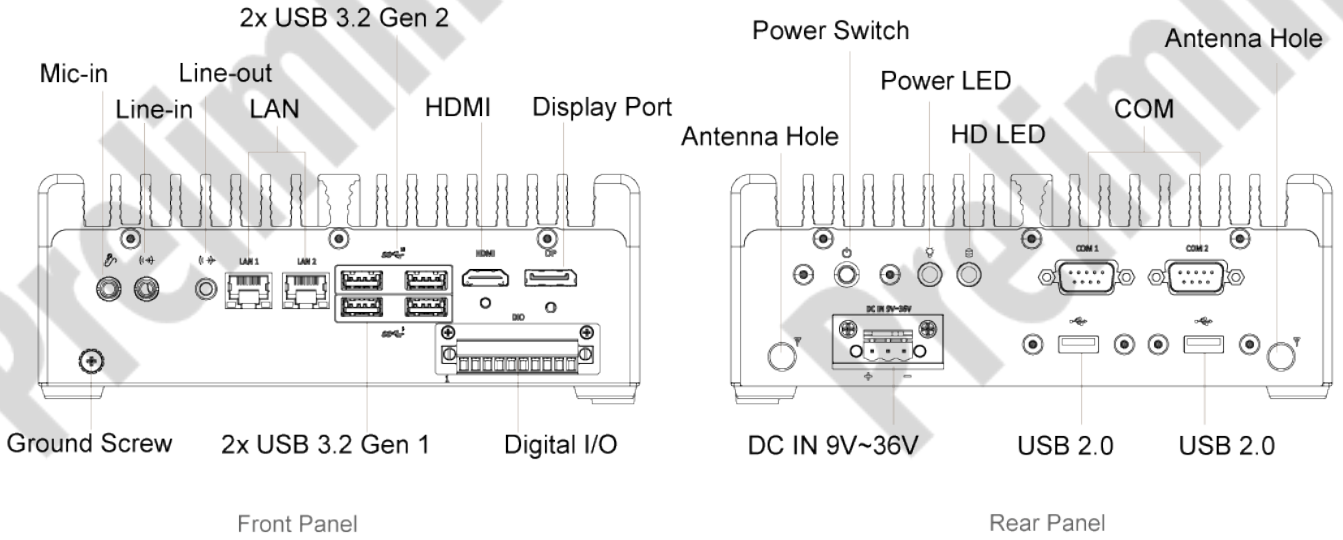
|       |                    |
|-------|--------------------|
| Shock | IEC60068-2-27:2008 |
|-------|--------------------|

With SSD: 50G half-sin 11ms  
Designed to comply with MIL-STD-810G Method 514.7 Procedure I  
Package Drop Test: ISTA 2A

## Physical

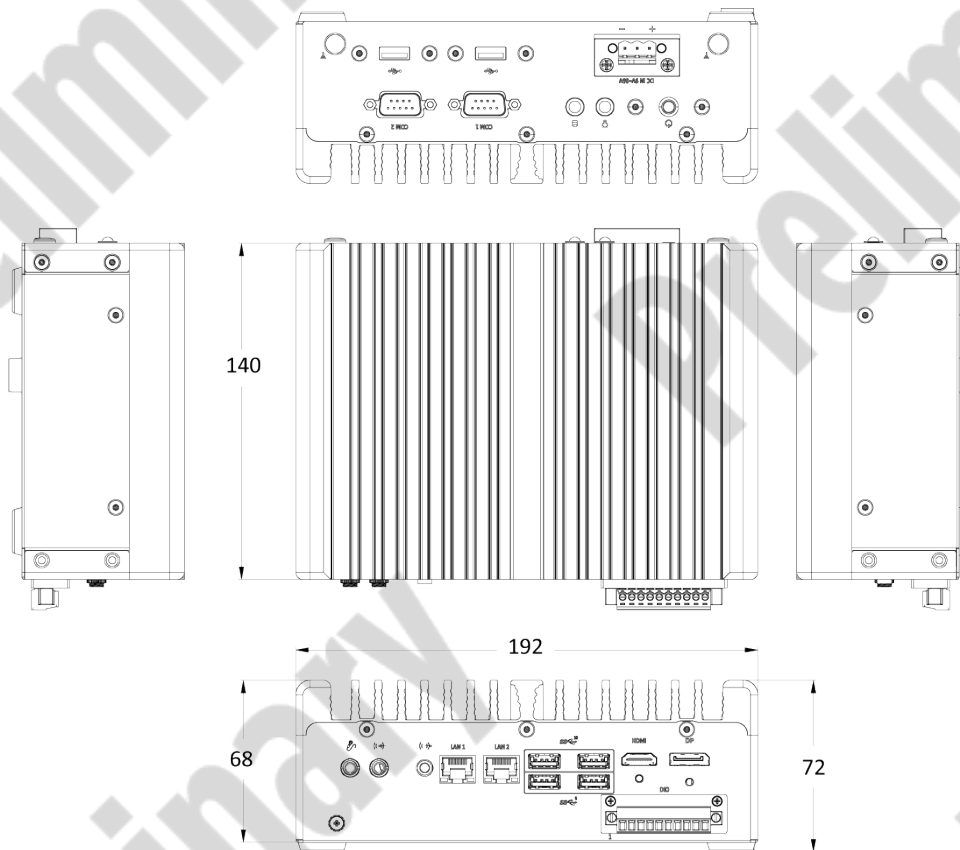
|                    |   |
|--------------------|---|
| Dimensions (WxDxH) | 192 x 140 x 68mm                              |
| Construction       | Extruded Aluminum with Heavy Duty Metal       |
| Mounting Options   | Wall Mounting<br>DIN-Rail Mounting (Optional) |

## External I/O Mechanical Layout



## Dimension

Unit: mm



#### Available Models

| Model No.     | Description  |
|---------------|--|
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#### Optional Accessories

| Model No.   | Description  |
|-------------|--|
| 1-E09A06008 | Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch |
| SFICBL022   | 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 | Din Rail-2 Mounting Kit  |

#### Packing List

1x BCO-1000-ADLN Fanless Mini Computer  
1x Wall Mount Kit  
1x Accessory Kit