



SMALL FORM FACTOR COMPUTER

BCO-3000-RPL

Small Form Factor Computer with 14th/13th/12th Gen Intel® IoTG Processor, 2x DP, 1x HDMI, 2x COM, 3x LAN



Features

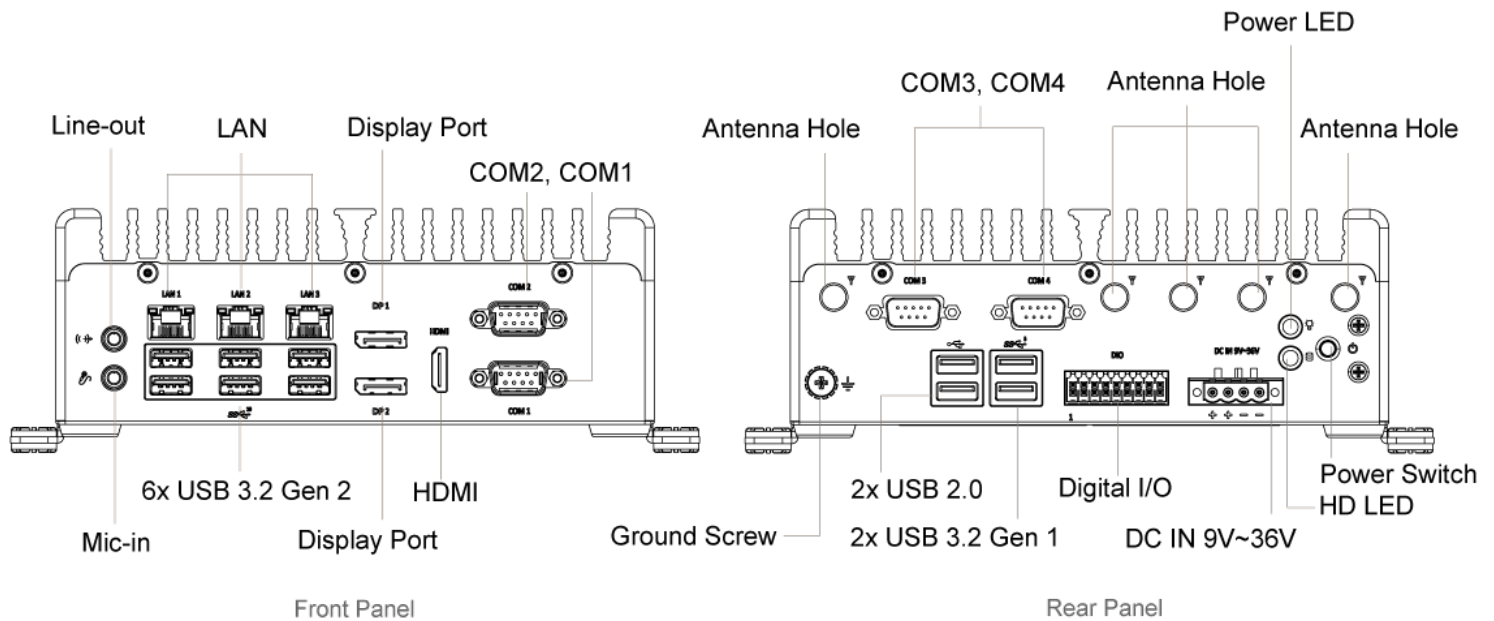
- Support 14th/13th/12th Gen Intel® IoTG Processor Core i9/i7/i5/i3, Pentium, Celeron (35W only)
- 2x DDR4 SODIMM. Max. up to 64GB (Default: 8GB)
- 2x Display Port, 1x HDMI, Triple Independent Display
- 3x 2.5GbE LAN
- 1x M.2 M-Key (Default: 128GB SSD), 1x M.2 E-key, 1x M.2 B-key
- 4x COM, 6x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 2x USB 2.0
- 9 to 36VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature 0°C to 50°C (35W CPU)
- TPM 2.0 Supported
- CE, FCC Class A, UL 62368 Ed. 3

Specifications

System	
Processor	Intel® IOTG:
	• 14th/13th/12th 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)
Graphics	Intel® UHD 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
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)
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: RS232 COM4: RS232
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
Operating System	
Windows	Windows 10/11
Linux	Linux Kernel

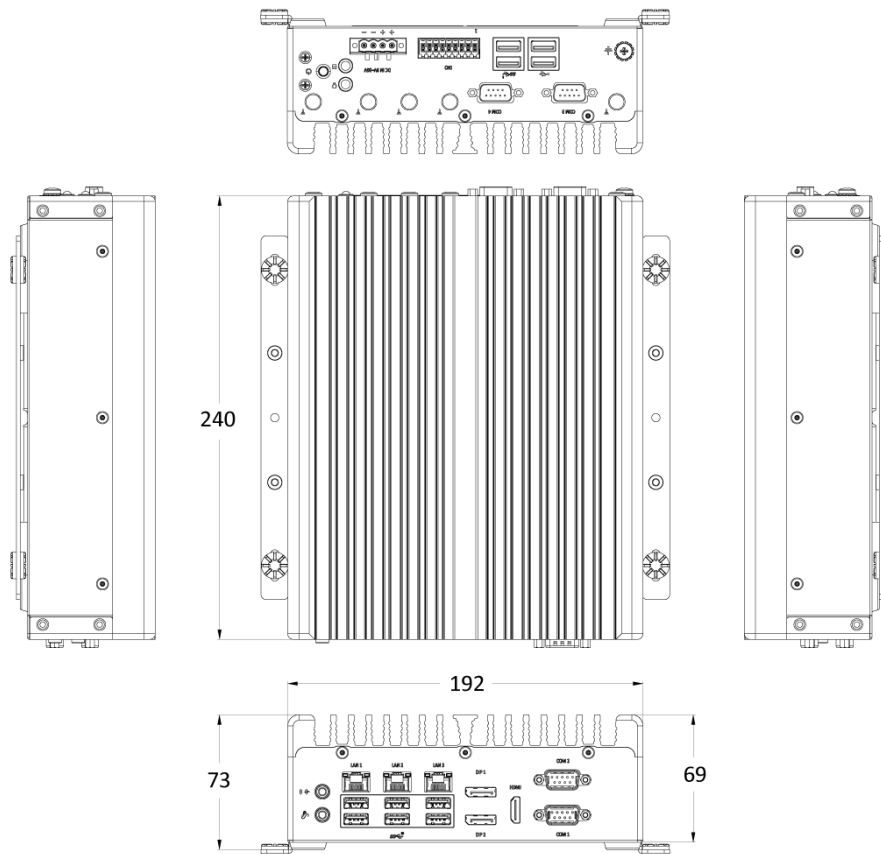
Power	
Power Adapter	Optional AC/DC 24V/5A, 120W
Power Mode	AT, ATX (Default ATX)
Power Supply Voltage	9~36VDC
Power Connector	4-pin Terminal Block
Environment	
Operating Temperature	0°C to 50°C (35W CPU)
Storage Temperature	-30°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL 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)	192 x 240 x 69mm
Construction	Extruded Aluminum with Heavy Duty Metal
Mounting Options	Wall Mounting DIN-Rail Mounting (Optional)

External I/O Mechanical Layout



Dimension

Unit: mm



Compatible CPU Support List

Generation and Code Name	Processor	P + E Cores	P-core Base Frequency	L3 Cache	Base Power
14th Gen Raptor Lake-S Refresh	Intel® Core™ i9 processor 14900T	8P + 16E	1.1 GHz	36 MB	35W
	Intel® Core™ i7 processor 14700T	8P + 12E	1.3 GHz	33 MB	35W
	Intel® Core™ i5 processor 14500T	6P + 8E	1.7 GHz	24 MB	35W
	Intel® Core™ i3 processor 14100T	4P	2.7 GHz	12 MB	35W
13th Gen Raptor Lake-S	Intel® Core™ i9 processor 13900TE	8P + 16E	1.00 GHz	36 MB	35W
	Intel® Core™ i7 processor 13700TE	8P + 8E	1.10 GHz	30 MB	35W
	Intel® Core™ i5 processor 13500TE	6P + 8E	1.30 GHz	24 MB	35W
	Intel® Core™ i3 processor 13100TE	4P	2.40 GHz	12 MB	35W
12th Gen Alder Lake-S	Intel® Core™ i9 processor 12900TE	8P + 8E	1.10 GHz	30 MB	35W
	Intel® Core™ i7 processor 12700TE	8P + 4E	1.40 GHz	25 MB	35W
	Intel® Core™ i5 processor 12500TE	6P	1.90 GHz	18 MB	35W
	Intel® Core™ i3 processor 12100TE	4P	2.10 GHz	12 MB	35W

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-810H Method 514.8 Procedure I
Shock	With SSD: 50G half-sin 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810H Method 516.8 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 procedure: CB Scheme • Standard: IEC 62368-1:2018

Available Models

Model No.	Description
BCO-3000-RPL-P	Small Form Factor Computer with 12th/13th/14th Gen Intel® IoTG Processor, 2x DP, 1x HDMI, 2x COM, 3x LAN, w/ Power Adapter
BCO-3000-RPL	Small Form Factor Computer with Intel® 14th/13th/12th Gen Intel® IoTG Processor, 2x DP, 1x HDMI, 2x COM, 3x LAN

Optional Accessories

Model No.	Description
1-E09A12002	Adapter AC/DC 24V 5A 120W 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-2 Mounting Kit

Packing List

1x BCO-3000-RPL SMALL FORM FACTOR COMPUTER
1x Wall Mount Kit

US Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71

Premio Inc.

918 Radecki Ct., City of Industry
CA 91748, United States
Toll Free: 800.977.3646

Premio Taiwan Inc.

18F, No.176, Jianyi Road, Zhonghe District,
New Taipei City 235603, Taiwan
Toll Free: 886.2.7731.7888

Email: sales@premioinc.com
Website: <https://premioinc.com>