



FANLESS EMBEDDED SYSTEMS

# BCO-2000 series

Basic Fanless Embedded System with Intel® Core™ i5-8365UE and Celeron® Processor 4305UE, 2xLAN, 4xUSB 3.2



## FEATURES

- Support 8<sup>th</sup> Gen. Intel® Core™ i5 & 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, 1x DP, 1x HDMI (optional)
- 2x Full-size Mini PCIe (1x shared by 1x mSATA)
- 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, software programmable supports 1-225 sec. system reset
- TPM 2.0 Supported
- UL Listed

## SPECIFICATIONS

### System

Processor	Support 8 <sup>th</sup> Gen. Intel® WL-UE Processor (15W TDP) Intel® Core™ i5-8365UE Processor 6M Cache, up to 4.10 GHz Intel® Celeron® Processor 4305UE 2M Cache, 2.00 GHz
System Chipset	SoC
LAN Chipset	GbE1: Intel® I219LM (Support Wake-on-LAN and PXE) GbE2: Intel® I210-IT (Support Wake-on-LAN and PXE)
Graphics	Intel® UHD Graphics 620 for Core series Intel® UHD Graphics 610 for Celeron series
Audio Codec	Realtek ALC888S HD Audio Codec
Memory	1x 260-Pin DDR4 2400MHz SO-DIMM slot, Max. up to 32GB
BIOS	AMI uEFI 256MB SPI flash
Watchdog	Software Programmable Supports 1-255 sec. System Reset
TPM	TPM 2.0 Through Infineon® SLB9665TT2.0 or Equivalent

### Display

Display Port	1x DisplayPort support resolution 4096x2304 @60Hz
HDMI Port	1x HDMI support resolution 4096x2304 @24Hz (Optional)
Multiple Display	Dual Display

### Storage

SSD/HDD	1x Internal 2.5" SATA HDD Bay (support H=9.5mm), 1x Internal SATA 7P connector
mSATA	1x mSATA (Shared by 1x Mini PCI Express)
SIM Socket	1x internal SIM slot

### Expansion

Mini PCI Express	2x Full-size Mini PCIe (1x shared by 1x mSATA)
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### I/O

LED	1x Power LED, 1x HDD LED indicator
LAN	2x RJ45 GbE
USB	4x USB 3.2 Gen 2 (10 Gbps) 2x USB 2.0 header (internal)
COM	2x RS-232/422/485
Audio	1x Mic-in, 1x Line-out (Internal connector)

GPIO	2 x4-bit DIO [4-in/4-out] with 2.0 Pitch Header
Universal I/O Bracket	2x Universal I/O Bracket [By mini PCIe interface]
Others	5x WiFi Antenna Holes 1x 4-pin PWM smart fan 1x RTC battery by cable

### Operating System

Windows	Microsoft Windows 10 64-bit (RS5 or Higher)
Linux	Linux Kernel 5.x (Fedora 30 or Higher / Ubuntu 19.04 or Higher)

### Power

Power Connector	3-pin Terminal Block
Power Input	AT/ ATX 12V
Management	Power Management   ACPI
Power Adapter	Optional AC/DC 12V/5A, 60W Optional AC/DC 12V/6.67A, 80W for PoE Module

### Power Protection

Reverse Protection

### Environment

Operating Temp.	-20°C to 60°C (15W CPU) -20°C to 50°C (15W CPU, with 2 Port LAN Module) -20°C to 45°C (15W CPU, with 2 Port PoE Module)
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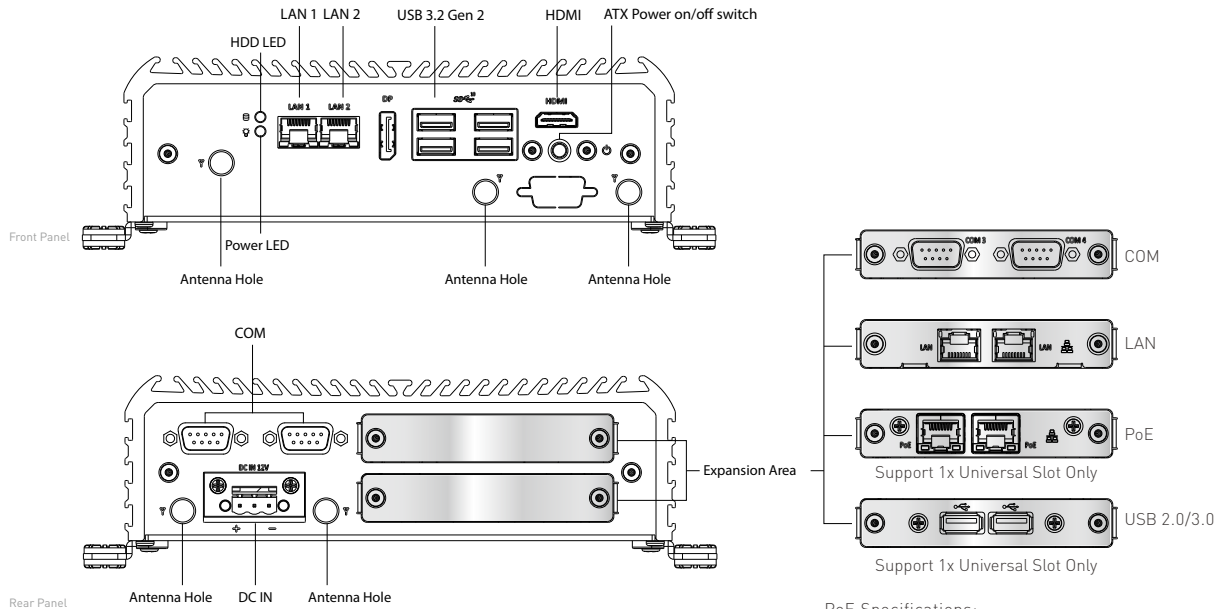
Storage Temp.	-30°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Vibration	With SSD: 3 Grms, 5 - 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis
Shock	With SSD: 20G, half sine, 11ms
Standards / Certification	UL, CE, FCC Class A

### Physical

Construction	Extruded Aluminum with Heavy Duty Metal
Dimension	140 [D] x 192 [W] x 61 [H] mm
Weight	1.4 kg
Mounting	Wall Mounting / DIN-Rail Mounting (Optional)

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

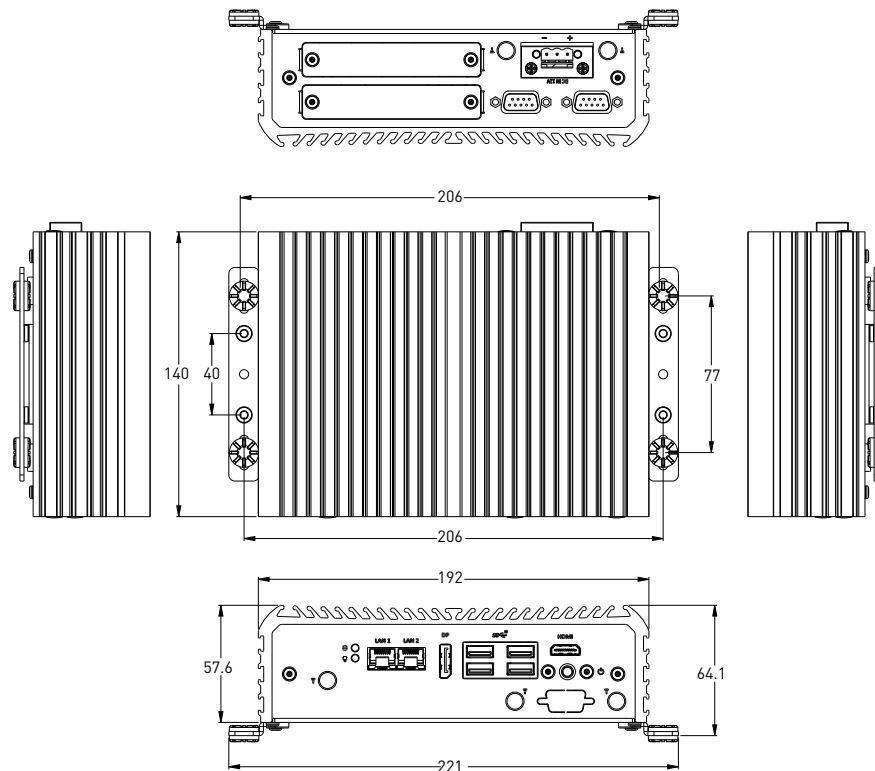
EXTERNAL I/O MECHANICAL LAYOUT



PoE Specifications:  
 - Single PoE: Support IEEE 802.3.af Standard.  
 - Dual PoE: Support Up to 20 Watts of total output.

DIMENSION

Unit: mm





## BCO-2000 series

### ORDERING INFORMATION

MODEL NO.	DESCRIPTION
1-E09A06007	Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A08002	Adapter AC/DC 12V 6.67A 80W with 3pin Terminal Block Plug 5.0mm Pitch
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-DINR-0004	DIN-Rail Mount Kit
3-BC20002LKIT-S0	Module Kit with 2x LAN for BCO-2000 Series
3-BC20002PKIT-S0	Module Kit with 2x PoE for BCO-2000 Series
3-BC2000CMKIT-S0	Module Kit with 4x COM for BCO-2000 Series
3-BC20002CKIT-S0	Module Kit with 2x COM for BCO-2000 Series
3-BC2000U2KIT-S0	Module Kit with 2x USB 2.0 for BCO-2000 Series
3-BC2000U3KIT-S0	Module Kit with 2x USB 3.0 for BCO-2000 Series

### PACKING LIST

- 1x BCO-2000 BOX PC Series Embedded System
- 1x Wall Mount Kit
- 1x Accessory Kit

### AVAILABLE MODELS

MODEL NO.	DESCRIPTION
BCO-2000-8365UE	Basic Fanless Embedded System with Intel Core i5-8365UE, 1x DP, 2x COM, 2xLAN, 4x USB, 1x 2.5" SATA HDD
BCO-2000-4305UE	Basic Fanless Embedded System with Intel Celeron 4305UE, 1x DP, 2x COM, 2xLAN, 4x USB, 1x 2.5" SATA HDD



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## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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