



FANLESS MINI COMPUTER

BCO-500-ADL

Semi-Rugged Fanless Mini Computer with Intel® Alder lake N97/i3-N305 Processor, 1x DP, 1x HDMI, 4x USB, 2x LAN

Features

- Support Intel® Alder Lake N97/N305 Processor
- 1x 262-Pin DDR5 4800MT/s SO-DIMM. Max. up to 16GB
- Dual Independent Display by 1x Display Port, 1x HDMI
- 2x Intel® I225-V 2.5GbE LAN
- 1x M.2 B-Key, 1x M.2 E-Key
- 2x COM, 4x USB 3.2, 1x Line-out
- 12 to 36VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature N97 CPU/12W (-10°C to 50°) and N305 CPU/15W (-10°C to 45°)
- TPM 2.0 Supported
- UL 61010-1, UL 61010-2-201, CE, FCC Class A, UKCA, VCCI, RCM



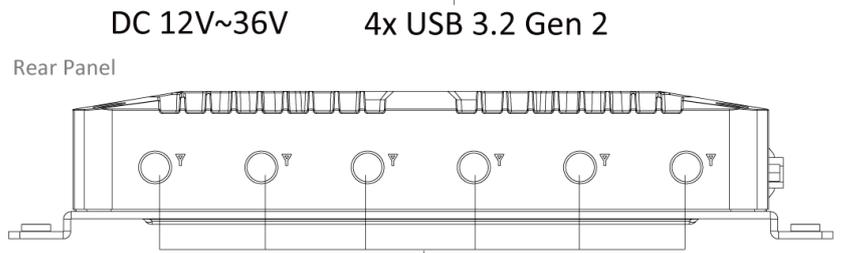
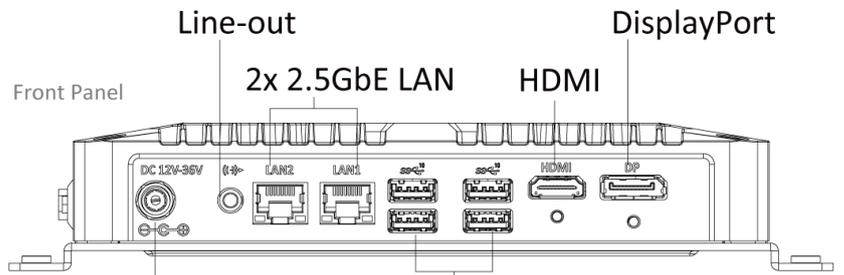
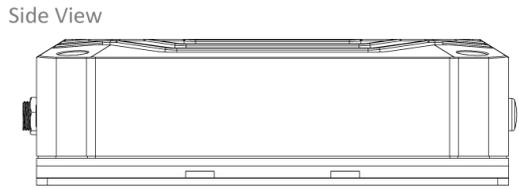
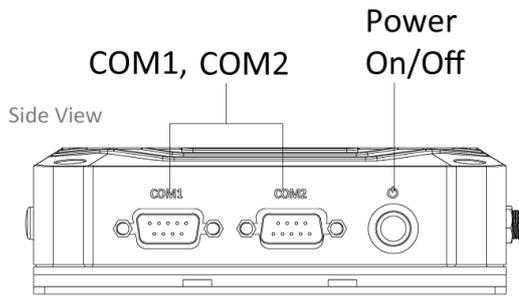
Specifications

| System | |
|-----------------------|--|
| Processor | <ul style="list-style-type: none"> • 12th Gen Intel® IoTG Alder Lake-N Processor N97, QC, 12W • 12th Gen Intel® IoTG Alder Lake-N Processor i3-N305, QC, 15W |
| System Chipset | SoC integrated |
| LAN Chipset | 2 x Intel® I225-V 2.5GbE LAN |
| Audio Codec | Realtek ALC897 |
| System Memory | 1x 262-Pin DDR5, 4800MHz SO-DIMM, Max. up to 16GB (Non-ECC) |
| BIOS | AMI uEFI BIOS |
| Watchdog | Software Programmable Supports 1~255 sec. System Reset |
| TPM | TPM 2.0 |
| Display | |
| Display Port | 1 x DisplayPort 1.4a, Max Resolution 4096 x 2304 @60Hz |
| HDMI | 1 x HDMI 1.4b, Max Resolution 3840 x 2160 @30Hz |
| Multiple Display | 2x Independent Displays |
| Storage | |
| M.2 B-Key | 1 x M.2 B Key (2242/2280/3042, SATA/PCIe x1 support SATA) |
| Expansion | |
| M.2 | 1x M.2 E Key (2230, PCIe x1, USB 2.0 for Wifi/Bluetooth) |
| I/O | |
| DisplayPort | 1x DisplayPort |
| HDMI | 1 x HDMI |
| COM | 2x DB9 COM1: RS232/422/485 COM2: RS232 |
| USB | 4x USB 3.2 Gen 2 (10 Gbps) |
| LAN | 2x RJ45 2.5GbE LAN Ports Connectors |
| Audio | 1x Line-out |
| Others | 6x Antenna Holes 1x Power button 1x DC in Power Jack with Lock |
| Operating System | |
| Windows | Windows 10 / Windows 11 |
| Linux | Linux kernel |
| Power | |
| Power Adapter | Adapter 60W (optional) |
| Power Mode | AT, ATX (Default ATX) |
| Power Supply Voltage | 12~36VDC |
| Power Connector | DC in Power Jack with Lock |
| Environment | |
| Operating Temperature | N97 CPU: -10°C to 50°C (12W) i3-N305 CPU: -10°C to 45°C (15W) |
| Storage Temperature | -30°C to 85°C |
| Relative Humidity | 10% to 95% (non-condensing) |
| Certification | UL 61010-1, UL 61010-2-201 CE, FCC Class A, UKCA, VCCI, RCM |
| Vibration | With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis) |
| Shock | With SSD: 50G half-sin 11ms |
| Physical | |
| Dimensions | 225 (W) x 130 (D) x 41 (H) mm |
| Weights | 1.2 Kg |
| Construction | Extruded Aluminum with Heavy Duty Metal |

Mounting Options

Wall Mounting
Vesa Mounting
Din-Rail Mounting (Optional)

External I/O Mechanical Layout



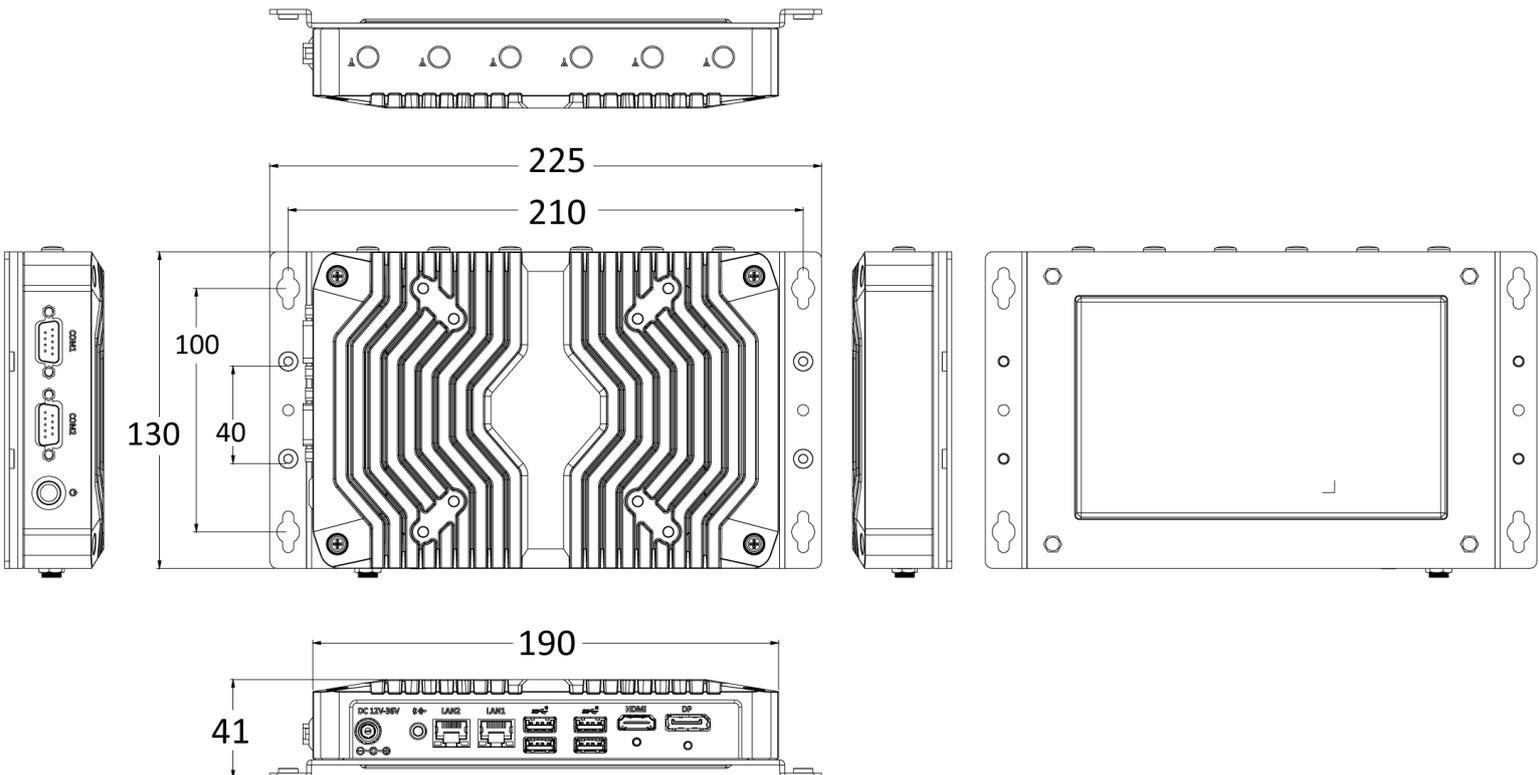
DC 12V~36V

4x USB 3.2 Gen 2

Antenna Hole

Dimension

Unit: mm



Available Models

| Model No. | Description |
|-------------------|--|
| BCO-500-2L-N97-P | Fanless Mini Industrial Computer with Intel® Alder Lake N97, QC, 12W Processor, 1x DP, 1x HDMI, 4x USB, 2x LAN |
| BCO-500-2L-N305-P | Fanless Mini Industrial Computer with Intel® Alder Lake i3-N305, QC, 15W Processor, 1x DP, 1x HDMI, 4x USB, 2x LAN |

Optional Accessories

| Model No. | Description |
|------------------|----------------------------------|
| 1-TPCD00005 | Power Cord, 3-pin US Type, 180cm |
| 1-TPCD00002 | Power Cord, European Type, 180cm |
| 1-TPCD00001 | Power Cord, 3-pin UK Type, 180cm |
| 3-BC5AD110S10-S0 | Din-Rail Mounting Kit |
| 3-BC5AD020S10-S0 | M.2 B Key Thermal Kit |

Packing List

1x BCO-500-ADL Series Fanless Mini Computer
1x Accessory Kit

Compliances and Standards

| | |
|--------------------------|--|
| Shock | With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis) IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I |
| Vibration | With SSD: 50G half-sin 11ms IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 Procedure I |
| Operating Temperature | N97 CPU: -10°C to 50°C (12W) i3-N305 CPU: -10°C to 45°C (15W) 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 | <ul style="list-style-type: none"> • FCC Class A (47 CFR part 15.109 and part 15.107) • CE • ICES-003 • UKCA • VCCI • RCM • Industrial EMC Compliance - EN 61000-4-2: 2009 - EN IEC 61000-4-3: 2020 - EN 61000-4-4: 2012 - EN 61000-4-5: 2014 +A1: 2017 - EN 61000-4-6: 2014 |
| Safety | cULus <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • RoHS 3 (2015/863/EU) • REACH |

Exports And Tariff Codes

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