



PRODUCT

SOLUTION GUIDE

2023

**INDUSTRIAL COMPUTING
SOLUTIONS FROM THE
EDGE TO THE CLOUD**



BUILT RUGGED. BUILT READY.

intel
partner
Titanium



YOUR TOP CHOICE PARTNER IN
INDUSTRIAL COMPUTING FROM THE

“EDGE TO THE CLOUD”

Premio is a global solutions provider specializing in computing technology from the edge to the cloud. We design and manufacture highly reliable, world-class computing solutions for enterprises with complex, highly specialized requirements for over 30 years. Our engineering specialty and agile manufacturing pushes the technical boundaries in Embedded IoT Computers , Rugged Edge Computers, and HMI Displays.

At Premio, we go to extraordinary lengths to solve the most formidable challenges faced by our customers. We do so by becoming more than their partner: we become their 'Inside Outsource' - an extension of their businesses, work cultures, manufacturing processes and operations, modulating our solutions to answer their special needs with speed, agility and precision.

Headquartered in Los Angeles, California with a state-of-the-art facility (ISO9001, ISO2001, ISO13485) and strategic locations in worldwide, Premio provides robust product engineering, flexible speed to market, and unlimited manufacturing transparency. Premio shares a promise to deliver the best possible next generation industrial PC solutions compliant with the highest standards and certifications for our customers in:

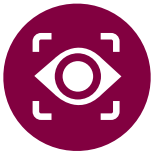


- Industrial Automation
 - Transportation
 - Food & Beverage
 - Military
- Kiosk & Retail
 - Security & Surveillance
 - Intelligent Healthcare
 - Machine Vision & Robotics



OUR MISSION

Premio dedicates its engineering resources and manufacturing services to meet the incredible demands of computing across industrial and enterprise deployments. Our global teams strive for the highest standards in innovation and technology that translates into the design and mass production of our purpose-built computing solutions.



OUR VISION

“Your Success, Our Commitment.” With this simple vision, Premio aims to address computing challenges with purpose-built products. Premio solves challenges for our customers by delivering solutions around the design, integration, validation, and deployment of our computing products in IoT and edge markets. Our 30+ years of industry-knowledge enable our customers to leverage high quality products and application ready hardware for a faster time to market.



OUR VALUE

Apart from our standard computing offerings, Premio also provides unique value to our customers through our robust engineering resources, environmental testing validation, manufacturing scale, supply chain & product lifecycle management, reverse logistics, and next generation computing design and innovation.

OUR CORE VALUES

We deliver our core brand values through the way we conduct business. Premio’s core values of Innovation, Commitment, Collaboration, Agility, and Accountability guide our decisions to exceed expectations.

- AGILITY

● We are flexible, adaptable, and responsive to the change in demands of our customers, the market, and our environment. We are willing to learn and create new ideas to drive and embrace changes actively.
- INNOVATION

● We constantly strive to drive innovation into all aspects of our business to provide products that deliver reliability, quality, performance, and value creation.
- COLLABORATION

● We work together to contribute to the development of new products and services that will ensure the success of our customers.
- ACCOUNTABILITY

● We always hold ourselves accountable for our products, services, and actions to our employees, customers, and partners.
- COMMITMENT

● We offer our valued customers the highest possible standards of solutions. At Premio, we treat customers with dignity, respect, and courtesy. We listen objectively to their needs and respond in a timely, efficient, and responsible manner.



US BASED COMPANY WITH WORLDWIDE OPERATIONS

A STORY OF GROWTH & EVOLUTION



1989-2000

Premio, which means “Prize” in Spanish, emerged as “Premio PC”, a personal computer manufacturer providing computers nationwide to many educational programs (K-12) around the nation. From its inception in 1989 to 2000, Premio pioneered and remained a trusted partner and manufacturer for many educational institutions in the United States.

2000

As computing technology advanced and became more commoditized, Premio proved to be resilient and achieved another milestone by evolving itself from its own personal computer in 2000 into a respectable contract manufacturer – providing a variety of highly specialized turnkey OEM integration processes and business services for some of the world’s elite computing companies; many of which still exist today in its global operations.

This monumental shift demanded Premio to move its operational infrastructure into a fully automated 150,000 square feet Los Angeles based manufacturing facility that was fully customized for ultimate flexibility and unlimited scalability. Even today Premio’s world-class manufacturing facility continues to be a testament for state-of-the-art automation and assembly for many leading OEMs in computing technology.

2000-2011

Starting from the year 2000, “Premio PC” transformed its brand identity into “Premio Inc.” – becoming a pivotal partner and key advisor in manufacturing and servicing premier technology companies around the world. Furthermore, Premio also restructured its mission and core values around a customer-centric business model with “total customer satisfaction” driving its core. By 2010, Premio Inc. achieved yet another milestone by successfully engaging with over 50+ customers worldwide ranging from enterprise level companies to start-ups that were eventually acquired by major fortune 500 companies.

2011-2017

In 2011 Premio decided to once again refine its business operations and developed more advanced technologies by investing into the research and development of home grown purpose-built Premio products in:

- Enterprise Servers and Storage Solutions
- Industrial Embedded Computing Solutions
- Industrial Touch Display Solutions

By combining our home grown products with our design capabilities plus our renowned OEM services, Premio’s advantage lies within its ability in providing a customized turnkey solution that can scale efficiently but also seamlessly align with the goals of our customers, resulting in ROI growth and measurable success over time.

Present

Today, Premio has successfully evolved into a full-service technology company that specializes in top-notch computing designs, scalable manufacturing for both variety and volume, and robust end-to-end business services that result in streamlined growth and success with global expansion
(Design – Manufacturing – Services)

FANLESS EMBEDDED SYSTEMS 14

Premio's fanless embedded systems are extremely flexible and reliable to provide integrated solutions to meet different needs. With its superior features integration, exceptional system performance, flexible I/O connections, wide range power input, smart management functions, and rugged reliability, Premio fanless embedded systems deliver a compelling platform that is needed in today's demanding workloads and industrial needs.

► 2023 FEATURED INDUSTRIAL SOLUTIONS 08

FANLESS MINI PC	RUGGED	EDGEBOOST NODE
BCO SERIES 16	RCO SERIES 19	AI EDGE INFERENCE 27



TOUCH MODULE	DISPLAY MODULE	SYSTEM MODULE
VIO MX SERIES 53	VIO SERIES 54	PC SERIES MX SERIES 56
		



IN-VEHICLE	MACHINE VISION
ACO SERIES 34	VCO SERIES 37
AI EDGE INFERENCE	IP65/67 WATERPROOF
EDGE SERIES 40	WCO SERIES 45

MODULE SERIES 42

Premio provides ethernet daughterboard modules that integrate easily into Premio embedded and edge computers through standard PCIe protocols. These flexible add-in modules provide additional ethernet I/O ports and scalable connectivity for IoT deployments that require ethernet connections in multiple RJ45 and M12 locking connectors.

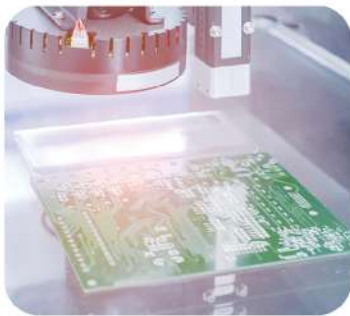
INDUSTRIAL DISPLAY SYSTEMS 48

Premio's Industrial Panel PCs and Touch Monitors are purpose-built for the toughest embedded deployments requiring mission-critical reliability. System integrators and automation engineers can easily deploy Premio industrial panel PCs and touch monitors as human machine interfaces to achieve better productivity and operational efficiency in their enterprise projects.

IP65 PANEL PC	IP66 WATERPROOF	IP66/IP69 WASHDOWN
VIO PC SERIES 50	WIO SERIES 60	SIO SERIES 61
		

MOTHERBOARD SYSTEMS 62

Premio offers industrial-grade scalability with standard motherboards and OEM system design. Standard form factors include: Single board computers (1.8" FEMTO-ITX, 2.5" PICO-ITX, and 3.5" SBCs); Mini-ITX; and Micro-ATX.



CERTIFICATION-READY INDUSTRIAL COMPUTERS 68

Certification-Ready industrial computers are embedded computing solutions that act as sub-assembly building blocks or final OEM system configuration in key enterprise and IoT applications.



2023 FEATURED INDUSTRIAL SOLUTIONS



coming soon

RCO-6000-ADL

series

AI Edge Inference Computer **EDGEBoost Nodes**

12/13th
Intel® 12/13th Gen Processor (Alder Lake)

EDGEBoost
GPU/NVMe/SATA Performance Upgrade

2x
Support 2x Universal I/O Brackets

PCIe 4.0
Up to 16 GT/s per lane

VISIT P.29

VCO-6000-ADL

series

High-Performance Machine Vision Computer

coming soon



Industrial-Grade Locking Brackets
Securely locks GPU cards

Full-Length GPU Support
Support x16 PCIe 4.0

-25°C to 70°C
Extended Operating Temperature Range

4x
Up to 4x PCIe Expansion Slots

VISIT P.39

NEW

ACO-6000-CML

series

In-Vehicle Fanless Computer

16x
Support up to 16x LAN/PoE/USB

EN50155 E-Mark
Certification Ready

9-48V | 48-110V
Higher voltage for railway solutions

VISIT P.35



5G & AI MODULE SERIES

Expandable Performance Accelerators

Now available! Configure 5G, AI, and NVMe accelerator modules with various industrial computers through universal I/O brackets. The innovative expandable modules enable industrial solutions to unlock intelligent computing at the rugged edge.

NEW

DTB-2M2BK

2x M.2 B Key for AI/5G/NVMe module

VISIT P.43



NEW

DTB-M2MK

1x M.2 M Key for AI/NVMe module

VISIT P.43



RCO-3000-CML series

Small Form Factor Industrial Computer

VISIT P.24

10th Ultra Compact

LGA 1200 for Intel® 10th Gen Processor (Comet Lake S)

192 x 227 x 60 mm (W x D x H)

DDR4

2x SO-DIMM, up to 64GB

2x

Intel GbE supports WoL & PXE

4K

4K Independent Displays

-25°C to 60°C

Extended Operating Temperature Range



NEW

BCO-2000-RYZ-V1605B

MINI INDUSTRIAL EMBEDDED COMPUTER
AMD Ryzen™ Series

VISIT P.18



AMD Ryzen™

Support AMD Ryzen™ Embedded R1000/V1000 Series Processor

ECC

Support DDR4 Up to 32GB

M.2 PCIe

1x M.2 B Key, 1x 50-Pin Connector (PCIex4)

4K

2x 4K, 1x LVDS

-20°C to 55°C

Extended Operating Temperature Range

10Y

Ten Years Availability

RCO-1000-EHL series

Mini Fanless Embedded Computer with Intel® Elkhart Lake Series
Built for Edge AI and IIoT solutions.



Elkhart Lake

Intel® Celeron® J6413

15 Year

IOTG Product Lifecycle Support

DDR4

1x SO-DIMM, Up to 32GB

4K

Up to 3x Displays

3x

Up to 3x I/O Expansions

-40°C to 70°C

Extreme Operating Temperature

VISIT P.20

NEW

ECO-1000 series ENERGY PACK

Portable. Smart. Ruggedized.

Power Backup System with up to 16x High-Density Industrial Supercapacitors

VISIT P.46

16x

Up to 16x High-Density Industrial Supercapacitors (5,920 Farads)

12/24V

Support Dual Voltage Coverage

EN50155

Railway Certification for In-Vehicle Deployments

Ultra-Compact

100 x 192 x 187 mm (W x D x H)

200W

Robust Max Power Output

GUI

GUI software for quick, easy setup

3x

Support three smart modes for various application deployments

coming soon

PC100-EHL series

VIO's PC Module for Industrial Display System with Intel Atom® / Celeron® Processor

VISIT P.57

Elkhart Lake

Intel Atom® & Celeron® SoC onboard

DDR4

1x SO-DIMM, Up to 32GB

3x

Triple Independent Displays

M.2 PCIe

2x M.2 Slot, 1x PCIe x4 Slot

2x

Intel® LAN (WoL & PXE)

Rich I/O

6x COM, 4x USB, DIO, Audio

Hot-Swappable

1x Removable 2.5" SATA SSD/HDD

1x PCIe/PCI Expansion



VISIT P.55 IP65 Modular Panel PC and Monitor

24" INDUSTRIAL PANEL PCS NEW

The VIO and SIO Panel PCs Series are now available in 24" sizes for enhanced productivity and immersive view experiences. In addition, our Industrial Panel PCs come with an IP rating and corrosion-proof materials to ensure smooth operations in various kinds of industrial environments.



VISIT P.61

IP66/69K Washdown Touchscreen Computer

AMD RYZEN EMBEDDED

Premio introduces a 1.8" and 3.5" single board computer powered by AMD Ryzen R1000/V1000 Processors. The AMD CT-DR101 and CT-NR101 are industrial-grade motherboards that are small, compact, and provide power-efficient performance in a system-on-chip design (SoC). Despite their small form factor, they provide a balance between performance and cost-effectiveness for intelligent industrial applications.

FEMTO FORM FACTOR 1.8" SBC NEW

- AMD Ryzen™ Embedded R1000 Series
- DDR4 Memory up to 8GB
- Dual Independent 4K Displays
- USB Type-C
- Industrial-grade Ruggedized Design

VISIT P.64

COMPACT FORM FACTOR 3.5" SBC NEW



- AMD Ryzen™ Embedded R1000/V1000 Series
- Rich Industrial I/O Ports
- 2x DDR4 RAM up to 32GB

- Triple Independent Displays
- Industrial-grade Ruggedized Design
- 50x PCIe Pin for Customizable I/O



VISIT P.65

PREMIO FANLESS EMBEDDED SYSTEMS

PRODUCT FAMILY



In-Vehicle
Fanless
Computer

ACO-6000-CML
Series
Comet Lake S

ACO-6000-KBL
Series
Skylake &
KabyLake-S



**IP65/IP67
Waterproof**
Fanless
Embedded
System

WCO-3000-KBL-U
Series
KabyLake-U



Mini
Fanless
Computer

**BCO-2000
AMD Ryzen™**
Series
R1000/V1000
Series

BCO-2000-WHL-U
Series
Whiskey Lake

BCO-1000-J1900
Series
Bay Trail



**Machine
Vision**
System

VCO-6000-ADL Series
Alder Lake S

VCO-6000-CFL Series
CFL-R S

VCO-6000-KBL Series
Skylake & KabyLake-S



Rugged
Fanless
Embedded
System

RCO-6000-ADL Series
Alder Lake S

RCO-6000-CML Series
Comet Lake S

RCO-6000-CFL Series
CFL-R S

RCO-6000-KBL Series
Skylake & KabyLake-S

RCO-3000-CML Series
Comet Lake S

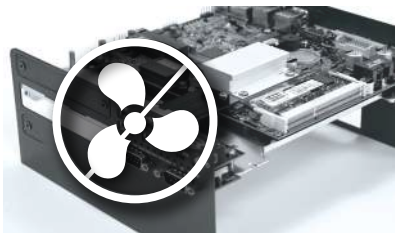
RCO-3000-CFL Series
Coffee Lake R

RCO-3000-KBL Series
Skylake & KabyLake-S

RCO-3000-KBL-U
Series
KabyLake-U

RCO-1000-EHL Series
Elkhart Lake

RCO-1000-J1900
Series
Bay Trail



FANLESS DESIGN

- Prevent failure/repair/ replacement caused by fan part
- Venting holes no longer needed
- Extended MTBF
- No noise



ONE-PIECE DESIGN

- Robust structure
- Less joint parts and screws for higher shock & vibration tolerance
- Easy assembly, disassembly, maintenance
- Sealed housing to prevent dust



POWER PROTECTION

- Over voltage protection
- Over current protection
- Reverse protection



SHOCK & VIBRATION

RCO & ACO Series comply with MIL-STD 810G on shock & vibration in order to sustain in environment like industrial automation, transportation, military, etc.



EXPANDABLE & MODULARIZATION

The modular design approach helps with the ease of installation to achieve rapid deployment, and provide wide variety of configurable options to achieve scalability.



EXTENDED OPERATING TEMPERATURE RANGE

Premio fanless embedded systems support extended temperature to allow applications to function in difficult and harsh environment.

THERMAL PERFORMANCE

Utilize ultra-conductive materials (copper and aluminum) to accomplish fast heat dissipation through integrated heat pipes and heat sinks. The unique thermal design allows the computers' CPU (up to 35W) to operate without a fan in an extended temperature range



INDUSTRY LEADING SAFETY CERTIFICATIONS

Tested and validated with safety certifications ensure product reliability against safety hazards and allow customers to comply with industry-specific regulatory requirements.



EN50155 &
EN50121-3-2



BCO-1000-J1900 SERIES

- Intel® Celeron® J1900 Processor (Quad Core, 2.0GHz)
 - Dual Independent Display
 - Rich I/O Features with up to 6x RS-232/422/485
 - 2x Full-size Mini-PCIe Slot for Communication or Expansion Modules
 - 9 to 30 VDC Wide Range Power Input Supporting AT/ATX Mode
- Ultra Compact Size Design
 - Fanless & Cable-less in Design
 - TPM 2.0 Supported (Optional)

More info



Model	BCO-1000-J1900	BCO-1000-J1900-10	BCO-1000-J1900-20	BCO-1000-J1900-30
	Basic Fanless System ideal for space- constrained applications	Support up to 1x I/O module	Support up to 2x I/O module	Support up to 3x I/O module
CPU Onboard	Intel® Celeron® J1900			
Memory	1x 204-pin DDR3L-1066/1333MHz SO-DIMM, up to 8GB			
Graphic Output	1x DVI-I (optional DisplayPort: BCO-1000-J1900-10A, BCO-1000-J1900-20C & BCO-1000-J1900-30)			
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)			
Storage	1x mSATA (shared by 1x Mini PCIe)	1x mSATA (shared by 1x Mini PCIe), 1x Internal 2.5" SATA HDD Bay		
Internal Expansion Slot	2x Full-size mini-PCIe (1x shared with mSATA)			
Power	9-30 VDC, AT/ATX Select, 3-pin Terminal Block			
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-20°C to 50°C			
Dimensions (WxDxH)	142 x 101 x 30 mm	142 x 101 x 41.5 mm	142 x 101 x 58 mm	142 x 101 x 75 mm
Weight	0.46 kg	0.58 ~ 0.62 kg	0.68 kg	0.72 kg
Universal Expansion Slot	0	1 (rear)	2 (rear)	3 (rear) 1 (front)
DP, 8-bit Isolated DIO (rear)		BCO-1000-J1900-10A		
2x COM (rear)		BCO-1000-J1900-10B		
4x USB (rear)		BCO-1000-J1900-10U		
DP, 8-bit Isolated DIO, 2x COM (rear)			BCO-1000-J1900-20C	
4x COM (rear)			BCO-1000-J1900-20D	
DP, 8-bit Isolated DIO, 4x COM (rear)				BCO-1000-J1900-30

BCO-1000-EHL SERIES

- Support Intel® Celeron® Processor
 - 1x 260-pin DDR4 SODIMM. Max. up to 32GB
 - Dual Independent Display by 2x Display Port
 - 1x 2.5GbE, 1x GbE supporting (Wake-on-LAN and PXE)
 - 1x 2.5" SATA HDD Bay, 1x mSATA,
 - 1x M.2 (B Key, 2242/3042/3052, Support 4G/LTE)
 - 1x Full-size mini PCIe for communication or expansion modules
- 2x RS-232/422/485, 3x USB 3.2 Gen2, 1x USB 2.0
 - 9 to 36VDC Wide Range Power Input Supporting AT/ATX Mode
 - Wide Operating Temperature -20°C to 50°C
 - TPM 2.0 Supported
 - Up to 4x Universal Expansion Slot

More info



Model	BCO-1000-EHL-10	BCO-1000-EHL-20	BCO-1000-EHL-30
	Ultra Compact Fanless System ideal for space-constrained applications		
CPU Support	Support Intel® EHL Processor (Up to 10W TDP) Intel® Celeron® Processor J6413, Quad Core, 1.5 MB Cache, 1.8 GHz		
Memory	1x 260-Pin DDR4 2400/2667/3200MT/s SO-DIMM. Max. up to 32 GB		
Graphic Output	Dual Independent Display by 2x DisplayPort		
LAN	2x RJ45 (2.5 & 1 GbE), Support Wake-on-LAN and PXE		
USB, Serial	3x USB 3.2 Gen 2 (10 Gbps), 1x USB 2.0, 2x RS-232/422/485		
Storage	1x Internal 2.5" SATA HDD Bay (support H=9.5 mm)		
Internal Expansion Slot	1x Full-size Mini PCIe		
Power	9-36 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	1x Mic-in, 1x Line-out		
Operating Temperature	-20°C to 50°C		
Certification	UL 62368 Ed. 3, CE, FCC Class A		
Dimensions (WxDxH)	142 x 101.2 x 41.5 mm	142 x 101.2 x 58 mm	142 x 101.2 x 75 mm
Weight	0.6 kg	0.7 kg	0.74 kg
Universal Expansion Slot	Up to 1x Universal Expansion Slots	Up to 2x Universal Expansion Slots	Up to 4x Universal Expansion Slots
Expansion	Expansion Modules (Optional) : <ul style="list-style-type: none">2-port COM module with Super I/O Chipset (Up to 2x Slot)4-Port USB module with USB hub (1x Slot Only)1-Port DP 1.4 and DIO (4 in / 4 out, Isolated, 1x Slot Only)1-Port HDMI 2.0 (1x Slot Only)		

MINI FANLESS EMBEDDED COMPUTER

MINI FANLESS EMBEDDED COMPUTER

BCO-2000-WHL-U SERIES [More info](#)

- Support 8th Gen. Intel® Core™ i5 & Intel® Celeron® Processor
- 1x 260-pin DDR4 2400 SO-DIMM. Max. up to 32GB
- 2x Intel® GbE (Support Wake-on-LAN and PXE)
- Dual display by 1x HDMI and 1x DisplayPort support
- 2x Mini PCIe (Gen3) with 1x SIM slot support
- 4x USB 3.2 Gen 2, 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



NEW

BCO-2000-RYZ-V1605B SERIES [More info](#)

- Support AMD Ryzen™ Embedded R1000/V1000 Series Processor
- 2x 260-pin DDR4 2400 MHz SO-DIMM. Max. up to 32GB
- 2x Intel® GbE (Support Wake-on-LAN and PXE)
- Triple Independent Display by 1x DisplayPort, 1x LVDS, 1x HDMI (Optional)
- 1x M.2 B Key for 4G/5G Communications & Storage
- 1x full-size Mini PCIe for expansion modules
- 2x USB 3.2 Gen 2, 2x USB 2.0, 2x RS-232/422/485
- 1x Internal 2.5" SATA HDD Bay, 1x internal SIM socket
- Watchdog timer 1-255s system reset
- TPM 2.0 Supported

Model	BCO-2000-WHL-U	BCO-2000-V1605B	BCO-2000-R1606G
	Basic Fanless System ideal for space-constrained applications	Basic Fanless System ideal for space-constrained applications	
CPU Support	Support 8 th Gen. Intel® WL-UE Processor Intel® Core™ i5-8365UE or Intel® Celeron® 4305UE Processor	AMD Ryzen™ Embedded V1605B with Radeon™ Vega 8 Graphics, 4M Cache, 4 Cores, 8 Threads, Up to 3.6 GHz	AMD Ryzen™ Embedded R1606G with Radeon™ Vega 3 Graphics, 4M Cache, 2 Cores, 4 Threads, Up to 3.5 GHz (Optional)
Memory	1x 260-Pin DDR4 2400MHz SO-DIMM, up to 32GB	2x 260-Pin DDR4 2400 MHz SO-DIMM. Max 32 GB	
Graphic Output	1x DisplayPort, 1x HDMI (Optional)	1x DisplayPort, 1x 24-bit dual channel LVDS, 1x HDMI (Optional)	
LAN	2x RJ45 GbE (Support Wake-on-LAN and PXE)		
USB, Serial	4x USB 3.2 Gen 2, 2x USB 2.0 header (internal), 2x RS-232/422/485	2x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x internal), 2x RS-232/422/485	
Storage	1x mSATA (shared by 1x Mini PCIe), 1x Internal 2.5" SATA HDD Bay	1x M.2 B Key, 3042, Support SATA, 1x Internal 2.5" SATA HDD Bay (support H=9.5mm)	
Internal Expansion Slot	2x Full-size Mini-PCIe (1x shared with mSATA)	1x M.2 B Key (PCIe x1 & USB 3.0, 3042/3052, SATA, USIM, Support 4G/5G) 1x Full-Size Mini PCIe for expansion modules	
Power	AT/ATX 12V Select, 3-pin Terminal Block	AT, ATX 12VDC	
Audio	Line-out / Mic-in Internal		
Operating Temperature	-20°C to 60°C	-20°C to 55°C (25W CPU)	
Certification	UL 62368 Ed. 3, CE, FCC Class A		
Dimensions (WxDxH)	140 x 192 x 61 mm		
Weight	1.4 kg	1.5 kg	
Universal Expansion Slot	2		
Expansion (Option)	<div><div>• 2x LAN</div><div>• 2x COM</div><div>• 4x COM</div></div> <div><div>• 2x PoE</div><div>• 2x USB 2.0</div><div>• 2x USB 3.2 Gen1</div></div>	<div><div>• 2x COM</div><div>• 4x COM</div></div> <div><div>• 2x USB 2.0 (Support 1x Universal Slot Only)</div><div>• 2x USB 3.2 Gen1 (Support 1x Universal Slot Only)</div></div>	

RCO-1000-J1900 SERIES

- Intel® Atom® processor E3845, 1.91GHz or Intel® Celeron® J1900, 2.0GHz
- Dual Independent Display
- Rich I/O Features with up to 6x RS-232/422/485
- 2x Full-size Mini-PCIe Slot for Communication or Expansion Modules
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode

[More info](#)



- Ultra Compact Size Design
- Fanless & Cable-less in Design






Model	RCO-1000-J1900	RCO-1000-J1900-10	RCO-1000-J1900-20	RCO-1000-J1900-30
	Ultra Compact Fanless System ideal for space-constrained applications	Support up to 1x I/O module	Support up to 2x I/O module	Support up to 3x I/O module
CPU Onboard	Intel® Atom® E3845, or Celeron® J1900			
Memory	1x 204-pin DDR3L-1066/1333MHz SO-DIMM, up to 8GB			
Graphic Output	1x DVI-I (optional DisplayPort: RCO-1000-J1900-10A, RCO-1000-J1900-20C & RCO-1000-J1900-30)			
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)			
Storage	1x mSATA (shared by 1x Mini PCIe)	1x mSATA (shared by 1x Mini PCIe), 1x Internal 2.5" SATA HDD Bay		
Internal Expansion Slot	2x Full-size mini-PCIe			
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block			
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-40 °C to 70 °C			
Dimensions (WxDxH)	150 x 105 x 37 mm	150 x 105 x 49 mm	150 x 105 x 65 mm	150 x 105 x 85 mm
Weight	0.69 kg	0.85 ~ 0.88 kg	0.97 ~ 0.98 kg	1.11 kg
Universal Expansion Slot	0	1 (rear)	1 (front)	2 (front)
DP, 8-bit Isolated DIO (rear)		RCO-1000-J1900-10A		
2x COM (rear)		RCO-1000-J1900-10B		
Power Ignition Management (internal)		RCO-1000-J1900-10G		
DP, 8-bit Isolated DIO, 2x COM (rear)			RCO-1000-J1900-20C	
4x COM (front)			RCO-1000-J1900-20D	
DP, 8-bit Isolated DIO, 4x COM (rear)				RCO-1000-J1900-30

MINI FANLESS EMBEDDED COMPUTER

RCO-1000-EHL SERIES




- Intel® Celeron® Processor (Up to 10W TDP)
 - Dual Independent Display by 2x DisplayPort
 - 1x 2.5GbE, 1x GbE supporting (Wake-on-LAN and PXE)
 - 1x 2.5" SATA HDD Bay, 1x mSATA, 1x M.2 (B Key, 2242/3042/3052, Support 4G/5G)
 - 1x Full-size mini PCIe for communication or expansion modules
 - 2x RS-232/422/485, 3x USB 3.2 Gen2, 1x USB 2.0
- 9 to 36 VDC Wide Range Power Input Supporting AT/ATX Mode
 - Wide Operating Temperature -40°C to 70°C
 - TPM 2.0 Supported

<div><div><div>intel® Elkhart Lake</div><div><div>CERTIFIED</div><div>EMBEDDED</div><div>E357184</div></div></div><div><div>NEW</div></div><div><div>NEW</div></div><div><div>NEW</div></div></div>			
Model	RCO-1000-EHL-10	RCO-1000-EHL-20	RCO-1000-EHL-30
	Ultra Compact Fanless System ideal for space-constrained applications		
CPU Support	Support Intel® EHL Processor (Up to 10W TDP) Intel® Celeron® Processor J6413, Quad Core, 1.5 MB Cache, 1.8 GHz		
Memory	1x 260-Pin DDR4 2400/2667/3200MT/s SO-DIMM. Max. up to 32 GB		
Graphic Output	Dual Independent Display by 2x DisplayPort		
LAN	2x RJ45 (2.5 & 1 GbE), Support Wake-on-LAN and PXE		
USB, Serial	3x USB 3.2 Gen 2 (10 Gbps), 1x USB 2.0, 2x RS-232/422/485		
Storage	1x Internal 2.5" SATA HDD Bay (support H=9.5 mm)		
Internal Expansion Slot	1x Full-size Mini PCIe		
Power	9-36 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	1x Mic-in, 1x Line-out		
Operating Temperature	-40°C to 70°C		
Certification	UL 62368 Ed. 3, CE, FCC Class A		
Dimensions (WxDxH)	150 x 105 x 49 mm	150 x 105 x 66 mm	150 x 105 x 83 mm
Weight	0.9 kg	1 kg	1.2 kg
Universal Expansion Slot	Up to one Universal Expansion Slots	Up to three Universal Expansion Slots	Up to five Universal Expansion Slots
Expansion	Expansion Modules (Optional) : <ul style="list-style-type: none">2-port COM module with Super I/O Chipset (Up to 2x Slot)4-Port USB module with USB hub (1x Slot Only)1-Port DP 1.4 and DIO (4 in / 4 out, Isolated, 1x Slot Only)1-Port HDMI 2.0 (1x Slot Only)		

RUGGED MINI (SFF) INDUSTRIAL COMPUTER

RCO-3000-KBL-U SERIES

- Support 7th Gen. Intel® Core™ i5 / i3 Processor
 - Triple Independent Display
 - Support up to 6x LAN or 4x PoE by Unique Modular Design
 - Multiple Expansion Capability including PCIe, PCI, and Mini PCIe
 - Wide Operating Temperature -40°C to 70°C
 - 9 to 50 VDC Wide Range Power Input Supporting AT/ATX Mode
- Fanless & Cable-less in Design
 - TPM 2.0 Supported

<div><div><div>intel® Kaby Lake-U</div><div><div>NEW</div></div><div><div>NEW</div></div><div><div>NEW</div></div></div></div>			
Model	RCO-3000-KBL-U	RCO-3000-KBL-U-1	RCO-3000-KBL-U-2
	Advanced Fanless System based on Intel® KabyLake-U processors	Up to one PCI or PCIe x4 expansion slot	Up to two PCI or PCIe x4 expansion slot
CPU Onboard	Intel® 7 th Gen. (KabyLake-U) Processor Core™ i5-7300U, Core™ i3-7100U		
Memory	1x 260-pin DDR4 1866/2133MHz SO-DIMM, up to 16GB		
Graphic Output	1x VGA, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	4x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0, 5x RS-232/422/485 (w/ 3x internal), 16x isolated digital I/O		
Storage	2x 2.5" SATA HDD Bay (1x internal, 1x removable) with RAID 0, 1, 5, 10 support, 1x mSATA (shared by 1x Mini PCIe), and 1x CFast (shared by 1x mSATA)		
Internal Expansion Slot	2x Full-size mini-PCIe		
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-40 °C to 70 °C		
Dimensions (WxDxH)	185 x 197 x 57.4 mm	185 x 197 x 85 mm	185 x 197 x 105 mm
Weight	2.17 ~ 2.66 kg	2.73 ~ 3.1 kg	2.95 ~ 3.32 kg
1x PCIe x4		RCO-3000-KBL-U-1E	
1x PCI		RCO-3000-KBL-U-1I	
2x PCIe x4			RCO-3000-KBL-U-2E
2x PCI			RCO-3000-KBL-U-2I
Proprietary Module Expansion	Up to 1x Module : <ul style="list-style-type: none">DTB-4LANDTB-4LAN-M12DTB-4LAN-PWRDTB-4LAN-PWR-M12		

RCO-3000-KBL SERIES

- Support 6th/7th Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
 - Intel® Q170 chipset
 - 2x DDR4 1866/2133MHz SO-DIMM. Max. up to 32GB
 - Intel® HD Graphics 530 / 630
 - Triple Independent Display
 - 2x internal 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast
 - 2x full-size Mini PCIe (shared by 2x mSATA) for communication or expansion modules, 2x external SIM socket
- 4x RS-232/422/485 (w/ 2x internal), 6x USB 3.2 Gen1, 2x USB 2.0
 - 9 to 50 VDC Wide Range Power Input Supporting AT/ATX Mode
 - TPM 2.0 Supported

intel
Skylake-S Kaby Lake-S



Model	RCO-3000-KBL
	Advanced Fanless System based on Intel® Skylake & Kaby Lake-U processors
CPU Support	Support 6 th & 7 th Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151) 7 th Gen Intel® Core™ i7-7700T / i5-7500T / i3-7101TE, 6 th Gen Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE, Intel® Pentium® G4400TE / Celeron® G3900TE
Memory	2x DDR4 1866/2133MHz SO-DIMM. Max. up to 32GB
Graphic Output	Intel® HD Graphics 530 / 630 1x DisplayPort, and 1x HDMI [optional]
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)
USB, Serial, & Digital I/O	6x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0 [internal], 4x RS-232/422/485 (2x internal), 16x isolated digital I/O
Storage	2x internal 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), and 1x CFast
Internal Expansion Slot	2x Full-size mini-PCIe
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block
Audio	Speaker-out / Mic-in Phone Jack
Operating Temperature	-25°C to 60°C
Dimensions (WxDxH)	185 x 197 x 57.4 mm
Weight	2.28 kg

RCO-3000-CFL SERIES

- Support 8th/9th Gen Intel® CFL-R S Processor (LGA 1151, 35W TDP)
 - Intel® Q370 Chipset
 - Triple Independent Display by 1x DVI-I and 2x DisplayPort
 - 2x Intel® GbE supporting Wake-on-LAN and PXE
 - 2x Full-size Mini PCIe (shared by 1x mSATA), and 2x SIM socket
 - 2x 2.5" SATA HDD Bay with RAID 0, 1, 5 support, 1x mSATA (Shared by 1x Mini PCIe)
 - 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
 - 4x USB 3.2 Gen 2, 4x USB 2.0 (2x internal), 5x RS-232/422/485 (2x internal)
- 8x DI + 8x DO with isolation
 - 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
 - TPM 2.0 Supported

intel
Coffee Lake R



Model	RCO-3000-CFL	RCO-3000-CFL-2E
	Superior Fanless Embedded System with LGA 1151 for Intel 8 th /9 th Gen CPU & Q370 PCH	Superior Fanless Embedded System with LGA 1151 for Intel 8 th /9 th Gen CPU & Q370 PCH, 2x PCIe x 16
CPU Support	Support 8 th & 9 th Gen Intel® CFL-R S Processor (LGA 1151, 35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T	
Memory	2x 260-Pin DDR4 2400/2666MHz SO-DIMM. Max. up to 64GB (Un-buffered and Non-ECC)	
Graphic Output	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x internal), 5x RS-232/422/485 (2x internal), 16x isolated digital I/O	
Storage	2x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 1x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)	
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key	
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Speaker-out	
Operating Temperature	-25°C to 60°C	
Dimensions (WxDxH)	192 x 197 x 60.3 mm	192 x 197 x 107.8 mm
Weight	2.28 kg	3.10 kg
PCI Express	0	2x PCIe x16 (8-Lane)
Proprietary Module Expansion	Up to 1x Module : <ul style="list-style-type: none">• DTB-D10G• DTB-4U3• DTB-4ETH• DTB-4ETH-M12• DTB-M2MK• DTB-2M2BK	

RCO-3000-CML SERIES

- Support 10th Gen Intel® CML-R S Processor (LGA 1200, 35W TDP)
- Intel® Q470E Chipset
- Triple Independent Display by DisplayPort, Support Resolution 4096 x 2304
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 1x Full-size Mini PCIe (shared by 1x mSATA),
1x M.2 B Key Support AI Module/NVMe Storage/4G/5G, and 2x SIM socket
- 2x 2.5" SATA HDD Bay with RAID 0, 1, 5 support, 1x mSATA (Shared by 1x Mini PCIe)
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)



More info



- 6x USB 3.2 Gen 2, 2x USB 3.2 Gen 1, 5x RS-232/422/485 (2x internal)
- 8x DI + 8x DO with isolation
- 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported

Model	RCO-3000-CML
	Superior Fanless Embedded System with LGA 1200 for Intel 10 th Gen CPU & Q470E PCH
CPU Support	Support 10 th Gen Intel® CML-R S Processor (LGA 1200 35W TDP) Core™ i9-10900TE, Core™ i7-10700TE, Core™ i5-10500TE, Core™ i3-10100TE, Pentium® G6400TE, or Celeron® G5900TE
Memory	2x 260-Pin DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB (ECC and Non-ECC)
Graphic Output	3x DisplayPort, support resolution 4096 x 2304 (1x DP Port Co-layout HDMI Connector)
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)
USB, Serial, & Digital I/O	6x USB 3.2 Gen 2 (10 Gbps) 2x USB 3.2 Gen 1 (5 Gbps, internal) 3x RS-232/422/485 (2x internal)
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 1x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)
Internal Expansion Slot	1x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 B Key Support 4G/5G/AI/NVMe, 1x M.2 E Key
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block
Audio	Speaker-out
Operating Temperature	-25°C to 70°C
Certification	UL 62368 Ed. 3, CE, FCC Class A
Dimensions (WxDxH)	192 x 227 x 60.3 mm
Weight	2.4 kg
Proprietary Module Expansion	Up to 1x Module : <ul style="list-style-type: none">• DTB-D10G• DTB-4U3• DTB-4ETH• DTB-4ETH-M12• DTB-4ETH-PWR• DTB-4ETH-PWR-M12• DTB-M2MK• DTB-2M2BK

RCO-6000-KBL SERIES

- Support 6th/7th Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Triple Independent Display
- Support up to 10x LAN or 8x PoE by Unique Modular Design
- Multiple Expansion Capability including PCIe, PCI, and Mini PCIe
- Wide Operating Temperature -25°C to 70°C
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- Fanless & Cable-less in Design
- TPM 2.0 Supported



More info



Model	RCO-6000-KBL	RCO-6000-KBL-1	RCO-6000-KBL-2
	Superior Fanless System with LGA-1151 socket for Intel® KabyLake & Skylake-S processors	With one PCI or PCIe x16 expansion slot	With two PCI or PCIe x8 / x16 expansion slot
CPU Support	Intel® 6 th /7 th Gen. (KabyLake & Skylake-S) Desktop Processor Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE		
Memory	2x 260-pin DDR4-1866/2133MHz SO-DIMM, up to 32GB		
Graphic Output	1x DVI-I, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	6x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0, 4x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O		
Storage	4x 2.5" SATA HDD Bays with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)		
Internal Expansion Slot	4x Full-size mini-PCIe		
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	Speaker-out / Mic-in Phone Jack		
Operating Temperature	-25 °C to 70 °C		
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 107 mm	240 x 261 x 127 mm
Weight	4.37 ~ 5.21 kg	4.67 ~ 6.40 kg	5.54 ~ 6.64 kg
Universal Expansion Slot (front)	2	2	2
Universal Expansion Slot (rear)	0	1	2
1x PCIe x16		RCO-6000-KBL-1E	
1x PCI		RCO-6000-KBL-1I	
2x PCIe x8			RCO-6000-KBL-2E
2x PCI			RCO-6000-KBL-2I
1x PCIe x16 & 1x PCI			RCO-6000-KBL-2C
Proprietary Module Expansion	Up to 2x Module : <ul style="list-style-type: none">• DTB-4LAN• DTB-4LAN-PWR• DTB-4LAN-M12• DTB-4LAN-PWR-M12		

HIGH-PERFORMANCE INDUSTRIAL COMPUTER

RCO-6000-CFL SERIES

- Support 8th/9th Gen. Intel® CFL-R S Processor (LGA 1151, 35W TDP)
 - Intel® Q370 chipset
 - 2x DDR4 2400/2666Hz SO-DIMM. Max. up to 64GB
 - Triple Independent Display by 1x DVI-I and 2x DisplayPort
 - 4x USB 3.2 Gen 2, 6x USB 3.2 Gen1 (1x internal), 6x RS-232/422/485 (w/ 2x internal)
 - 4x 2.5" SATA HDD Bay and 1x mSATA. Support RAID 0, 1, 5, 10
 - 1x NVMe M.2 SSD, 1x M.2 E Key for WiFi
- Wide Operating Temperature -25°C to 70°C
 - 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
 - Fanless & Cable-less in Design
 - TPM 2.0 Supported



Model	RCO-6000-CFL	RCO-6000-CFL-2C
	Superior Fanless System with LGA-1151 socket for Intel® CFL-R S Processor	
CPU Support	Support 8 th /9 th Gen. Intel® CFL-R S Processor (LGA 1151, 35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T	
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)	
Graphic Output	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps), 6x USB 3.2 Gen1 (1x internal), 6x RS-232/422/485 (2x internal), 16x isolated digital I/O	
Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe), 1x NVMe M.2 M Key	
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key	
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-25°C to 70°C	
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2	
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127.3 mm
Weight	5.97 kg	7.73 kg
Universal Expansion Slot	1 (by mini PCIe interface)	3 (by mini PCIe interface)
PCI & PCI Express	0	RCO-6000-CFL-2C: 1x PCI, 1x PCIe x16 2I: 2x PCI (Optional) 2E: 2x PCIe x8 (Optional)
Proprietary Module Expansion	Up to 1x Module : <ul style="list-style-type: none">• DTB-M2BK• DTB-D10G• DTB-4U3	<ul style="list-style-type: none">• DTB-4ETH• DTB-4ETH-M12• DTB-4ETH-PWR• DTB-4ETH-PWR-M12• DTB-M2MK• DTB-2M2BK

AI EDGE INFERENCE COMPUTERS

RCO-6000-CFL EDGEBOOST NODE SERIES

PERFORMANCE AND STORAGE AT THE RUGGED EDGE

Premio Edge Inference Computers are specifically engineered with the latest technologies that offer real-time data inference analysis and boosted storage for machine-learning purposes in the most rigorous IoT deployments. Our industrial computers push further the capabilities of AI and machine learning for industrial automation, vehicle telematics, smart city, and metrology.




Model	RCO-6000-CFL-2N-2060S	RCO-6000-CFL-4NS	RCO-6000-CFL-4NH
CPU Support	Support 8 th /9 th Gen. Intel® CFL-R S Processor (LGA 1151, 35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T		
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)		
GPU	RTX 2060S		
Graphic Output	1x DVI-I, 1x DVI-D, 1x HDMI (GPU), 3x DisplayPort	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps); 6x USB 3.2 Gen1 (5 Gbps, 1x internal); 6x RS-232/422/485 (2x internal), 16x isolated digital I/O		
SATA Storage	4x 2.5" SATA SSD/HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)		4x 2.5" SATA SSD/HDD bay with RAID 0, 1, 5, 6, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)
NVMe Storage	1x NVMe M.2 M Key 1x Removable 2 Bay NVMe SSD Module (15mm) *Patented NVMe drives trays are toolless and hot-swappable	1x NVMe M.2 M Key 2x Removable 2 Bay NVMe SSD Module (15mm) *Patented NVMe drives trays are toolless and hot-swappable *Software RAID Available	1x NVMe M.2 M Key 2x Removable 2 Bay NVMe SSD Module (15mm) *Patented NVMe drives trays are toolless and hot-swappable *Hardware RAID Available
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key		
Power	9-48 VDC, 3-pin Terminal Block, AT/ATX Select, 12-48 VDC, 4-pin Terminal Block, AT/ATX Select, for GPU/Storage		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 60°C		
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2		
Dimensions (WxDxH)	261 x 240 x 168 mm		
Weight	11.1 kg	10.1 kg	10.2 kg
Universal Expansion Slot	1 (by mini PCIe interface)		
PCI Express	1x PCIe x4 (x1 Lane)		
Proprietary Module Expansion	Up to 1x Module : <div><div>• DTB-D10G</div><div>• DTB-M2BK</div><div>• DTB-4U3</div></div> <div><div>• DTB-4ETH</div><div>• DTB-4ETH-PWR</div><div>• DTB-4ETH-M12</div><div>• DTB-4ETH-M12-PWR</div></div> <div><div>• DTB-M2MK</div><div>• DTB-2M2BK</div></div>		

RCO-6000-CML

EDGEBOOST NODE

SERIES

- Support 10th Gen. Intel® CML S Processor (LGA 1200, 35W TDP)
 - Intel® W480E chipset
 - 2x DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB
 - Triple Independent Display by 1x DVI-I and 2x DisplayPort
 - 8x RS-232/422/485 (6x internal), 6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal)
 - Wide Operating Temperature -25°C to 70°C
- More info


- Wide Range Power Input Supporting AT/ATX Mode
 - TPM 2.0 Supported



Model	RCO-6000-CML	RCO-6000-CML-2C	RCO-6000-CML-2C-4B7M	RCO-6000-CML-2C-2PWR
CPU Support	Support 10 th Gen. Intel® CML S Processor (LGA 1200, 35W TDP) Xeon® W-1290TE/1270TE/1250TE, Core™ i9-10900E/10900TE, Core™ i7-10700E/10700TE, Core™ i5-10500T/10500TE, Core™ i3-10100T/10100TE			
Memory	2x 260-Pin DDR4 2666 /2933MHz SO-DIMM, up to 64GB			
Graphic Output	1x DVI-I, 2x DisplayPort			
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)			
USB, Serial, & Digital I/O	6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal), 2x USB 2.0 header (internal), 8x RS-232/422/485 (6x internal), 16x isolated digital I/O			
Storage	3x 2.5” SATA HDD bay with RAID 0, 1, 5 support (1x internal; 2x removable & hot-swappable)	6x 2.5” SATA HDD bay with RAID 0, 1, 5, 10 support (6x removable & hot-swappable)	3x 2.5” SATA HDD bay with RAID 0, 1, 5 support (1x internal; 2x removable & hot-swappable)	
SIM Socket	2x External SIM socket (Mini PCIe attached) (2x External SIM socket : M.2 B Key attached, 5G Module only, Optional)			
Power	9-48 VDC, AT/ATX Select, 5-pin Terminal Block			9-48 VDC, AT/ATX Select, 5-pin Terminal Block, 12~48VDC for GPU/Card Expansion
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-25°C to 70°C		-25°C to 60°C	-25°C to 70°C
Certification	UL 62368 Ed. 3, CE, FCC Class A			
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127 mm		
Weight	3.1~3.5 kg	5.6 kg	5.7~5.85 kg	5.6 kg
Universal Expansion Slot	2 (by mini PCIe interface)			
PCI Express		RCO-6000-CML-2C: 1x PCI, 1x PCIe x16 2I: 2x PCI (Optional) 2E: 2x PCIe x16 (8-lane) (Optional)		
Proprietary Module Expansion	Up to 2x Module : <div><div><div>• DTB-M2BK (Support 1x Universal Slot Only)</div><div>• DTB-D10G</div><div>• DTB-4U3</div></div><div><div>• DTB-4ETH</div><div>• DTB-4ETH-M12</div><div>• DTB-4ETH-PWR</div><div>• DTB-4ETH-PWR-M12</div></div><div><div>• DTB-M2MK</div><div>• DTB-2M2BK</div></div></div>			

RCO-6000-ADL

EDGEBOOST NODE

SERIES

- Support 12/13th Gen. Intel® ADL S & RPL-S Processor
 - Intel® R680E chipset
 - 2x DDR5 4800 MHz SO-DIMM. Max. up to 64GB
 - Triple Independent Display by 1x DVI-I and 2x DisplayPort
 - 8x RS-232/422/485 (6x internal), 2x USB 2.0 (internal)
 - 1x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
 - 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 1x M.2 (B Key, PCIe x2, 3042/3052, Support 4G/5G/AI/NVMe)
 - Wide Operating Temperature -25°C to 70°C
 - Wide Range Power Input Supporting AT/ATX Mode
 - TPM 2.0 Supported



Model	RCO-6000-ADL	RCO-6000-ADL-2C	RCO-6000-ADL-2C-4B7M	RCO-6000-ADL-2C-2PWR	RCO-6000-ADL-20-2060S
CPU Support	Support 12/13 th Gen. Intel® ADL-S & RPL-S Processor (LGA 1700, 65W/35W TDP) Inte® Core™ i9-13900E/i9-12900E, i9-13900TE/i9-12900TE, i7-13700E/i7-12700E, i7-13700TE/i7-12700TE i5-13500E/i5-12500E, i5-13500TE/i5-12500TE, i3-13100E/i3-12100E, i3-12100TE/i3-12100TE Pentium® G7400E/G7400TE, or Celeron® G6900E/G6900TE				
Memory	2x 262-Pin DDR5 4800MHz SO-DIMM. Max. up to 64GB (ECC and Non-ECC)				
GPU					RTX 2060S
Graphic Output	1x DVI-I, 2x DisplayPort				1x DVI-I, 1x DVI-D, 1x HDMI, 3x DP
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)				
USB, Serial, & Digital I/O	8x USB 3.2 Gen 2, 2x USB 2.0 header (internal), 6x RS-232/422/485 (2x internal), 8x DI + 8x DO with isolation				
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x Internal, 1x Removable, 1x mSATA)	7x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (5x removable & hot-swappable)	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal, 1x removable & hot-swappable)		
SIM Socket	2x External SIM socket (Mini PCIe/M.2 B Key attached)				
Power	9-48 VDC, 5-pin Terminal Block, AT/ATX Select, 12-48 VDC, 4-pin Terminal Block, AT/ATX Select, for GPU/Storage				
Audio	Line-out / Mic-in Phone Jack				
Operating Temperature	-25°C to 70°C		-25°C to 60°C		
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127 mm			
Weight	3.1~3.5 kg	5.6 kg	5.7~5.85 kg	5.6 kg	6.2 kg
Universal Expansion Slot	2 (by mini PCIe interface)				
PCI Express		RCO-6000-ADL-2C: 1x PCI, 1x PCIe x16 2I: 2x PCI (Optional) 2E: 2x PCIe x16 (8-lane) (Optional)			
Proprietary Module Expansion	Up to 2x Module : <div><div><div>• DTB-M2BK (Support 1x Universal Slot Only)</div><div>• DTB-D10G</div><div>• DTB-4U3</div></div><div><div>• DTB-4ETH</div><div>• DTB-4ETH-M12</div><div>• DTB-4ETH-PWR</div><div>• DTB-4ETH-PWR-M12</div></div><div><div>• DTB-M2MK</div><div>• DTB-2M2BK</div></div></div>				

Mix & Match EDGEBoost Nodes Performance Accelerators Upgrade



The AI Edge Inference Computers support modular add-on nodes through a two-piece modular design that allows the EDGEBoost Nodes to easily attach to the lower portion of the RCO-6000- (CFL/CML/ADL) for more performance accelerators.

Model	PCI/PCIe	SATA Boost	NVMe Boost	GPU Boost
RCO-6000-ADL Alder Lake S	2C	2C-4B7M	2E-4N (7mm)	2C-2PWR
		2C-2B15M	4NS (15mm)	20-2060S
			4NH (15mm)	2N-2060S
			8NS (7mm)	4N-2060S
Model	PCIe/PCI	SATA Boost	NVMe Boost	GPU Boost
RCO-6000-CML Comet Lake S	2C	2C-4B7M	2E-4N (7mm)	2C-2PWR
		2C-2B15M	4NS (15mm)	20-2060S
			4NH (15mm)	2N-2060S
			8NS (7mm)	4N-2060S
Model	PCIe/PCI	NVMe Boost		GPU Boost
RCO-6000-CFL Coffee Lake R	2C	2E-4N (7mm)		2C-2PWR
		4NS (15mm)		2N-2060S
		4NH (15mm)		4N-2060S
		8NS (7mm)		

* PCI/PCIe and SATA Boost modules have optional 2C, 2E or 2I configurations:

- 2C: 1x PCIe x16, 1x PCI
- 2E: 2x PCIe x16 (8x Lane)
- 2I : 2x PCI

[Learn More](#)

MIX & MATCH EDGEBoost Nodes

EDGEBoost nodes are highly configurable performance boosters designed to meet the demand for complex applications that require powerful data processing, high-speed data storage, and inference capabilities at the edge. EDGEBoost nodes attach to the lower portion of the AI Edge Inference Computers, providing SATA, NVMe storage, and GPU acceleration for complex edge workloads.

[Learn More](#)

Industrial Fanless PC on Top



Flexible and Dedicated
“EDGEboost Nodes” on Bottom

Top Industrial Fanless PC:

RCO-6000-CFL Series



- 2x Hotswap SATA SSD (7mm)
- 2x Internal SATA SSD (9mm)
- 1x M.2 M Key 2280

RCO-6000-CML Series



- 2x Hotswap SATA SSD (7mm)
- 1x Internal SATA SSD (9mm)
- 1x M.2 E Key 2230

RCO-6000-ADL Series



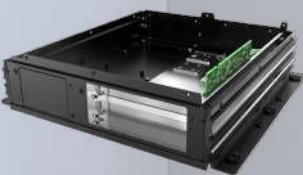
- 2x Hotswap SATA SSD (7mm)
- 1x Internal SATA SSD (9mm)
- 1x M.2 B Key 2242

Bottom Modular “EDGEboost Nodes” Configurations:



2C

- 1x PCI and 1x PCIe x16 Expansion Slots
- Fanless Design



2C-2PWR

- 1x PCIe x16 for GPU Expansion
- Dedicated Wide-Voltage 12~48VDC for GPU
- Highspeed Exhaust Fan



2C-2B15M

- 1x PCI, 1x PCIe x16 (8-lane)
- 2x Hotswap 2.5” SATA SSD (15mm)
- Software RAID 0, 1, 5, 10
- Highspeed Exhaust Fan



20-2060S

- 1x Nvidia RTX 2060
- Dedicated Wide Voltage 12~48VDC for GPU
- Highspeed Exhaust Fan



2C-4B7M

- 1x PCI, 1x PCIe x16 (8-lane)
- 4x Hotswap 2.5” SATA SSD (7mm)
- Software RAID 0, 1, 5, 10
- Highspeed Exhaust Fan



8NS (7mm)

- 1x PCIe x4 (1-lane)
- 8x Hotswap NVMe SSD
- Software RAID 0, 1, 5, 10
- Hot-Swappable Smart Fan



4NH (15mm)

- 1x PCIe x8 (for RAID Card)
- 4x Hotswap NVMe SSD
- Hardware RAID 0, 1, 5, 6, 10
- Hot-Swappable Smart Fan



4NS (15mm)

- 1x PCIe x4 (1-lane)
- 4x Hotswap NVMe SSD
- Software RAID 0, 1, 5, 10
- Hot-Swappable Smart Fan



2N-2060S

- 1x Nvidia RTX 2060
- 2x Hotswap NVMe SSD (15mm)
- 1x PCIe x4 (1-lane)
- Hot-Swappable Smart Fan



4N-2060S

- 1x Nvidia RTX 2060
- 4x Hotswap NVMe SSD (7mm)
- 1x PCIe x4 (1-lane)
- Hot-Swappable Smart Fan

Interested in Edge AI?

Download Premio's M.2 Whitepaper

AI Inference At The Rugged Edge



What's Inside?

This paper will take a deeper look at M.2 performance accelerators at the rugged edge and how modern hardware strategies can assure the reliable performance and intelligent data handling needed to fuel AI's value further into modern life and enterprise business.

[Download Whitepaper](#)

Unlock The Full Potential Of Edge AI with M.2 Acceleration Modules



Hitting an AI Wall

Compute has come a long way and AI still needs more.



Get To Know the M.2 Interface

A compact, versatile next generation option.



Throughput Matters

Understanding benchmarks for real-world AI applications.

Fanless Cooling Technology For Industrial PCs

Rugged. Reliable. Tested.



7 Steps Of Building A Fanless PC

[Explore Fanless Technology](#)

The 7 key steps allow industrial fanless computers to perform real-time processing and machine learning in the harshest edge deployments. Industrial computers help provide the mission-critical foundation to manage new edge AI workloads in key automation deployments with ultimate reliability.



Select A CPU
10W - 65W TDP



Utilize Heatsinks
Ultra-Conductive Materials



Select EDGEBoost Nodes
Performance Accelerators



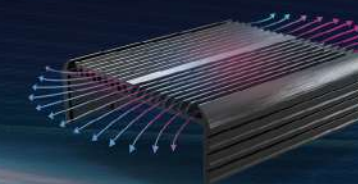
Test And Validate
Ensure Durability



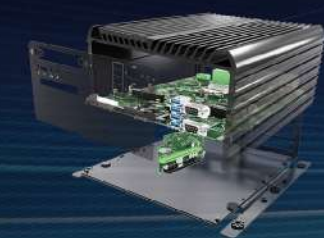
Implement SSDs
NVMe SSDs



Use an Extruded Aluminum PC Case
One-Piece Heatsink Chassis



Put Pieces Together
Ruggedized Design



HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER

ACO-6000-KBL
SERIES

- Support 6th/7th Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Triple Independent Display
- Support up to 18x LAN or 16x PoE by Unique Modular Design
- Multiple Expansion Capability including PCIe, PCI, and Mini PCIe
- Wide Operating Temperature -25°C to 70°C
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported
- Power Ignition Management

intel
Skylake-S
Kaby Lake

Model	ACO-6000-KBL	ACO-6000-KBL-16X	ACO-6000-KBL-1
	Surveillance Applied Fanless System with LGA-1151 socket for Intel® KabyLake & Skylake-S processors		
CPU Support	Intel® 6 th /7 th Gen. (KabyLake & Skylake-S) Desktop Processor Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE		
Memory	2x 260-pin DDR4-1866/2133MHz SO-DIMM, up to 32GB		
Graphic Output	1x DVI-I, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	6x USB 3.2 Gen1, 2x USB 2.0 (Internal), 5x RS-232/422/485 (w/ 3x internal), 16x isolated digital I/O		
Storage	4x 2.5" SATA HDD Bays with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)		
Internal Expansion Slot	3x Full-size mini-PCIe (shared with mSATA)		
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	Speaker-out / Mic-in Phone Jack		
Operating Temperature	-25 °C to 70 °C		
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2		
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 100 mm	240 x 261 x 107 mm
Weight	3.94 ~ 4.98 kg	5.34 ~ 6.82 kg	5.14 ~ 6.21 kg
Universal Expansion Slot (front)	2		
Universal Expansion Slot (rear)	2		1
1x PCIe x16			ACO-6000-KBL-1E
1x PCI			ACO-6000-KBL-1I
Proprietary Module Expansion	Up to 2x Module : <ul style="list-style-type: none"> DTB-D10G DTB-4U3 DTB-4ETH DTB-4ETH-PWR DTB-4ETH-M12 DTB-4ETH-M12-PWR DTB-M2MK DTB-2M2BK 	Up to 4x Module : <ul style="list-style-type: none"> DTB-4ETH DTB-4ETH-PWR DTB-4ETH-M12 DTB-4ETH-M12-PWR 	Up to 2x Module : <ul style="list-style-type: none"> DTB-D10G DTB-4U3 DTB-4ETH DTB-4ETH-PWR DTB-4ETH-M12 DTB-4ETH-M12-PWR DTB-M2MK DTB-2M2BK

HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER

ACO-6000-CML
SERIES


- LGA 1200 socket for 10th Gen. Intel® CML S Processor (35W TDP)
- Intel® W480E chipset
- 2x DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 3x 2.5" SATA HDD Bay (1x Internal) with RAID 0, 1, 5 support
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 8x RS-232/422/485 (6x internal), 6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal)
- 8x DI + 8x DO with isolation
- 9 to 48 VDC or 48 to 110 VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -25°C to 70°C
- TPM 2.0 Supported
- Power ignition management


intel
Comet Lake S

Model	ACO-6000-CML	ACO-6000-CML-1E
	Surveillance Applied Fanless System with LGA1200 for Intel® 10 th Gen CPU & W480E PCH	
CPU Support	Support 10 th Gen Intel® CML S Processor (LGA 1200, 35W TDP) Xeon® W-1290TE/1270TE/1250TE, Core™ i9-10900E/10900TE, Core™ i7-10700E/10700TE, Core™ i5-10500T/10500TE, Core™ i3-10100T/10100TE	
Memory	2x 260-Pin DDR4 2666 /2933MHz SO-DIMM, up to 64GB (ECC and Non-ECC)	
Graphic Output	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal), 2x USB 2.0 header (internal), 8x RS-232/422/485 (6x internal), 8x DI + 8x DO with isolation	
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 2x removable & hot-swappable)	
Internal Expansion Slot	2x Full-size mini-PCIe, 1x M.2 (E Key, PCIe x2, 2230, USB 2.0, Support CNVi)	
Power	9-48VDC, 5-pin Terminal Block. 48~110VDC (Optional), 3-pin Terminal Block. AT/ATX Select	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-25°C to 70°C	
Certification	E-Mark, EMC Conformity with EN50155 & EN50121-3-2	
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127 mm
Weight	4.4 ~ 4.7 kg	6.2 ~ 6.6 kg
Universal Expansion Slot	2 (by mini PCIe interface)	
PCI & PCI Express	ACO-6000-CML-1E: 1x PCIe x16 ACO-6000-CML-1I: 1x PCI (Optional)	
Proprietary Module Expansion	Up to 2x Module : <ul style="list-style-type: none"> DTB-M2BK (Support 1x Universal Slot Only) DTB-D10G DTB-4U3 DTB-4ETH DTB-4ETH-M12 DTB-M2MK DTB-2M2BK 	Up to 4x Module : <ul style="list-style-type: none"> DTB-4U3 DTB-4ETH DTB-4ETH-M12 DTB-4ETH-PWR DTB-4ETH-M12-PWR


GPU SERIES INDUSTRIAL EDGE COMPUTER

- AI EDGE INFERENCE
COMPUTER
- MACHINE VISION
COMPUTER

 Additional Expansions:
SATA/NVMe/M.2 SSDs

 Dedicated GPU
for Inference and
Machine Learning

 Ruggedized Design
for Harsh Edge
Environments

 PCIe 3.0 and PCIe 4.0 Expansions

Premio's GPU Series Industrial Computers support robust AI accelerators for inference analysis and powerful machine learning at the rugged edge. The computers are tested and validated for their reliability and durability while performing real-time analysis in the harshest industrial environments.

HIGH-PERFORMANCE MACHINE VISION COMPUTER

[More info](#)



VCO-6000-KBL SERIES

- Support 6th/7th Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Triple Independent Display
- Multiple Expansion Capability including up to 3x PCIe or 4x PCI
- Fanless Design Structure and Support Additional Fan Module
- Wide Operating Temperature -25°C to 70°C
- 9 to 50 VDC Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported

intel
Skylake-S
Kaby Lake-S



Model	VCO-6000-KBL	VCO-6000-KBL-1	VCO-6000-KBL-2	VCO-6000-KBL-3	VCO-6000-KBL-4	VCO-6000-KBL-5
		With one PCI or PCIe expansion slot	With two PCI or PCIe expansion slot	With three PCI or PCIe expansion slot	With four PCI or PCIe expansion slot	With five PCI or PCIe expansion slot
CPU Support	Intel® 6 th /7 th Gen. (Kaby Lake & Skylake-S) Desktop Processor Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE					
Memory	2x DDR4-1866/2133MHz SO-DIMM, up to 32GB					
Graphic Output	1x DVI-I, 2x DisplayPort					
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)					
USB, Serial, & Digital I/O	4x USB 3.2 Gen1 (5 Gbps), 4x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O					
Storage	2x Removable 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast					
Internal Expansion Slot	3x Full-size Mini-PCIe (Share by 2x mSATA)					
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block					
Audio	Speaker-out / Mic-in Phone Jack					
Operating Temperature	-25 °C to 70 °C					
Dimensions (WxDxH) mm	77 x 256 x 240	117 x 256 x 240	137 x 256 x 240	157 x 256 x 240	177 x 256 x 240	197 x 256 x 240
Weight	3.83 kg	5.29 kg	5.34 ~ 5.39 kg	5.42 ~ 5.86 kg	5.94 ~ 6.02 kg	6.21 kg
PCI & PCI Express		<ul style="list-style-type: none">• VCO-6000-KBL-1E : 1x PCIe x16• VCO-6000-KBL-1I : 1x PCI	<ul style="list-style-type: none">• VCO-6000-KBL-2E : 2x PCIe x8• VCO-6000-KBL-2I : 2x PCI• VCO-6000-KBL-2C : 1x PCIe x16 1x PCI	<ul style="list-style-type: none">• VCO-6000-KBL-3E : 2x PCIe x1 1x PCIe x16• VCO-6000-KBL-3I : 3x PCI• VCO-6000-KBL-3C : 1x PCIe x16 2x PCI	<ul style="list-style-type: none">• VCO-6000-KBL-4I : 4x PCI• VCO-6000-KBL-4C : 2x PCIe x4 1x PCIe x8 1x PCI	<ul style="list-style-type: none">• VCO-6000-KBL-5C : 2x PCIe x4 1x PCIe x8 2x PCI



HIGH-PERFORMANCE MACHINE VISION COMPUTER

VCO-6000-CFL

SERIES

- Support 8th/9th Gen. Intel® CFL-R S Processor (LGA 1151, 35W TDP)
- Intel® Q370 chipset
- 2x DDR4 2400/2666Hz SO-DIMM. Max. up to 64GB (Un-buffered and Non-ECC)
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x External 2.5" SATA HDD bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe), 2x M.2
- Wide Operating Temperature -25°C to 70°C
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode

More info



- Unique Expansion Module Design to Support 1 to 5 Expansion Cards
- TPM 2.0 Supported



HIGH-PERFORMANCE MACHINE VISION COMPUTER

VCO-6000-ADL

SERIES

- Support 12/13th Gen. Intel® ADL S & RPL-S Processor (LGA 1700, 65W/35W TDP)
- Intel® R680E chipset
- 2x DDR5 4800 MHz SO-DIMM. Max. up to 64GB
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 1x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 3x 2.5" SATA HDD Bay with RAID 0, 1, 5 support (1x Internal, 1x Removable, 1x mSATA)
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 1x M.2 (B Key, PCIe x2, 3042/3052, Support 4G/5G/AI/NVMe)
- 8x RS-232/422/485 (6x internal), 8x USB 3.2 Gen 2 (4x internal), 2x USB 2.0 (internal)
- 8x DI + 8x DO with isolation
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -25°C to 70°C
- TPM 2.0 Supported



Model	VCO-6000-CFL-2	VCO-6000-CFL-3	VCO-6000-CFL-4	VCO-6000-CFL-5
	With two PCI or PCIe expansion slot	With three PCI or PCIe expansion slot	With four PCI or PCIe expansion slot	With five PCI or PCIe expansion slot
CPU Support	Support 8 th /9 th Gen. Intel® CFL-R S Processor (LGA 1151, 35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T			
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)			
Graphic Output	1x DVI-I, 2x DisplayPort			
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)			
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2, 6x internal USB 3.2 Gen1 (5 Gbps), 6x RS-232/422/485 (4x internal), 16x isolated digital I/O			
Storage	2x Internal 2.5" SATA HDD Bay (Support H=9mm) 2x Removable 2.5" SATA HDD Bay (Support H=7mm, Hot-swappable) Support RAID 0, 1, 5, 10 1x mSATA (shared by 1x Mini PCIe), 1x NVMe M.2 M Key			
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key			
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block			
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-25°C to 70°C			
Dimensions (WxDxH)	137 x 340 x 240 mm	157 x 340 x 240 mm	177 x 340 x 240 mm	197 x 340 x 240 mm
Weight	8.5 Kg	9.1 Kg	9.5 kg	10.1 kg
PCI & PCI Express	<ul style="list-style-type: none">• VCO-6000-CFL-2E : 2x PCIe x8• VCO-6000-CFL-2I : 2x PCI• VCO-6000-CFL-2C : 1x PCIe x16 1x PCI	<ul style="list-style-type: none">• VCO-6000-CFL-3E : 2x PCIe x1 1x PCIe x16• VCO-6000-CFL-3I : 3x PCI• VCO-6000-CFL-3C : 1x PCIe x16 2x PCI	<ul style="list-style-type: none">• VCO-6000-CFL-4I : 4x PCI• VCO-6000-CFL-4C : 2x PCIe x4 1x PCIe x16 (8-lane) 1x PCI	<ul style="list-style-type: none">• VCO-6000-CFL-5C : 2x PCIe x4 1x PCIe x16 (8-Lane) 2x PCI




C o m i n g S o o n




Model	VCO-6000-ADL-2	VCO-6000-ADL-3	VCO-6000-ADL-4
	Up to 2x PCI/PCIe Expansion Slots	Up to 3x PCI/PCIe Expansion Slots	Up to 4x PCI/PCIe Expansion Slots
CPU Support	Support 12/13 th Gen. Intel® ADL-S & RPL-S Processor (LGA 1700, 65W/35W TDP) Inte® Core™ i9-13900E/i9-12900E,i9-13900TE/i9-12900TE, i7-13700E/i7-12700E, i7-13700TE/i7-12700TE i5-13500E/i5-12500E, i5-13500TE/i5-12500TE, i3-13100E/i3-12100E, i3-12100TE/i3-12100TE Pentium® G7400E/G7400TE, or Celeron® G6900E/G6900TE		
Memory	2x 262-Pin DDR5 4800MHz SO-DIMM. Max. up to 64GB (ECC and Non-ECC)		
Graphic Output	1x DVI-I, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	8x USB 3.2 Gen 2 (10 Gbps, 4x internal) 2x USB 2.0 header (internal), 6x RS-232/422/485 (4x internal), 8x DI + 8x DO with isolation		
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x Internal; 1x Removable; 1x mSATA)		
Internal Expansion Slot	1x Full-size mini-PCIe (1 shared by 1x mSATA) 1x M.2 B Key (3042/3052, Support 4G/5G/AI/NVMe) 1x M.2 E Key (2230, Support Wi-Fi/Bluetooth)		
Power	5-pin Terminal Block, 9-48 VDC, AT/ATX Select, 4-pin Terminal Block, 12~48VDC, for GPU Card		
Audio	Line-out / Mic-in Phone Jack (internal)		
Operating Temperature	-25°C to 70°C		
Dimensions (WxDxH)	137 x 340 x 240 mm	157 x 340 x 240 mm	177 x 340 x 240 mm
Weight	9.1 kg	9.5 kg	9.9 kg
PCI Express	<ul style="list-style-type: none">• VCO-6000-ADL-2E : 2x PCIe x8	<ul style="list-style-type: none">• VCO-6000-ADL-3E : 2x PCIe x1, 1x PCIe x16	<ul style="list-style-type: none">• VCO-6000-ADL-4E : 1x PCIe x1, 2x PCIe x8 (Dual-Slot Width)

GPU SERIES

Premio Industrial GPU Computing Solutions deliver supreme processing and graphic performance. Our GPU Series has the capability to run complex and data-intensive applications to drive automation, mission-critical and high-performing operations, such as product line inspection, intelligent security surveillance, biomedical imaging, and vision-guided robotics/vehicles.




Skylake-S
Kaby Lake-S
Coffee Lake R



Model	RCO-6000-KBL-1050TI	VCO-6000-KBL-1050TI	VCO-6000-KBL-2PWR
	Industrial GPU Computer With 6 th /7 th Gen Intel® Core™ Processor and Q170 PCH, GTX 1050Ti Integrated	Industrial GPU Computer With 6 th /7 th Gen Intel® Core™ Processor and Q170 PCH, GTX 1050Ti Integrated	Industrial GPU Computer With 6 th /7 th Gen Intel® Core™ Processor and Q170 PCH, Supports UpTo RTX 2060 Super GPU
CPU Support	Intel® 6 th /7 th Gen. (Kabylake & Skylake-S) Desktop Processor Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE		
Memory	2x DDR4-1866/2133MHz SO-DIMM, up to 32GB		
GPU	GTX 1050 Ti		1x PCIe x16 for GPU
Graphic Output	2x DVI-I, 3x DisplayPort, 1x HDMI		1x DVI-I, 2x DisplayPort
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB	6x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0	4x USB 3.2 Gen1 (5 Gbps)	
Serial & Digital I/O	4x RS-232/422/485 (2x internal), 16x isolated digital I/O		
Storage	4x 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)	2x Removable 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast	
Internal Expansion Slot	4x Full-size mini-PCIe (shared with 2x mSATA)	3x Full-size mini-PCIe (shared with mSATA)	
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	System: 9~50 VDC, GPU: 24 VDC, AT/ATX Select
Audio	Speaker-out / Mic-in Phone Jack		
Operating Temperature	-25 °C to 60 °C		-25 °C to 70 °C
Dimensions (WxDxH)	240 x 261 x 127 mm	137 x 256 x 240 mm	137 x 256 x 240 mm
Weight	7.76 kg	7.71 kg	7.83 kg
Universal Expansion Slot (front)	2		
PCIe x4 (1-lane			1


GPU SERIES



Skylake-S
Kaby Lake-S
Coffee Lake R



[More info](#)



Model	RCO-6000-CFL-2060S	VCO-6000-CFL-3-2PWR
	AI Edge Inference Computer with 8 th /9 th Gen Intel Core Processor and Q370 PCH, RTX 2060 Super Integrated	AI Edge Inference Computer with 8 th /9 th Gen Intel® Core™ Processor, 3x PCIe Expansion, Dual Power Input
CPU Support	8 th /9 th Gen. Intel® CFL-R S Processor (LGA 1151, 35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T	
Memory	2x DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)	
GPU	RTX 2060S	1x PCIe x16 for GPU
Graphic Output	1x DVI-I, 1x DVI-D, 1x HDMI, 3x DisplayPort	1x DVI-I, 2x DisplayPort
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB	4x USB 3.2 Gen 2 (10 Gbps) 6x USB 3.2 Gen 1 (5 Gbps, 1x internal)	4x USB 3.2 Gen 2 (10 Gbps) 6x internal USB 3.2 Gen 1 (5 Gbps)
Serial & Digital I/O	6x RS-232/422/485 (2x internal), 16x isolated digital I/O	6x RS-232/422/485 (4x internal), 16x isolated digital I/O
Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe), 1x M.2 (M Key, PCIe x4, 2280, Support NVMe)	
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA)	
Power	9-48 VDC, 3-pin Terminal Block, AT/ATX Select, 12-48 VDC, 4-pin Terminal Block for GPU expansion	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-25 °C to 60 °C	
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2	
Dimensions (WxDxH)	240 x 261 x 79.2 mm	157 x 340 x 240 mm
Weight	8.1 kg	9.4 kg
Universal Expansion Slot (front)	1 (by mini PCIe interface)	2 (by mini PCIe interface)
PCIe x16	1x PCIe x16 for GPU Card	1x PCIe x16
PCIe x4 (1-lane)	1 (by mini PCIe interface)	1 PCIe x4

MODULE SERIES

Premio supports rich expandability to boost wireless connectivity, streamline integration and unlock automation capabilities in harsh deployments. Leading edge and legacy technologies are easily incorporated into a powerful, intelligent IoT solution for better bandwidth and I/O flexibility. Our daughterboard modules integrate easily into Premio embedded and edge computers through standard PCIe protocols. These add-in modules include additional ethernet I/O ports in 1GbE (RJ45 & M12), 10GbE (RJ45), USB 3.2 Gen1, and 5G ready M.2 for scalable connectivity in IoT deployments at the edge.



DTB-4ETH	DTB-4ETH-M12	DTB-4LAN	DTB-4LAN-M12
<ul style="list-style-type: none">Intel® Ethernet Controller I3501x PCIe x4 Gold finger (x4 Lane)4x 1GbE LAN, RJ45 PortSupport Power over Ethernet byan optional PoE module	<ul style="list-style-type: none">Intel® Ethernet Controller I3501x PCIe x4 Gold finger (x4 Lane)4x 1GbE LAN, M12 PortSupport Power over Ethernet byan optional PoE module	<ul style="list-style-type: none">Intel® Ethernet Controller I2101x PCIe x1 Gold finger4x 1GbE LAN, RJ45 PortSupport Power over Ethernet byan optional PoE module	<ul style="list-style-type: none">Intel® Ethernet Controller I210-AT1x PCIe x1 Gold finger4x 1GbE LAN, M12 PortSupport Power over Ethernet byan optional PoE module
DTB-4ETH-PWR	DTB-4ETH-PWR-M12	DTB-4LAN-PWR	DTB-4LAN-PWR-M12
<ul style="list-style-type: none">Up to 25.2 watt per portComplies with IEEE 802.3at			

COMPATIBLE LIST	· DTB-4ETH · DTB-4ETH-PWR	· DTB-4ETH-M12 · DTB-4ETH-PWR-M12	· DTB-4LAN · DTB-4LAN-PWR	· DTB-4LAN-M12 · DTB-4LAN-PWR-M12
RCO-6000-ADL	●	●		
RCO-6000-CML	●	●		
RCO-6000-CFL	●	●		
ACO-6000-ADL	●	●		
ACO-6000-CML	●	●		
ACO-6000-KBL	●	●		
RCO-6000-KBL			●	●
RCO-3000-KBL-U			●	●
RCO-3000-CML	●	●		
RCO-3000-CFL	● DTB-4ETH only	● DTB-4ETH-M12 only		

MODULE SERIES



DTB-2M2BK	DTB-M2MK
2x M.2 B Key for AI/5G/NVMe module <ul style="list-style-type: none">2x M.2 B Key slot, Support 2x AI/5G Module (Support 1x 5G Only)M.2 B Key, PCIe x2, 2242/3042/30521x SIM slotSupport 1x Universal Slot Only	1x M.2 M Key for AI/NVMe module (PCIe x4) <ul style="list-style-type: none">M.2 M Key slot, Support AI/NVMe ModuleM.2 B Key, PCIe x4, 2242/2260Support 1x Universal Slot Only

COMPATIBLE LIST	DTB-2M2BK	DTB-M2MK
RCO-6000-ADL	●	●
RCO-6000-CML	●	●
RCO-6000-CFL	●	●
ACO-6000-ADL	●	●
ACO-6000-CML	●	●
ACO-6000-KBL	● AI/NVMe Only	●
RCO-3000-CML	●	●
RCO-3000-CFL	● AI/NVMe Only	●



DTB-D10G	DTB-M2BK	DTB-4U3
Intel® Ethernet Controller X710-AT2 <ul style="list-style-type: none">1x PCIe x1 Gold finger (x4 Lane)2x 10GbE LAN, RJ45 Port	M.2 B Key for 5G module <ul style="list-style-type: none">2x SIM slot1x SIM SwitchSupport 1x Universal Slot Only	Supports 4x USB 3.2 Gen1 ports (share PCIe Gen2 x1 bandwidth) <ul style="list-style-type: none">Independent 1.5A over-current protection (OCP) for each portCompliant with xHCI 1.0, USB 3.2 Gen1 Rev 1.0

COMPATIBLE LIST	DTB-D10G	DTB-M2BK	DTB-4U3
RCO-6000-ADL	●	●	●
RCO-6000-CML	●	●	●
RCO-6000-CFL	●	●	●
ACO-6000-ADL	●	●	●
ACO-6000-CML	●	●	●
ACO-6000-KBL	●	● AI/NVMe Only	●
RCO-3000-CML	●	●	●
RCO-3000-CFL	●	● AI/NVMe Only	●

DUAL-SIM 5G READY MODULE

The Dual-SIM 5G cellular network module enables Premio's industrial computers to reap the benefits of 5G wireless connectivity. 5G networks provide blazing-fast wireless connectivity for industrial computers with speeds up to 100x faster than 4G LTE.



DTB-M2BK (5G Module)

- Global 5G Coverage for the Rugged Edge
- Dual SIM Network Redundancy and GNSS Positioning
- Expandable Modular Designs – Just Plug and Play
- True Industrial-grade Design

KEY BENEFITS OF 5G NETWORKS

Rugged edge computing provides a convergence of the latest technologies in compute, storage, and connectivity in hardened competing platforms. For the first time ever, new wireless technologies like 5G provide new advancements in connectivity for industrial edge computers with enhanced mobile broadband, low-latency connections, and massive machine-to-machine communications.

COMPATIBLE LIST	DTB-M2BK
RCO-6000-ADL	V
RCO-6000-CML	V
ACO-6000-CML	V
RCO-6000-CFL	V



WCO-3000-KBL-U SERIES

[More info](#)



- Intel® 7th Gen. Intel® Core™ i5 / i3 Processor
- Full system IP65/IP67 level dustproof & waterproof
- Wide Operating Temperature (up to -40°C to 70°C)
- 9 to 50 VDC Wide Range Power Input
- Lockable M12 I/O Connectors
- Fanless Design

intel
Kaby Lake-U



Model	WCO-3000-KBL-U
	IP65/IP67 Waterproof System with Intel® Kaby Lake-U processor
CPU Support	Intel® 7 th Gen. [Kaby Lake-U] Processor Core™ i5-7300U, Core™ i3-7100U
Memory	1x DDR4-1866/2133MHz SO-DIMM, up to 16GB
Graphic Output	1x VGA (Waterproof connector)
LAN	2x GbE RJ45 [Support Wake-on-LAN and PXE] by M12 X-Code 8-pin
USB	1x USB 3.2 Gen1 (5 Gbps, Waterproof connector), 2x USB 2.0 by M12 D-Code 8-pin
Serial	1x RS-232/422/485 by M12 D-Code 8-pin
Storage	1x internal 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCI Express)
Internal Expansion Slot	2x Full-size mini-PCIe
Power	9-50 VDC, M12 A-code 4-pin
Operating Temperature	-40 °C to 70 °C
Dimensions (WxDxH)	231 x 292 x 56.5 mm
Weight	4.18 Kg
IP65	WCO-3000-KBL-U
IP67	WCO-3000-KBL-U-IP67

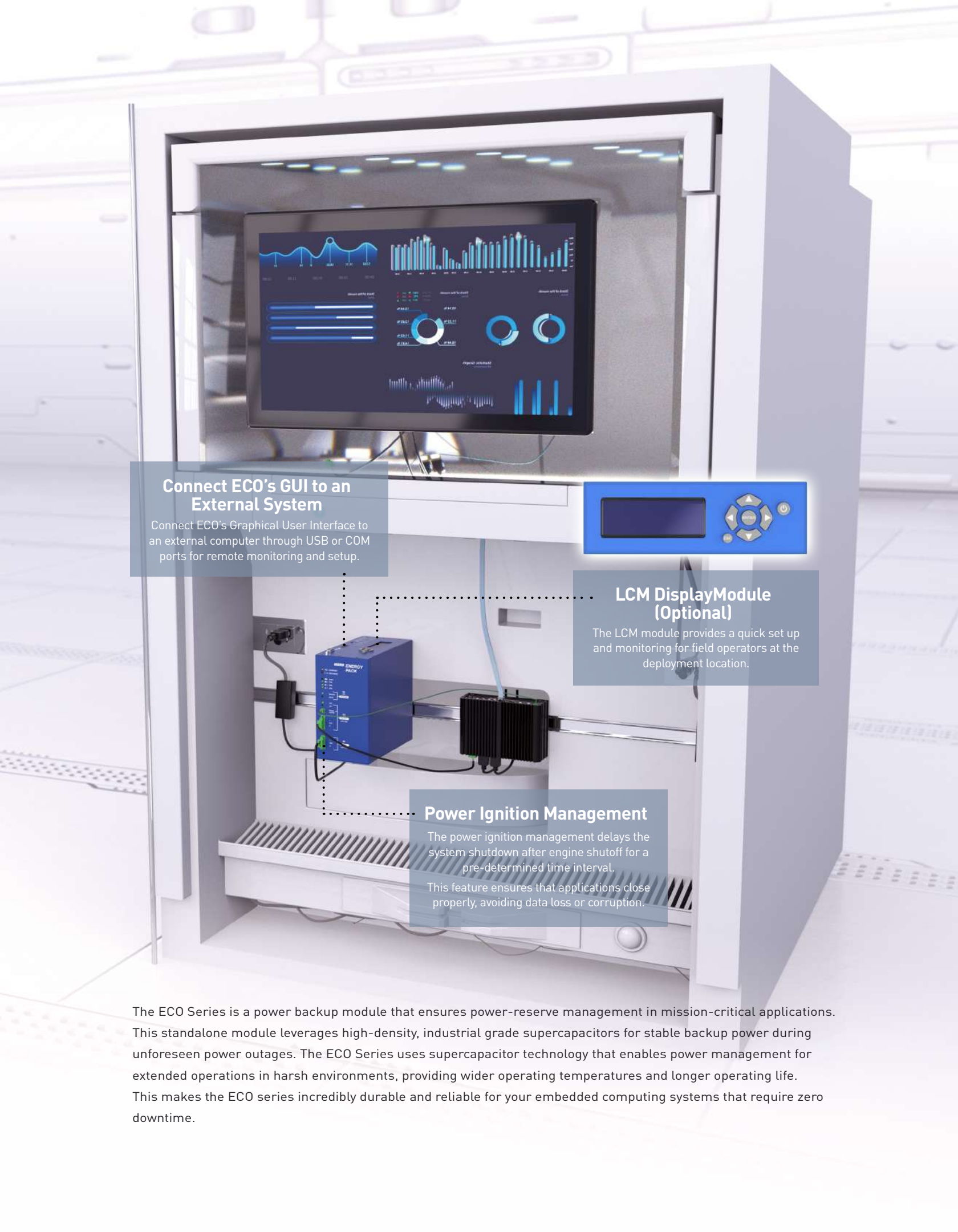
PORTABLE SMART HIGH-DENSITY INDUSTRIAL SUPERCAPACITOR

ECO-1000 ENERGY PACK

- Extended Energy System for various Box/Panel PCs
- Maximum 16x High-Density Industrial Supercapacitor
- Maximum 200W output power
- 12 to 35 VDC wide range power input
- 12 or 24 VDC power output
- 4x DI + 4x DO with isolation
- -25°C to 65°C extended operating temperature
- Power ignition management



Model	ECO-1000-8S		ECO-1000-16S (Optional)
Capacity	8x 370 Farads		16x 370 Farads
Input Voltage	12 ~ 35 VDC		
Input Coonector	3-pin Terminal Block (V+, GND, IGN IN)		
Output Voltage	Charge mode: DC IN Voltage bypass (DC OUT = DC IN) Discharge mode: 12 or 24V		
Output Power	Maximum 100W output		Maximum 200W output
Output Coonector	3-pin Terminal Block (V+, GND, IGN Out)		
I/O	1x RS-232, 1x USB, 2x DI + 2x DO with isolation		
Others	1x Remote Power On/Off 1x switch for 12V/24V, 1x PC/CAR Mode Switch, 1x Delay Time Switch		
Power Ignition Sensing	Power Ignition Management		
Operating Temp	-25°C to 65°C; -20°C to 65°C (Optional LCM)		
Certification	CE, FCC Class A, EMC Conformity with EN50155, EN50121-3-2		
Dimensions (WxDxH)	100 x 192 x 187.4 mm		
Weight	1.8 kg		2.8 kg
Mounting	Wall Mounting, DIN Rail Moountung (Optional)		



Connect ECO's GUI to an External System

Connect ECO's Graphical User Interface to an external computer through USB or COM ports for remote monitoring and setup.

LCM DisplayModule (Optional)

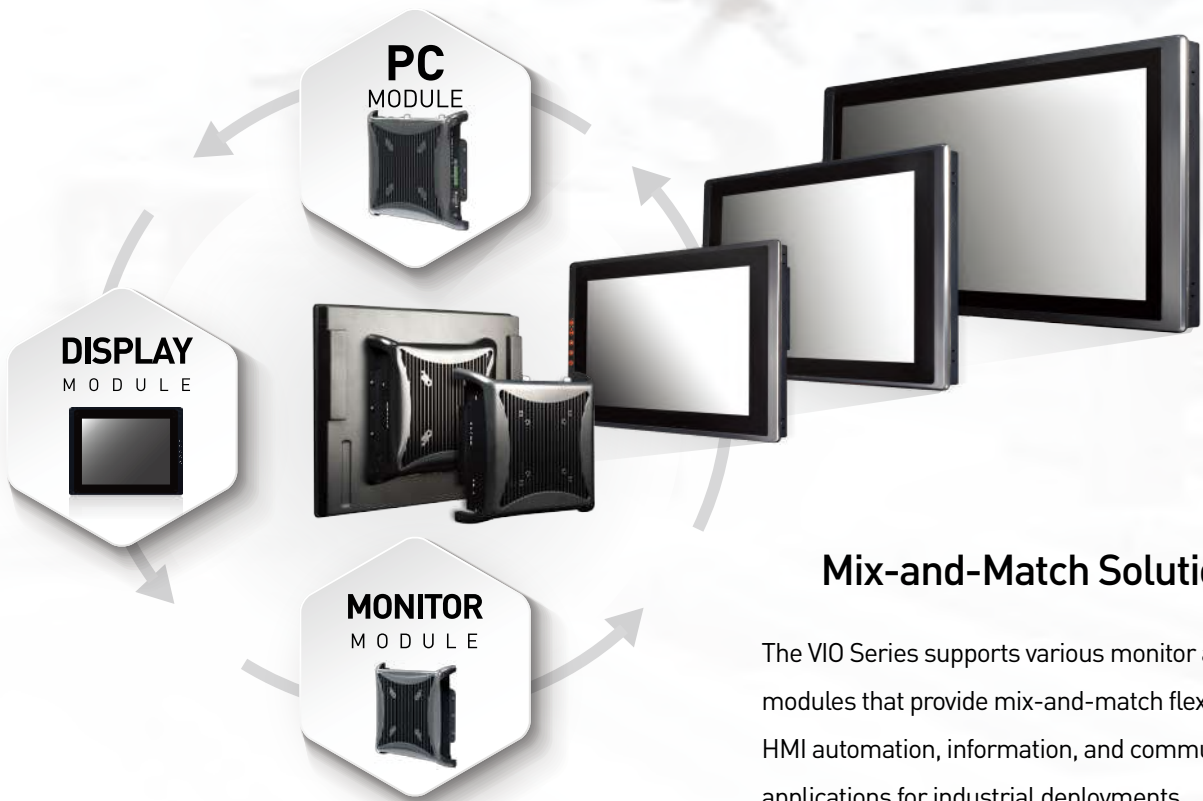
The LCM module provides a quick set up and monitoring for field operators at the deployment location.

Power Ignition Management

The power ignition management delays the system shutdown after engine shutoff for a pre-determined time interval. This feature ensures that applications close properly, avoiding data loss or corruption.

The ECO Series is a power backup module that ensures power-reserve management in mission-critical applications. This standalone module leverages high-density, industrial grade supercapacitors for stable backup power during unforeseen power outages. The ECO Series uses supercapacitor technology that enables power management for extended operations in harsh environments, providing wider operating temperatures and longer operating life. This makes the ECO series incredibly durable and reliable for your embedded computing systems that require zero downtime.

INDUSTRIAL DISPLAY SYSTEMS



Mix-and-Match Solution

The VIO Series supports various monitor and PC modules that provide mix-and-match flexibility for HMI automation, information, and communication applications for industrial deployments. This plug-and-play design enables scalable and upgradable solutions for the VIO to be configured into an industrial panel PC or a rugged touch monitor.

PREMIO INDUSTRIAL DISPLAY SYSTEMS

PRODUCT FAMILY



PC100-KBL-U
Series
Kabylake-U

PC100-EHL Series
Elkhart Lake

PC100-J1900
Series
Bay Trail

MX100H Series
Monitor Module

IP66 / IP69
Panel PC

S10-200-J1900
Series
Bay Trail

W10-W221C-KBL-U Series
Kabylake-U

Panel PC

V10-200-PC100-KBL-U Series
Kabylake-U
Thin Frame

V10-200-PC100-EHL Series
Elkhart Lake
Thin Frame

V10-200-PC100-J1900 Series
Bay Trail
Thin Frame

Display
Module

V10-200 Series
Thin Frame

Touch
Monitor

V10-200-MX100H
Series
Thin Frame



Scalability in Panel Sizes
10.4" / 12.1" / 15" / 15.6"
17" / 19" / 21.5" / 23.8"
(4:3 / 16:9)



Flexibility in Touch Screen
Resistive Touch
Capacitive Touch



Different Frame Options
Standard Frame
Thin Frame



Different System Options
PC Modules
Monitor Modules



Diverse Platform Options
Intel® Elkhart Lake
Intel® Kaby Lake-U
Intel® Bay Trail



Easy Installation & Maintenance
Offers user-friendly mechanical design. Just three steps, a system ready for multiapplications





INDUSTRIAL PANEL PC

VIO-200-PC100-J1900 SERIES

More info



- Intel® Celeron® J1900 Processor (Quad Core, 2.0GHz)
- 12.1" ~ 23.8" Thin Frame Multi-functional All-in-One Panel PCs
- Projected Capacitive and 5-wire Resistive Touchscreen Available
- Dual Independent Display support by VGA and DisplayPort
- Rich in I/O Features with up to 6x RS-232/422/485
- 2x Full-size Mini PCIe Slot for Communication or Expansion Modules
- 9 to 50 VDC Wide Range Power Input Supporting AT/ATX Mode
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating



Model	VIO-200-PC100-J1900	VIO-200-PC100-J1900-1
	Thin Frame Industrial Panel PC based on Intel® Bay Trail processors	Thin Frame Industrial Panel PC based on Intel® Bay Trail processors with two universal I/O bracket
CPU Onboard	Intel® Celeron® J1900	
Memory	1x 204-pin DDR3L-1066/1333 SO-DIMM, up to 8GB	
Graphic Output	1x VGA, 1x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	1x USB 3.2 Gen1 (5 Gbps), 3x USB 2.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe), 1x CFast (shared by 1x mSATA & 1x Mini PCIe)	
Internal Expansion Slot	1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB + SATA) 1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB)	
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-10 °C to 60 °C -10 °C to 50 °C (19" and 23.8" Panel PC only)	
LCD Size	4:3 12.1" / 15" / 17" / 19" 16:9 15.6" / 21.5" / 23.8"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	2



INDUSTRIAL PANEL PC

VIO-200-PC100-EHL SERIES



- Intel® Atom® Processor x6425E or Intel® Celeron® Processor J6413
- 12.1" ~ 23.8" Thin Frame Multi-functional All-in-One Panel PCs
- Projected Capacitive and 5-wire Resistive Touchscreen Available
- Triple Independent Display support by DisplayPort, HDMI and LVDS
- Rich in I/O Features with up to 6x RS-232/422/485, 2x USB 3.2 Gen2, 1x Full-size Mini PCIe, 2x LAN, 8x DI & 8x DO
- Compatible with All Premio VIO Series Display Module
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating
- Optional PCIe/PCI expansion slot



Model	VIO-200-PC100-EHL	VIO-200-PC100-EHL-1
	Thin Frame Industrial Panel PC based on Intel® Atom® processors	Thin Frame Industrial Panel PC based on Intel® Atom® processors with two universal I/O bracket
CPU Support	Support Intel® EHL Processor (Up to 12W TDP) Intel® Atom® Processor x6425E, Quad Core, 1.5 MB Cache, 2.0 GHz, ECC supported Intel® Celeron® Processor J6413, Quad Core, 1.5 MB Cache, 1.8 GHz	
Memory	1x 260-Pin DDR4 2400/2667/3200MT/s SO-DIMM. Max. up to 32 GB	
Graphic Output	1x DisplayPort, 1x Dual Channel 24 bit LVDS, 1x HDMI (Optional)	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	2x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x Internal), 6x RS-232/422/485 (2x internal), 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe)	
M.2	1x M.2 (E Key, PCIe x1, USB 2.0, 2230) 1x M.2 (B Key, PCIe x2 + USB 3.2 Gen1, 2242/3042/3052)	
Internal Expansion Slot	1x Full-size Mini PCIe (USB 2.0, SATA)	
PCIe/PCI Expansion		1x PCIe x4 (PCIe x1 lanes) or 1x PCI
Power	9-36 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-10 °C to 60 °C -10 °C to 50 °C (19" and 23.8" Panel PC only)	
LCD Size	4:3 12.1" / 15" / 17" / 19" 16:9 15.6" / 21.5" / 23.8"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	1

VIO-200-PC100-KBL-U

SERIES

[More info](#)



- 7th Generation Intel® Core i5/i3 Processor onboard (Kabylake-U)
- 12.1" ~ 23.8" Thin Frame Multi-functional All-in-One Panel PCs
- Projected Capacitive and 5-wire Resistive Touchscreen Available
- Triple Independent Display support by VGA, DisplayPort, and LVDS
- Rich in I/O Features with up to 6x RS-232/422/485, 4x USB 3.2 Gen1, 2x Full-size Mini PCIe, 2x LAN, 8x DI & 8x DO, CFast
- Compatible with All Premio VIO Series Display Module
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating



Model	VIO-200-PC100-KBL-U	VIO-200-PC100-KBL-U-1
	Thin Frame Industrial Panel PC based on Intel® Kabylake-U processors	
CPU Onboard	Intel® 7 th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U	
Memory	1x 260-Pin DDR4 1866/2133MHz SO-DIMM. Max. up to 16GB	
Graphic Output	1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen1 (5 Gbps), up to 6x RS-232/422/485, 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe, 1x CFast (shared by 1x mSATA)	
Internal Expansion Slot	2x Full-size Mini PCIe	
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-10 °C to 60 °C -10 °C to 50 °C (19" and 23.8" Panel PC only)	
LCD Size	4:3 12.1" / 15" / 17" / 19" 16:9 15.6" / 21.5" / 23.8"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	2

VIO-200-MX100H

SERIES

[More info](#)



- 12.1" ~ 23.8" Thin Frame Full Range Touch Monitors
- Projected Capacitive and 5-wire Resistive Touchscreen Available
- 9 to 48 VDC Wide Range Power Input
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating



Model	VIO-200-MX100H
	Thin Frame Industrial Touch Monitor
Touch Type	Resistive / Capacitive Touch
VGA	1x VGA Input
HDMI	1x HDMI Input
DisplayPort	1x DisplayPort Input
USB	1x USB 2.0 Input
COM Port	1x COM Port Input / Resistive
Audio	1x Audio Input
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block
Operating Temperature	-10 °C to 60 °C -10 °C to 50 °C (19" and 23.8" Panel PC only)
LCD Size	4:3 12.1" / 15" / 17" / 19" 16:9 15.6" / 21.5" / 23.8"

DISPLAY MODULE

[More info](#)



VIO-200 SERIES

The Display Modules VIO-200 series are compatible with PC modules PC400, PC100-EHL, PC100 series and monitor modules MX100H series for different display sizes and touchscreens. These modules allow to be used for configuring, upgrading and maintaining your Panel PC or touch monitor

4:3 SERIES

Thin Frame



Model	VIO-212	VIO-215	VIO-217	VIO-219
LCD Size	12.1"	15"	17"	19"
Max. Resolution	1024 x 768 [XGA]		1280 x 1024 [SXGA]	
Brightness [cd/m2]	500	350		
	1000 nits (Optional)			
Contrast Ratio	700:1		800:1	1000:1
LCD Color	16.2M		16.7M	
Pixel Pitch (mm)	0.24 x 0.24 (H) x (V)	0.297 x 0.297 (H) x (V)	0.264 x 0.264 (H) x (V)	0.294 x 0.294 (H) x (V)
Viewing Angle (H-V)	160 / 160	170 / 160	170 / 160	
Internal Speaker	AMP 5W + 5W	AMP 10W + 10W		
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch			
Operating Temperature	-10°C to 60°C			-10°C to 50°C

DISPLAY MODULE

[More info](#)



VIO-200 SERIES
WIDESCREEN DISPLAY MODULE

16:9 SERIES




Thin Frame



Model	VIO-W215	VIO-W221	VIO-W224
LCD Size	15.6"	21.5"	23.8"
Max. Resolution	1920 x 1080 (Full HD)		
Brightness (cd/m2)	400	300	350
	1000 nits (Optional)		
Contrast Ratio	700:1	5000:1	1000:1
LCD Color	16.7M		
Pixel Pitch (mm)	0.17925 (H) x 0.17925 (V)	0.248 (H) x 0.248 (V)	0.274 (H) x 0.274 (V)
Viewing Angle (H-V)	160 / 140	178 / 178	
Internal Speaker	AMP 10W + 10W		
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch		
Operating Temperature	-10°C to 60°C		-10°C to 50°C




PC100-J1900 SERIES

- Intel® Celeron® J1900 Processor (Quad Core, 2.0GHz)
 - Dual Independent Display support by VGA and DisplayPort
 - Rich I/O Features including the Support up to 6x RS-232/422/485, 1x USB 3.2 Gen1, 3x USB 2.0, 2x Full-size
 - Mini PCIe, 2x LAN, 8x DI & 8x DO
 - Power Ignition Management Built-in
 - Wide Operating Temperature -40°C to 70°C
- 9 to 50 VDC Wide Range Power Input supporting AT/ATX Mode
 - Compatible with All Premio VIO Series Display Module
 - Aluminum Die-casting Front Frame
 - Front Panel IP65 Rating

<div><div></div><div></div><div></div></div>		
Model	PC100-J1900	PC100-J1900-1
	PC Module based on Intel® Bay Trail processors	PC Module based on Intel® Bay Trail processors and with two universal I/O bracket
CPU Onboard	Intel® Celeron® J1900	
Memory	1x 204-pin DDR3L-1066/1333 SO-DIMM, up to 8GB	
Graphic Output	1x VGA, 1x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	1x USB 3.2 Gen1 (5 Gbps), 3x USB 2.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe), 1x CFast (shared by 1x mSATA & 1x Mini PCIe)	
Internal Expansion Slot	1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB + SATA) 1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB)	
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-40 °C to 70 °C	
Universal Expansion Slot	0	2

PC100-EHL SERIES

- Intel® Atom® Processor x6425E or Intel® Celeron® Processor J6413
 - Triple Independent Display support by DisplayPort, HDMI and LVDS
 - Rich in I/O Features with up to 6x RS-232/422/485, 2x USB 3.2 Gen2, 1x Full-size Mini PCIe, 2x LAN, 8x DI & 8x DO
 - Wide Operating Temperature -40°C to 70°C
 - Compatible with All Premio VIO Series Display Module
 - Aluminum Die-casting Front Frame
 - Front Panel IP65 Rating
 - Optional PCIe/PCI expansion slot

<div><div></div><div></div><div></div></div>		
Model	PC100-EHL	PC100-EHL-1
	PC Module based on Intel® Atom processors	PC Module based on Intel® Atom® processors and with two universal I/O bracket
CPU Onboard	Support Intel® EHL Processor (Up to 12W TDP) Intel® Atom® Processor x6425E, Quad Core, 1.5 MB Cache, 2.0 GHz, ECC supported Intel® Celeron® Processor J6413, Quad Core, 1.5 MB Cache, 1.8 GHz	
Memory	1x 260-Pin DDR4 2400/2667/3200MT/s SO-DIMM. Max. up to 32 GB	
Graphic Output	1x DisplayPort, 1x Dual Channel 24 bit LVDS, 1x HDMI (Optional)	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	2x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x Internal), 6x RS-232/422/485 (2x internal), 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe)	
M.2	1x M.2 (E Key, PCIe x1, USB 2.0, 2230) 1x M.2 (B Key, PCIe x2 + USB 3.2 Gen1, 2242/3042/3052)	
Internal Expansion Slot	1x Full-size Mini PCIe (USB 2.0, SATA)	
PCIe/PCI Expansion		1x PCIe x4 (PCIe x1 lanes) or 1x PCI
Power	9-36 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-40 °C to 70 °C	
Universal Expansion Slot	0	1

PC MODULE

PC100-KBL-U SERIES

- 7th Generation Intel® Core i5/i3 Processor onboard (Kabylake-U)
- Triple Independent Display support by VGA, DisplayPort, and LVDS
- Rich in I/O Features with up to 6x RS-232/422/485, 4x USB 3.2 Gen1, 2x Full-size Mini PCIe, 2x LAN, 8x DI & 8x DO, CFast
- Wide Operating Temperature -40°C to 70°C
- Compatible with All Premio VIO Series Display Module
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating



Model	PC100-KBL-U		PC100-KBL-U-1
	PC Module based on Intel® Kabylake-U processors		PC Module based on Intel® Kabylake-U processors with two universal I/O bracket
CPU Onboard	Intel® 7 th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U		
Memory	1x 260-Pin DDR4 1866/2133MHz SO-DIMM. Max. up to 16GB		
Graphic Output	1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	4x USB 3.2 Gen1 (5 Gbps), up to 6x RS-232/422/485, 16x isolated digital I/O		
Storage	1x 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe), 1x CFast (shared by 1x mSATA)		
Internal Expansion Slot	2x Full-size Mini PCIe		
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-40 °C to 70 °C		
Universal Expansion Slot	0		2

MONITOR MODULE

MX100H SERIES

- Configure System by Demand
- 9 to 48 VDC Wide Range Power Input
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating



Model	MX100H
	Monitor Module
VGA	1x VGA Input
HDMI	1x HDMI Input
DisplayPort	1x DisplayPort Input
USB	1x USB 2.0 Input
COM Port	1x COM Port Input (Resistive Touch Only)
Audio	1x Audio Input
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block
Operating Temperature	-10 °C to 60 °C

WIO-W221C-KBL-U

SERIES

- 21.5" TFT FHD 16:9 LCD with Projected Capacitive Touch
 - Support 7th Gen. Intel® Core™ i5 / i3 Processor
 - 1x 260-pin DDR3L SO-DIMM. Max up to 8GB
 - 1x mSATA (shared by 1x Mini PCIe), 2x internal SIM socket
 - Single display supported by 1x VGA (waterproof connector)
 - 2x LAN by M12 X-Code 8-pin
 - 1x RS-232/422/485 by M12 D-Code 8-pin
- 2x USB 3.2 Gen1 (5 Gbps, waterproof connector)
 - 9 to 50 VDC wide range power input
 - -10°C to 60°C extended operating temperature
 - Full system IP66 compliant
 - Two 10W internal speakers built-in
 - Multi-language OSD built-in



Model	WIO-W221C-KBL-U
	21.5" 16:9 Full HD Capacitive Touch All-In-One IP66 Panel PC
CPU Onboard	Intel® 7 th Gen. (Kaby Lake-U) Processor Core™ i5-7300U, Core™ i3-7100U
Memory	8GB DDR4 SO-DIMM
Graphic Output	1x Waterproof VGA
LAN	2x LAN by M12 X-Code 8-pin
USB & Serial	2x USB 3.2 Gen1 (5 Gbps, Waterproof connector), 1x RS-232/422/485 by M12 D-Code 8-pin
Storage	1x 128GB mSATA SSD
Internal Expansion Slot	1x Full-size Mini PCIe
Power	9-50 VDC, M12 A-code 4-pin
Operating Temperature	-10 °C to 60 °C
LCD Size	21.5" (16:9) Full HD
Brightness (cd/m2)	300
	1000 nits (Optional)
Touch Type	Projected Capacitive Touch, 5 Points, 7H Surface Hardness

SIO-200-J1900

SERIES

- 12", 15", 15.6", 21.5" , 23.8" TFT FHD 16:9 LCD with resistive 5-wire / projected capacitive touch
 - Intel® Celeron® processor J1900, 2.0 GHz or Intel® Core™ i5-8365UE Processor
 - 1x 4GB DDR3L SO-DIMM, 1x 64GB mSATA
 - 1x M12 LAN, 2x USB 2.0 by M12 8-pin, 1x M12 COM
 - 1x Full-size Mini PCIe for expansion
 - Support 110V to 240V AC power input by M12 Power Connector
 - -20°C to 60°C operating temperature
- Full system IP66/IP69K with Stainless Steel SUS316 construction
 - Touch Function ON/OFF Switch



NEW

Model	SIO-212-J1900	SIO-215-J1900	SIO-W215-J1900	SIO-W221-J1900	SIO-W224-J1900
				SIO-W221-8365UE	SIO-W224-8365UE
	12.1" (4:3) Resistive / Capacitive Touch Stainless Steel Panel PC	15" (4:3) Resistive / Capacitive Touch Stainless Steel Panel PC	15.6" (16:9) Resistive / Capacitive Touch Stainless Steel Panel PC	21.5" (16:9) Resistive / Capacitive Touch Stainless Steel Panel PC	23.8" (16:9) Resistive / Capacitive Touch Stainless Steel Panel PC
CPU Support	Intel® Celeron® Processor J1900, Quad Core, 2MB Cache, 2.0 GHz				
				Intel® Core™ i5-8365UE Processor 6M Cache, up to 4.10 GHz	
Memory	4GB DDR3L SO-DIMM				
LAN	1x LAN by M12 X-Code 8-pin				
USB & Serial	2x USB 2.0 by M12 A-code 8-pin, 1x RS-232/422/485 by M12 A-Code 8-pin, 1x LAN by M12 X-Code 8-pin				
Storage	1x 64GB mSATA SSD				
Internal Expansion Slot	1x Full-size Mini PCIe				
Power	AC iN 110V~240V 60Hz, M12 A-code 4-pin				
Operating Temperature	-20 °C to 60 °C				-20 °C to 50 °C
LCD Size	12.1" (4:3) XGA	15" (4:3) XGA	15.6" (16:9) Full HD	21.5" (16:9) Full HD	23.8" (16:9) Full HD
LCD Brightness (cd/m2)	600	300	450	300	
	1000 nits (Optional)				
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch / 7H Surface Hardness				

INDUSTRIAL BOARD SOLUTIONS

Premio's line of industrial motherboards and single board computers represent the standard of embedded computing as well as the future of data processing and I/O connectivity. From OEM /ODM enterprise computing designs to embedded single board computer applications, Premio provides reliability and longevity with standard off-the-shelf industrial grade motherboards for the most challenging embedded deployments.

We also provide end-to-end engineering services to ensure your configuration requirements and solve your mechanical design challenges. From a full custom solution to a small change in the I/O, we can adapt each motherboard to comply with your specifications without compromising performance.



Industrial-Grade
Materials



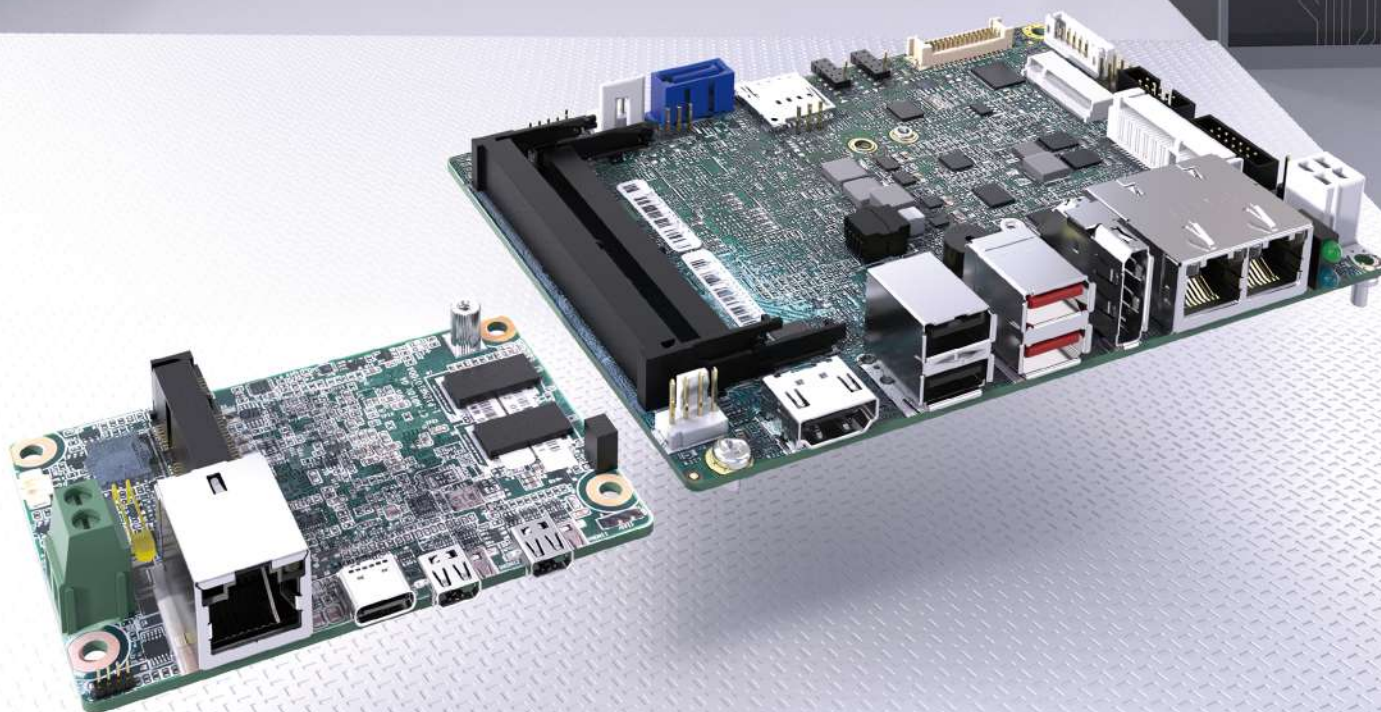
Tested and
Validated



Long Product
Lifecycle



Fast
Delivery Time



INDUSTRIAL MOTHERBOARDS & SINGLE BOARD COMPUTERS



1.8" FEMTO ITX
Motherboards



3.5" SBC
Motherboards



2.5" PICO ITX
Motherboards



MINI ITX
Motherboards



MICRO ATX
Motherboards

BOARDS

SERIES

Premio offers industrial-grade scalability with standard motherboards and OEM system design. Standard form factors include: Single board computers (1.8” Femto-ITX, 2.5” PICO-ITX, and 3.5” SBCs); Mini-ITX; and Micro-ATX.

Motherboards

1.8” FEMTO ITX

SERIES



Model	CT-NR101
	AMD Ryzen™ Embedded R1606G with Radeon™ Vega 3 Graphics - Highest 2C Performance
Memory	DDR4-2400 signal channel Memory down, up to 8GB, Default 4GB
BIOS	AMI SPI 64Mbit
TPM	TPM 2.0
Display Interface	2x Micro HDMI
Rear I/O	1x RJ45, 2x Micro HDMI, 1x Type C USB 3.1 Gen 2
Internal I/O	1x Front Panel, 1x 8-bit GPIO (4-in/4-out)
Power	2-pin Terminal Block
Operating Temperature	0°C to 60°C
Dimension	84 x 55 mm

Motherboards

2.5” PICO ITX

SERIES



Model	CT-PBT01
	Intel® Celeron® Processor J1900 (2.0GHz/4C/10W)
Memory	1x 204-Pin DDR3L 1066/1333MHz SO-DIMM
BIOS	AMI 64Mbit SPI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
Display Interface	1x HDMI, 1x LVDS
Rear IO	1x LVDS & 1x LVDS backlight, 1x RS-232/422/485, 1x RS-232, 2x USB 2.0
Internal I/O	1x LVDS, 1x LVDS backlight, 1x RS-232/422/485, 1x RS-232, 2x USB 2.0, 1x SATA 3.0Gb/s, 1x Front panel audio, 1x 8-bit GPIO (4-in/4-out), 1x Front panel, 1x SMBus
Power	12V DC Input 1x 2-pin power connector
Operating Temperature	-10°C to 70°C
Dimension	100 x 72mm

BOARDS

SERIES

Motherboards

3.5” SBC

SERIES



Model	CT-DWL01	CT-DBT02	CT-DR101
	Support 8 th Gen. Intel® WL-UE Processor (15 TDP) Int el® Core™ i7-8665UE, i5-8365UE, i3-8145UE or Intel® Celeron® Processor 4305UE	Intel® Atom™ Processor, Celeron® Processor J1900	AMD Ryzen™ Embedded R1000/V1000 Series Processor
Memory	1x 260-Pin DDR4 2400MHz SO-DIMM slot. Max. up to 32GB	1x 204-pin DDR3L SO-DIMM sockets Non-ECC/unbuffered Data transfer rates up to 1333MT/s Memory size up to 4GB	DDR4-2400 SO-DIMM slot, up to 32GB, supports ECC
BIOS	AMI uEFI 256MB SPI flash	AMI uEFI 8MB SPI Flash	AMI uEFI 256Mbit SPI flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset	H/W Reset, 0 – 255 steps Step = 1 sec. or 1 min	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0 Through Infineon® SLB9665TT2.0 or Equivalent	TPM 1.2 supported (Optional)	TPM 2.0
Display Interface	1x DisplayPort, 1x LVDS, 1x HDMI, 1x EDP internal connector (optional)	1x HDMI, 1x VGA, 1x LVDS	1x DisplayPort, 1x LVDS, 1x HDMI
Rear IO	4x USB 3.2 Gen 2, 2x RJ45 GbE LAN, 1x DisplayPort, 1x HDMI	2x RJ45 GbE LAN, 1x HDMI, 1x VGA, 1x RS232/422/485 COM, 1x USB2.0, 1x USB 3.2 Gen1 (5 Gbps)	2x RJ45, 2x USB 3.2 Gen2 (10Gbps), 2x DisplayPort, 1x HDMI
Internal I/O	1x LVDS, 1x eDP1.4 (Optional) 4x RS-232/422/485, 2x USB 2.0 2x SATA Gen3, 1x Front panel audio, 2x 4-bit DIO	1x 2-ch 24bit LVDS, 1x SATA 2.0, 3x RS-232/422/485, 4x USB 2.0, 1x Line-In, Line Out & Mic-In 1x 8-bit GPIO, 1x PS/2 keyboard mouse, 1x microSD card socket, 1x SIM card socket, 1x FAN connector	1x 24-bit dual channel LVDS, 2x RS232/422/485, 1x SATA, 2x 6pin Audio Header, 2x 4-bit DIO, 1x 50-pin PCIe 3.0 (4-Lane) Connector for Custom I/Os
Power	AT/ ATX 12V DC Input, 4-pin CPU P4 connector	DC +12V input	AT/ ATX 12V DC Input, 4-pin CPU P4 connector
Operating Temperature	-40°C to 70°C	-20°C to 70°C	-40°C to 75°C
Dimension	146 x 102 mm		

BOARDS

SERIES

Premio offers industrial-grade scalability with standard motherboards and OEM system design. Standard form factors include: Single board computers (1.8” Femto-ITX, 2.5” PICO-ITX, and 3.5” SBCs); Mini-ITX; and Micro-ATX.

Motherboards

MINI ITX

SERIES



Model	CT-XCL01
	LGA 1151 Socket Support 9 th Gen. Intel® Core™ Desktop Processor, Q370 Chipset
Memory	2x SO-DIMM, DDR4, 2133/2400/2666 (depend on CPU) MT/s, Max 32 GB
BIOS	AMI® UEFI BIOS 256Mb Flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0 Through Infineon® SLB9665TT2.0 or Equivalent (Optional)
Display Interface	1x DVI-D 1x LVDS 1x HDMI 1.4 1x DisplayPort 1.2
Rear IO	1x RS-232, 2x RJ45 4x USB 3.1 Gen 2 1x USB-C (optional) 1x Line-in , Line-out, Mic-in
Internal I/O	4x RS-232 Headers, 1x 8-bit PIO, 1x USB 3.0 Headers (2 Ports), 1x USB 2.0 Headers (2 Ports) 1x Backlight Locking Type Header 2x 4-pin PWM Smart Fan 1x LPC Header, 1x SPI Header 1x Cable Stype CMOS Battery
Power	ATX 12V, 24 Pin ATX Power Connector
Operating Temperature	0°C to 60°C
Dimension	170 x 170mm

Model	CT-XSL01
	LGA 1151 socket supporting 6 th Gen Intel® Core™ i3/i5/i7 Desktop Processor, Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE
Memory	2x 260-Pin DDR4 1866/2133MHz SO-DIMM
BIOS	AMI uEFI 128MB SPI flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0 supported (optional)
Display Interface	1x DVI-D, 1x 2-ch 24-bit LVDS, 1x DisplayPort
Rear IO	1x DVI-I, 1x DP, 1x HDMI, 1x RS-232/422/485, 4x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0, 2x RJ45, 1x Line-out, 1x Mic-in, 1xPS/2 KB/MS
Internal I/O	1x 2-ch 24-bit LVDS, 4x RS-232, 2x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0, 4 x SATA 6.0Gb/s, 1x Front panel audio, 1x 8-bit GPIO (4-in/4-out), 1x LPC, 1x Front panel, 1x CPU fan, 1x System fan
Power	ATX power, 2x12-pin and 2x2-pin power connector
Operating Temperature	0°C to 60°C
Dimension	170 x 170mm

BOARDS

SERIES

Motherboards

MICRO ATX

SERIES



Model	CT-MSL01	CT-MCL01
	LGA 1151 socket supporting 6 th Gen Intel® Core™ i3/i5/i7 Desktop Processor, Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE	Support 8 th /9 th Gen Intel® CFL-R S Processor (LGA 1151, 95W/35W TDP), Intel® Core™ i7-9700E / i5-9500E / i3-9100E or Intel® Pentium® G5400T, G5400
Memory	4x 288-Pin DDR4 1866/2133MHz DIMM	4x 288-Pin DDR4 2133/2400/2666MHz DIMM
BIOS	AMI uEFI 128MB SPI flash	AMI uEFI 256MB SPI flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset	
TPM	TPM 2.0 supported (optional)	
Display Interface	1x VGA, 1x DVI-D, 1x DisplayPort	1x VGA, 1x DVI-D, 2x DisplayPort (DP 1.2)
Rear IO	1x VGA, 1x DVI-D, 1x DP, 1x HDMI, 2x RS-232/422/485, 4x USB 3.2 Gen1 (5 Gbps), 2x RJ45 GbE LAN, 1x Line-in, 1x Line-out, 1x Mic-in	1x VGA, 1x DVI-D, 2x DP, 2x RS-232/422/485, 4x USB 3.2 Gen 2, 2x RJ45, 1x Line-in, 1x Line-out, 1x Mic-in
Internal I/O	4x RS-232, 2x USB 3.2 Gen1 (5 Gbps), 6x USB 2.0, 4 x SATA 6.0Gb/s, 1x Front panel audio, 1x 8-bit GPIO (4-in/4-out), 1x PS/2 KB/MS, 1x LPC, 1x Front panel, 1x CPU fan, 2x System fan	4x RS-232, 1x USB 3.2 Gen 1, 7x USB 2.0, 6 x SATA 6.0Gb/s, 1x Front panel audio, 1x 8-bit DIO (4-in/4-out), 1x SPI header, 1x LPC, 1x Front panel, 1x CPU fan, 2x System fan
Power	ATX power, 2x12-pin and 2x2-pin power connector	
Operating Temperature	0°C to 60°C	
Dimension	244 x 244mm	

[More info](#)

KCO-2000-CFL

SERIES

Certification-ready industrial computers are embedded computing solutions that serve as key building blocks for enterprise and IoT applications that require processing. The KCO Series of industrial computers is a commercial off-the-shelf (COTS) computing solution that provides reliability, regulatory safety, and embedded longevity with Premio’s extended lifecycle support. These certification-ready industrial computers are deployable in IoT applications in markets for kiosks, ATMs, security and surveillance, metrology and automation inspection, and mobile medical carts.

- 2U Slim Form Factor (SFF) Chassis Tool-less Mounting Options
 - Micro-ATX Motherboard Q370 Chipset
 - Support Intel 8th/9th Gen Core Processors
 - DDR4 Memory up to 128GB
 - 1x PCIe x16 slot (low profile, up to 9" card length)
 - x13 USB Ports for IoT devices
 - 1x Hot-swappable 2.5" SATA drive tray
- 1x M.2 (M Key); 1x M.2 (E Key)
 - Tool-less Washable Dust Filter
 - CE, FCC, UL Certified



Model	KCO-2000-CFL
	Certification-Ready Industrial Computer with LGA-1151 socket for Intel® CFL-R S Processor
CPU Support	Support 8 th /9 th Gen Intel® CFL-R S Processor (LGA 1151, 35W TDP)
Memory	4x 288-Pin DDR4 2133/2400/2666MHz DIMM. Max. up to 128GB
Graphic Output	1x VGA,1xDVI, 2x DP
LAN	GbE1: Intel I219LM (Support Wake-on-LAN and PXE) GbE2: Intel I210-AT (Support Wake-on-LAN and PXE)
USB & Serial	2x RS-232/422/485 + 2x RS-232 2x RS-232 (internal header) 6x USB 3.2 Gen1 (5 Gbps) 7x USB 2.0
Storage	1x Hot-Swappable 2.5" SATA Drive Bay (support H=7mm) 1x M.2 (M Key, NVMe PCIe x4, 2280) 1x M.2 (E Key, PCIe x2, USB 2.0, 2230)
Internal Expansion Slot	1x PCIe x16 slot (low profile, up to 9" card length)
Power	AT, ATX Internal 250W Flex Power Supply
Audio	Line-out / Mic-in Phone Jack
Operating Temperature	0°C to 35°C
Dimensions (WxDxH)	12.73" x 10.75" x 3.45"
Weight	11 lbs (barebone w/ chassis, mb, and PSU only)
Certifications	CE, FCC, UL Certified

[More info](#)

KCO-3000-CFL

SERIES

- 3U Compact Chassis with Rack Mount Options
- Micro-ATX Motherboard Q370 Chipset
- Support Intel 8th/9th Gen Core Processors
- DDR4 Memory up to 128GB
- Expansion Slots: 1x PCIe x16 full height, up to 10" card length) ,2x PCIe x4
- x13 USB Ports for IoT devices
- 1x 3.5" SATA HDD drive or 2x 2.5" SSD/HDD
- 1x M.2 (M Key); 1x M.2 (E Key)
- Tool-less Washable Dust Filter
- CE, FCC, UL Certified



Model	KCO-3000-CFL
	Certification-Ready Industrial Computer with LGA-1151 socket for Intel® CFL-R S Processor
CPU Support	Support 8 th /9 th Gen Intel® CFL-R S Processor (LGA 1151, 35W TDP)
Memory	4x 288-Pin DDR4 2133/2400/2666MHz DIMM. Max. up to 128GB
Graphic Output	1x VGA,1xDVI, 2x DP
LAN	GbE1: Intel I219LM (Support Wake-on-LAN and PXE) GbE2: Intel I210-AT (Support Wake-on-LAN and PXE)
USB & Serial	2x RS-232/422/485 + 2x RS-232 2x RS-232 (internal header) 6x USB 3.2 Gen1 (5 Gbps) 7x USB 2.0
Storage	1x 3.5" SATA HDD drive or 2x 2.5" SSD/HDD up to 15mm 1x M.2 (M Key, NVMe PCIe x4, 2280) 1x M.2 (E Key, PCIe x2, USB 2.0, 2230)
Internal Expansion Slot	1x PCIe x16 full height, up to 10" card length) 1x PCIe x4, 1x PCIe x4
Power	AT, ATX Internal 300W Flex Power Supply
Audio	Line-out / Mic-in Phone Jack
Operating Temperature	0°C to 45°C
Dimensions (WxDxH)	13.15" x 11.78" x 5.23"
Weight	12.5 lbs (barebone w/ chassis, mb, and PSU only)
Certifications	CE, FCC, UL Certified



Premio Inc.

918 Radecki Ct., City of Industry, CA 91748

Toll Free: 800.977.3646

sales@premioinc.com

www.premioinc.com



© Premio Inc. All rights reserved.

The Premio logo is a registered trademark of Premio Inc. All other logos appearing in this catalog are the intellectual property of the respective company, product, or organization associated with the logo. All product specifications and information are subject without notice.