

#### 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, HMI Displays, Panel PCs, and SuperCAP UPS Systems.

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**

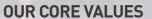
"Your Success, Our Commitment." With this simple vision, Premio aims to address computing challenges with purpose-built products. Premio solves challenges for our customers by delivering solutions around the design, integration, validation, and deployment of our computing products in IoT and edge markets. 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 resources, environmental testing validation, manufacturing scale, supply chain & product lifecycle management, reverse logistics, and



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.



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-theart 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.

#### 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)



#### **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.

5

#### **INDUSTRIAL COMPUTERS** 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.

2024

FEATURED INDUSTRIAL SOLUTIONS

08

RUGGED		MACHINE VISION	
RCO SERIES	16	VCO SERIES	25

WATERPROOF

**WCO** 

SERIES

IN-VEHICLE

28 ACO SERIES

30

**FANLESS MINI PC** 

BCO 32

**NVIDIA JETSON** 

JC0 SERIES 38

MODULAR AND RUGGEDIZED EDGE COMPUTING ACCELERATION

EDGEBoost Nodes SERIES

EDGEBoost Nodes deliver an industrial-grade modular approach

industrial-grade modular approach for accelerated computing performance at the rugged edge.

SCALABLE EDGEBOOST I/O MODULE TECHNOLOGY

EDGEBoost I/O SERIES

22

EDGEBoost I/O modules are a scalable and modular solution that integrates into Premio's industrial computers and provides enhanced reliability with plug-and-play expandability.





### INDUSTRIAL PANEL PCS AND TOUCH MONITORS 44

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.



M	0	NI'	TO	RS

FIO OPEN FRAME 46

DISPLAY MODULE

VIO SERIES 47

**IP65 PANEL PC** 

VIO-PC 48

**TOUCH MODULE** 

VIO-MX 51

IP66/IP69K

SIO WASHDOWN TOUCHSCREEN COMPUTER 52

IP66

WIO WATERPROOF 53

ALL-IN-ONE PANEL PC

AIO SERIES 54

OPEN FRAME PANEL PC

HIO SERIES 55



### MOTHERBOARD SYSTEMS 56

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.

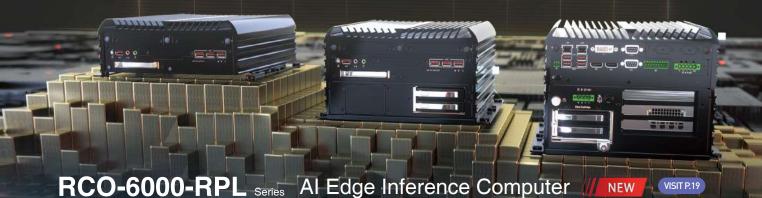


# FANNED INDUSTRIAL 35 COMPUTERS

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.

# **BEYOND THE RUGGED EDGE**

Work-Station Grade Industrial Computer With Intel® 13<sup>th</sup>/12<sup>th</sup> Gen Processor



DDR5

Up to 64GB 5.600 MT/s **Triple 5K Displays** 

Support up to 8K 2x Display, 1x DVI-I 2x EDGEBoost I/O

Customizable I/O. PoE Ports and M.2 Modules

**EDGEBoost Nodes** 

Scalable PCIe Gen 4 GPU & NVMe Storages



DDR5

Up to 64GB 5,600 MT/s **Triple 5K Displays** 

Support up to 8K 2x Display, 1x DVI-I Full-Length **Dual GPU** 

Support Dual PCle Gen 4.0 GPU

Scalable NVMe & **SATA Storage** 

Щ

Scalable Hot-Swappable SSD Storages

# WORLD CLASS CERTIFICATION

UL 62368-1 | EN50155 In-Vehicle Ready Industrial Solutions



RCO-3000-RPL Series Coming soon VISIT P.17

Small Form Factor Fanless Computer

Intel® 13<sup>th</sup>/12<sup>th</sup> Gen

LGA1700

MIL-STD-810G Compliance

50G Shock &

1x EDGEBoost I/O

Customizable I/O, PoE, Ports

**Quad 4K Displays** 

Support 4K up to 8K 3x DP. 1x DP/HDMI

KCO-RPL Series Fanned Industrial Computers

Semi-Rugged. High-Performance. Rackmountable

 $\mathsf{Intel}^{^{\mathsf{c}}}$ 13<sup>th</sup>/12<sup>th</sup> Gen

300W

Internal 300W Flex Power Supply



4x DP++

Chassis vith Rack Mount Options

3U Compact

# **FANLESS** INDUSTRIAL-EDGE COMPUTER

Deployment Ready at the Rugged Edge

Alder Lake N97

**Compact Form Factor** 

2.5 GbE

BCO-1000-ADLN Series W NEW Fanless Mini Computer





**Dual 4K Displays** 

BCO-3000-RPLS Series WEW

Small Form Factor Edge Computer

Intel<sup>®</sup> 12<sup>th</sup>/13<sup>th</sup>

10x USB

2.5 GbE

Triple

BCO-6000-RPLS Series Slim Al Edge Computer











Expandable GPU

**Smart Fan** 



JCO-1000-ONN Series WNEW Mini Fanless Al Computer VISIT P.40



512-1024 CUDA Cores

Jetson Orin Nano

Up to 40 TOPS

6-Core Arm<sup>®</sup> **Cortex**<sup>®</sup> A78AE

7-15W

4/8 GB RAM



**NEXT-GENERATION EDGE AI SOLUTION** 

**NVIDIA JETSON ORIN INDUSTRIAL COMPUTER** 

JCO-3000-ONX/ONN Series Coming soon

SFF AI Edge Computer VISIT P40



**Jetson Orin Nano** 

10-25W

7-15W

Up to 4x 2.5 GbE

LPDDR5





**Jetson Orin AGX** 



Up to 8x GMSL

4x EDGEBoost I/O

## **UNLEASH THE POWER OF MODULARITY**

Deliver Personalized Performance Upgrade Instantly with the EDGEBoost Series



Scalable performance accelerators for Premio's AI Edge Computer.

Provide an easy and cost-effective upgrade for the rugged, fanless computer. They elevate computer performance through additional PCIe Gen 4 Expansion, GPU, NVMe, and SATA storages. EDGEBoost Nodes are more than just performance upgrade, they also equipped with hardware security features. [Compatible with RCO-6000 Series]





# **EDGEBoost I/O** SERIES NEW VISIT P.22 Plug and play modular I/O daughterboards for customizable IoT sensor connectivity Premio standard computing solutions can support a variety of modular add-on daughterboards and carrier boards for more wired connectivity, digital and analog I/O, and edge AI scalability. Browse through our selection of EDGEBoost I/O modules and discover how to maximize your I/O requirements with plug and play ease. PoE | M12 | 10GbE | USB 3 | M.2 | Al | 5G | NVMe

# **FANLESS COOLING TECHNOLOGY** FOR INDUSTRIAL PCS

Rugged. Reliable. Tested.



7Steps

Explore Fanless Technology

# Of Building A Fanless PC

Premio's industrial solutions follow the 7 key steps to build reliable fanless solution that are capable 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.









10W - 65W TDP

**Utilize Heatsinks** Ultra-Conductive Materials

**Select EDGEBoost Nodes** Performance Accelerators

**Test And Validate Ensure Durabillity** 

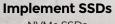










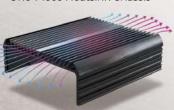


NVMe SSDs



#### **Use an Extruded Aluminum PC Case**

One-Piece Heatsink Chassis



#### **Put Pieces Together** Ruggedized Design







**VCO** SERIES MACHINE VISION COMPUTER



**ACO** SERIES IN-VEHICLE FANLESS COMPUTER



**KCO** SERIES FANNED INDUSTRIAL COMPUTER



**ECO** SERIES SUPERCAPACITOR UPS **BACKUP SYSTEM** 



**WCO** SERIES IP67/IP69K WATERPROOF COMPUTER



**BCO** SERIES COMPACT INDUSTRIAL COMPUTER



**JCO** SERIES EDGE AI INDUSTRIAL COMPUTER



#### **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 industryspecific regulatory requirements.







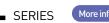








# RCO-1000-EHL SERIES More info













Model	RCO-1000-EHL-10	RCO-1000-EHL-20	RCO-1000-EHL-30	RC0-1000-EHL-30-2P
CPU Support	Intel® Celeron® Processor J6413, Quad Core, 1.5 MB Cache, 1.8 GHz			
Memory	1x 20	60-Pin DDR4 2400/2667/32	00MT/s SO-DIMM. Max. up	to 32 GB
Graphic Output		Dual Independent D	Display by 2x DisplayPort	
1/0	2×	2x RJ45 (2.5 & 1 GbE), 3x USB 3.2 Gen 2 (10 Gbps), 1x USB 2.0 2x RS-232/422/485, 1x Mic-in, 1x Line-out		
PoE				2x GbE RJ45
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			
Operating Temperature	-40°C to 70°C -40°C to 50°C			
Certification	UL 62368 Ed. 3, CE, FCC Class A CE, FCC Class A			CE, FCC Class A
Dimensions (WxDxH)	150 x 105 x 49 mm 150 x 105 x 66 mm 150 x 105 x 83 mm		05 x 83 mm	
EDGEBoost I/O Expansion	Up to 1x EDGEBoost I/O	Up to 3x EDGEBoost I/O	Up to 5x EDGEBoost I/O	Up to 3x EDGEBoost I/O

# BCO-1000-EHL SERIES More info











Model	BC0-1000-EHL-10	BCO-1000-EHL-20	BCO-1000-EHL-30	
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	Dua	Dual Independent Display by 2x DisplayPort		
1/0	2x RJ45 (2.5 & 1 GbE), 3x USB 3.2 Gen 2 (10 Gbps), 1x USB 2.0, 2x RS-232/422/485, 1x Mic-in, 1x Line-out			
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			
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	
EDGEBoost I/O Expansion	Up to 1x EDGEBoost I/O	Up to 2x EDGEBoost I/O	Up to 4x EDGEBoost I/O	

# RCO-3000-CML SERIES More info







RCO-3000-CML
Support 10 <sup>th</sup> Gen Intel <sup>®</sup> CML-R S Processor
2x 260-Pin DDR4 2666/2933MHz SODIMM. Max. up to 64GB
3x DisplayPort (1x DP Port Co-layout HDMI Connector)
2x RJ45 (2.5 & 1 GbE)
5x RS-232/422/485 (2x internal), 6x USB 3.2 Gen 2, 16x isolated digital I/O, 1x Line-out
2x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 1x removable & hot-swappable), 1x mSATA
1x Full-size mini-PCIe, 1x M.2 B Key, 1x M.2 E Key
9-48 VDC, AT/ATX Select, 3-pin Terminal Block
UL, CE, FCC Class A, EMC Conformity with EN50155 & EN50121-3-2
-25°C to 70°C
192 x 197 x 60.3 mm
Up to 1x EDGEBoost I/O

# RCO-3000-RPL SERIES





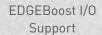
Model	RCO-3000-RPL
CPU Support	Support 13 <sup>th</sup> /12 <sup>th</sup> Gen Intel <sup>®</sup> RPL & ADL Processor
Memory	2x 260-Pin DDR4 3200 MHz SODIMM. Max. up to 64GB
Graphic Output	4x DisplayPort (1x DP Port Co-layout HDMI Connector)
LAN	2x 2.5 GbE RJ45
1/0	5x RS-232/422/485 (2x internal), 6x USB 3.2 Gen 2, 16x isolated digital I/O, 1x Line-out
Storage	2x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 1x removable & hot-swappable), 1x M.2 2242 SATA
Internal Expansion Slot	2x M.2 B Key, 1x M.2 E Key
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block
Certification	CE, FCC Class A, EMC Conformity with EN50155 & EN50121-3-2
Operating Temperature	-25°C to 60°C
Dimensions (WxDxH)	192 x 227 x 57.6 mm
EDGEBoost I/O Expansion	Up to 1x EDGEBoost I/O



#### AI EDGE INFERENCE COMPUTER

The RCO-6000 Series is a workstation-grade, fanless computers that incorporates cutting-edge technologies including DDR5, PCIe Gen 4, GPU accelerators, and NVMe storage, ensuring swift and high-performance operations. Ideal for the rigorous demands of Industry 4.0 and edge-native applications, the RCO-6000 Series features a rugged, fanless design and is backed by multiple safety certifications, quaranteeing reliable performance in edge computing environments.







**EDGEBoost Nodes** Support



Scalable NVMe, SATA, and RAID Card



Scalable Robust **GPU Cards** 



# RCO-6000-RPL SERIES More info



intel







Model	RCO-6000-RPL	RCO-6000-RPL-2E16	
CPU Support	Support 13 <sup>th</sup> /12 <sup>th</sup> Gen Intel <sup>®</sup> R	PL & ADL Processor (LGA 1700, 35W TDP)	
Memory	2x 262-Pin DDR5 4800/5600MHz \$	SODIMM. Max. up to 64GB (ECC and Non-ECC)	
Graphic Output	1x DV	I-I, 2x DisplayPort	
1/0	2x 2.5 GbE RJ45, 8x USB 3.2 Gen 2 (10 Gbps), 1x USB 3.2 Gen 1 (Internal), 2x USB 2.0 (internal), 1x Mic-in, 1x Line-out 6x RS-232/422/485 (4x internal), 16x isolated digital I/O		
Storage	2x 2.5" SATA HDD bay with RAID 0, 1 support (1x internal, 1x removable & hot-swappable)		
SIM Socket	2x External SIM socket (Mini PCIE/M.2 B Key attached)		
Power	9-48 VDC, AT/ATX Select, 5-pin Terminal Block		
Operating Temperature	-25°C to 70°C		
PCle		RCO-6000-RPL-2E16: 1x PCIe x16 (Gen4), 1x PCIe x1 (Gen3) RCO-6000-RPL-2E8: 1x PCIe x16 (8-lane, Gen4), 1x PCIe x8 (8-lane, Gen4)	
EDGEBoost I/O Expansion	Up to 2x EDGEBoost I/O		

# RCO-6000-CML SERIES More info







Model	RCO-6000-CML	RCO-6000-CML-2C	
CPU Support	Support 10 <sup>th</sup> Gen. Intel <sup>®</sup> CML S	Processor (LGA 1200, 35W TDP)	
Memory	2x 260-Pin DDR4 2666 /2933	BMHz SO-DIMM, up to 64GB	
Graphic Output	1x DVI-I, 2x	DisplayPort	
1/0	2x USB 2.0 header (intern	2x GbE RJ45, 6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal), 2x USB 2.0 header (internal), 1x Mic-in, 1x Line-out 8x RS-232/422/485 (6x internal), 16x isolated digital I/0	
Storage	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		
Certification	UL 62368 Ed. 3, CE, FCC Class A		
Operating Temperature	-25°C to 70°C		
EDGEBoost I/O Expansion	Up to 2x EDGEBoost I/O		

# 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-(CML/RPL) for more performance accelerators.

Top - Compatible RCO-6000 Series				
RCO-6000-RPL	RCO-6000-CML			
• Intel® 12th/13th Gen ADL/RPL CPU  1x Hotswap SATA SSD (7mm)  1x Internal SATA SSD (9mm)  1x M.2 B Key 2242	• Intel® 10 <sup>th</sup> Gen CML CPU  2x Hotswap SATA SSD (7mm)  1x Internal SATA SSD (9mm)  1x M.2 E Key 2230			

Bottom - RCO-6000-RPL EDGEBoost Nodes				
PCle Gen 4	GPU Gen 4			
EBND-2-EXP-G4	EBND-2-PWR-G4			
SATA Stor	SATA Storage Series			
EBND-2-2SATA-G4, EBND-2-4SATA-G4				
NVMe Series	NVMe and GPU Series			
EBND-2-2NVME-G4, EBND-8NVME-S, EBND-4NVME-S, EBND-4NVME-H	EBND-4NVME-GPU, EBND-2NVME-GPU, EBND-4NH-1E			

Bottom - RCO-6000-CML EDGEBoost Nodes					
PCI/PCIe Expansion	GPU Series				
EBND-2-EXP	EBND-2-PWR				
SATA Stora	SATA Storage Series				
EBND-2-2SATA, EBND-2-4SATA					
NVMe Series	NVMe and GPU Series				
EBND-8NVME-S, EBND-4NVME-S, EBND-4NVME-H	EBND-4NVME-GPU, EBND-2NVME-GPU, EBND-4NH-1E				



Quick Upgrade

Easy Maintenance

### **EDGEBoost Nodes Benefits**

- · Scalable, Expandable, and Flexible.
- · Cost Effective Solution
- Faster Time-To-Market











# Bottom - Modular "EDGEboost Nodes" Configurations



- EBND-2-EXP-G4 (RCO-6000-RPL) 1x PCle x16 (Gen 4), 1x PCle x1 (Gen 3) or 2x PCIe x8 (Gen 4)
- EBND-2-EXP (RCO-6000-CML) PCIe x16/ PCI Expansions



• EBND-2-PWR-G4 (RCO-6000-RPL) 1x PCle x16 (Gen 4), 1x PCle x1 (Gen 3) or 2x PCIe x8 (Gen 4) 12~48VDC Power Supply (280W)

Portable Design

Future-Proof Technology

EBND-2-PWR (RCO-6000-CML) PCIe x16/ PCI Expansions 12~48VDC Power Supply (280W)

#### SATA Storage Series



• EBND-2-2SATA 2x Hot-Swap 2.5" SATA Drives (15mm) RAID 0, 1, 5, 10



4x Hot-Swap 2.5" SATA Drives (7mm) RAID 0, 1, 5, 10



 EBND-2-2NVME-G4 (RCO-6000-RPL only) 2x Hot-Swap 2.5" NVMe SSD Bay (15mm) PCIe Gen 4 Expansion



EBND-8NVME-S 8x Hot-Swap 2.5" U.2 NVMe Drives (7mm) RAID 0, 1



EBND-4NVME-S 4x Hot-Swap 2.5" U.2 NVMe Drives (15mm)



8x Hot-Swap 2.5" U.2 NVMe Drives (7mm) Hardware RAID 0, 1, 5, 6, 10

#### NVMe and GPU Series



EBND-4NVME-GPU 1x GPU Expansion 4x Hot-Swap 2.5" U.2 NVMe Drives (7mm)



1x GPU Expansion 2x Hot-Swap 2.5" U.2 NVMe Drives (15mm)

FRND-2NVMF-GPU



• EBND-4NH-1E 1x PCIe x8 Slot Hardware RAID 0, 1, 5, 6, 10 4x Hot-Swap 2.5" U.2 NVMe Drives (7mm)



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.











		Connectivity & Network		
EBIO-4ETH	EBIO-4ETH-M12	EBIO-4LAN	EBIO-4LAN-M12	EBIO-D10G
• Intel® Ethernet Controller I350 • 1x PCle x4 Gold finger (x4 Lane) • 4x 1GbE LAN, RJ45 Port • Support Power over Ethernet by an optional PoE module	Intel® Ethernet     Controller I350     1x PCle x4 Gold finger     (x4 Lane)     4x 1GbE LAN, M12 Port     Support Power over     Ethernet by an optional     PoE module	Intel® Ethernet     Controller I210     1x PCle x1 Gold finger     4x 1GbE LAN, RJ45 Port     Support Power over     Ethernet by an optional     PoE module	Intel® Ethernet     Controller I210-AT     1x PCIe x1 Gold finger     4x 1GbE LAN, M12 Port     Support Power over     Ethernet by an optional     PoE module	Intel® Ethernet Controller X710-AT2  1x PCIe x1 Gold finger (x4 Lane)  2x 10GbE LAN, RJ45 Por
EBIO-4ETH-POE	EBIO-4ETH-POE-M12	EBIO-4LAN-POE	EBIO-4LAN-POE-M12	
	<ul><li>Up to 25.2 watt</li><li>Complies with I</li></ul>			

## EDGEBoost I/O Boosting Flexibility at the Edge







Edge Al / Storage			
EBIO-2M2BK	EBIO-M2MK	EBIO-M2BK	
<ul> <li>2x M.2 B Key for AI/5G/NVMe module</li> <li>2x M.2 B Key slot, Support 2x AI/5G Module (Support 1x 5G Only)</li> <li>M.2 B Key, PCIe x2, 2242/3042/3052</li> <li>1x SIM slot</li> <li>Support 1x Universal Slot Only</li> </ul>	<ul> <li>1x M.2 M Key for AI/NVMe module (PCIe x4)</li> <li>M.2 M Key slot, Support AI/NVMe Module</li> <li>M.2 B Key, PCIe x4, 2242/2260</li> <li>Support 1x Universal Slot Only</li> </ul>	<ul> <li>M.2 B Key for 5G module</li> <li>2x SIM slot</li> <li>1x SIM Switch</li> <li>Support 1x Universal Slot Only</li> </ul>	











	Digital & Analog I/O			
EBIO-HDMI	EBIO-DP-DIO	EBIO-2COM	EBIO-4USB	EBI0-4U3
Designed for RCO-1000 & BCO-1000 models only     50-Pin High-Speed Connection			• 4x USB 3.0, Type-A Ports	
• 1x HDMI Port (Full-HD)	• 1x DP (4K UHD), 1x DIO (4 in / 4 out, Isolated)	• 2x COM Ports	4x USB 2.0, Type A Ports (with USB hub)	

### EDGEBoost I/O SERIES

## Compatible Industrial Computers













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Rugged, Fanless

less Small Form Factor Computer

actor Computer Fanless Mini Computer Fan

-	-
Fanless Mini Compu	iter

	In-Vehicle Computers	Embedded Computing	Small Form Factor Computer	Fanless Mini Computer	Fanless Mini Computer
COMPATIBLE LIST	ACO-6000 (CML / KBL)	RCO-6000 (RPL/CML/CFL)	RCO-3000 (CML / CFL)	RCO-1000 (EHL / J1900)	BCO-1000 (EHL / J1900)
EBIO-2M2BK	CML     KBL: AI/NVMe only	•	CML     CFL: AI/NVMe only		
EBIO-M2MK	•	•	•		
EBIO-M2BK	CML     KBL: AI/NVMe only	•			
EBIO-4U3	•	•	•		
EBIO-D10G	•	•	•		
EBIO-4ETH	•	•	•		
EBIO-4ETH-POE	•	•			
EBIO-4ETH-M12	•	•	•		
EBIO-4ETH-M12-POE	•	•			
EBIO-4LAN		•			
EBIO-4LAN-POE		•			
EBIO-4LAN-M12		•			
EBIO-4LAN-POE-M12		•			
EBIO-HDMI				•	•
EBIO-DP-DIO				•	•
EBIO-2COM				•	•
EBIO-4U3				•	•

Coming soon

# DCO-1000 SERIES

# INDUSTRIAL-GRADE DIN RAIL COMPUTER

Premio offers DIN Rail mountable computers that are available in various configurations. You can configure your DIN rail PC with the CPU, Memory, Storage, I/O Ports, and Operating System that you want. DIN rail industrial PCs can be easily and quickly mounted to a standard DIN rail.

- World Class Certifications C1D2, ATEX Zone 2, UL, FCC Class B
- Rich I/O Configurations
- Compact & Slim Form Factor





Model	DC0-1000-ASL	DCO-1000-ONN		
CPU Support	Intel <sup>®</sup> Atom <sup>®</sup> Processor x7425E, Quad Core, 6 MB Cache, HFM 1.5 GHz, TDP 12W Intel <sup>®</sup> Atom <sup>®</sup> Processor x7211E, Dual Core, 6 MB Cache, HFM 1.0 GHz, TDP 6W	NVIDIA <sup>®</sup> Jetson Orin™ Nano 4/8GB GPU with 32 Tensor Cores		
Memory	1x 262-Pin DDR5 4800MHz SODIMN	1. Max. up to 32 GB (ECC/Non-ECC)		
Graphic Output	Dual Independent Display by 2x Displ	ayPort 1.4, DP++ (4096 x 2160@60Hz)		
LAN	4x 2.5 G	4x 2.5 GbE LAN		
1/0	2x RS-232/422/485, 2x USB 3.2 Gen 2 (10 Gbps), 2x USB 3.2 Gen 1 (Shared PCle Gen 2 x1 Lane bandwidth), 4 in / 8 out (Isolated)			
Storage	1x M.2 (B Key, 3042/3052, PCIex 1 + USB 3.2 Gen2, Support 4G/5G, SATA Module)			
Power	9-36 VDC, AT/ATX, 3	-pin Terminal Block		
Operating Temperature	-40°C to 70°C			
Certification	CE, FCC Class B, UL, C1D2, ATEX Zone2			
Dimensions (WxDxH)	150 x 105 x 49 mm			
Mounting	DIN-Rail Mounting, Wall Mounting (Optional)			

VC0-6000 SERIES

MACHINE VISION COMPUTERS

POWERFUL AI VISION AT THE

RUGGED EDGE



# WORKSTATION-GRADE INDUSTRIAL MACHINE VISION COMPUTER

The VCO-6000 Series is engineered for seamless integration of dual FHFL GPU cards through PCIe Gen 4 and industry-leading external storage expansion drives, delivering optimized processing and data aggregation. Deploy machine vision and AI inference applications with utmost reliability and performance to the rugged edge.



Dual GPU Support



PCle Gen 4 Expansions



Scalable NVMe & SATA Storage



Shock & Vibration Resistance

4

HIGH-PERFORMANCE MACHINE VISION COMPUTER

# VCO-6000-RPL SERIES More info













r Lake				
Model	VCO-6000-RPL-3E	VCO-6000-RPL-4E		
	3x PCIe Exp	ansion Slots		
CPU Support	Support 13 <sup>th</sup> /12 <sup>th</sup> Gen Intel <sup>®</sup> RPL & AD	L Processor (LGA 1700, 65W/35W TDP)		
Memory	2x 262-Pin DDR5 4800/5600MHz SODIM	M. Max. up to 64GB (ECC and Non-ECC)		
Graphic Output	1x DVI-I, 2x	DisplayPort		
LAN	2x 2.5 GbE RJ45 (Suppor	t Wake-on-LAN and PXE)		
1/0	5x USB 3.2 Gen 1 (Internal), 1x	en 2 (10 Gbps) USB 3.2 Gen 1 header (internal) al), 8x DI + 8x D0 with isolation		
Storage		2x 2.5" SATA HDD bay with RAID 0, 1 support (1x Internal, 1x Removablel) 1x mSATA (Shared by 1x Mini PCI Express)		
SSD/HDD	optional:  • 4B7M:  4x Removable 2.5" SATA HDD Bay (support H=7mm, Hot-swappable, Optional) Support RAID 0, 1, 5, 10  • 2B15M:  2x Removable 2.5" SATA HDD Bay (support H=15mm, Hot-swappable, Optional) Support RAID 0, 1, 5, 10  • 2N15M:  2x Removable 2.5" U.2 NVMe Bay (support H=15mm, Hot-swappable, Optional) Support RAID 0, 1			
Internal Expansion Slot		1x shared by 1x mSATA) 2242/3042/3052		
Power	5-pin Terminal	( Select Block, 9-48 VDC VVDC for GPU Card (optional)		
Audio	Line-out / Mic-in P	hone Jack (internal)		
Operating Temperature	-25°C	to 70°C		
Dimensions (WxDxH)	157 x 340 x 240 mm	177 x 340 x 240 mm		
PCI Express	1x PCIe x16 (Gen4) 2x PCIe x1 (Gen3)	2x PCIe x16 Slot (x8 Lane, Gen 4) 1x PCIe x4 (x1 Lane, Gen 3)		











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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 <sup>th</sup> /9 <sup>th</sup> Gen. Intel <sup>®</sup> CFL-R S Processor (LGA 1151, 35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium <sup>®</sup> G5400T, or Celeron <sup>®</sup> G4900T			
Memory	2x 260-pin DD	R4-2400/2666MHz S0-DIM	M, 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 Selec	ct, 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> <li>VCO-6000-CFL-2E: 2x PCle x8</li> <li>VCO-6000-CFL-2I: 2x PCI</li> <li>VCO-6000-CFL-2C: 1x PCle x16 1x PCI</li> </ul>	<ul> <li>VCO-6000-CFL-3E:         2x PCle x1         1x PCle x16</li> <li>VCO-6000-CFL-3I:         3x PCI</li> <li>VCO-6000-CFL-3C:         1x PCle x16         2x PCI</li> </ul>	VCO-6000-CFL-4I:     4x PCI      VCO-6000-CFL-4C:     2x PCIe x4     1x PCIe x16 (8-lane)     1x PCI	VCO-6000-CFL-5C    2x PCle x4     1x PCle x16 (8-Lane 2x PCl



The WCO Series expands the limitation of hardware to environment where the normal embedded computer are not suitable to be used. The WCO computers are a great solution for food and beverage processing, outdoor digital signage, surveillance, Military & defense, and automation control where the computers are in constant threat of water splash from all directions to even water immersion.



IP67/IP69K Rating



Wide Range Voltage 9-36V or 48-110V



Scalable M12 Ports



High-Quality Compact Construction



# WCO-3000-EHL SERIES





Model	WC0-3000-EHL
CPU Support	Intel <sup>®</sup> Celeron <sup>®</sup> Processor J6413, Quad Core, 1.5 MB Cache, 1.8 GHz, TDP 10W
Memory	1x 260-Pin DDR4 2400/2667/3200MT/s SODIMM.  Max. up to 32 GB (In-Band ECC/non-ECC)
Graphic Output	1x DisplayPort 1.4, DP++ (4096 x 2160@60Hz) or 1x HDMI (Optional)
1/0	2x RJ45 by M12 X-Code, 2x USB 3.2 Gen 2 Type A (Waterproof), 1x RS-232/422/485 by M12 A-Code
Storage	1x Internal 2.5" SATA HDD Bay, 1x mSATA (shared by 1x Mini PCI Express)
Expansion	1x M.2 (B Key, 3042/3052, PCIe x 1 + USB 3.2 Gen2, Support 4G/5G/Hailo AI Module), 2x External SIM socket, 1x Full-size Mini PCIe
Power	DC IN 9~36 V, DC IN 48~110V (Optional), M12 S-code 4-pin
Certification	IP69K, CE, FCC Class A, E-Mark
Operating Temperature	-40 °C to 60 °C
Dimensions (WxDxH)	231 x 292 x 57 mm



### **DELIVER INTELLIGENCE AT THE MOBILE EDGE**

The ACO-6000 Series offers robust, fanless in-vehicle computers, rigorously tested for mission-critical automotive applications. Essential for intelligent transportation, these systems adeptly handle edge data processing for machine learning and intelligence. With the need for highperformance computing in vehicles, they efficiently process data from various sensors and IoT devices, ensuring swift, low-latency communication.







EN50155 EN50121-3-2



Wide Power Range 9-48V and 48-110V



MIL-STD-810G Compliant Method 514 & 517



# ACO-6000-CML SERIES More info







	1,000		
Model	ACO-6000-CML	ACO-6000-CML-1E	
CPU Support	Xeon® W-1290TE/1270TE/1250	Support 10 <sup>th</sup> Gen Intel <sup>®</sup> CML S Processor (LGA 1200, 35W TDP)  Xeon <sup>®</sup> W-1290TE/1270TE/1250TE, Core <sup>™</sup> i9-10900E/10900TE, Core <sup>™</sup> i7-10700E/10700TE, Core <sup>™</sup> i5-10500T/10500TE, Core <sup>™</sup> i3-10100T/10100TE	
Memory	2x 260-Pin DDR4 2666 /2933MHz S0-I	DIMM, up to 64GB (ECC and Non-ECC)	
Graphic Output	1x DVI-I, 2x	DisplayPort	
1/0	2x GbE RJ45, 6x USB 3.2 Gen 2, 2x USB 2.0 header (internal), 8x RS-232/422/ Line-out / Mic-	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 (0	Optional), 3-pin Terminal Block. AT/ATX Select	
Operating Temperature	-25°C t	to 70°C	
Certification	E-Mark, EMC Conformity wi	ith EN50155 & EN50121-3-2	
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127 mm	
Universal Expansion Slot	2 (by mini PCIe interface)	4 (by mini PCIe interface)	
PCI & PCI Express		ACO-6000-CML-1E: 1x PCIe x16 ACO-6000-CML-1I: 1x PCI (Optional)	
EDGEBoost I/O Expansion	Up to 2x EDGEBoost I/O	Up to 4x EDGEBoost I/O	

# ACO-6000-RPL SERIES

# intel







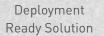
Model	ACO-6000-RPL	ACO-6000-RPL-1E	
CPU Support	Support 13 <sup>th</sup> /12 <sup>th</sup> Gen Intel <sup>®</sup> RPL & ADI	L Processor (LGA 1700, 65W/35W TDP)	
Memory	2x 262-Pin DDR5 4800/5600MHz SODIM	M. Max. up to 64GB (ECC and Non-ECC)	
Graphic Output	1x DVI-I, 2x	DisplayPort	
1/0	2x 2.5 GbE RJ45, 8x USB 3.2 Gen 2 (10 Gbps), 1x USB 3.2 Gen 1 (Internal), 2x USB 2.0 (internal), 1x Mic-in, 1x Line-out, 6x RS-232/422/485 (4x internal), 16x isolated digital I/O		
Storage	2x 2.5" SATA HDD bay with RAID 0, 1 support (1x internal, 1x removable & hot-swappable)		
Power	9-48VDC, 5-pin Terminal Block. 48~110VDC (Optional), 3-pin Terminal Block. AT/ATX Select		
Temperature	-25 °C to 70 °C		
Certification	Full EN50155 Railway Certification, CE, FCC		
PCI & PCI Express	ACO-6000-RPL-1E: 1x PCIe x ACO-6000-RPL-1I: 1x PCI (0		
EDGEBoost I/O Expansion	Up to 2x EDGEBoost I/O Up to 4x EDGEBoost I/O		



## **COMPACT INDUSTRIAL COMPUTER**

The BCO Series are designed and built to withstand deployment in challenging environments, managing workloads at the rugged edge for processing, storage, connectivity, and machine learning. Available in three series, the BCO-1000, BCO-3000, and BCO-6000 Series are capable of accommodating various edge workloads from power efficient computers to scalable GPU computers.







Support Expandablee GPU



Fast Time To Market



Compact & Ruggeddized Design



#### **BCO-1000-ADLN**

FANLESS MINI COMPUTER

#### BC0-3000-RPLS

SMALL FORM FACTOR EDGE COMPUTER



#### **BCO-6000-RPLS**

FANLESS AI EDGE COMPUTER











	***************************************		
Model	BCO-1000-ADLN	BCO-3000-RPLS	BCO-6000-RPLS
CPU Support	12 <sup>th</sup> Gen Intel <sup>®</sup> IoTG Alder Lake-N Processor N97, QC, 12W	Intel® IOTG Raptor Lake-S or Alder Lake-S Processor Core i9/i7/i5/i3, Pentium, Celeron (35W only)	
System Chipset	Within processor	Intel® Q670E Express Chipset	
Memory	1 x DDR5 SO-DIMM slot (262-pin)		00 MHz (Non-ECC Supported) to 64GB
Graphic Output	1 x HDMI 1.4b 1 x DisplayPort 1.4a		MI 1.4b DisplayPort 1.4a
LAN	2 x Intel <sup>®</sup> I225-V 2.5GbE LAN	3x 2.5G	bE LAN
1/0	2x DB9 COM, 6 x USB 3.2 Gen 2 x 1 Type-A, Line-in/Line-out/Mic-in, 1 x 8 GPIO	4x DB9 COM, 8 x USB 3.2 Gen 2 x 1 Type-A , 2 x USB 2.0 Type-A, 1 x 1*2-port Audio-jack connector for Line-out/Mic-in, 8 in / 8 out (Isolated)	
Storage	1 x M.2 B Key slot (2242/ 2280/ 3042)	1 x M.2 M key T	Type: 2242/2280
Internal Expansion Slot	1 x M.2 E Key slot (2230), 1 x M.2 B Key slot (2242/ 2280/ 3042)	1 x M.2 E ke	ype: 2242/2280, y Type: 2230, 2 with Nano SIM Holder
PCI Express			2x PCIe x8 Slot or 1x PCIe x16 Slot (New Board)
Power	AT/ATX 9~36VDC, 3-pin Terminal Block		- 936 (New Board), -pin Terminal Block
Audio	Line-in/Line-out/Mic-in	1 x 1*2-port Audio-jack co	nnector for Line-out/Mic-in
Operating Temperature		-20°C to 60°C	
Certification	CE, FCC Class A, EMC Conformity with EN50155 & EN50121-3-2	CE, FCC Class A, EMC Conformity with EN50155 & EN50121-3-2, UL	
Dimensions (WxDxH)	192 x 140 x 67.5 mm	192 x 240 x 69 mm	330 x 240 x 69 mm



## BCO-2000-WHL-U SERIES

• Support 8<sup>th</sup> Gen. Intel<sup>®</sup> Core™ i5 & Intel<sup>®</sup>

- Celeron® Processor
- TPM 2.0 Supported
- UL Listed



- Support AMD Ryzen™ Embedded R1000/V1000 Series Processor
- TPM 2.0 Supported
- UL Listed









Model	BCO-2000-WHL-U	BC0-2000-RYZ-V1605B	BCO-2000-RYZ-R1606G
	Basic Fanless System ideal for space-constrained applications	Basic Fanless System ideal for space-constrained application	
CPU Support	Support 8 <sup>th</sup> 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 S0-DIMM, up to 32GB	2x 260-Pin DDR4 2400 N	IHz SO-DIMM. Max 32 GB
Graphic Output	1x DisplayPort, 1x HDMI (Optional)	1x DisplayPort, 1x 24-bit dual cl	nannel LVDS, 1x HDMI (Optional)
LAN	2x R	J45 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 Internal 2.5" SATA HDD Bay		The state of the s
Internal Expansion Slot	2x Full-size Mini-PCle (1x shared with mSATA)  1x M.2 B Key (PCle x1 & USB 3.0, 3042/3052, SATA, USIM, Support 4 1x Full-Size Mini PCle for expansion modules		2, SATA, USIM, Support 4G/5G)
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		i kg
Universal Expansion Slot		2	
Expansion (Option)	<ul> <li>2x LAN</li> <li>2x PoE</li> <li>2x COM</li> <li>2x USB 2.0</li> <li>4x COM</li> <li>2x USB 3.2 Gen1</li> </ul>	• /v COM • 2v IISB 3 2 Gan1 (Sunnort 1v Universal Slot Onl	



# **FANNED INDUSTRIAL COMPUTER FOR INSPECTION & INTELLIGENT COMPUTER VISION**

Introducing the KCO-RPL Series, a line of high-performance fanned industrial computers powered by Intel's latest 13th Gen Raptor Lake processor. These ruggedized edge computers deliver extensive scalability and IIoT-centric flexibility for seamless optimization in high-spec deployment applications. Additionally, the KCO-RPL Series provides a number of edge-native features to accommodate and ensure reliable performance at the rugged edge.







Rich I/O



Internal Power Supply Unit



Rackmountable Industrial Solution



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.

> KCO-2000-CFL Coffee Lake R

KCO-2000-RPL Raptor Lake / Alder Lake

# intel





Model	KCO-2000-CFL	KC0-2000-RPL	
	Certification-Ready Industrial Computer with LGA- 1151 socket for Intel® CFL-R S Processor	Industrial Computer with 2U Certification-Ready, 12 <sup>th</sup> /13 <sup>th</sup> Gen Intel <sup>®</sup> Core <sup>®</sup> Processor	
CPU Support	Support 8 <sup>th</sup> /9 <sup>th</sup> Gen Intel <sup>®</sup> CFL-R S Processor (LGA 1151, 35W TDP)	Support 12 <sup>th</sup> /13 <sup>th</sup> Gen Intel <sup>®</sup> Core <sup>™</sup> i9/i7/i5/i3 Alder lake-S, Raptor Lake-S Processor (LGA 1700, 65W Max TDP)	
Memory	4x 288-Pin DDR4 2133/2400/2666MHz DIMM. Max. up to 128GB	4x DDR4 2133/2400/2666MHz DIMM. 128 GB Max	
Graphic Output	1x VGA,1xDVI, 2x DP	4x DP++	
LAN	GbE1: Intel I219LM (Support Wake-on-LAN and PXE) GbE2: Intel I210-AT (Support Wake-on-LAN and PXE)	GbE1: Intel <sup>®</sup> I219LM (Support Wake-on-LAN and PXE) GbE2: Intel <sup>®</sup> I225-V (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	6x USB 3.1 Gen 2 (10 Gbps) 1x USB 3.2 Gen 2x2 (20 Gbps) Type C 6x RS-232 1x 8-bit DIO (4-in/4-out)	
Storage	1x Hot-Swappable 2.5" SATA Drive Bay (support H=7mm) 1x M.2 (M Key, NVMe PCle x4, 2280) 1x M.2 (E Key, PCle x2, USB 2.0, 2230)	1x M.2 M / NVMe PCIe x 4 / 2242, 2260, 2280 1x M.2 M / NVMe PCIe x 4 / SATA / 2242, 2260, 2280 1x M.2 E / PCIe x2 / USB 2.0 / 2230	
Internal Expansion Slot	1x PCIe x16 slot (low profile, up to 9" card length)	1x PCIe x16 Slot (Gen 5) 2x PCIe x4 Slot (Gen 4, Open End) 1x PCIe x16 Slot (Gen 3, 4-Lane)	
Power	AT, ATX Internal 250W Flex Power Supply	ATX ACPI 5.0 compliant	
Audio	Line-out / Mic-in Phone Jack	1x Mic-in, 1x Line-in, 1x Line-out	
Operating Temperature	0°C to 35°C	0°C to 60°C	
Dimensions (WxDxH)	12.73" x 10.75" x 3.45"	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 SERIES More info



KCO-3000-CFL Coffee Lake R

KCO-3000-RPL Raptor Lake / Alder Lake

# intel





	100013	in the state of th
Model	KCO-3000-CFL	KCO-3000-RPL
	Certification-Ready Industrial Computer with LGA- 1151 socket for Intel <sup>®</sup> CFL-R S Processor	Industrial Computer with 3U Certification-Ready, 12 <sup>th</sup> /13 <sup>th</sup> Gen Intel <sup>®</sup> Core <sup>®</sup> Processor
CPU Support	Support 8 <sup>th</sup> /9 <sup>th</sup> Gen Intel <sup>®</sup> CFL-R S Processor (LGA 1151, 35W TDP)	Support 12 <sup>th</sup> /13 <sup>th</sup> Gen Intel <sup>®</sup> Core <sup>™</sup> i9/i7/i5/i3 Alder lake-S, Raptor Lake-S Processor (LGA 1700, 65W Max TDP)
Memory	4x 288-Pin DDR4 2133/2400/2666MHz DIMM. Max. up to 128GB	4x DDR4 2133/2400/2666MHz DIMM. 128 GB Max
Graphic Output	1x VGA,1xDVI, 2x DP	4x DP++
LAN	GbE1: Intel I219LM (Support Wake-on-LAN and PXE) GbE2: Intel I210-AT (Support Wake-on-LAN and PXE)	GbE1: Intel <sup>®</sup> I219LM (Support Wake-on-LAN and PXE) GbE2: Intel <sup>®</sup> I225-V (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	6x USB 3.1 Gen 2 (10 Gbps) 1x USB 3.2 Gen 2x2 (20 Gbps) Type C 6x RS-232 1x 8-bit DIO (4-in/4-out)
Storage	1x 3.5" SATA HDD drive or 2x 2.5" SSD/HDD up to 15mm 1x M.2 (M Key, NVMe PCle x4, 2280) 1x M.2 (E Key, PCle x2, USB 2.0, 2230)	1x M.2 M / NVMe PCIe x 4 / 2242, 2260, 2280 1x M.2 M / NVMe PCIe x 4 / SATA / 2242, 2260, 2280 1x M.2 E / 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	1x PCIe x16 Slot (Gen 5) 2x PCIe x4 Slot (Gen 4, Open End) 1x PCIe x16 Slot (Gen 3, 4-Lane)
Power	AT, ATX Internal 300W Flex Power Supply	ATX ACPI 5.0 compliant
Audio	Line-out / Mic-in Phone Jack	1x Mic-in, 1x Line-in, 1x Line-out
Operating Temperature	0°C to 45°C	0°C to 60°C
Dimensions (WxDxH)	13.15" x 11.78" x 5.23"	13.15" x 11.78" x 5.23"
Weight	12.5 lbs (barebone w/ chassis, mb, and PSU only)	
Certifications	CE, FCC, UL Certified	



#### **NEXT-GENERATION EDGE AI COMPUTING SOLUTION**

The JCO Series industrial computer, powered by the advanced NVIDIA Jetson platform, is a standout in Al and industrial computing. This series offers exceptional AI computing capabilities, making it perfect for sophisticated robotics, autonomous machinery, and high-end embedded Al tasks. Designed to withstand harsh industrial conditions, the JCO Series ensures consistent performance even in extreme environments.









Ruggedized Fanless Solution

JCO-1000 Ultra Compact





## **Jetson Orin Nano**

Jetson Orin Nano series modules deliver up to 40 TOPS of Al performance in the smallest Jetson form-factor, with power options between 7W and 15W. This gives you up to 80X the performance of NVIDIA Jetson Nano. Jetson Orin Nano is available in 8GB and 4GB versions.

JCO-3000 **SERIES** Slim Advanced





#### **Jetson Orin NX**

Jetson Orin NX modules deliver up to 100 TOPS of AI performance in the smallest Jetson form factor, with power configurable between 10W and 25W. This gives you up to 3X the performance of Jetson AGX Xavier and up to 5X the performance of Jetson Xavier NX. Jetson Orin NX is available in 16GB and 8GB versions.

JCO-6000 SERIES

High Performance



#### **Jetson AGX Orin**

Jetson AGX Orin modules deliver up to 275 TOPS of Al performance with power configurable between 15W and 60W. This gives you up to 8X the performance of Jetson AGX Xavier in the same compact form factor. Jetson AGX Orin is available in 64GB, 32GB, and Industrial versions

# JCO NVIDIA® JETSON ORINTM SERIES

JCO-1000 SERIES MINI FANLESS AI COMPUTER

JCO-3000 SERIES SFF AI EDGE COMPUTER









Model	JCO-1000-ONN	JCO-3000-0NX/	JCO-3000-0NX-2L8D/
Modet	300-1000-01111	JCO-3000-0NN	JCO-3000-0NN-2L8D
CPU Support	NVIDIA <sup>®</sup> Jetson Orin™ Nano 4/8GB GPU with 32 Tensor Cores	NVIDIA® Jetson Orin™ NX 16G/8G & Nano 8G/4G GPU with 32 Tensor Cores	
Graphic Output		1x HDMI 2.0, 3840 x 2160 @ 60Hz	
LAN	1 x GbE LAN	4x RJ45 (Support 4x PoE, Optional)	2 x GbE LAN
1/0	2x RS-232/422/485, 4 in / 4 out (Isolated), 2x USB 3.2 Gen 2 (10 Gbps), 2x USB 2.0, 1x USB Type-C (For OS Flash)	1x RS-232, 1x RS-232/422/485, 4x USB 3.2 Gen 2 (10 Gbps, Shared with USB 3 Hub), 8 in / 8 out (Isolated), 1x USB Type-C (For OS Flash),	2x RS-232 or 485 (internal, Switch by Jumper), 4x USB 3.2 Gen 2 (10 Gbps, Shared with USB 3 Hub), 4 in / 4 out (Isolated), 1x Micro USB (OTG)
Storage	1x M.2 M Key, 2242/2282 (PCIe x4, Support NVMe Storage)		Storage)
Expansion	1 x M.2 B Key, 2242/3042/3052 (PCIe x1&USB 3.2 Gen1, Support 4G/5G) 1x M.2 E Key, 2230 (PCIe x1, USB 2.0, Support Wi-Fi)		
Power	AT/ATX 9~36VDC, 3-pin Terminal Block	AT/ATX 9~36VDC, 3-pin Terminal Block	AT/ATX 10~24VDC, 3-pin Terminal Block
Operating Temperature	-25°C to 70°C		
Certification	CE, FCC Class B, UL	CE, FCC Class B, EMC Conformity with EN50155 & EN50121-3-2	CE, FCC Class B
Dimensions (WxDxH)	150 x 105 x 49 mm	nm 192 x 227 x 57.6 mm	

# JCO NVIDIA® JETSON ORINTM SERIES

JCO-6000 SERIES ROBUST AI EDGE COMPUTER





Model	JCO-	6000-OGX	
		NVDIA® Jetson AGX Orin AI Computer with 8-core/12-core Arm® Cortex®-A78AE v8.2 64-bit CPU, 10 USB	
CPU Support		64G: 12-core Arm® Cortex®-A78AE v8.2 64-bit CPU (60W/275 TOPS) 32G: 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU (40W/200 TOPS)	
System Memory	32GB LF	AGX Orin 32GB/64GB @ 3200 MHz on SOM 32GB LPDDR5 DRAM 64GB LPDDR5 DRAM	
Graphic Output	1x HDMI 2.0, 3	3840 x 2160 @ 60Hz	
LAN	1 x GbE LAN	N, 1x 10 GbE LAN	
PoE	By Optional 120 Watt PoE Power Module, Support up to 3x 4-port LAN Module	By Optional 120 Watt PoE Power Module, Support up to 1x 4-port LAN Module	
	2x RS-232/422/485, 2x CAN	2x RS-232/422/485 (Optional, internal), 2x CAN (Optional, internal)	
1/0	ix	1x USB 3.2 Gen 1 (5 Gbps), 1x USB Type C (Flash 10Gbs) 1x USB 2.0 8 in / 8 out (Isolated)	
GMSL Camera	GMSL 1/2 Camera Support by Quad Port Mini	Fakra, supporting 8x 1280x720 @ 30 FPS (Optional)	
Universal I/0 Bracket	4x Universal I/O Bracket	2x Universal I/O Bracket	
Storage		1x M.2 (M Key, 2242/2260/2280, PCIex 4, Support NVMe) 1x M.2 (B Key, 3042/3052,USB 3.2 Gen2, Support 4G/5G Module)	
Power	AT/ATX 9~48VDC,	AT/ATX 9~48VDC, 3-pin Terminal Block	
Operating Temperature	-25°C to 50°C		
Certification		CE, FCC Class A, UL E-Mark, EMC Conformity with EN50155 & EN50121-3-2	
Dimensions (WxDxH)	270 x 19	270 x 190 x 94.5 mm	

#### INDUSTRIAL-GRADE SUPERCAPACITOR FOR REDUNDANT POWER

# ECO-1000 EDGEBOOST ENERGYPACK More info



- 8x/16x Industrial 370 Farads Supercapacitors
- Up to 200W Max. Power Output
- 1x COM, 1x USB for GUI Remote Management and Monitoring
- 2 IN / 2 OUT DIO
- -25°C to 55°C Wide Operating Temperature
- EN50155: EN50121-3-2, CE, FCC Class A, UL Certification
- 3x Smart Modes with Remote On/Off, Ignition Control, Delay Time
- 12V/24V Compatibility: Industrial PCs, Panel PCs, Displays



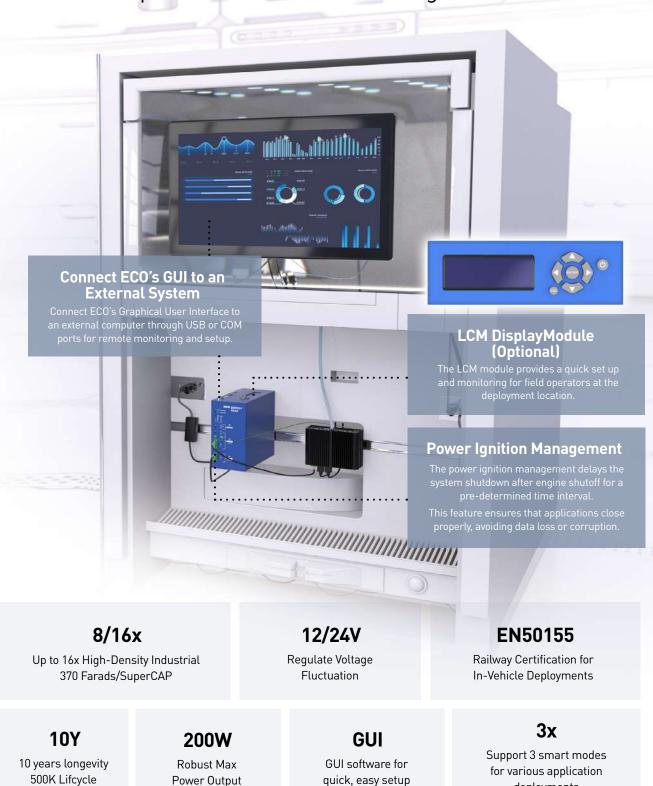




Model	ECO-1000	
Capacity	ECO-1000-8S: 8x 370 Farads Supercapacitors ECO-1000-16S: 16x 370 Farads Supercapacitors	
Input Voltage	12 ~ 35 VDC	
Input Connector	3-pin Terminal Block (V+, GND, IGN IN)	
Output Voltage	Charge mode: DC IN Voltage bypass (DC OUT = DC IN) Discharge mode: 12 or 24V	
Output Power	ECO-1000-8S: Max.100W output ECO-1000-16S: Max.200W output	
Output Connector	3-pin Terminal Block (V+, GND, IGN Out)	
1/0	1x RS-232, 1x USB Type A, 2x DI + 2x D0 with isolation	
Others	1x Remote Power On/Off 1x Smart Mode Switch, 1x Mode Reset Switch	
Power Ignition	Power Ignition Management	
Operating Temp	-25°C to 55°C	
Certification	CE, FCC Class A, UL 62368-1 Ed. 3 EMC Conformity with EN50155, EN50121-3-2	
Dimensions (WxDxH)	100 x 192 x 187.4 mm	
Weight	1.8 kg ~ 2.6 kg	
Mounting Options	Wall Mounting, DIN Rail Mounting (Optional)	

# **Supercapacitor UPS System Power Redundancy at the Rugged Edge**

Power Backup | Safe Shutdown | Power Regulator



Power Output

quick, easy setup

for various application deployments

ECO SERIES





**MONITOR** 





#### **VIO** SERIES

IP65 INDUSTRIAL TOUCH PANEL PC AND MONITOR



#### SIO SERIES

IP66/IP69K WASHDOWN TOUCHSCREEN COMPUTER



#### FIO SERIES

INDUSTRIAL OPEN-FRAME TOUCHSCREEN MONITORS



#### **AIO** SERIES

ALL IN ONE TOUCH PANEL PC



#### HIO SERIES

CAPACITIVE OPEN FRAME TOUCH PANEL PC

## PREMIO INDUSTRIAL DISPLAY SYSTEMS

PRODUCT FAMILY



### **PC/Monitor**

Module



PC600-RPL Series Raptor Lake PS

PC100-EHL Series

Elkhart Lake

PC100-KBL-U

Kabylake-U

PC100-J1900 Bay Trail

MX100H Series Monitor Module



# IP66/IP69K Panel PC Stainless Steel

SIO-200-J1900

Bay Trail

SIO-300-N97

Alder Lake

WIO-W221C-KBL-U Series

Kabylake-U



# Panel PC

FIO Series Open Frame

AIO Series

Alder Lake-N Thin Frame

HIO Series Alder Lake-N Open Frame

VIO-200-PC600-RPL

Raptor Lake PS Alder Lake PS Thin Frame

VIO-200-PC100-KBL-U Kabylake-U

VIO-200-PC100-EHL VIO-200-PC100-J1900

Elkhart Lake Bay Trail Thin Frame

Thin Frame



#### **Touch** Monitor

**Display** 

VIO-200 Seri

Thin Frame

VIO-200-MX100H

Thin Frame

# FIO SERIES More info



HMIs (Human-Machine Interfaces) are critical data points for real-time controls, status, and information. Premio's line of rugged openframe touchscreen monitors, FIO Series, are purpose-built to deliver dedicated data visualization and controls for industrial deployment applications. Designed for flexible compatibility, the FIO Series follows a standardized approach for seamless integration into both existing and future systems.









open Frame				
Model	FIO-XG1500C	FIO-SX1900C	FIO-FH2150C	FIO-FH2700C
LCD Size	15" (4:3)	19" (5:4)	21.5" (16:9)	27" (16:9)
Max. Resolution	1024 x 768 @60Hz	1280 x 1024 @60Hz	1920 x 10	80 @60Hz
Brightness (cd/m2)	350 nits	250	nits	300nits
Contrast Ratio	100	00:1	300	00:1
LCD Color		16.	7M	
Viewing Angle (H-V)	176/176		178/178	
Internal Speaker	AMP 5W + 5W		AMP 10W + 10W	
Touch Type	Projected Capacitive (PCAP) Touch, Multi-Touch up to 10 points			
1/0	1x Mini Din (External OSD) 1x USB (Type B) 1x DP 1x HDMI 1x VGA			
Power	12 VDC 100-240V AC, 50-60Hz			
Operating Temperature	0°C to 40°C		0°C to 50°C	0°C to 40°C
Certification	FCC, CE, UL 62368-1 3rd Ed			
Mounting Options	VESA: 75×75mm, 100×100 mm Rear Mounting, Side Mounting		VESA: 100×100 mm Rear Mounting, Side Mounting	VESA: 100×100 mm, 100x200 mm Rear Mounting, Side Mounting
Dimensions (WxHxD)	358 x 284.9 x 40.3 mm	420.1 x 348.1 x 42.1 mm	516 x 311 x 37.9 mm	644.2 x 388.4 x 40.8 mm
Weights (Net)	3.52 kg	4.82 kg	5.56 kg	7.35 kg

DISPLAY MODULE

# VIO-200 SERIES More info



The Display Modules VIO-200 series are compatible with PC modules PC600-RPL, PC100-KBL-U, PC100-EHL, 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

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)	50	00	450
Brightness (cd/mz)	1000 nits (Optional)		
Contrast Ratio	1000:1		
LCD Color	16.7M		
Life Cycle Time	50K Hours 30K Hours		
Viewing Angle (H-V)	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		

**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 7	68 (XGA)	1280 x 10	24 (SXGA)
Brightness (cd/m2)	600 350			
Brightness (cu/mz)	1000 nits (Optional)			
Contrast Ratio	1000:1 800:1 1000:1		1000:1	
LCD Color	16.2M	16.7M		
Life Cycle Time		50K F	Hours	
Viewing Angle (H-V)	178 / 178	170 / 160	178 / 178	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			

#### INDUSTRIAL PANEL PC

Universal Expansion Slot

# VIO-200-PC600-RPL SERIES

# VIO-200-PC100-KBL-U SERIES More info











Raptor Lake	( ) - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Glov 9 to the	
Model	VIO-200-PC600-RPL	VIO-200-PC600-RPL-1E	
	Thin Frame Industrial Panel PC based on Intel <sup>®</sup> 12 <sup>th</sup> & 13 <sup>th</sup> Processor	Thin Frame Industrial Panel PC based on Intel® 12 <sup>th</sup> & 13 <sup>th</sup> Processor 1x PCIe x4 Gen3	
CPU Onboard	Intel <sup>®</sup> 12 <sup>th</sup> /13 <sup>th</sup> Gen. (ADL-PS	S /RPL-PS) Processor Core™	
Memory	1x DDR5 4800 MT/s S0	)-DIMM Max up to 16GB	
Graphic Output	1x DisplayPort, 1x HDMI , 1	x Dual Channel 24 bit LVDS	
LAN	2x 2.5GbE i226 RJ45 (Supp	ort Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	3x USB 3.2 Gen 2 (10 Gbps),1x USB C 3.2 Gen 2, Up to 4x RS-232/422/485, 16x isolated digital I/O		
Storage	1x 2.5" SATA HDD Bay with RAID 0, 1 support, 1x M.2 M-key / NVMe PCIe x4 / 2242, 2260, 2280 2x M.2 B-key /PCIe x2 /USB / 2242, 3042, 3052		
Internal Expansion Slot	1x M.2 E-Key / PCIe	e x1 / USB 2.0 / 2230	
PCle		1x PCle x4 Gen3	
Power	9-48 VDC, AT/ATX Selec	ct, 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	<b>4:3</b> 12.1" / 15" / 17" / 19" <b>16:9</b> 15.6" / 21.5" / 23.8"		
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch		
Universal Expansion Slot	0 2		

intel Kabylake-U		- 153. <del>• •</del> •	
Model	VIO-200-PC100-KBL-U	VIO-200-PC100-KBL-U-1	
	Thin Frame Industrial Panel PC based on Intel <sup>®</sup> Kabylake-U processors	Thin Frame Industrial Panel PC based on Intel® Kabylake-U processors with 2x universal I/O bracket	
CPU Onboard	Intel® 7 <sup>th</sup> Gen. (Kabylake-U) Process	or Core™ i5-7300U, Core™ i3-7100U	
Memory	1x 260-Pin DDR4 1866/2133Ml	Hz SO-DIMM. Max. up to 16GB	
Graphic Output	1x VGA, 1x DisplayPort, 1x	Dual Channel 24 bit LVDS	
LAN	2x GbE RJ45 (Support V	Nake-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 Selec	ct, 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	<b>4:3</b> 12.1" / 15" / 17" / 19" <b>16:9</b> 15.6" / 21.5" / 23.8"		
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch		

intel. Elkhart Lake

# VIO-200-PC100-EHL SERIES More info





Model	VIO-200-PC100-EHL	VIO-200-PC100-EHL-1E	
	Thin Frame Industrial Panel PC based on Intel® Celeron® processors		
CPU Support	Intel® Celeron® J6413 Processor Quad c	ore (1.5M Cache,1.8GHz up to 3.00 GHz)	
Memory	1x 260-Pin DDR4 2400/2667/3200	DMT/s SODIMM. Max. up to 32 GB	
Graphic Output	1x DisplayPort 1.2, 1x	HDMI 2.0b (Optional)	
LAN	2x RJ45 (1	& 2.5 GbE)	
1/0	2x USB 3.2 Gen 2, 2x USB 2.0, 6x RS-232/422/485 (2x internal), 16x isolated digital I/O, 1x Mic-in, 1x Line-out		
Storage	1x Removable 2.5" SATA HDD Bay, 1x mSATA		
M.2	1x M.2 (E Key, PCIe x1, USB 2.0, 2230) 1x M.2 (B Key, PCIex 2 + USB 3.2 Gen1, 2242/3042/3052)		
Internal Expansion Slot	1x Full-size Mini PC	Cle (USB 2.0, SATA)	
PCIe		1x PCIe x4 (1-lanes)	
Power	9-36 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	<b>4:3</b> 12.1" / 15" / 17" / 19"	<b>16:9</b> 15.6" / 21.5" / 23.8"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch		
Universal Expansion Slot	0	1x Universal I/O Bracket (By mini PCIe interface)	

#### VIO-200-PC100-J1900 SERIES More info









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Model	VIO-200-PC100-J1900	VIO-200-PC100-J1900-1
	Thin Frame Industrial Panel PC ba	ased on Intel <sup>®</sup> Bay Trail processors
CPU Onboard	Intel <sup>®</sup> Cele	ron <sup>®</sup> 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, Line-out / Mic-in Phone Jack	
Storage	1x 2.5" SATA HDD Bay, 1x mSATA (shared by 1x Mini PCle), 1x CFast (shared by 1x mSATA & 1x Mini PCle)	
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	
Operating Temperature	-10 °C to 60 °C, -10 °C to 50 °C (19" and 23.8" Panel PC only)	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	2

# VIO-200-MX100H SERIES Moreinfo



- 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	<b>4:3</b> 12.1" / 15" / 17" / 19" <b>16:9</b> 15.6" / 21.5" / 23.8"

# IP66/IP69K WASHDOWN TOUCHSCREEN COMPUTER WITH FULL SUS316

# \$10-200-J1900 SERIES More info



# intel. Bay Trail Whiskey Lake









Model	SIO-215-J1900	SIO-W215-J1900	SIO-W221-8365UE	SIO-W224-8365UE
	Resistive / Ca	pacitive Touch Stainless Ste	el Panel PC, Pressure Valve	SUS316 VENT
CPU Support		Processor J1900, 3 Cache, 2.0 GHz	Intel® Core™ i5-8 6M Cache, up	
Memory		R3L SO-DIMM, refault 8 GB)	1x 260-Pin DDR4 240 Max 32GB (D	,
LAN		2x LAN by M1	2 X-Code 8-pin	
1/0	4x USB 2	2.0 by M12 A-code 8-pin, 2x	RS-232/422/485 by M12 A-Co	ode 8-pin
Storage	1x mSATA (Default 128 GB)			
Internal Expansion Slot	1x Full-size Mini PCIe			
Power	AC IN 110V~240V, M12 S-code 4-pin			
Operating Temperature	-20 °C to 55 °C		-20 °C t	:o 50 °C
LCD Size	15" (4:3) TFT XGA	15.6" (16:9) Full HD	21.5" (16:9) Full HD	23.8" (16:9) Full HD
LCD Brightness (cd/m2)	300	450	350	450
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch			
IP Level	Full System IP66/IP69K			
Dimensions (WxHxD)	385 x 310 x 49.5 mm	425 x 276 x 49.5 mm	588.5 x 380 x 52.8 mm	623 x 417 x 54 mm
Weights	5.96 kg	7.39 kg	8.6 kg	11.7 kg
Mounting Options	VESA Mounting Holes 100 x 100mm Optional Yoke Mount, Panel Mount		VESA Mounting Holes 100 Optional Yoke Mo	x 100mm or 200 x 100m unt, Panel Mount

## SIO-300-ADLN SERIES

# intel





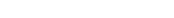








Model	SIO-315-N97	SIO-W315-N97	SIO-W321-N97	SIO-W324-N97
	Resistive / Ca	apacitive Touch Stainless Ste	el Panel PC, Pressure Valve S	SUS316 VENT
CPU Support	Intel® Processor N97 6M Cache, up to 3.60 GHz		Intel® Processor Intel® Core™ i3-N305	N97 6M Cache or Processor 6M Cache
Memory		DDR5 4800MT/s SO-DIMM	I, Max 16GB (Default 8 GB)	
LAN	2x LAN by M12 X-Code 8-pin			
1/0	2x USB 2.0 by M12 A-code 8-pin, 2x RS-232/422/485 by M12 A-Code 8-pin			
Storage	M.2 B Key NVMe SSD (Default 128 GB)			
Power	AC IN 110V~240V, M12 S-code 4-pin			
Operating Temperature	-20 °C to 50 °C			
LCD Size	15" (4:3) TFT XGA	15.6" (16:9) Full HD	21.5" (16:9) Full HD	23.8" (16:9) Full HD
Brightness (cd/m2)	300	450	350	450
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch			
IP Level	Full System IP66/IP69K			



WIO SERIES More info

• 21.5" TFT FHD 16:9 LCD with Projected Capacitive Touch

IP66 WATERPROOF TOUCHSCREEN COMPUTER

- Support 7<sup>th</sup> Gen. Intel<sup>®</sup> Core<sup>™</sup> 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 <sup>th</sup> 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
Drightness (ad/ns2)	300
Brightness (cd/m2)	1000 nits (Optional)
Touch Type	Projected Capacitive Touch, 5 Points, 7H Surface Hardness

**AIO** SERIES





#### CAPACITIVE OPEN FRAME TOUCH PANEL PC

HIO SERIES





# intel

AIO SERIES







Model	AIO-W210	AIO-W215	AIO-W221
	Capacitive Open Frame	Touch Panel PC with Intel <sup>®</sup> Alder lak	ke N97 / N305 Processor
CPU Onboard	Intel® Alder lake N97 Processor Intel® Alder lake N97 / N305 Processor		
Memory	16GB DDR5 4800MT/s SO-DIMM		
Graphic Output	HDMI / DP / LVDS /eDP		
LAN	2x 2.5GbE 1225 LAN		
1/0	6x USB 2.0 by internal cable, 4x USB 3.2 2x RS-232/422/485 by internal cable 1x Audio out		
Storage	128G M.2 B Key NVMe SSD		
Expansion	M.2 E Key Wifi, Intel AX210 Wifi 6E (Optional)		
Power	9-36V DC, DC Jack 5.5mm/2.5mm, 60W/12V Adapter (Optional)		
Operating Temperature	-10°C to 60°C -10°C to 50°C		to 50°C
Certification	CE, FCC Class B ,UL		
LCD Size	10.1" (16:10) WXGA	15.6" (16:9) FHD	21.5" (16:9) FHD
Brightness (cd/m2)	500		
Projected Capacitive	7H / IK07		

# intel.







Model	HIO-W210	HIO-W215	HIO-W221
	Capacitive Open Frame Touch Panel PC with Intel®Alder lake N97 / N305 Processor		ke N97 / N305 Processor
CPU Onboard	Intel® Alder lake N97 Processor Intel® Alder lake N97 / N30 Processor		Intel® Alder lake N97 / N305 Processor
Memory	16GB DDR5 4800MT/s SO-DIMM		
Graphic Output	HDMI / DP / LVDS /eDP		
LAN	2x 2.5GbE I225 LAN		
1/0	6x USB 2.0 by internal cable, 4x USB 3.2 2x RS-232/422/485 by internal cable 1x Audio out		
Storage	128G M.2 B Key NVMe SSD		
Expansion	M.2 E Key Wifi, Intel AX210 Wifi 6E (Optional)		
Power	9-36V DC, DC Jack 5.5mm/2.5mm, 60W/12V Adapter (Optional)		
Operating Temperature	-10°C to 60°C -10°C to 50°C		to 50°C
Certification	CE, FCC Class B ,UL		
LCD Size	10.1" (16:10) WXGA	15.6" (16:9) FHD	21.5" (16:9) FHD
Brightness (cd/m2)	500		
Projected Capacitive	7H / IK07		

54

# 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



**Delivery Time** 

# **INDUSTRIAL MOTHERBOARDS** & SINGLE BOARD COMPUTERS

# intel

3.5" ADL-N

3.5" Meteor Lake-N



SBC with Intel® Alder Lake N Series



SBC with Intel® Alder Lake N Series

2.5" ADL-N





SBC with Intel® Alder Lake N Series



Industrial Motherboard with Intel® Meteor Lake PS





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.

### 1.8" FEMTO ITX SERIES

## 2.5" PICO 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

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 72 mm

# BOARDS SERIES More info



### 3.5" SBC SERIES

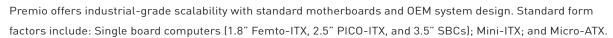






Model	CT-DWL01	CT-DBT02	CT-DR101
	Support 8 <sup>th</sup> Gen. Intel® WL-UE Processor (15 TDP) Int el® Core™ i7-8665UE, i5-8365UE, i3-8145UE or Intel® Celeron® Processor 4305UE	Intel <sup>®</sup> Atom™ Processor, Celeron <sup>®</sup> Processor J1900	AMD Ryzen™ Embedded R1000/V1000 Series Processor
Memory	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 <sup>®</sup> 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 More info



### MINI ITX SERIES





Model	CT-XCL01
	LGA 1151 Socket Support 9 <sup>th</sup> Gen. Intel <sup>®</sup> Core™ Desktop Processor, Q370 Chipset
Memory	2x SO-DIMM, DDR4, 2133/2400/2666 (depend on CPU) MT/s, Max 32 GB
BIOS	AMI <sup>®</sup> 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 170 mm

Model	CT-XSL01
	LGA 1151 socket supporting 6 <sup>th</sup> 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 170 mm

# BOARDS SERIES More info



## MICRO ATX SERIES







		3 = 30 - 1005 - 1 = 10 - 10 - 10 - 10 - 10 - 10 - 10	
Model	CT-MSL01	CT-MCL01	CT-MRL01
	LGA 1151 socket supporting 6 <sup>th</sup> Gen Intel® Core™ i3/i5/i7 Desktop Processor, Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE	Support 8 <sup>th</sup> /9 <sup>th</sup> Gen Intel <sup>®</sup> CFL-R S Processor (LGA 1151, 95W/35W TDP), Intel <sup>®</sup> Core™ i7-9700E / i5-9500E / i3-9100E or Intel <sup>®</sup> Pentium <sup>®</sup> G5400T, G5400	Support 12 <sup>th</sup> /13 <sup>th</sup> Gen Intel <sup>®</sup> Core <sup>†</sup> i9/i7/i5/i3 Alder lake-S, Raptor Lake-S Processor
Memory	4x 288-Pin DDR4 1866/2133MHz DIMM	4x 288-Pin DDR4 2133/2400/2666MHz DIMM	4x DDR4 2133/2400/2666MHz DIMM. 128 GB Max
BIOS	AMI uEFI 128MB SPI flash	flash AMI uEFI 256MB SPI flash	
TPM	TPM 2.0 supported (optional)		TPM 2.0
Display Interface	1x VGA, 1x DVI-D, 1x DisplayPort	1x VGA, 1x DVI-D, 2x DisplayPort (DP 1.2)	Quad 4K Displays through 4x DP++
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	4x DP++, 6x USB 3.1 Gen 2, 2x RJ45, 1x Line-in, 1x Line-out, 1x Mic-in 1x USB 3.2 Gen 2x2 Type C
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	6x RS-232, 2x USB 3.0 Gen 1, 4x USB 2.0, 4 x SATA Gen 3, 1x Front panel audio, 1x 8-bit DIO (4-in/4-out), 1x SPI header, 1x Front panel, 1x CPU fan, 2x System fan
Power	ATX power, 2x12-pin and 2x2-pin power connector		ATX Power 2x12-pin and 2x2-pin power connector
Operating Temperature	0°C to 60°C		
Dimension	244 x 244 mm		



