



FANLESS MINI COMPUTER

BCO-2000-WHL-U

Fanless Mini Computer with 8th Gen Intel® Core™ Mobile-U And Celeron® Processor, 2x LAN, 4x USB 3.2



Features

- Support 8th Gen. Intel® Core™ i5, i3 & Intel® Celeron® Processor
- 1x 260-pin DDR4 2400 SO-DIMM. Max. up to 32GB
- 2x Intel® GbE (Support Wake-on-LAN and PXE)
- Dual Independent Display by 1x DisplayPort and HDMI (Optional)
- 2x Mini PCIe (Gen3) w/ one SIM slot supports
- 4x USB 3.2 Gen 2 (10Gbps), 4x RS-232/422/485 (w/ 2x Internal)
- 1x Internal 2.5" SATA HDD Bay and 1x mSATA
- Watchdog timer 1-225s system reset
- TPM 2.0 Supported
- UL Listed

Specifications



System	
Processor	Support 8th Gen. Intel® WL-UE Processor (15W TDP) Intel® Core™ i5-8365UE Processor 6M Cache, up to 4.10 GHz Intel® Core™ i3-8145UE Processor 4M Cache, up to 3.90 GHz Intel® Celeron® Processor 4305UE 2M Cache, 2.00 GHz
System Chipset	SoC integrated
LAN Chipset	GbE1: Intel® I219LM (Support Wake-on-LAN and PXE) GbE2: Intel® I210-IT (Support Wake-on-LAN and PXE)
Audio Codec	Realtek ALC888S HD Audio Codec
System Memory	1x 260-Pin DDR4 2400MHz SO-DIMM slot. Max 32 GB
Graphics	Intel® UHD Graphics 620 for Core series Intel® UHD Graphics 610 for Celeron series
BIOS	AMI uEFI 256MB SPI flash
Watchdog	Software Programmable Supports 1~255 Sec. System Reset
TPM	TPM 2.0
Display	
Display Port	1x DP Support 4096x 2304 Resolution @60Hz
HDMI	1x HDMI Support 4096 x 2304 resolution @24Hz (optional)
Multiple Display	Dual Display
Storage	
mSATA	1x mSATA (Shared by 1x Mini PCI Express)
SSD/HDD	1x Internal 2.5" SATA HDD Bay (support H=9.5mm)
Expansion	
Mini PCIe	2x Full-size Mini PCIe (1x shared by 1x mSATA)
I/O	
Audio	1x Mic-in, 1x Line-out
COM	2x RS-232/422/485 2x RS-232/422/485 (internal)
DIO	2 x4-bit DIO (4-in/4-out) with 2.0 Pitch Header
LAN	2x RJ45 GbE
Universal I/O Bracket	2x Universal I/O Bracket (By mini PCIe interface)
USB	4x USB 3.2 Gen 2 (10 Gbps) 2x USB 2.0 header (internal)
Others	5x WiFi Antenna Holes 1x 4-pin PWM smart fan 1x RTC battery by cable 1x Power LED, 1x HDD LED indicator
Operating System	
Windows	Microsoft Windows 10 64-bit (RS5 or above)
Linux	Linux Kernel 5.x (Fedora 30 or above / Ubuntu 19.04 or above)
Power	
Power Adapter	Optional AC/DC 12V/5A, 60W, Optional AC/DC 12V/6.67A, 80W for PoE Module
Power Management	ACPI
Power Mode	AT, ATX 12V
Power Connector	3-pin Terminal Block
Power Protection	Reverse Polarity Protection (RPP)
Environment	
Operating Temperature	-20 °C ~ 60 °C (15W CPU)
Storage Temperature	-30 °C ~ 85 °C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL, 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

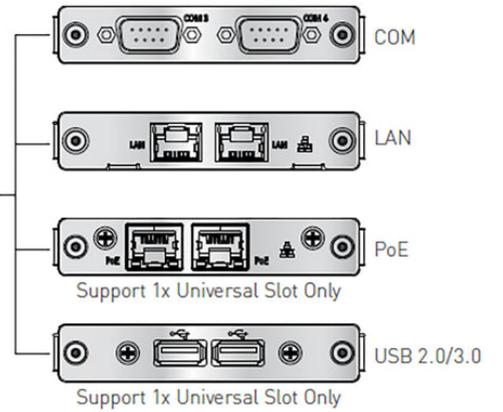
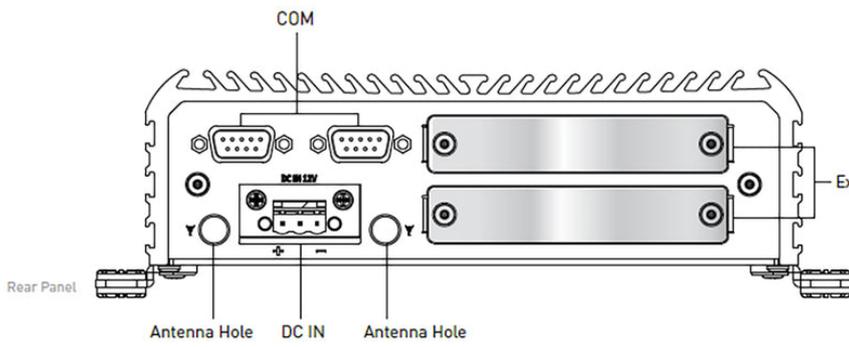
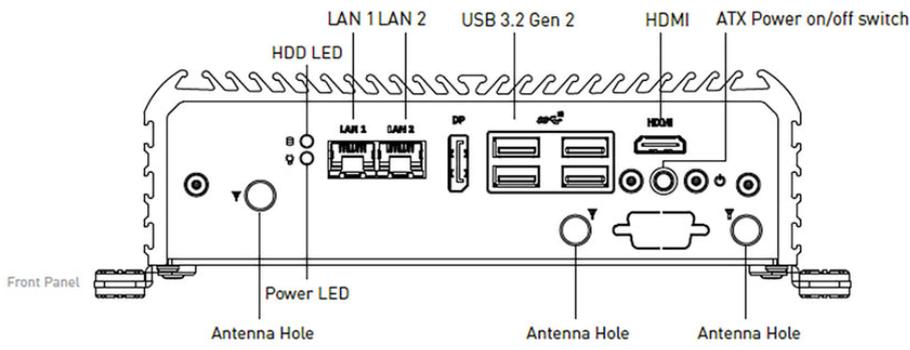
Shock With SSD: 20G, half sine, 11ms

Physical

Dimensions	140 (D) x 192 (W) x 61 (H) mm
Weights	1.4 Kg
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	Wall Mounting/DIN-Rail Mounting (Optional)

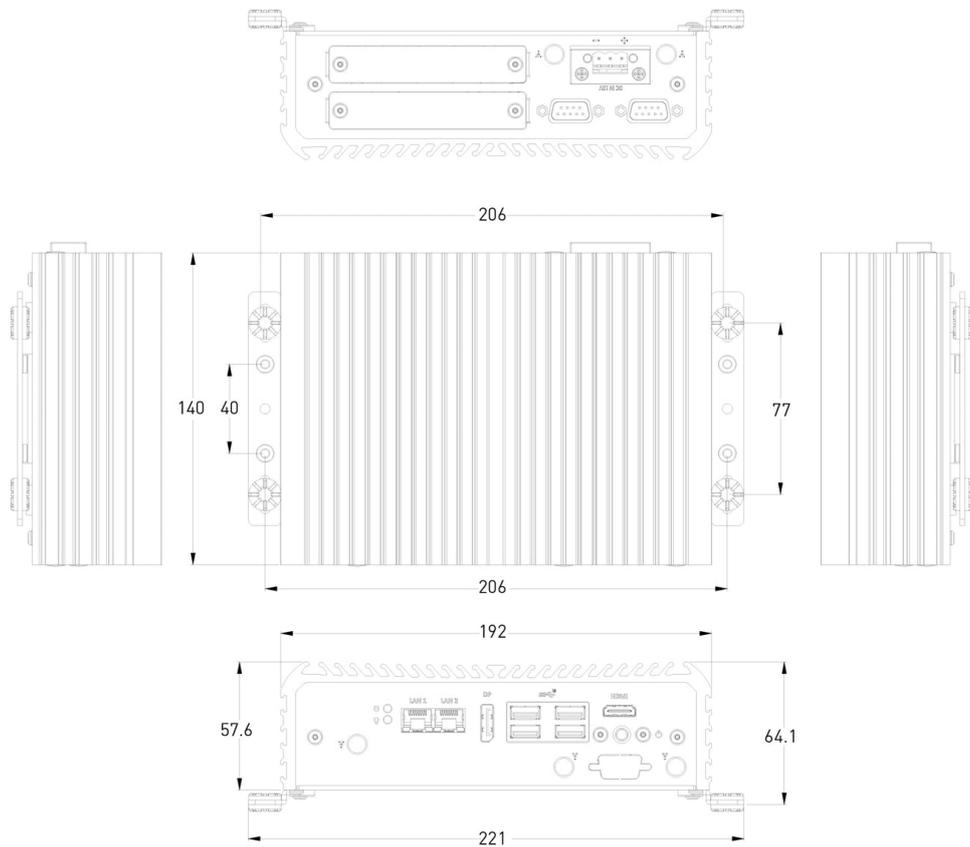
- This product has earned the UL Certified Mark.
- All specifications and photos are subject to change without notice.

External I/O Mechanical Layout



Dimension

Unit: mm



Available Models

Model No.	Description
BCO-2000-WHL-4305UE-P	Fanless Mini Computer with Intel Celeron® 4305UE Processor, 2x LAN, 4x USB 3.2
BCO-2000-WHL-8365UE-P	Fanless Mini Computer with 8th Gen Intel® Core™ Mobile-U i5-8365UE Processor, 2x LAN, 4x USB 3.2

Optional Accessories

Model No.	Description
1-E09A06008	Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch
999930	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

Packing List

- 1x BCO-2000-WHL-U
- 1x Utility DVD Driver
- 1x Accessory Kit
- 1x DVI to VGA Adapter

Compliances and Standards

Shock	With SSD: 20G, half sine, 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Vibration	With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 Procedure I
Operating Temperature	-20 °C ~ 60 °C (15W CPU) 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)
EMI	<ul style="list-style-type: none"> • FCC Class A (47 CFR part 15.109 and part 15.107) • CE • ICES-003 • UKCA

Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71