



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 4800 MT/s SO-DIMM. Max. 16GB (Non-ECC)
- 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

- 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 4800 MT/s SO-DIMM. Max. 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)
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Expansion

M.2	1x M.2 E Key (2230, PCIe x1, USB 2.0 for Wifi/Bluetooth)
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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

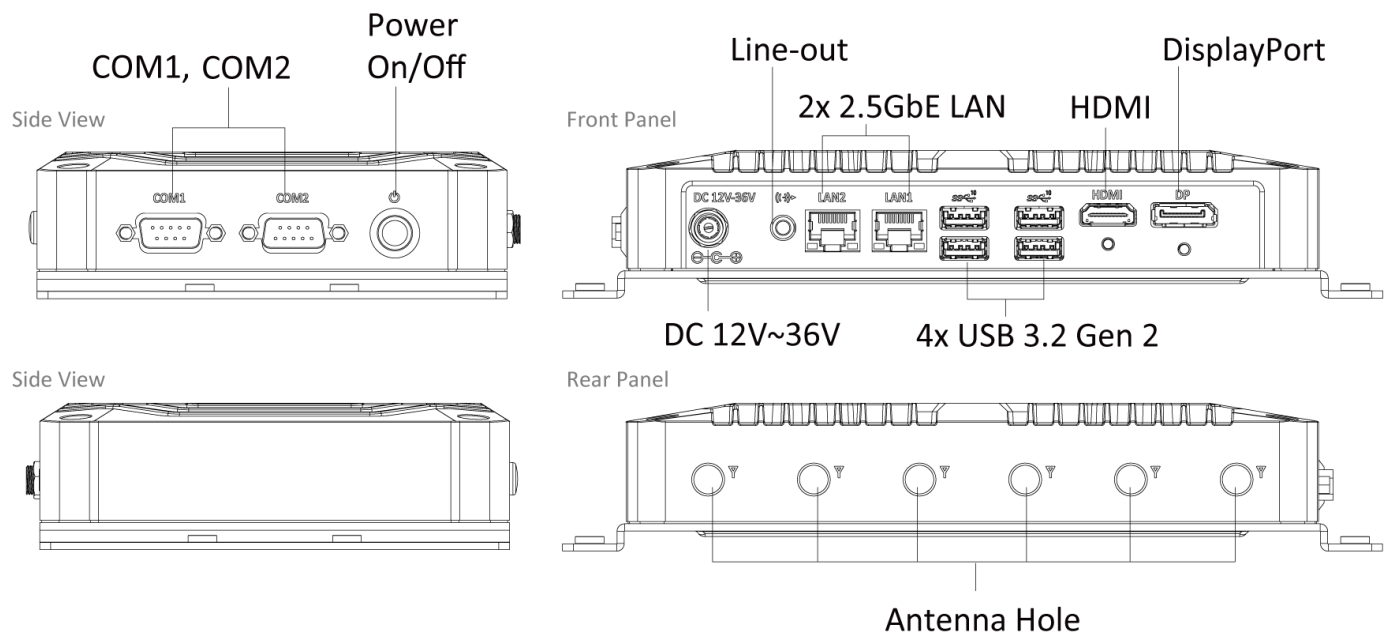
Operating Temperature	N97 CPU: -10°C to 50°C (12W) i3-N305 CPU: -10°C to 45°C (15W)
Storage Temperature	-30°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL 61010-1, UL 61010-2-201 CE, FCC Class A, UKCA, VCCI, RCM
Vibration	With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis)
Shock	With 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)

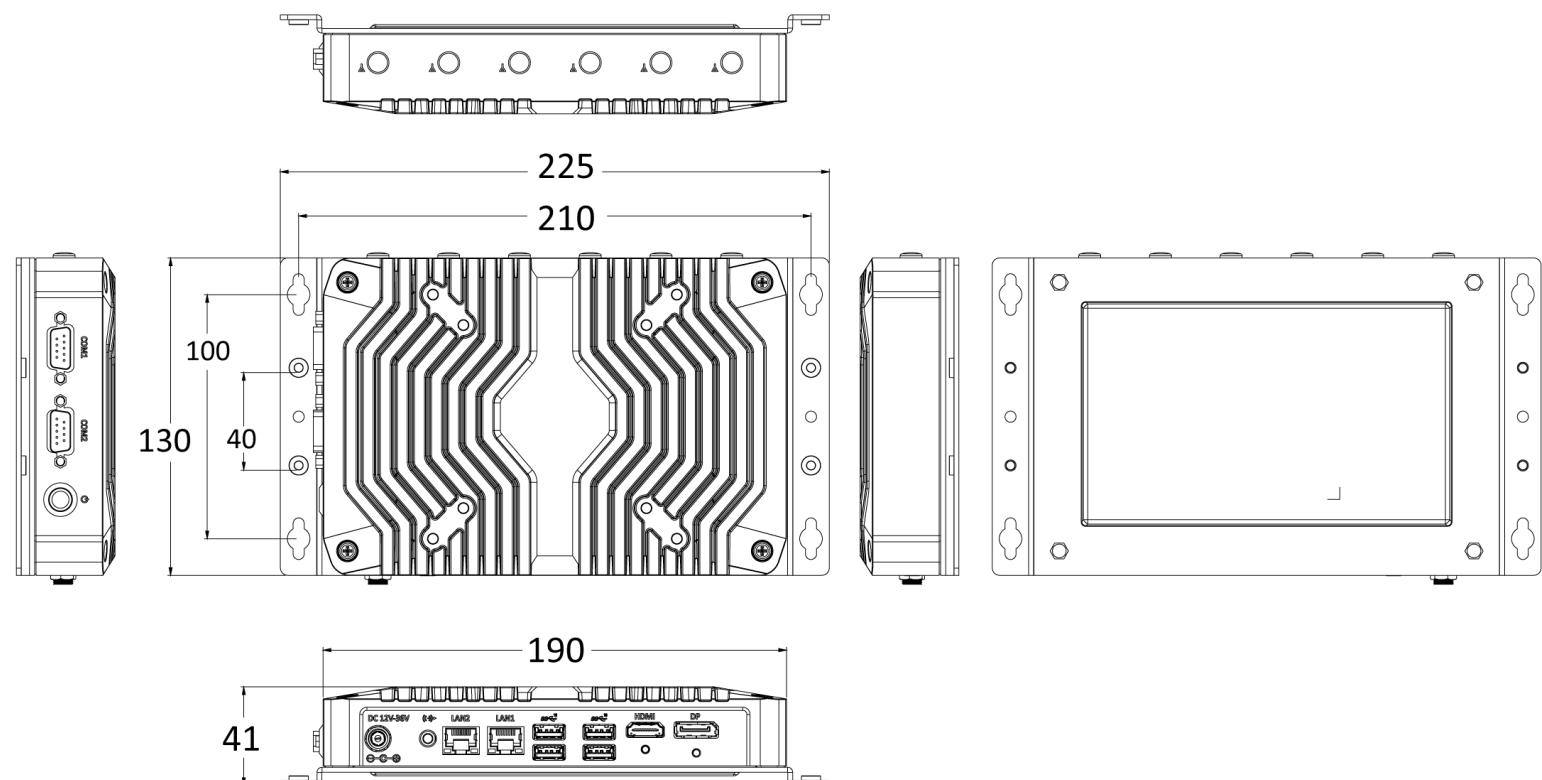
* All specifications and photos are subject to change without notice.

External I/O Mechanical Layout



Dimension

Unit: mm



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-810H Method 516.8 Procedure I
Vibration	With SSD: 50G half-sin 11ms IEC60068-2-64:2008 Designed to comply with MIL-STD-810H Method 514.8 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	• 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 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	• RoHS 3 (2015/863/EU) • REACH

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 w/ Power Adapter
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 w/ Power Adapter

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

US Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71

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