

FANLESS MINI COMPUTER

BCO-500-MTL

Semi-Rugged Fanless Mini Computer with Intel® Core™ Ultra Processors, 2x DP, 3x USB, 1x Type C, 3x LAN, 1x 150W ADP



Features

- Supports Intel® Core™ Ultra Processors, Meteor Lake-U, TDP 15W
- 1x 262-pin DDR5 5600 SO-DIMM. Max. up to 32GB
- 3x Intel® 2.5 GbE
- Dual Independent Display: 2x DisplayPort
- 1x M.2 M Key for NVMe/SATA SSD (Default: 128GB)
- 1x M.2 B Key for 4G/5G/NVMe support, 1x M.2 E Key for Wifi/Bluetooth
- 1x SIM Socket
- 2x COM, 1x USB Type-C Gen 1, 2x USB 3.2 Gen 1, 1x USB 2.0
- Wide Operating Temperature: -20°C to 60°C
- dTPM 2.0 Supported
- Wide Voltage DC IN 12~24V

Specifications

System	
Processor	• Intel® Core™ Ultra 5 Processor 125U 12M Cache, up to 4.30 GHz (2+8+2 core), 15W • Intel® Core™ Ultra 7 Processor 155U 12M Cache, up to 4.80 GHz (2+8+2 core), 15W
System Chipset	SoC integrated
LAN Chipset	GbE1: Intel i226-LM 2.5GbE LAN PXE iAMT Support GbE2: Intel i226-V 2.5GbE LAN PXE iAMT Support GbE3: Intel i226-V 2.5GbE LAN PXE iAMT Support
Audio Codec	Realtek® ALC897 CODEC
System Memory	1x 262-Pin DDR5 5600MHz SO-DIMM. Max. up to 32GB (Non-ECC)
BIOS	AMI uEFI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	fTPM 2.0, dTPM 2.0
Display	
Display Port	2x DP++ 1.4 up to 3040x2160 @60Hz
Multiple Display	2x Independent Displays
Storage	
M.2 M-Key	1x M.2 M Key (2280, PCIe x4 Gen 4/SATA) support for NVMe/SATA SSD (Default: 128GB)
Expansion	
M.2	1x M.2 B Key (3042/3052, PCIe x2+USB 3.0+USB 2.0) support for 4G/5G/NVMe 1x M.2 E Key (2230, PCIe+USB 2.0) for Wifi/Bluetooth
I/O	
DisplayPort	2x DisplayPort
COM	2x DB9 COM1: RS232/422/485 COM2: RS232
USB	1x USB 3.2 Type-C (5 Gbps) 2x USB 3.2 Gen 1 (5 Gbps) 1x USB 2.0
LAN	3x 2.5GbE RJ45
Audio	1x Line-Out +MIC
SIM	1x SIM Socket
DC-in Jack	1x DC IN Power Jack with Lock
Others	6x Antenna Holes 1x Power Button
Operating System	
Windows	Windows 10 / 11
Linux	Ubuntu 22.04 / 24.04 LTS
Power	
Power Adapter	AC/DC Adapter 20V/7.5A, 150W
Power Mode	AT, ATX (Default ATX)
Power Supply Voltage	12~24VDC
Power Connector	DC in Power Jack with Lock
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Protection Surge Protection
Environment	
Operating Temperature	-20°C to 60°C
Storage Temperature	-20°C to 75°C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL 62368 Ed. 3 CE, FCC Class A, UKCA

Vibration	With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis)
Shock	With SSD: 50G half-sin 11ms
Physical	
Dimensions	225 x 130 x 48 mm
Weights	2 Kg
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	Wall Mounting VESA Mount (75mm x 75mm/100mm x 100mm) Din-Rail Mounting (Optional)

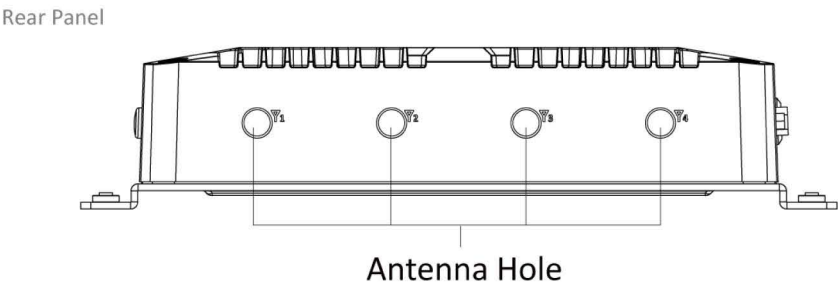
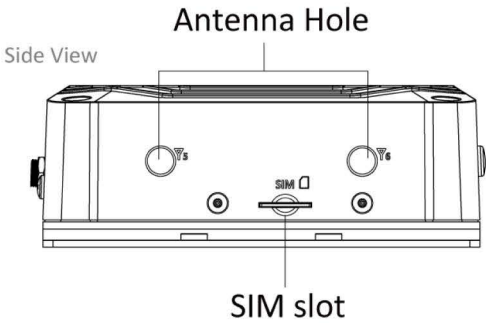
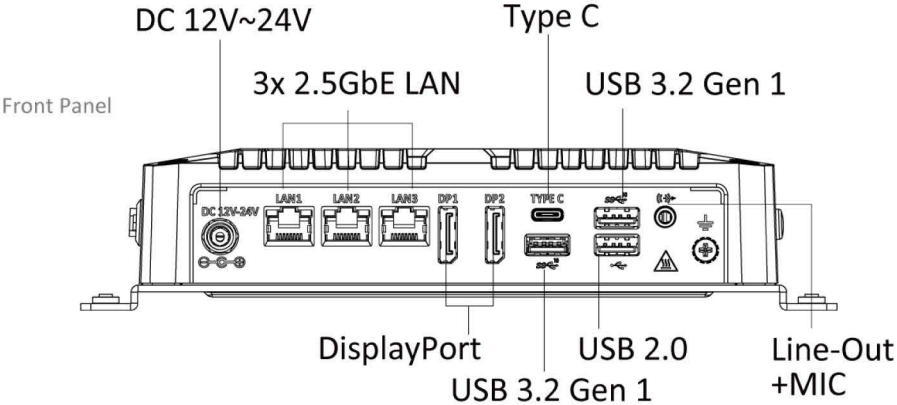
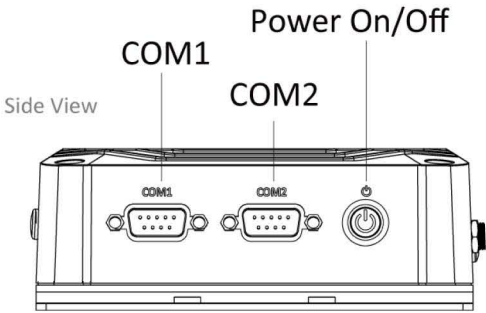
* All specifications and photos are subject to change without notice.

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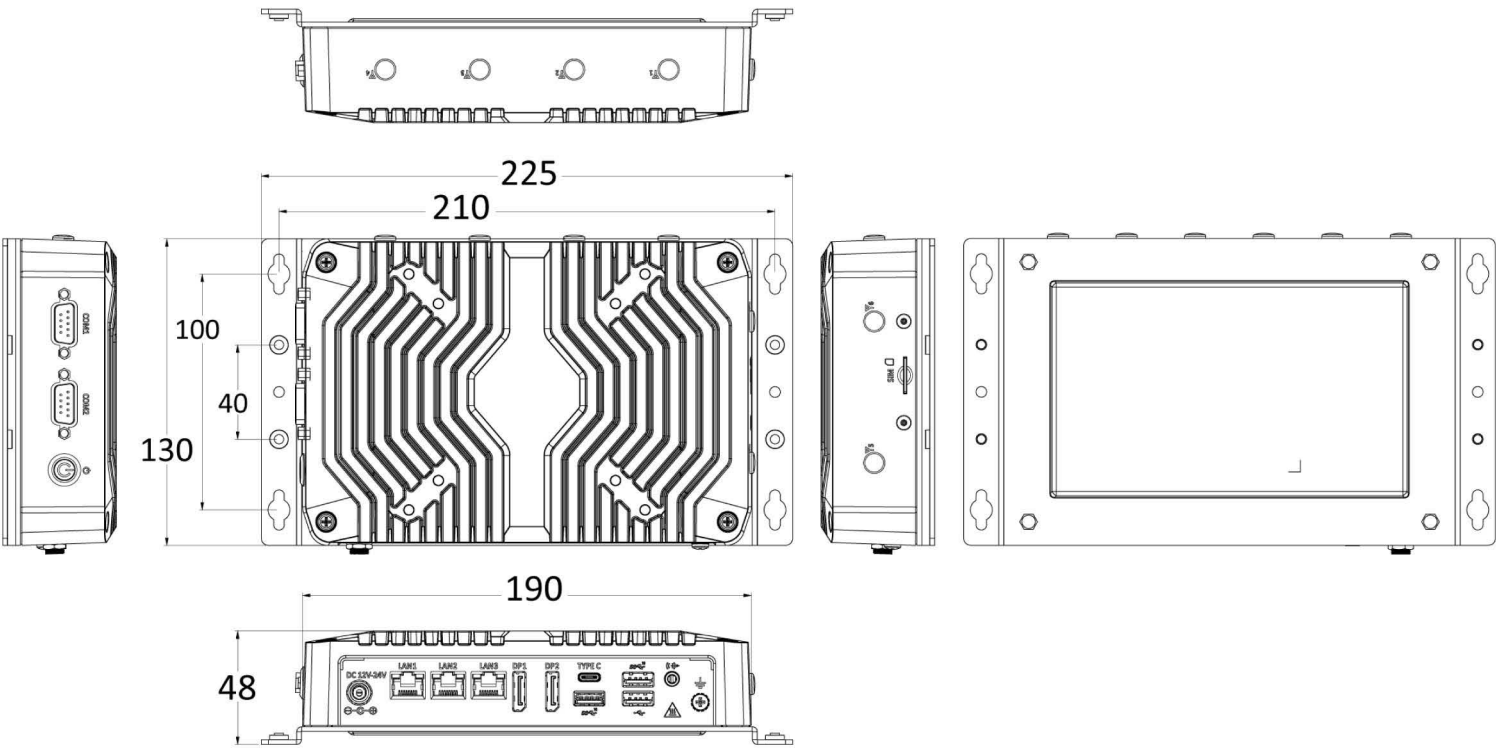
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External I/O Mechanical Layout



Dimension

Unit: mm



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Available Models	
Model No.	Description
BCO-500-MTL-125U-P	Fanless Mini Industrial Computer with Intel® Core™ Ultra 5 125U Processors, 2x DP, 3x USB, 1x Type C, 3x LAN,1x 150W ADP
BCO-500-MTL-155U-P	Fanless Mini Industrial Computer with Intel® Core™ Ultra 7 155U Processors, 2x DP, 3x USB, 1x Type C, 3x LAN,1x 150W ADP

Optional Accessories	
Model No.	Description
1-TPCD00008	AC Power Cord, 3-pin US Type, 183cm
1-TPCD00009	AC Power Cord, 3-pin EU Type, 183cm
1-TPCD00011	AC Power Cord, 3-pin UK Type, 183cm
3-BC5AD110S10-S0	Din-Rail Mounting Kit
3-BC5AD020S10-S0	M.2 B Key Thermal Kit
3-WIFI0801S10	WIFI 6E Module KIT, Intel, 2T2R & BT 5.3

Packing List	
1x BCO-500-MTL Series Fanless Mini Computer	
1x 150W Power Adapter	
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	-20°C to 60°C 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 • 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	• UL Safety: UL62368-1, 3rd Ed., (cULus) • Test procedure: CB Scheme • Standard: IEC 62368-1:2018
Environmental Compliance	• RoHS 3 (2015/863/EU) • REACH

Exports And Tariff Codes	
ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71