



PRODUCT SOLUTION GUIDE

2022

YOUR TOP CHOICE PARTNER IN INDUSTRIAL COMPUTING FROM THE “EDGE TO THE CLOUD”

Premio offers a full range of validated and tested industrial systems to meet the demands from Industry 4.0



intel
partner Gold
IoT
Solutions



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 businesses. 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 our customers' 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.

► 2022 FEATURED INDUSTRIAL SYSTEMS 08



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MODULE SERIES 38

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 41

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.

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MOTHERBOARD SYSTEMS 54

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 58

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.

► 2022 FEATURED INDUSTRIAL SYSTEMS

RUGGEDIZED EDGE COMPUTING

The RCO-6000-CML Series brings performance and reliability closer to IoT sensors by providing a ruggedized compute solution in the harshest deployments at the edge. This industrial-grade computer provides the latest from Intel® 10th Gen Processors, an increase in I/O capacity, support for faster DDR4-2933 memory, hot-swappable NVMe storage, and even 5G connectivity.

- Intel® 10th Gen CML S Processor & W480 Chipset support up to 10 Cores
- Modular EDGEBoost Nodes to support hardware acceleration
 - NVMe SSDs Storage Bricks
 - GPU, TPU, and M.2 acceleration support
- 5G Ready
- Flexible I/O for More I/O: LAN, USB, and 10GbE
- Power Ignition Management
- Industrial-Grade Ruggedized Design

[More info](#)

The RCO-6000-CML Series
AI Edge Inference Computer



The ACO-6000-CML Series In-Vehicle Computer

- Intel® 10th Gen CML S Processor & W480 Chipset support up to 10 Cores
- EN50155 full certification with EMC and environmental test conformity
- Support DC-in 24V, 48V, 72V, 110V for railway application
- Purpose-built for intelligent railway, tram, subway, and transportation

[More info](#)

- Wide Operating Temperature
- Shock and Vibration Tolerance
- Wide Power Voltage Support
- Dedicated In-vehicle Power Input

ENHANCED RAILWAY COMPUTING SOLUTION FOR REAL-TIME PROCESSING

The ACO-6000-CML Series is an in-vehicle computing solution that carries the full EN50155 certification with EMC and environmental test compliance for railway applications. This fanless and rugged computer enables better performance and reliability from Intel® 10th Gen Processors, an increase in I/O capacity, support for faster DDR4-2933 memory, hot-swappable NVMe storage and even 5G connectivity.

HIGH-PERFORMANCE EMBEDDED COMPUTING FOR INTELLIGENT COMPUTER VISION



VCO-6000-CFL Machine Vision Computers

- Intel® 9th Gen CFL S Processor & Q370 Chipset support up to 8 Cores
- Up to 5x PCIe/PCI Expansion Slots
- Accelerate Machine Learning with X16 PCIe GPU (Full Length)
- Industrial-Grade Ruggedized Design

[More info](#)



The VCO-6000-CFL Series brings performance and reliability closer to IoT sensors by providing a ruggedized compute solution in the harshest deployments at the edge. This machine vision computer provides the latest from Intel® 10th Gen Processors, an increase in I/O capacity, support for faster DDR4-2933 memory, hot-swappable NVMe storage, and even 5G connectivity. It's an easy and accessible PCIe magazine tray that supports up to x5 expansion slots with additional support for full-length x16 PCIe GPU cards for hardware acceleration.



- Wide Operating Temperature
- Shock and Vibration Tolerance
- Wide Power Voltage Support
- Dedicated Hot-Swappable Fan

AI EDGE INFERENCE COMPUTER

The RCO-6000-CFL AI edge inference computer is engineered to deliver maximum processing performance, accessible data storage, and high-speed connectivity for the most rigorous IoT deployments today. Unlike other edge computers on the market, our hardware solution is proven to bring an entirely new approach to performance acceleration at the edge. Combined with our top-notch engineering design and environmental ruggedization, our AI Edge Inference Computers ensure enterprise reliability and deployment flexibility with a new two-piece module design – EDGEBoost Nodes.

The RCO-6000-CFL Series



RCO-6000-CFL-4NH

- Intel® 9th Gen CFL S Processor & Q370 Chipset support up to 8 Cores
- Modular EDGEBoost Nodes to support hardware acceleration
 - NVMe SSDs Storage Bricks
 - GPU, TPU, and M.2 acceleration support
- 5G Ready
- Flexible I/O for More I/O: LAN, USB, and 10GbE
- Power ignition management



RCO-6000-CFL-2N-2060S

- Intel® 9th Gen CFL S Processor & Q370 Chipset support up to 8 Cores
- Modular EDGEBoost Nodes to support hardware acceleration
 - NVMe SSDs Cannister Bricks
 - GPU, TPU, and M.2 acceleration support
- 5G Ready
- Flexible I/O for More I/O: LAN, USB, and 10GbE
- Power ignition management

[More info](#)

FANLESS SMALL FORM FACTOR (SFF) COMPUTER

The RCO-3000-CFL is a small form factor computer built fanless with an industrial-grade standard for remote deployments at the rugged edge. Balancing power and versatility, the RCO-3000-CFL can provide multi-core processing for a variety of IoT devices and sensors.

The RCO-3000-CFL Series

- Intel® 8th/9th Gen CFL-R S Processor & Q370 Chipset support up to 8 cores
- Flexible I/O for More I/O: LAN, USB, and 10GbE
- Power ignition management
- Compact Size

[More info](#)



The BCO-2000-WHL-U series fanless mini computer packs incredible performance, I/O flexibility, and powerful processing in a palm-sized form factor. Based on Premio's industrial-grade 3.5" motherboard, the BCO-2000-WHL-U Series fanless mini computers provide multi-core processing, memory, storage, and feature essential connectivity options.

- Wide Operating Temperature
- Shock and Vibration Tolerance
- Wide Power Voltage Support

The BCO-2000-WHL-U

- 8th Gen. Intel® Core™ i5, i3 & Intel® Celeron® Processor
- Industrial-Grade 3.5" SBC motherboard
- Flexible I/O for More I/O: LAN, USB, and 10GbE
- Small and Compact
- TPM 2.0

[More info](#)

24" ALL-IN-ONE INDUSTRIAL PANEL PCS

The VIO and SIO Panel PCs Series are now available in 24" size for enhanced productivity and immersive view experience. 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.

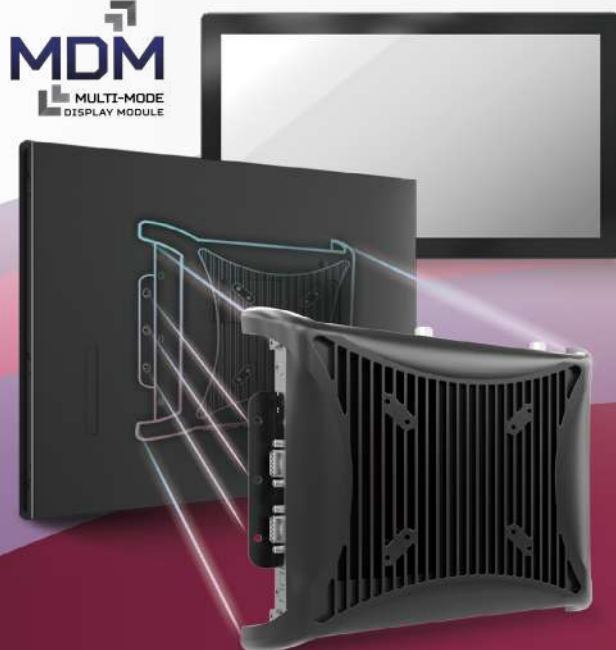
The Industrial Panel PCs Series



IP66/69K Washdown Touchscreen Computer

- 24" Full HD 16:9 LCD with Projected Capacitive Touch
- Intel® Core® i5-8365UE Processor
- Full System IP66/IP69K with Stainless Steel SUS316 Construction
- M12 Connectors (2x USB, LAN, COM)
- Touch Function ON/OFF Switch

[More info](#)



IP65 Modular Panel PC and Monitor

- 24" TFT FHD 16:9 LCD with Projected Capacitive Touch
- Intel® 7th Gen Mobile-U-U Processor
- MDM (Multi Mode Display Module) for Panel PC or Touch Monitor
- 2x Full-Size Mini PCIe Expansion Modules
- 4x RS-232/422/485, 4x USB 3.2 Gen1 Audio

[More info](#)



AMD RYZEN INDUSTRIAL MOTHERBOARDS

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.

CT-NR101

FEMTO FORM FACTOR 1.8" SBC

- AMD Ryzen™ Embedded R1000 Series
- DDR4 Memory up to 8GB
- Full-Size mPCIe Expansion
- Multiple I/O Options
- Industrial-grade Ruggedized Design

[More info](#)



CT-DR101

COMPACT FORM FACTOR 3.5" SBC

- AMD Ryzen™ Embedded R1000/V1000 Series
- Rich Industrial I/O Ports
- 2x DDR4 RAM up to 32GB
- M.2 and mPCIe Expansion Slot
- Industrial-grade Ruggedized Design

[More info](#)



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-WHL-U
Series**
Whiskey Lake

**BCO-1000-J1900
Series**
Bay Trail

Machine Vision System

**VCO-6000-CML-
4M2
Series**
Comet Lake S

**VCO-6000-CFL
Series**
CFL-R S

**VCO-6000-KBL
Series**
Skylake &
KabyLake-S

Rugged

Fanless
Embedded
System

**RCO-6000-CML
Series**
Comet Lake S

**RCO-6000-CFL
Series**
CFL-R S

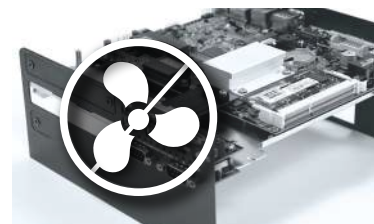
**RCO-6000-KBL
Series**
Skylake &
KabyLake-S

**RCO-3000-CFL
Series**
Coffee Lake R

**RCO-3000-KBL
Series**
Skylake &
KabyLake-S

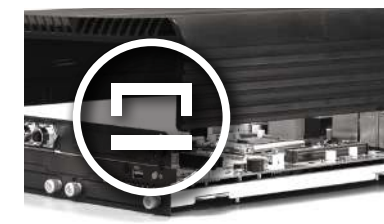
**RCO-3000-KBL-U
Series**
KabyLake-U

**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 metal material (copper and aluminum) to accomplish fanless Fast heat dissipation by integrated heat pipe on heat block and heat sink Unique thermal design that allows desktop CPU (up to 35W) to operate without fan in extended temperature range



INDUSTRIAL GRADE COMPONENT

Strict component selection adopting industrial grade parts like capacitor, power choke, etc. Better electrical performance and more stable system performance Product longevity supported Less RMA + Longer product lifecycle= Lower TCO (total cost of ownership)



BCO-1000-J1900

SERIES

[More info](#)

MINI FANLESS EMBEDDED COMPUTER

- 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)



Model	BCO-1000-J1900	BCO-1000-J1900-10	BCO-1000-J1900-20	BCO-1000-J1900-30
	Basic Fanless System ideal for space- constrained applications	With one Universal Expansion Slot	With two Universal Expansion Slots	With 8-bit Digital I/O, DVI-I/DP dual display output, and 6x COM ports
CPU Onboard	Intel® Celeron® J1900			
Memory	1x 204-pin DDR3L-1066/1333MHz SO-DIMM, up to 8GB			
Graphic Output	1x DVI-I (optional Display Port: 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)	0	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-2000-WHL-U

SERIES

[More info](#)

MINI FANLESS EMBEDDED COMPUTER

- 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 (10Gbps), 4x RS-232/422/485 (w/ 2x Internal)
- 1x Internal 2.5" SATA HDD Bay and 1x mSATA
- Watchdog timer, software programmable supports 1-225 sec. system reset
- TPM 2.0 Supported



Model	BCO-2000-WHL-U	
	Basic Fanless System ideal for space-constrained applications	
CPU Onboard	Support 8 th Gen. Intel® WL-UE Processor (15W TDP) Intel® Core™ i5-8365UE Processor 6M Cache, up to 4.10 GHz Intel® Celeron® Processor 4305UE 2M Cache, 2.00 GHz	
Memory	1x 260-Pin DDR4 2400MHz SO-DIMM, up to 32GB	
Graphic Output	1x DisplayPort, 1x HDMI (Optional)	
LAN	2x RJ45 GbE (Support Wake-on-LAN and PXE)	
Storage	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	AT/ATX 12V Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-20°C to 60°C	
Dimensions (WxDxH)	140 x 192 x 61 mm	
Weight	1.4 kg	
Universal Expansion Slot	2	
Expansion (Option)	<ul style="list-style-type: none">• 2x LAN• 2x COM• 4x COM	<ul style="list-style-type: none">• 2x PoE (Support 1x Universal Slot Only)• 2x USB 2.0 (Support 1x Universal Slot Only)• 2x USB 3.2 Gen1 (Support 1x Universal Slot Only)

RCO-1000-J1900

SERIES

[More info](#)

MINI INDUSTRIAL EMBEDDED COMPUTER

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



RCO-3000-KBL-U

SERIES

[More info](#)

HIGH-PERFORMANCE RUGGED EDGE COMPUTER

- 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



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	With one Universal Expansion Slot	With three Universal Expansion Slots	With 8-bit Digital I/O, DVI-I/DP dual display output, and 6x COM ports
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



Model	RCO-3000-KBL-U	RCO-3000-KBL-U-1	RCO-3000-KBL-U-2
	Advanced Fanless System based on Intel® KabyLake-U processors	With one PCI or PCIe x4 expansion slot	With 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-4LAN• DTB-4LAN-M12• DTB-4LAN-PWR• DTB-4LAN-PWR-M12		

RCO-3000-KBL

SERIES

[More info](#)

RUGGED MINI (SFF) INDUSTRIAL COMPUTER

- Support 6th/7th Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Intel® Q170 chipset
- 2x DDR4 1866/2133MHz SODIMM. 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



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 SODIMM. 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

[More info](#)

RUGGED MINI (SFF) INDUSTRIAL COMPUTER

- Support 8th/9th Gen Intel® CFL-R S Processor (LGA 1151, 65W/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 (10 Gbps), 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



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, 65W/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 SODIMM. 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 (35W CPU) -25°C to 50°C (65W CPU)	
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

RCO-6000-KBL SERIES

[More info](#)

PERFORMANCE FANLESS INDUSTRIAL COMPUTER

- 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



intel
Skylake-S Kaby Lake-U



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		
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	• DTB-4LAN • DTB-4LAN-PWR • DTB-4LAN-M12 • DTB-4LAN-PWR-M12	

RCO-6000-CFL SERIES

[More info](#)

HIGH-PERFORMANCE INDUSTRIAL COMPUTER

- Support 8th/9th Gen. Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Intel® Q370 chipset
- 2x DDR4 2400/2666Hz SODIMM. 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



intel
Coffee Lake R



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, 65W/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 (5 Gbps, 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 (35W CPU) -25°C to 60°C (65W CPU)	
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2	
Dimensions (WxDxH)	240 x 261 x 79 mm	240 (W) x 261 (D) x 127.3 (H) 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 RCO-6000-CFL-2I: 2x PCI (Optional) RCO-6000-CFL-2E: 2x PCIe x8 (Optional)
Proprietary Module Expansion	Up to 1x Module	• DTB-M2BK • DTB-D10G • DTB-4U3 • DTB-4ETH • DTB-4ETH-M12 • DTB-4ETH-PWR • DTB-4ETH-M12-PWR


EDGEBOOST NODE SERIES




More info

AI EDGE INFERENCE COMPUTERS

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.



NEWNEWNEW

Model	RCO-6000-CFL-2N-2060S	RCO-6000-CFL-4NS	RCO-6000-CFL-4NH
	Support 8 th /9 th Gen. Intel® CFL-R S Processor (LGA 1151, 65W/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 HDD bay with RAID 0, 1, 5, 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 with Hardware (15mm) *Patented NVMe drives trays are toolless and hot-swappable
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, 4-pin Terminal Block for GPU and Storage	9-48 VDC, AT/ATX Select, 3-pin Terminal Block and 4-pin Terminal Block for Storage	9-48 VDC, AT/ATX Select, 3-pin Terminal Block and 4-pin Terminal Block for Storage
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 60°C (35W / 65W CPU)		
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 <ul style="list-style-type: none">DTB-D10GDTB-M2BKDTB-4U3	<ul style="list-style-type: none">DTB-4ETHDTB-4ETH-PWR	<ul style="list-style-type: none">DTB-4ETH-M12DTB-4ETH-M12-PWR

EDGEBOOST NODE SERIES

AI EDGE INFERENCE COMPUTERS



NEWNEW

Model	RCO-6000-CFL-4N-2060S	RCO-6000-CFL-8NS	VCO-6000-CFL-4M2
	Support 8 th /9 th Gen. Intel® CFL-R S Processor (LGA 1151, 65W/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		RTX 2060S
Graphic Output	1x DVI-I, 1x DVI-D, 1x HDMI, 3x DisplayPort	1x DVI-I, 2x DisplayPort	1x DVI-I, 1x DVI-D, 1x HDMI, 3x 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		4x USB 3.2 Gen 2 (10 Gbps), 6x internal USB 3.2 Gen 1, 1x USB 3.2 Gen1 header (internal), 2x RS-232/422/485 (4x internal), 16x isolated digital I/O
SATA 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)		
NVMe Storage	1x NVMe M.2 M Key 1x Removable 4 Bay NVMe SSD Module (7mm) *Patented NVMe drives trays are toolless and hot-swappable	1x NVMe M.2 M Key 2x Removable 4 Bay NVMe SSD Module (7mm) *Patented NVMe drives trays are toolless and hot-swappable *Software RAID Available	1x NVMe M.2 M Key 4x Bay Hotswappable M.2 NVMe Drive trays (M Key, NVMe PCIe x2, 2280) *Patented NVMe drives trays are toolless and hot-swappable
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key		
Power	9-48 VDC, GPU/Storage:12-48 VDC AT/ATX Select, 3-pin Terminal Block, 4-pin Terminal Block for GPU/Storage expansion		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 60°C (35W / 65W CPU)		
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2		
Dimensions (WxDxH)	261 x 240 x 168 mm		157 x 340 x 240 mm
Weight	11.1 kg	10.1 kg	7.83 kg
Universal Expansion Slot	1 (by mini PCIe interface)		
PCI Express	1x PCIe x4 (x1 Lane)		
Proprietary Module Expansion	Up to 1x Module <ul style="list-style-type: none">DTB-D10GDTB-M2BKDTB-4U3		<ul style="list-style-type: none">DTB-4ETHDTB-4ETH-PWRDTB-4ETH-M12DTB-4ETH-M12-PWR

RCO-6000-CML SERIES

HIGH-PERFORMANCE INDUSTRIAL COMPUTER

- Support 10th Gen. Intel® CML S Processor (LGA 1200, 65W/35W TDP)
- Intel® W480E chipset
- 2x DDR4 2666/2933MHz SODIMM. 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)
- Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported






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Model	RCO-6000-CML	RCO-6000-CML-2C	RCO-6000-CML-2C-4B7M
	Support 10 th Gen. Intel® CML S Processor (LGA 1200, 65W/35W TDP)		
CPU Support	Support 10 th Gen. Intel® CML S Processor (LGA 1200, 65W/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 SODIMM, 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)
SIM Socket	2x External SIM socket (Mini PCIE attached) 2x External SIM socket (M.2 B Key attached,5G Module only, Optional)		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		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 70°C (35W/65W CPU)		
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127 mm	
Weight	3.1~3.5 kg	5.6 kg	3.1~3.5 kg
Universal Expansion Slot	2 (by mini PCIe interface)		
PCI & PCI Express	RCO-6000-CML-2C: 1x PCI, 1x PCIe x16 RCO-6000-CML-2I: 2x PCI (Optional) RCO-6000-CML-2E: 2x PCIe x16 (8-lane) (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 <ul style="list-style-type: none">• DTB-4ETH-PWR• DTB-4ETH-M12-PWR	

RCO-6000-CML SERIES

HIGH-PERFORMANCE INDUSTRIAL COMPUTER

- Support 10th Gen. Intel® CML S Processor (LGA 1200, 65W/35W TDP)
- Intel® W480E chipset
- 2x DDR4 2666/2933MHz SODIMM. 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)
- 3x 2.5" SATA HDD Bay. Support RAID 0, 1, 5
- Wide Operating Temperature (-25°C to 60°C)
- Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported



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Model	RCO-6000-CML-2C-2PWR	RCO-6000-CML-2060S
	Support 10 th Gen. Intel® CML S Processor (LGA 1200, 65W/35W TDP)	
CPU Support	Support 10 th Gen. Intel® CML S Processor (LGA 1200, 65W/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 SODIMM, up to 64GB	
GPU	0	RTX 2060S
Graphic Output	1x DVI-I, 2x DisplayPort	1x DVI-I, 1x DVI-D, 1x HDMI, 3x 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)	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)	
Power	9-48 VDC, AT/ATX Select, 5-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-25°C to 60°C (35W/65W CPU)	
Dimensions (WxDxH)	240 x 261 x 127 mm	
Weight	5.6 kg	6.2 kg
Universal Expansion Slot	2 (by mini PCIe interface)	
PCI & PCI Express	RCO-6000-CML-2C: 1x PCI, 1x PCIe x16 RCO-6000-CML-2I: 2x PCI (Optional) RCO-6000-CML-2E: 2x PCIe x16 (8-lane) (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 <ul style="list-style-type: none">• DTB-4ETH-PWR• DTB-4ETH-M12-PWR

ACO-6000-KBL

SERIES


More info


HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER


- 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	With 16 GbE in RJ-45 or M12 connectors with PoE option.	With one PCI or PCIe 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 (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)	0	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-D10GDTB-4U3DTB-4ETHDTB-4ETH-PWRDTB-4ETH-M12DTB-4ETH-M12-PWR	Up to 4x Module <ul style="list-style-type: none">DTB-4ETHDTB-4ETH-PWRDTB-4ETH-M12DTB-4ETH-M12-PWR	Up to 2x Module <ul style="list-style-type: none">DTB-D10GDTB-4U3DTB-4ETHDTB-4ETH-PWRDTB-4ETH-M12DTB-4ETH-M12-PWR

ACO-6000-CML


SERIES


HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER

- LGA 1200 socket for 10th Gen. Intel® CML S Processor (65W/35W TDP)
 - Intel® W480E chipset
 - 2x DDR4 2666/2933MHz SODIMM. 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 (35W/65W CPU)
 - TPM 2.0 Supported
 - Power ignition management

intel

Comet Lake S





Model	ACO-6000-CML	ACO-6000-CML-1E
	Surveillance Applied Fanless System with LGA-1200 for Intel® 10 th Gen CPU & W480E PCH	Surveillance Applied Fanless System with LGA-1200 for Intel® 10 th Gen CPU & W480E PCH, 1x PCIe x16 or PCI expansion slot
CPU Support	Support 10 th Gen Intel® CML S Processor (LGA 1200, 65W/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 SODIMM, 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 (10 Gbps), 3x USB 3.2 Gen 1 (5 Gbps, 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 or 48~110VDC (Optional), AT/ATX Select, 5-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-25°C to 70°C (35W/65W CPU)	
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)	4 (by mini PCIe interface)
PCI & PCI Express	0	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-D10GDTB-4U3DTB-4ETHDTB-4ETH-M12	Up to 4x Module <ul style="list-style-type: none">DTB-4U3DTB-4ETHDTB-4ETH-M12DTB-4ETH-PWRDTB-4ETH-M12-PWR

VCO-6000-KBL SERIES

[More info](#)

HIGH-PERFORMANCE MACHINE VISION COMPUTER

- 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
	Machine Vision System based on Intel® Kaby Lake & Skylake-S processors	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
Proprietary Module Expansion		<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 x16 (8-Lane) 2x PCI

VCO-6000-CFL SERIES

[More info](#)

HIGH-PERFORMANCE MACHINE VISION COMPUTER

- Support 8th/9th Gen. Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Intel® Q370 chipset
- 2x DDR4 2400/2666Hz SODIMM. 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
- Unique Expansion Module Design to Support 1 to 5 Expansion Cards
- TPM 2.0 Supported



intel
Coffee Lake R



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, 65W/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 (35W CPU) -25°C to 60°C (65W CPU)			
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

VCO-6000-CML-4M2

SERIES

HIGH-PERFORMANCE MACHINE VISION COMPUTER

- Support 10th Gen. Intel® CML S Processor (LGA 1200, 65W/35W TDP)
- Intel® W480E chipset
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 6x USB 3.2 Gen 2 (10 Gbps, 2x internal), 3x USB 3.2 Gen 1 (5 Gbps, internal), 2x USB 2.0 header (internal), 8x RS-232/422/485 (w/ 6x internal)
- 3x 2.5 SATA HDD Bay (2x Internal) with RAID 0, 1, 5 support
- 4x M.2 PCIe x2, 2280 (hot-swappable)
- Power Ignition Management



Model	VCO-6000-CML-4M2
	Machine Vision System with LGA-1200 for Intel® 10 th Gen CPU & W480E PCH
CPU Support	Support 10 th Gen Intel® CML S Processor (LGA 1200, 65W/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 SODIMM, up to 64GB (ECC and Non-ECC)
Graphic Output	Intel® UHD Graphics 630 1x DVI-I and 2x DisplayPort
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)
USB, Serial, & Digital I/O	6x USB 3.2 Gen 2 (10 Gbps, 2x internal), 3x internal USB 3.2 Gen 1 (5 Gbps), 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 (2x Internal) with RAID 0, 1, 5 support, (2x internal; 1x removable & hot-swappable)
PCI Express	1x PCIe x4 (1-lane) 1x PCIe x16 (8-lane) for GPU card expansion
NVMe Storage	4x M.2 PCIe x2, 2280 (hot-swappable)
Internal Expansion Slot	2x Full-size mini-PCIe 1x M.2 (E Key, PCIe x2, 2230, USB 2.0, Support CNVi)
Power	650W: 110 – 240 VAC, AT/ATX Select
Power Ignition Sensing	Power Ignition Management
Operating Temperature	-25°C to 60°C (35W/65W CPU)

WCO-3000-KBL-U

SERIES

[More info](#)

IP65/IP67 WATERPROOF COMPUTER

- 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



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

GPU SERIES

More info

AI EDGE INFERENCE COMPUTERS

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.

intel
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 1050 TI Integrated	Industrial GPU Computer With 6 th /7 th Gen Intel® Core™ Processor And Q170 PCH, GTX 1050 TI 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		
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	8.34 kg
Universal Expansion Slot (front)	2		
PCIe x4 (1-lane)			1

GPU SERIES

AI EDGE INFERENCE COMPUTERS

More info



intel
Skylake-S
Kaby Lake-S
Coffee Lake R



Model	RCO-6000-CFL-2060S	VCO-6000-CFL-3-2PWR
	AI Edge Inference Computer With 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, 65W/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 PCIe x4

ECO-1000 SERIES

PORTABLE SMART HIGH-DENSITY INDUSTRIAL SUPERCAPACITOR

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.

- Extended Energy System for various Box/Panel PCs
 - Maximum 16x High-Density Industrial Supercapacitor
 - Maximum 150W 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 70°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 80W output		Maximum 150W 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 70°C		
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 Mooountung (Optional)		

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-CML		V
ACO-6000-CML		V
RCO-6000-CFL		V

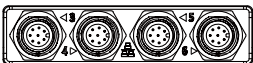
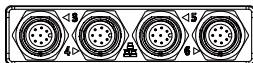
MODULE SERIES

PROPRIETARY MODULE

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.



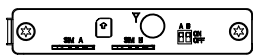
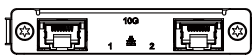
MODULE SERIES
PROPRIETARY MODULE



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

- up to 25.2 watt per port
- Complies 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-CML	V	V		
ACO-6000-CML	V	V		
RCO-6000-CFL	V	V		
ACO-6000-KBL	V	V		
RCO-6000-KBL			V	V
RCO-3000-KBL-U			V	V
RCO-3000-CFL	DTB-4ETH only	DTB-4ETH-M12 only		

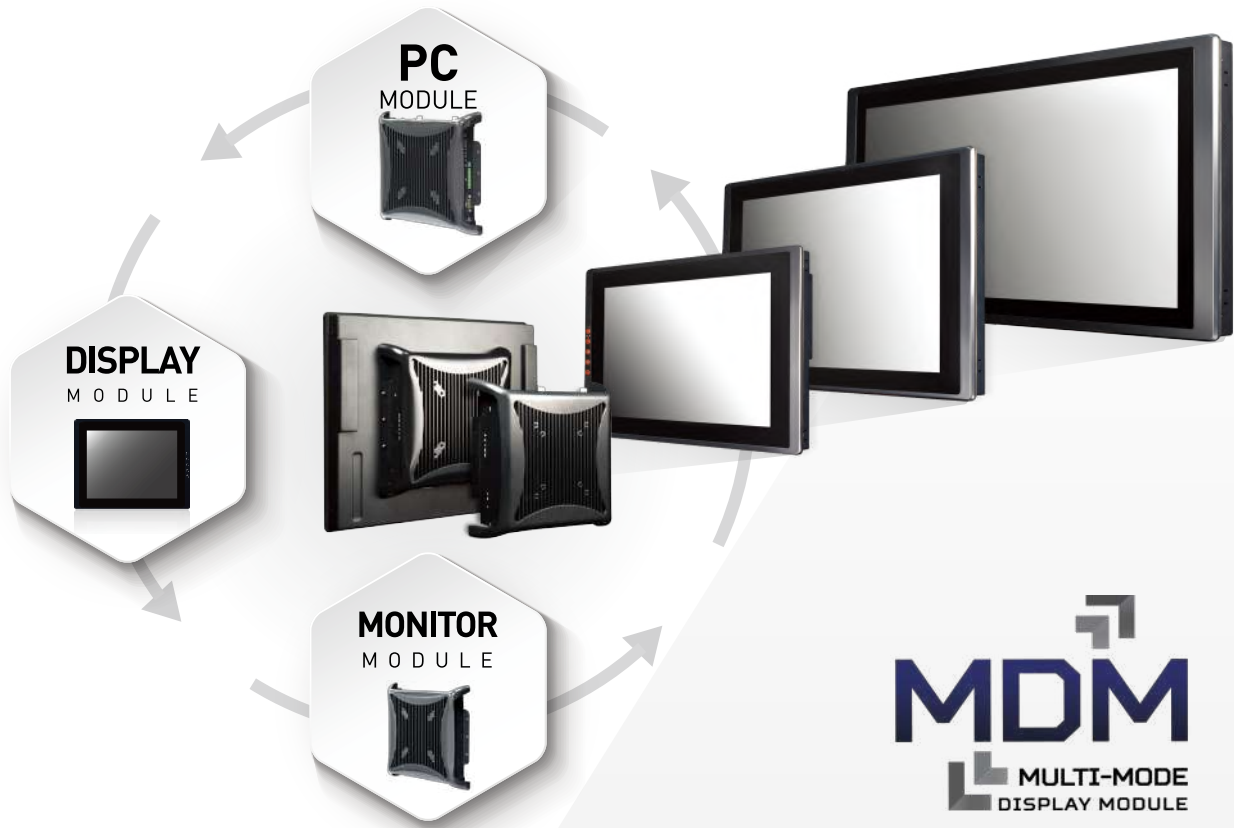


DTB-D10G	DTB-M2BK	DTB-4U3
Intel® Ethernet Controller X710-AT2 <ul style="list-style-type: none">1x PCIe x1 Gold finger (x4 Lane)2x 10GbE LAN, RJ45 Port	M.2 B Key for 5G module <ul style="list-style-type: none">2x SIM slot1x SIM SwitchSupport 1x Universal Slot Only	Supports 4x USB 3.2 Gen1 ports (share 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-CML	V	V	V
ACO-6000-CML	V	V	V
RCO-6000-CFL	V	V	V
ACO-6000-KBL	V		V
RCO-3000-CFL	V		V

INDUSTRIAL DISPLAY SYSTEMS

Patented modular design (MDM) provides mix-and-match flexibility for HMI automation, information and communication applications for industrial deployments. Easily scalable and upgradable for both an industrial panel PC and rugged touch monitor.



Scalability in Panel Sizes
10.4" / 12.1" / 15" / 15.6"
17" / 19" / 21.5"
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® Bay Trail
Intel® Broadwell-U
Intel® Kaby Lake-U

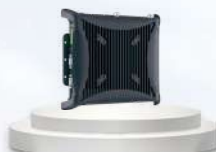


Easy Installation & Maintenance
MDM offers user-friendly mechanical design. Just three steps, a system ready for multiapplications



PREMIO INDUSTRIAL DISPLAY SYSTEMS

PRODUCT FAMILY



System
Module

PC100-KBL-U
Series
Kabylake-U

PC100-BRD-U
Series
Broadwell-U

PC100-J1900
Series
Bay Trail

MX100H
Series



IP66 / IP69
Panel PC

SIO-200-J1900
Bay Trail

WIO-W221C-KBL-U
Kabylake-U



Panel PC

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

VIO-200-PC100-BRD-U
Series
Broadwell-U
Thin Frame

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



Display
Module

VIO-200 Series
Thin Frame



Touch
Monitor

VIO-200-MX100H
Series
Thin Frame

VIO-200-PC100-J1900

SERIES

INDUSTRIAL PANEL PC

- Intel® Celeron® J1900 Processor (Quad Core, 2.0GHz)
 - 12.1" ~ 21.5" 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 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), and 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"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	2

VIO-200-PC100-BRD-U

SERIES

INDUSTRIAL PANEL PC

- 5th Generation Intel® Core i5/i3/Celeron Processor onboard (Broadwell-U)
 - 12.1" ~ 21.5" Thin Frame Multi-functional All-in-One Panel PCs
 - Projected Capacitive and 5-wire Resistive Touchscreen Available
 - Triple Independent Display
 - Rich I/O Features including the Support 4x RS-232/422/485, 3x USB 3.2 Gen1, 1x USB 2.0, 2x Full-size Mini PCIe, 2x LAN, 4x DI & 4x DO
 - 2x Full-size Mini PCIe Slot for Communication or Expansion Modules
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
 - Aluminum Die-casting Front Frame
 - Front Panel IP65 Rating



Model	VIO-200-PC100-BRD-U	VIO-200-PC100-BRD-U-1
	Thin Frame Industrial Panel PC based on Intel® Broadwell-U processors	Thin Frame Industrial Panel PC based on Intel® Broadwell-U processors with one PCI or PCIe x4 expansion slot
CPU Onboard	Intel® Core™ i5-5350U, i3-5010U, Celeron® 3765U	
Memory	1x 204-pin DDR3L-1333/1600 SO-DIMM, up to 8GB	
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	3x USB 3.2 Gen1 (5 Gbps), 1x USB 2.0, 4x RS-232/422/485 (w/ 2x internal), 8x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay with RAID 0, 1, 5 support and 2x mSATA (shared by 2x Mini PCIe)	
Internal Expansion Slot	2x Full-size mini-PCIe	
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Speaker-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"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	1
1x PCIe x4		VIO-200-PC100-BRD-U-1E
1x PCI		VIO-200-PC100-BRD-U-1I

VIO-200-PC100-KBL-U SERIES

INDUSTRIAL PANEL PC

- 7th Generation Intel® Core i5/i3 Processor onboard (Kabylake-U)
- 12.1" ~ 21.5" 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	
	Thin Frame Industrial Panel PC based on Intel® Kabylake-U processors	
	Thin Frame Industrial Panel PC based on Intel® Kabylake-U processors with 2x 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 SODIMM. 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, 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	-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"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	2

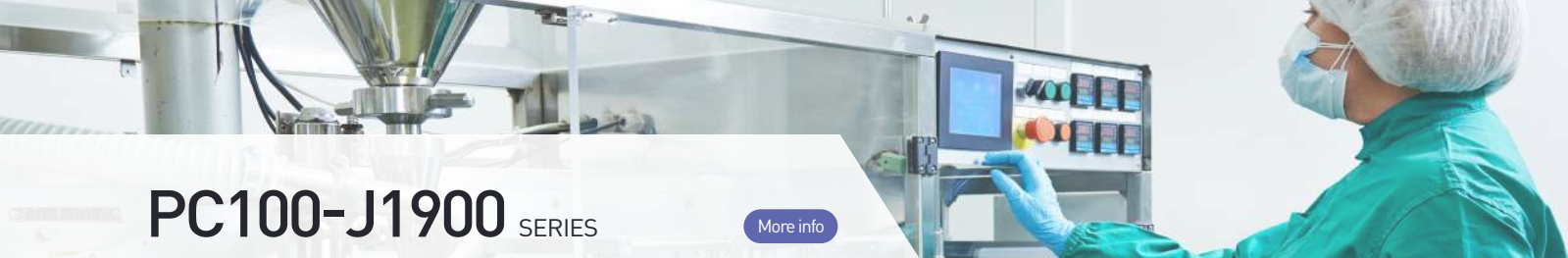
VIO-200-MX100H SERIES

INDUSTRIAL TOUCH MONITOR

- 12.1" ~ 21.5" 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"	



PC100-J1900 SERIES

[More info](#)

PC MODULE

- 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

				
	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), and 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-BRD-U SERIES




[More info](#)

PC MODULE

- 5th Generation Intel® Core i5/i3/Celeron Processor onboard (Broadwell-U)
- Triple Independent Display support by VGA, DisplayPort, and LVDS
- Rich I/O Features including the Support 4x RS-232/422/485, 3x USB 3.2 Gen1, 1x USB 2.0, 2x Full-size Mini PCIe, 2x LAN, 4x DI & 4x DO
- Multiple Expansion Capability including PCIe, PCI, Mini PCIe
- Wide Operating Temperature (-40°C to 60°C)
- Power Ignition Management



- Compatible with All Premio VIO Series Display Module
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating

				
	Model	PC100-BRD-U	PC100-BRD-U-1	
		PC Module based on Intel® Broadwell-U processors		PC Module based on Intel® Broadwell-U processors with one PCI or PCIe x4 expansion slot
	CPU Onboard	Intel® Core™ i5-5350U, i3-5010U, Celeron® 3765U		
	Memory	1x 204-pin DDR3L-1333/1600 SO-DIMM, up to 8GB		
	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	3x USB 3.2 Gen1 (5 Gbps), 1x USB 2.0, 4x RS-232/422/485 (w/ 2x internal), 8x isolated digital I/O		
	Storage	1x 2.5" SATA HDD Bay with RAID 0, 1, 5 support and 2x mSATA (shared by 2x Mini PCIe)		
	Internal Expansion Slot	2x Full-size mini-PCIe		
	Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block		
	Audio	Speaker-out / Mic-in Phone Jack		
	Operating Temperature	-40 °C to 60 °C		
	Universal Expansion Slot	0	1	
	1x PCIe x4		PC100-BRD-U-1E	
	1x PCI		PC100-BRD-U-1I	

PC100-KBL-U

SERIES

[More info](#)

PC MODULE

- 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-1
	Model	PC100-KBL-U
	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 SODIMM. 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, 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	
Universal Expansion Slot	0	2

MX100H

SERIES

[More info](#)

MONITOR MODULE

- 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	

VIO-200

SERIES

[More info](#)

DISPLAY MODULE

The Display Modules VIO-200 series are compatible with PC modules PC100-KBL-U, PC100-BRD-U, and PC100-J1900 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

VIO-200 SERIES

Thin Frame



Model	VIO-212	VIO-215	VIO-217	VIO-219
LCD Size	12.1" [4:3]	15" [4:3]	17" [4:3]	19" [4:3]
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 (H) x 0.24 (V)	0.297 (H) x 0.297 (V)	0.264 (H) x 0.264 (V)	0.294 (H) x 0.294 (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 60°C	-10°C to 50°C

[More info](#)



VIO-200 SERIES

Widescreen Display Module

Thin Frame



Model	VIO-W215	VIO-W221	VIO-W224
LCD Size	15.6" (16:9)	21.5" (16:9)	23.8" (16:9)
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 70°C	-10°C to 60°C	-10°C to 50°C








- 21.5” TFT FHD 16:9 LCD with Projected Capacitive Touch
- Support 7th Gen. Intel® Core™ i5 / i3 Processor
- 1x 260-pin DDR3L SODIMM. 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

<div><div>intel</div><div>Kabylake-U</div></div> <div></div>	
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 SODIMM
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



- 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
- 1x 4GB DDR3L SODIMM, 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 55°C operating temperature
- Full system IP66/IP69K with Stainless Steel SUS316 construction
- Touch Function ON/OFF Switch

<div><div>intel</div><div>Kabylake-U</div></div> <div></div>					
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 Onboard	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 SODIMM				
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				

BOARDS

SERIES

More info

INDUSTRIAL BOARDS

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	fTPM 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	-10°C ~ 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 SODIMM
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 ~ 70°C
Dimension	100 x 72mm

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 SODIMM slot. Max. up to 32GB	1x 204-pin DDR3L SODIMM sockets Non-ECC/unbuffered Data transfer rates up to 1333MT/s Memory size up to 4GB	DDR4-2400 SO-DIMM slot, upto 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)	fTPM 2.0/TPM SLB9670 (Co-lay)
Display Interface	1x DisplayPort, 1x LVDS, 1x HDMI, 1x EDP internal connector (optional)	1x HDMI, 1x VGA, 1x LVDS	2x Display Port, 1x LVDS, 1x HDMI
Rear IO	4x USB 3.2 Gen 2, 2x RJ45 GbE LAN, 1x DP, 1x HDMI	2x RJ45 GbE LAN, 1x HDMI, 1x VGA, 1x RS232/422/485 COM, 1x USB2.0, 1x USB3.2 Gen1	2x RJ45, 4x USB 3.2 Gen2 (10Gbps), 2x DP, 1x HDMI
Internal I/O	1x LVDS, 1x eDP1.4 (Optional) 4x RS-232/422/485, 4x 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, 2x USB2.0, 1x SATA, 2x 6pin Audio Header, 2x 4-bit DIO
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 ~ 70°C	-20°C ~ 70°C	0°C ~ 85°C
Dimension	146 x 102 mm		

BOARDS

SERIES

More info

INDUSTRIAL BOARDS

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-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 SODIMM
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 ~ 60°C
Dimension	170 x 170mm

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/65W/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 ~ 60°C	
Dimension	244 x 244mm	

KCO-2000-CFL SERIES

[More info](#)

CERTIFICATION READY INDUSTRIAL COMPUTERS

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, 65W/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

KCO-3000-CFL SERIES

[More info](#)

CERTIFICATION READY INDUSTRIAL COMPUTERS

- 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, 65W/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



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