

INDUSTRIAL COMPUTER

BCO-6000-RPL

Industrial Computer with 12th/13th Gen Intel® IoTG Processor, 2x DP, 1x HDMI, 2x COM, 3x LAN, 1x PCIe x16 (or 2x PCIe x8) Expansion



Features

- Support 12th/13th Gen Intel® IoTG Processor Core i9/i7/i5/i3, Pentium, Celeron (35W only)
- 2x DDR4 SODIMM. Max. up to 64GB (Default: 8GB)
- 2x Display Port, 1x HDMI, Triple Independent Display
- 3x 2.5GbE LAN
- 1x M.2 M-Key (Default: 128GB SSD), 1x M.2 E-key, 1x M.2 B-key
- 4x COM, 6x USB 3.2 Gen 2, 2 USB 3.2 Gen 1, x2 USB 2.0
- 1x PCIe x16 Slot (or 2x PCIe x8 Slot)
- 9 to 36VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature 0°C to 50°C
- TPM 2.0 Supported
- CE, FCC Class A, UL 62368 Ed. 3

Specifications

System	
Processor	Intel® IoTG:
• 12th/13th Gen Intel® Core™ Processor i9/i7/i5/i3, Pentium, Celeron (35W only)	
System Chipset	Intel® Q670E Express Chipset
LAN Chipset	Intel® I226LM PCIe 2.5GbE LAN Intel® I226V PCIe 2.5GbE LAN Intel® I226V PCIe 2.5GbE LAN
Audio Codec	Realtek ALC897
System Memory	2x DDR4 3200MT/s SODIMM. Max. up to 64 GB (Default: 8GB & Non- ECC supported)
Graphics	• Intel® UHD Graphics • GPU Graphics
BIOS	AMI UEFI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
AI Accelerator	Supports 1x Hailo-8™ module through M.2 B-Key
TPM	TPM 2.0
Display	
Display Port	2x Dual Mode DisplayPort 1.4a Max Resolution 4096 x 2304 @60Hz
HDMI	1x HDMI 1.4b Max Resolution 4096 x 2304 @24Hz
Multiple Display	3x Independent Displays
Storage	
M.2 M-Key	1x M.2 M-key Type (2242/2280): • Support 1x PCIe x4 Gen 3 NVMe SSD From PCH (Default 128GB SSD) • Support B+M Key, AI/Storage Module (Pending)
Expansion	
M.2 B-Key	1x M.2 B-key (3042) • Support 1x Nano SIM Holder • Support 1x PCIe x1, 1x USB 3.2 Gen 2, 1x USB 2.0, 5G/4G/LTE Module
M.2 E-Key	1x M.2 E key (2230) • Support 1x PCIe x1, 1x USB 2.0; Support CNVi • Devices Supported: Intel® AX210 Wi-Fi 6E & BT-5.1 (vPro Supported)
PCIe	Optional: • 2x PCIe x8 or • 1x PCIe x16 (Support A2000 GPU)
Network Modules	Optional Through M.2 B-Key: • 5G/4G/LTE Module
I/O	
Audio	Line-out/Mic-in
COM	4x DB9 COM1: RS232/422/485 COM2: RS232/422/485 COM3: RS485 COM4: RS485
DIO	8 in / 8 out (Isolated)
LAN	3x RJ45 (2.5GbE)
USB	6x USB 3.2 Gen2 2x USB 3.2 Gen1 2x USB 2.0 Type-A
Others	• 5x Antenna Holes • 1x Power button • 1x HD LED • 1x Power LED • 1x Default Industrial Fan

Operating System	
Windows	Windows 10/11
Linux	Linux Kernel
Power	
Power Adapter	Optional AC/DC 24V/9.2A, 220W for CPU and GPU Expansion
Power Mode	AT, ATX (Default ATX)
Power Supply Voltage	9~36VDC
Power Connector	4-pin Terminal Block
Environment	
Operating Temperature	0°C to 50°C (35W CPU)
Storage Temperature	-30°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL 62368 Ed. 3, CE, FCC Class A
Vibration	With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis)
Shock	With SSD: 50G half-sin 11ms
Physical	
Dimensions (WxDxH)	330 x 240 x 69mm
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	Wall Mounting

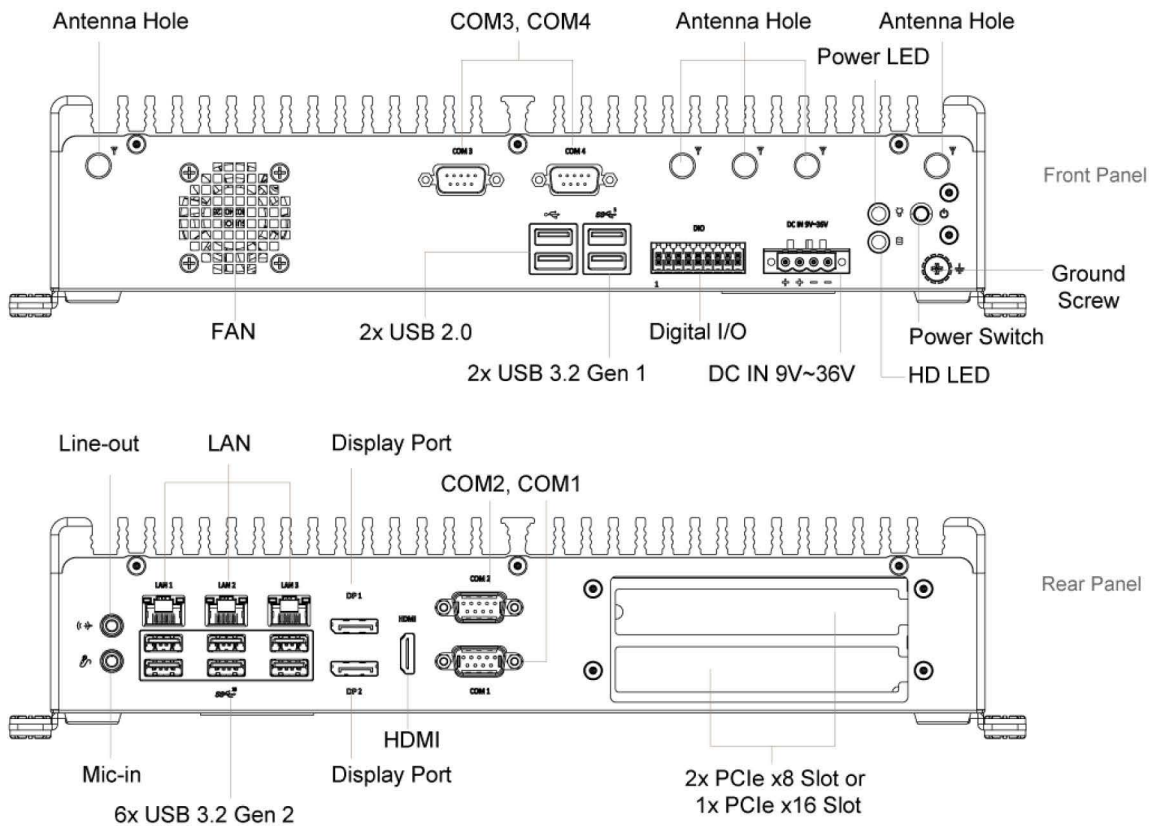
* All specifications and photos are subject to change without notice.

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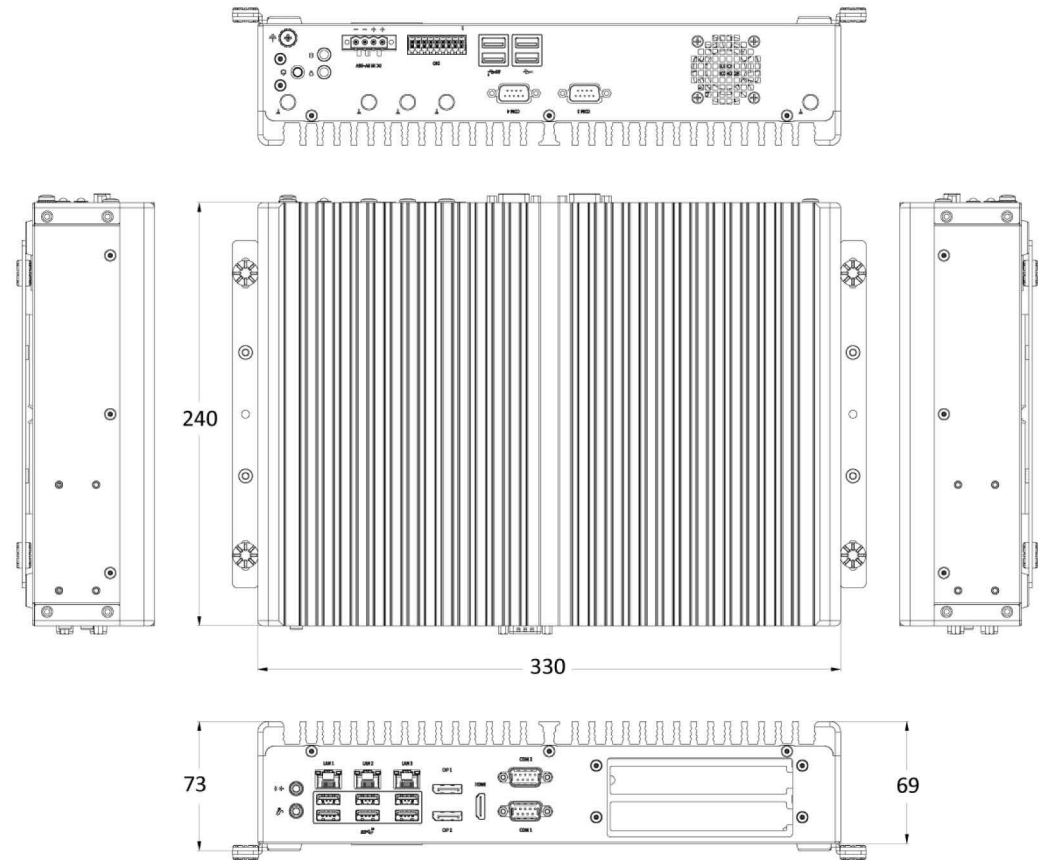
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External I/O Mechanical Layout



Dimension

Unit: mm



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Available Models	
Model No.	Description
BCO-6000-RPL-1E16-P	Industrial Computer With 12th/13th Gen Intel® IoTG Processor, 2x DP, 1x HDMI, 2x COM, 3x LAN, 1x PCIe x16 Expansion
BCO-6000-RPL-2E8-P	Industrial Computer With 12th/13th Gen Intel® IoTG Processor, 2x DP, 1x HDMI, 2x COM, 3x LAN, 2x PCIe x8 Expansion

Optional Accessories	
Model No.	Description
1-E09A22102	Adapter AC/DC 24V 9.2A 220W 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

Packing List

1x BCO-6000-RPL

1x Wall Mount Kit

1x Accessory Kit

Compatible GPU AVL							
Model	RAM	CUDA Cores	TDP	TOPS/TFLOPS	Displays	System Interface	Form Factor
NVIDIA RTX A2000	12G	3328	70W	7.99 TFLOPS	4x mDP	PCIe 4.0 x16	2.7" H x 6.6" L, Low Profile, Dual Slot
NVIDIA RTX 2000 ADA	16G	2816	70W	12 TFLOPS	4x mDP	PCIe 4.0 x8	2.7" H x 6.6" L, Dual slot
NVIDIA RTX 4000 SFF ADA	20G	6144	70W	19.2 TFLOPS	4x mDP	PCIe 4.0 x16	2.7" H x 6.6" L, Low Profile, Dual Slot

Compliances and Standards	
Vibration	With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis) IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 Procedure I
Shock	With SSD: 50G half-sin 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Operating Temperature	0°C to 50°C (35W 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)
EMC	• FCC Class A • 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 prcedure: CB Scheme • Standard: IEC 62368-1:2018

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