



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 8th 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 th 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) |
|------------------|--|

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) |
|-----------------|---|

| | |
|---------------------------|--|
| 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

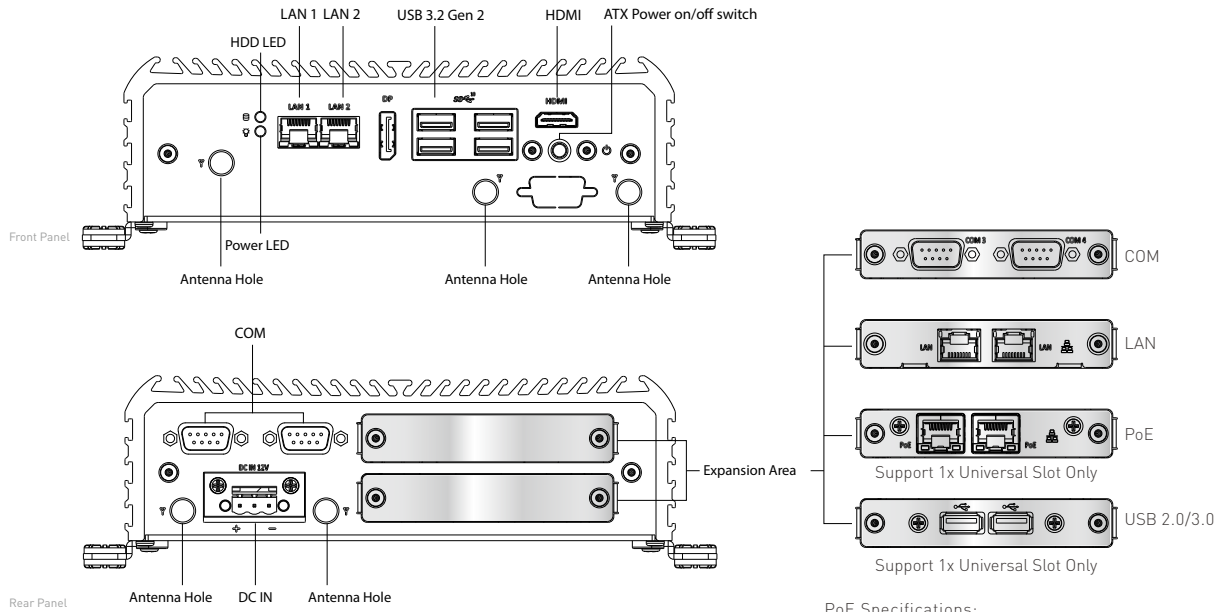
| | |
|--------------|--|
| Construction | Extruded Aluminum with Heavy Duty Metal |
| Dimension | 140 [D] x 192 [W] x 61 [H] mm |
| Weight | 1.4 kg |
| Mounting | Wall Mounting / DIN-Rail Mounting (Optional) |

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



BCO-2000 series

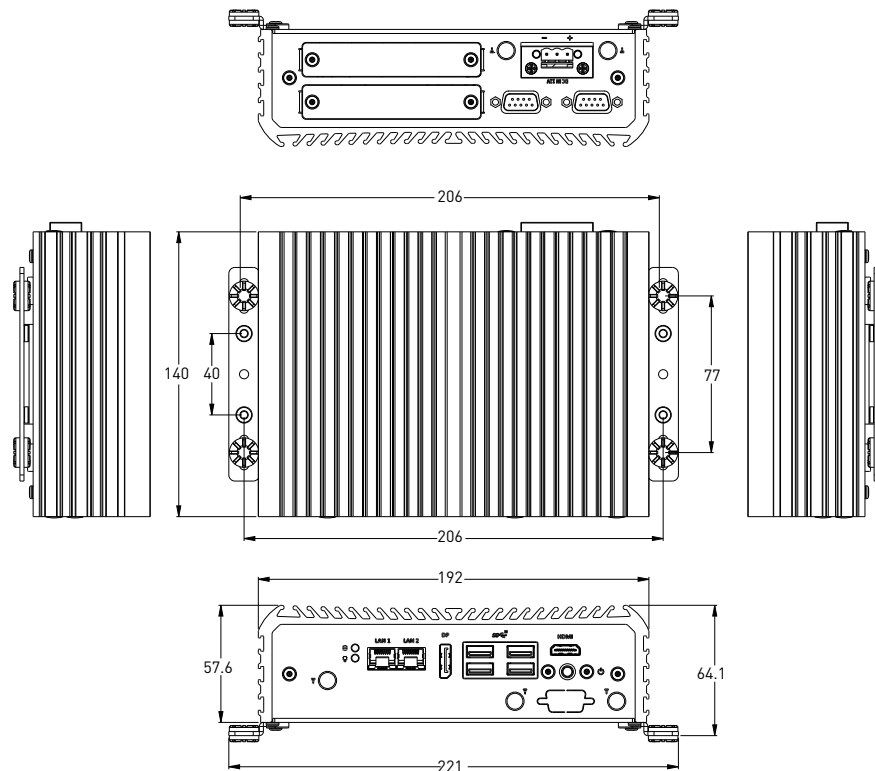
EXTERNAL I/O MECHANICAL LAYOUT



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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