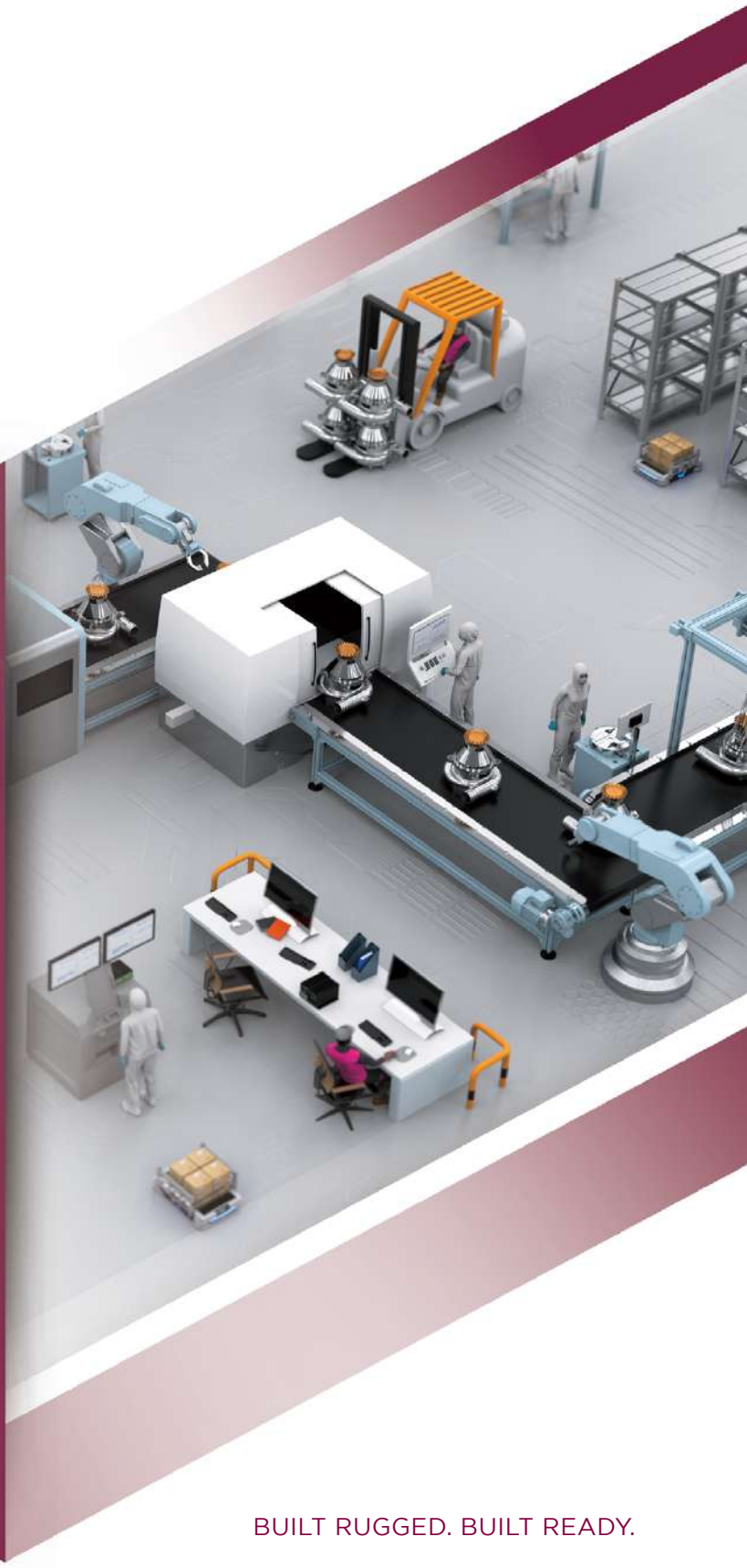
premio

INDUSTRIAL COMPUTING
SOLUTIONS FROM THE EDGE
TO THE CLOUD



# PRODUCT
## SOLUTION GUIDE
# 2026

BUILT RUGGED. BUILT READY.

Ignition! READY

aws Qualified Device AWS IoT Greengrass

intel prestige partner

NVIDIA Elite Partner

# 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 35+ 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 manufacturing facility certified to ISO 9001, ISO 14001, and ISO 13485, Premio Inc. operates through strategic global locations—including a Taiwan facility certified to ISO 9001, ISO 14001, and IEC 62443-4-1.

With deep expertise in rugged product engineering, flexible speed-to-market, and end-to-end manufacturing transparency, Premio is committed to delivering next-generation industrial PC and edge AI solutions that meet the highest international standards and certifications—empowering customers across mission-critical industries.

- Industrial Automation
- Railway and 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 35+ years of industry-knowledge enable our customers to leverage high quality products and application-ready hardware for a faster time to market.

## OUR CORE VALUES

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

### AGILITY

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

### INNOVATION

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

### COLLABORATION

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

### ACCOUNTABILITY

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

### COMMITMENT

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

## 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.

# 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.

Premio expanded its global footprint with the establishment of a Taiwan facility in New Taipei City, strengthening its capabilities in R&D, product engineering, and manufacturing to scale worldwide delivery of industrial computing solutions.

### 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)

# 2026 FEATURED INDUSTRIAL SOLUTIONS 12

## INDUSTRIAL COMPUTERS 22

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.

**BCO** SERIES 24
SEMI-RUGGED INDUSTRIAL COMPUTERS

**RCO** SERIES 28
SUPER-RUGGED INDUSTRIAL COMPUTERS

**ECO** SERIES 38
SUPERCAPACITOR UPS BACKUP SYSTEM

**JCO** SERIES 40
JETSON AI EDGE INDUSTRIAL COMPUTERS

**ACO** SERIES 44
RAILWAY & IN-VEHICLE INDUSTRIAL COMPUTERS

**DCO** SERIES 48
DIN RAIL FANLESS INDUSTRIAL COMPUTERS

**WCO** SERIES 50
IP68/IP69K WATERPROOF INDUSTRIAL COMPUTERS

**VCO** SERIES 52
MACHINE VISION INDUSTRIAL COMPUTERS

**KCO** SERIES 54
WORKSTATION INDUSTRIAL COMPUTERS

**LLM** SERIES 58
19" RACKMOUNT EDGE AI SERVER FOR ON-PREM LLM WORKLOADS







## INDUSTRIAL PANEL PCS AND TOUCH MONITORS 60

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.

**FIO** SERIES 62
IP65 OPEN-FRAME INDUSTRIAL TOUCHSCREEN MONITORS

**HIO** SERIES 64
IP65 OPEN-FRAME INDUSTRIAL TOUCHSCREEN COMPUTERS

**AIO** SERIES 66
IP65 ALL-IN-ONE INDUSTRIAL TOUCHSCREEN COMPUTERS & MONITORS

**VIO** SERIES 70
IP65 MODULAR INDUSTRIAL TOUCHSCREEN MONITORS & COMPUTERS
- DISPLAY MODULE
- PC MODULE

**SIO** SERIES 76
IP66/69K STAINLESS STEEL INDUSTRIAL TOUCHSCREEN COMPUTERS

## INDUSTRIAL BOARD SOLUTIONS

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, Micro-ATX, and ATX Boards.

**BOARDS** SERIES 78
INDUSTRIAL BOARDS

# THE EDGE CONTINUUM

## Industrial Edge Computer Series

The Edge Continuum spans a broad spectrum of computing solutions, from the remote constrained edge to the cloud edge servers, enabling instant data analytics, seamless connectivity, and robust control across all layers of industrial operations. Our Industrial Computers and Panel PCs seamlessly integrate within the "User Edge," where low-latency computing and industrial-grade durability are paramount. Our computing solutions are segmented into three layers within the User Edge Continuum—Industrial Edge, Rugged Edge, and Specialized Edge.

USER EDGE | SERVICE EDGE / CLOUD


Constrained Edge


End User Edge


Distributed Edge


Data Center Edge Cloud

### Industrial Edge

- Controlled Environments
- Fanless Cooling Design
- Dust, Shock, and Vibration Resistant
- Standardized Form Factors
- Durable and Cost-Effective
- Long Lifetime Support

**BCO** Series

**Fanless Industrial Computers**

The BCO series provides a comprehensive range of computing power, making it ideal for diverse industrial edge applications that require reliable, dust-resistant, and long-lifespan solutions.

### Rugged Edge

- Extreme Environments
- Wide Operating Temperature
- Powerful Computing Capabilities
- Supports EDGEBoost Technology for I/O, M.2, and PCIe Customization
- Reinforced Durability

**RCO** Series

**Super-Rugged Computers**

The RCO series is engineered for ultimate industrial durability and unparalleled customizability, creating a unique blend of ruggedness and flexibility.

**JCO** Series

**Jetson EDGE AI Computers**

The JCO series, powered by the NVIDIA Jetson platform, delivers an optimal balance of energy efficiency and AI performance, achieving high throughput (TOPS) in a fanless design built for extreme industrial environments.

### Specialized Edge

- Designed for Industry-Specific Needs
- Validated with Niche Certifications
  - EN50155 (Railway)
  - EN45545 (Fire Safety)
  - E-Mark (In-Vehicle)
  - IP68/IP69K (Waterproof)

**DCO** Series

**DIN RAIL Fanless Computers**

**WCO** Series

**IP68/IP69K Waterproof**

**ACO** Series

**EN50155 Railway & In-Vehicle**

**VCO** Series

**Machine Vision GPU Computers**

**KCO** Series

**Rackmount Industrial Computers**





# DELIVER INTELLIGENCE AT THE END USER EDGE

Our touchscreen computer series are available across the three User Edge segments, providing a wide variety of options for end-user applications. Additionally, the displays on our touchscreen computers (Panel PCs) can be configured with multiple optional features, such as PCAP or resistive touch, optical bonding, high-brightness 1000+ nits displays, and various mounting options. Our Panel PCs are available in sizes ranging from 10" up to 24" with 4:3 and 16:9 Full HD displays. Explore each Panel PC series to discover the unique features each solution offers.

USER EDGE | SERVICE EDGE / CLOUD


Constrained Edge


End User Edge


Distributed Edge


Data Center Edge Cloud

### Industrial Edge

- Controlled Environments
- Flexible Performance
- Fanless Cooling Design
- IP65 Front Display
- 10"-21" Full HD Displays
- Extended MTBF

**AIO** Series

**All-In-One Touchscreen Computers**

The AIO Series is an all-in-one touchscreen computer designed to deliver efficient edge computing through its Intel X86 and Rockchip platforms, supporting various operating systems including Windows, Linux, and Android.

**HIO** Series

**Open-Frame Touchscreen Computers**

The HIO Series is an open-frame touchscreen computer with versatile I/O and connectivity options. The HIO Series leverages power-efficient X86 Intel platforms for various kiosks and open-frame mounted applications.

### Rugged Edge

- Industrial Environments
- Various Computing Capabilities
- Wide Temperature Range
- Shock & Vibration Resistant
- Reinforced Durability
- Fit for Demanding Edge Applications

**VIO** Series

**Modular Touchscreen Monitors & Computers**

The VIO Series is a unique, modular IP65 touch display system that allows VIO displays to be configured as either a touchscreen computer or a touchscreen monitor. VIO displays can be paired with different modules for monitor (MX Series) or computer (PC Series) functionality.

**MX** Series

**PC** Series

### Specialized Edge

- Tailored for Industry-Specific Needs
- Includes IP66/IP69K Waterproof, SUS-316 Stainless Steel, and Optical Bonding
- Targeted Functionality for Specialized Applications

**SIO** Series

**Stainless Steel Touchscreen Computers**

The SIO Series is an IP66/IP69K-rated Panel PC built with full SUS-316 stainless steel construction, offering superior waterproof and corrosion-resistant protection during intense washdowns.


# Edge Computing Powering AI Factories

## Rugged, reliable systems built for automation

The AI Factory merges intelligence, automation, and data into a self-learning ecosystem that turns sensor inputs into real-time action. Powered by edge and on-prem AI inference, it connects the physical and digital worlds to drive smarter, faster, and more resilient manufacturing.

### Benefits of Edge-Native Intelligence

- Immediate decisions with zero cloud latency
- Continuous operation even during network outages
- Localized security to protect sensitive data
- Systems that adapt and learn in real-world conditions

## Key Technologies in AI Factories

Intelligence is built through connected layers working together to power smart, autonomous operations.

### AI Inference

**Powering Real-Time Intelligence**

At the core of every AI Factory lies inference — where trained models analyze real-time data to generate decisions and predictions. This is where intelligence becomes action.

### Testing and Digital Twins

Before deployment, agentic AI systems are trained and optimized through digital twins—data-driven replicas of factory environments that simulate and predict real-world operations

### Automation and Orchestration

Manages and secures distributed AI systems after deployment, ensuring consistent performance and lifecycle control across edge nodes.

# PHYSICAL AI

## Edge Intelligence for Robotics & Autonomous Systems

- AMR / AGV Navigation
- Robotics & Cobot Vision
- Multi-Sensor Fusion
- High-Speed Inspection
- VLMs & SLMs

Visit P.43 Visit P.42 Visit P.41

### JCO-6000-ORN Series

**High-Performance AI Edge Computer with NVIDIA Jetson AGX Orin Processor**

| | |
|---|---|
| **275 TOPS** AGX Performance | **4x PoE** RJ45 or M12 |
| **EDGEBoost I/O** Modular I/O Expansions | **8x** GMSL2 Cameras |

### JCO-3000-ORN Series

**Mid-Range AI Edge Computer with NVIDIA Jetson Orin NX/ Nano Processor**

| | |
|---|---|
| **Jetpack 6** Support Latest Jetpack | **CAN** CAN 2.0 and Power Ignition |
| **COM, DIO** RS 232/422/485 8 in/out (Isolated) | **4x** LAN or PoE |

### JCO-1000-ORN Series

**Entry-Level AI Edge Computer With NVIDIA Jetson Orin Nano & NX Processor**

| | |
|---|---|
| **157 TOPS** Super Mode | **2x** RJ45/ M12 LAN |
| **Mini** 150 x 105 x 65 mm (W x D x H) | **4x** GMSL2 Cameras |



On-Prem LLM Inference
Multimodal AI Agents
AI Workflows & Pipelines
Private Data Analytics
RAG / Enterprise Knowledge AI

Visit P.59 LLM-1U-RPL

Visit P.57 KCO-6000-ARL

# LLM & ON-PREM AI

## Local AI Inference for Privacy, Speed, and Control

### LLM-1U-RPL Series — LLM Series EDGE AI Rackmount Servers with Intel® 12th/13th/14th Gen

| | | | |
|---|---|---|---|
| **1U** Short-Depth Rackmount | **RTX™ 5000 Ada** 600W GPU Power Budget | **2x** Hot-Swap SSDs | **600W** Dual Redundant Power Supplies |

### KCO-6000-ARL Series — Edge Work-Station with Intel® Arrow Lake CPU

| | | | |
|---|---|---|---|
| **GEN 5** PCIe Generation | **Blackwell** 600W GPU Power Budget | **DDR5** High-Speed Memory | **Arrow Lake** Core Ultra Series 2 |

# RAILWAY & ROLLING STOCK

Certified Computing for Train Control & Passenger Systems


EN50155 Railway Certified

## ECO-1000 Series

**EDGEBoost EnergyPack: Industrial-Grade Supercapacitor UPS**

- **EN50155** Railway EMC Certified
- **200W** Power Output
- **10+** Years Longevity
- **Smart** Remote Management

## ACO-6000-RPL Series

**Railway & In-Vehicle Fanless Computer with Intel® 12th/13th/14th Gen CPU**

- **EMC Conformity** EN50155 & EN50121-3-2
- **8x** M12 or RJ45
- **2x EDGEBoost I/O** Modular I/O Technology
- **2x** Hot-Swap SSDs

## ACO-3000-ORN Series

**Railway & In-Vehicle Fanless Computer with NVIDIA Jetson Orin NX and Nano**

- **IP66** Water-Resistant
- **4x** GMSL Cameras
- **157 TOPS** SUPER Mode
- **4x** M12 PoE




# IN-VEHICLE COMPUTING

Rugged Systems for Transport, Fleet, and Mobility


## RCO-1000-ASL Series

**Super-Rugged Fanless Mini Computer with Intel® Amston Lake Series**

- **3x EDGEBoost I/O** Modular I/O Technology
- **-40°C to 70°C** Extreme Operating Temperature
- **MIL-STD-810H** Shock & Vibration Compliance

## RCO-3000-RPL Series

**Super-Rugged Fanless SFF Computer with Intel® Raptor Lake & Bartlett Lake Processors**

- **1x EDGEBoost I/O** Modular I/O Technology
- **-25°C to 70°C** Extreme Operating Temperature
- **EMC Conformity** with EN50155 & EN50121-3-2

## RCO-6000-RPL Series

**Super-Rugged Fanless Computer with Intel® Raptor Lake & Bartlett Lake Processors**

- **2x EDGEBoost I/O** Modular I/O Technology
- **-25°C to 70°C** Extreme Operating Temperature
- **EDGEBoost Nodes** Flexible GPU and NVMe SSD Expansions

# MACHINE VISION

## Real-Time Detection and High-Speed Optical Inspection

- Automated Optical Inspection (AOI)
- Industrial Quality Control
- 3D Vision & Measurement
- Robotics Vision Guidance
- Sorting & Counting Systems

### VCO-6000-RPL Series Visit P.53

Machine Vision Industrial Computer with Intel® Raptor Lake and Bartlett Lake


| 600W | 4x | FLFH |
|---|---|---|
| GPU Power Budget | PCIe Gen 4 Slots | GPU Support |

### KCO-3000-RPL Series Visit P.56

Short-Depth Industrial Workstation with Intel® 12th/13th/14th Gen Processors


| 500W | 4x | 3U |
|---|---|---|
| Internal Flex Power Supply | PCIe Gen 4 Slots | Rackmount |



# SMART CITY / SURVEILLANCE & AIRPORTS

- AI Video Surveillance
- Traffic & Tolling Systems
- Crowd Management
- Perimeter Detection
- Airport Analytics & Security

RCO-6000-RPL-4N-1E Visit P.31

Visit P.25 BCO-500-MTL

intel ai

BCO-500-ROK Rockchip Visit P.25

Visit P.49 DCO-1000-ASL

## Edge AI for Safety, Monitoring, and Operational Efficiency

### BCO-500-MTL Series

**Semi Rugged Fanless Mini Computer with Intel® Meteor Lake Core Ultra Series**

| Mini | 11 TOPS | 3x | USB-C |
|---|---|---|---|
| 225 x 130 x 48 mm | Discrete NPU | 2.5 GbE LAN | 1x Type-C, 3x Type-A |

### BCO-500-ROK Series

**Semi Rugged Fanless Mini Computer with Rockchip RK3568J Processor**

| Mini | 1 TOPS | 5W | -40 to 70°C |
|---|---|---|---|
| 225 x 130 x 48 mm | Discrete NPU | Ultra Low Power | Extreme Operating Temperature |

### DCO-1000-ASL Series

**DIN-Rail Fanless Industrial Computer with Intel® Amston Lake Series**

| DIN | 4x | OOB | UL61010 |
|---|---|---|---|
| DIN Rail Mount | 2.5 GbE LAN | Out-of-Band Management | Safety Certifications |

### RCO-6000-RPL-4N-1E Series

**Super-Rugged Industrial Computer with EDGEBoost Node Expansion for Edge AI**

| 4x | 3x | 10x LAN | RAID |
|---|---|---|---|
| Hot-Swap NVMe | PCIe Slots | Support 8x PoE | RAID 0/1/5/10 |

# KIOSK & RETAIL SYSTEMS

## Secure, Reliable Computing for Interactive Self-Service

- AI Agent Service Kiosks
- Smart Vending & Ticketing
- POS / Retail Automation
- Digital Signage
- Inventory & Shelf Monitoring


AIO-200-ASL Visit P.69

Visit P.65 HIO-200-ADL

Screen Sizes 10.1”~21.5”

## AIO-200-ASL

Series

IP65 All In One Touchscreen Computer
with Intel® N97 or X7835RE Processor

**SLIM**
5 cm Thickness

**3x**
2.5 GbE LAN

**5G**
High-Speed Wireless

## HIO-200-ADL

Series

IP65 Open Frame Touchscreen Computer
with Intel® Alder Lake N97 Processor

**Open Frame**
Mount Design

**DDR5**
16GB Memory

**2x**
2.5 GbE



# RUGGEDIZED PANEL PC

## Industrial Touch Interfaces for Harsh Environments

Visit P.75 VIO/PC600-MTL

SIO-300-ADL Visit P.77

- Factory HMI & SCADA
- Food & Beverage Processing
- Outdoor Terminals
- Warehouse Workstations
- Cleanroom & Pharma Control

## VIO/PC600-MTL Series

Modular IP65 Industrial Panel PC with Intel®
Meteor Lake Core Ultra 5 125U CPU

**12.1”~23.8”**
Flexible Display Module

**4x**
M.2 Expansions

**Modular**
Display + PC Modules

**PCIe**
1x PCIe x4 Slot

## SIO-300-ADL Series

IP69K Stainless Steel Panel PC with Intel®
Alder Lake CPU

**15”~23.8”**
FHD Displays

**SUS 316**
Corrosion Resistant

**Optical Bonding**
For Clarity and Longevity

**M12**
Waterproof I/O

# 3.5" INDUSTRIAL SBC

## Compact Embedded Boards for OEM Systems

Embedded Controllers | Portable Devices | Industrial Gateways | Edge AI Data Acquisition


### CT-DAS01 Series Visit P.80

3.5" SBC with Intel® Amston Lake Series

**-40°C to 85°C** Wide Operating Temperature | **Type-C** 1x Type-C, 3x Type-A | **2x** Displays (HDMI, DP) | **2x** 2.5 GbE

### CT-DML01 Series Visit P.80

3.5" SBC with Intel® Meteor Lake Series Ultra 5 125U / Ultra 7 155U

**11 TOPS** AI Performance with NPU | **Type-C** 1x Type-C, 3x Type-A | **2x** Displays (DP) | **M.2** E, B, M Keys



# INDUSTRIAL BOARDS

## Full-Featured Motherboards for Performance-Driven Designs

- Industrial PCs
- AI Edge Systems
- Edge Servers & Workstations
- Medical & Laboratory Devices
- Factory Automation Systems

### CT-XAR01 Series Visit P.81

Mini-ITX Industrial Board with Intel® Arrow Lake Series

**LG1851** 65W TDP | **W880** Chipset | **3x** 2.5 GbE | **PCIe Gen 5** High-Speed Expansion

### CT-AR701 Series Visit P.83

ATX Industrial Board with AMD Ryzen EPYC Series

**AM5** 170W TDP | **B650** Chipset | **SFP+** 2x GbE, 2x 10GbE SFP | **PCIe Gen** High-Speed Expansion

# INDUSTRIAL EDGE COMPUTERS

**BCO** SERIES
SEMI-RUGGED INDUSTRIAL COMPUTERS

**RCO** SERIES
SUPER-RUGGED INDUSTRIAL COMPUTERS

**JCO** SERIES
JETSON AI EDGE INDUSTRIAL COMPUTERS

**ACO** SERIES
RAILWAY & IN-VEHICLE INDUSTRIAL COMPUTERS

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**VCO** SERIES
MACHINE VISION INDUSTRIAL COMPUTERS

**KCO** SERIES
FANNED INDUSTRIAL COMPUTERS

**ECO** SERIES
SUPERCAPACITOR UPS BACKUP SYSTEM

**LLM-1U** SERIES
1U EDGE AI RACKMOUNTABLE SERVER

# EDGEBoost TECHNOLOGIES

## EDGEBoost Nodes

EDGE AI PERFORMANCE ACCELERATORS MODULES

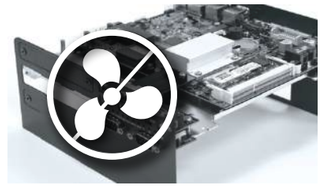
**EBND** SERIES

## EDGEBoost I/O

FLEXIBLE I/O AND M.2 EXPANSION MODULES

**EBIO** SERIES





### 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

Fanless computing systems comply with MIL-STD 810H on shock & vibration in order to sustain in environments such as 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.

### COMMITMENT TO INDUSTRIAL CYBERSECURITY

We have achieved IEC 62443 certification, reflecting our dedication to implementing and maintaining the highest standards of cybersecurity in industrial automation and control systems. This certification demonstrates our ongoing commitment to safeguarding critical infrastructure and delivering secure, reliable solutions.

IEC 62443-4-1 Cybersecurity

### INDUSTRY LEADING SAFETY CERTIFICATIONS

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

E-Mark Certification

EN50155 & EN45545

# BCO SERIES


## SEMI-RUGGED INDUSTRIAL COMPUTERS

**500** Mini

- Intel® Atom® / Core Ultra / Rockchip Processors
- Mini Form Factor
- High-Speed I/O Ports and Wireless Connectivity

**1000** Compact

- Intel® Alder Lake / Intel® Atom® Processors
- Power Efficient 12W Performance
- Competitive Price and Long Lifetime Support

**3000** Balanced Performance

- Intel® Core Processors
- Powerful 35W Edge Performance
- Up to Triple Displays / Triple RJ45 LAN Ports

**6000** High Performance

- Intel® Core Processors
- Powerful 35W Edge Performance
- 2x PCIe Gen 4 Slots with GPU Support

## REAL-TIME DATA PROCESSING FOR RUGGED EDGE COMPUTING

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 four series, the BCO-500, BCO-1000, BCO-3000, and BCO-6000 Series are capable of accommodating various edge workloads from power efficient computers to scalable GPU computers.

Deployment Ready Solution

Support Expandable GPU

Fast Time To Market

Compact & Ruggedized Design







## BCO-500 SERIES MORE

Rockchip


| Model | BCO-500-ROK |
|---|---|
| Processor | Rockchip RK3568J ARM Quad Cortex-A55, up to 2.0GHz |
| Memory | 4GB LPDDR4 2133MHz |
| Storage | 64GB eMMC, MicroSD |
| Display | 1x HDMI (4096 x 2160 @60Hz) |
| Graphics /AI | Mali-G52 GPU |
| LAN | 2x GbE (RTL8211FDI) |
| I/O Ports | 2x USB 3.0, 2x COM, 1x CAN, Line-Out |
| Expansion | 1x M.2 B-Key (4G/LTE), 1x M.2 E-Key (Wi-Fi/BT), SIM |
| Operating System | Android 13, Linux Kernel: Debian 11, Ubuntu 22.04 |
| Power Input | 12-24V DC, AT/ATX modes |
| Operating Temp | -40°C to 70°C |
| Certifications | UL 61010-1/-2-201, CE, FCC A, UKCA, IC |
| Dimensions (WxDxH) | 225 x 130 x 41 mm |
| Weight | 1.2kg |

intel

| Model | BCO-500-ADL | BCO-500-MTL |
|---|---|---|
| Processor | Intel® Alder Lake-N: N97 (12W) / i3-N305 (15W) | Intel® Core™ Ultra 5 125U / Ultra 7 155U (15W) |
| Memory | 1x DDR5-4800 SO-DIMM, Max. 16GB | 1x DDR5-5600 SO-DIMM, Max. 32GB |
| Storage | 1x M.2 B-Key (SATA/PCIe x1) | 1x M.2 M-Key (PCIe Gen4 x4 / SATA, default 128GB) |
| Display | 1x DP 1.4a + 1x HDMI 1.4b (dual independent) | 2x DP++ 1.4 (3040 x 2160 @60Hz, dual independent) |
| Graphics /AI | Intel® UHD Graphics | Intel® Graphics |
| LAN | 2x 2.5GbE (Intel® I225-V) | 3x 2.5GbE (Intel® i226-V/LM) |
| I/O Ports | 4x USB 3.2 Gen2, 2x COM, Line-Out | 1x USB-C, 2x USB 3.2 Gen1, 1x USB 2.0, 2x COM, Line-Out+Mic |
| Expansion | 1x M.2 B-Key (SATA/NVMe storage), 1x M.2 E-Key (Wi-Fi/BT), 6x antenna holes | 1x M.2 B-Key (4G/5G/NVMe), 1x M.2 E-Key (Wi-Fi/BT), SIM |
| Operating System | Windows 10/11, Linux Kernel (Ubuntu LTS) | |
| Power Input | 12-36V DC, AT/ATX modes | 12-24V DC, includes 150W adapter |
| Operating Temp | -10°C to 50°C (N97) -10°C to 45°C (N305) | -20°C to 60°C |
| Certifications | UL 61010-1/-2-201, CE, FCC A, UKCA, VCCI, RCM | UL 62368-1, CE, FCC A, UKCA |
| Dimensions (WxDxH) | 225 x 130 x 41 mm | 225 x 130 x 48 mm |
| Weight | 1.2kg | 2.0kg |

# BCO-1000-ADLN SERIES

MORE

NEW

| Model | BCO-1000-ADLN_2L | BCO-1000-ADLN-B_3L |
|---|---|---|
| Processor | Intel® Alder Lake-N N97, 4 cores, 12W | Intel® Alder Lake-N N97 (4C, 12W) or Intel® Atom® x7835RE (8C, 12W) |
| Memory | DDR5-4800 SO-DIMM, Max. 16GB | |
| Graphics | Intel® UHD Graphics | |
| Display | 1x DP 1.4a (4096 x 2304 @60Hz),<br>1x HDMI 1.4b (3840 x 2160 @30Hz), dual independent | |
| Storage | 1x M.2 B-Key (Default 128GB SSD),<br>1x 2.5" SATA bay | 1x M.2 B-Key (LTE/4G/5G/Storage),<br>1x 2.5" SATA bay |
| I/O Ports | 2x COM, 2x USB 3.2 Gen2,<br>2x USB 3.2 Gen1, 2x USB 2.0,<br>Line-in/out/Mic | 2x COM, 2x USB 3.2 Gen1,<br>2x USB 2.0,<br>Line-in/out/Mic |
| LAN | 2x 2.5GbE (Intel® I225-V) | 3x 2.5GbE (I225-V; one co-lay with I226-LM/TSN) |
| Expansion | 1x M.2 E-Key (Wi-Fi/BT, CNVi) | 1x M.2 B-Key + 1x M.2 E-Key |
| SIM Support | - | Dual SIM Sockets |
| GPIO | 1x 8-bit Digital I/O | |
| Operating System | Windows 10/11,<br>Linux Kernel (Ubuntu LTS) | |
| Power Input | 9-36V DC, AT/ATX modes | 12-36V DC, AT/ATX modes |
| Operating Temp | 0°C to 50°C | |
| Dimensions (WxDxH) | 192 x 140 x 68 mm | |







# BCO-3000-RPL

MORE

SMALL FORM FACTOR

# BCO-6000-RPL

MORE

INDUSTRIAL COMPUTER

| Model | BCO-3000-RPL | BCO-6000-RPL |
|---|---|---|
| Processor | 12th/13th/14th Gen Intel® Core™ i9/i7/i5/i3 (35W TDP, LGA 1700) | |
| Chipset | Intel® Q670E | |
| Memory | 2x DDR4-3200 SO-DIMM, up to 64GB | |
| Graphics | Intel® UHD Graphics | |
| Display | 2x DP 1.4a, 1x HDMI 1.4b (triple independent) | |
| Validated GPU | - | 1x PCIe x16 or 2x PCIe x8<br>(supports RTX 2000 ADA, RTX 4000 SFF ADA) |
| Storage | 1x M.2 M-Key (NVMe, default 128GB),<br>supports B+M Key | |
| Expansion | 1x M.2 B-Key (5G/4G/LTE, SIM),<br>1x M.2 E-Key (Wi-Fi/BT) | |
| I/O Ports | 4x COM, 6x USB 3.2 Gen2,<br>2x USB 3.2 Gen1, 2x USB 2.0, Line-out/Mic | |
| LAN | 3x 2.5GbE (Intel® I226) | |
| Digital I/O | 8-in / 8-out isolated DIO | |
| Operating System | Windows 10/11,<br>Linux Kernel (Ubuntu LTS) | |
| Power Input | 9-36V DC, AT/ATX | |
| Operating Temp | 0°C to 50°C (35W CPU) | |
| Dimensions (WxDxH) | 192 x 240 x 69 mm | 330 x 240 x 69 mm |

# RCO SERIES

RCO-1000 SERIES

RCO-3000 SERIES

RCO-6000 SERIES

## SUPER-RUGGED INDUSTRIAL COMPUTERS

**1000**
Ultra Compact

- Intel Atom® Processors
- Up to 3x EDGEBoost I/O
- Lite AI Performance
- Up to 2x PoE and 2x LAN RJ45
- Wide Operating Temperature -40°C up to 70°C

**3000**
Small Form Factor

- Intel® Core Processors
- 1x EDGEBoost I/O
- Mid-AI Performance
- Up to 4x PoE RJ45/M12
- Wide Operating Temperature -25°C up to 70°C
- EN50155 (EMC) Certified

**6000**
High Performance

- Intel® Core Processors
- 2x EDGEBoost I/O
- High-AI Performance
- Up to 8x PoE RJ45/M12
- EDGEBoost Nodes Compatible for SSD, GPU and PCIe expansions
- Wide Operating Temperature -25°C up to 70°C

## PERFORMANCE, EXPANDABILITY, AND DURABILITY AT THE RUGGED EDGE

The RCO Series is a line of super-rugged x86 industrial computers purpose-built to enable real-time performance in extreme deployments. By leveraging a fanless and cableless design approach with modular EDGEBoost technologies, these systems can provide seamless configurability to meet varying edge-native deployment requirements while maintaining utmost durability. Available in three series, the RCO-1000, RCO-3000, and RCO-6000 Series.

EDGEBoost I/O Support

EDGEBoost Nodes Support

Scalable NVMe, SATA, and RAID Card

Scalable Robust GPU Cards





## RCO-1000-ASL SERIES




| Model | RCO-1000-ASL-10 | RCO-1000-ASL-20 | RCO-1000-ASL-30 |
|---|---|---|---|
| Processor | x7835RE (8 cores, up to 3.6GHz)<br>Intel® Atom® x7433RE (8 cores, up to 3.4GHz) | | |
| Memory | 1x DDR5 SODIMM, Max. 16GB | | |
| Out-of-Band Management | Support OOB Module (2x COM, 1x RJ45) | | |
| Display | 1x DisplayPort (4096x2304 @60Hz),<br>1x HDMI 1.4b (3840x2160 @30Hz), dual display | | |
| Storage | 1x 2.5" SATA bay,<br>1x M.2 B-Key (Storage) | 1x 2.5" SATA bay, 1x M.2 B-Key (4G/5G/AI/Storage) | |
| I/O Ports | 2x COM (RS-232/422/485), 3x USB 3.2 Gen2, 1x USB 2.0, Audio | | |
| LAN | 2x 2.5GbE (Intel® I226, WoL & PXE) | | |
| Expansion | 1x M.2 E-Key (Wi-Fi/BT) | | |
| EDGEBoost I/O | 1x EBIO Expansion | 2x EBIO Expansion | 3x EBIO Expansion |
| Power Input | 9–36V DC, AT/ATX modes, ignition sensing supported | | |
| Operating Temp | -40°C to 70°C | | |
| Dimensions (WxDxH) | 150 x 105 x 49 mm | 150 x 105 x 65 mm | 150 x 105 x 83 mm |

## RCO-1000-EHL SERIES

MORE

| Model | RCO-1000-EHL-10 | RCO-1000-EHL-20 | RCO-1000-EHL-30 | RCO-1000-EHL-30-2P |
|---|---|---|---|---|
| Processor | Intel® Atom® X6425E (Elkhart Lake), Quad-Core, 1.8GHz | | | |
| Memory | 1x DDR4 SODIMM, Max. 32GB | | | |
| AI Acceleration | Supports 1x Hailo-8™ (26 TOPS) | | | |
| Display | 2x DisplayPort 1.4 (4096 x 2160 @60Hz, dual display) | | | |
| Storage | 1x 2.5" SATA bay, 1x mSATA | | | |
| I/O Ports | 2x COM (RS-232/422/485), 3x USB 3.2 Gen2, 1x USB 2.0, Audio | | | |
| LAN | 1x 2.5GbE + 1x 1GbE (Intel® I225/I210, WoL & PXE) | | | 1x 2.5 GbE, 1x GbE, 2x PoE |
| Expansion | 1x Full-size mini PCIe, 1x M.2 B-Key (5G/4G/AI Module), 2x SIM | | | |
| EDGEBoost I/O | 1x EBIO Expansion | 2x EBIO Expansion | 3x EBIO Expansion | 3x EBIO Expansion |
| Power Input | 9-36V DC, AT/ATX modes, ignition sensing supported | | | |
| Operating Temp | -40°C to 70°C | | | -40°C to 50°C |
| Dimensions (WxDxH) | 150 x 105 x 49 mm | 150 x 105 x 65 mm | 150 x 105 x 83 mm | |

## RCO-3000-RPL

MORE

intel ai

| Model | RCO-3000-RPL |
|---|---|
| Processor | 12th/13th/14th/Core 200S Gen Intel® Core™ i3 to i9 (45W/35W TDP, LGA 1700) |
| Chipset | Intel® Q670E |
| Memory | 1x DDR5 SODIMM, Max. 32GB |
| Graphics | Intel® UHD Graphics |
| AI Accelerator Support | Supports up to 4x Hailo-8™ AI modules |
| Display | 4x DP 1.4a (4 independent displays) |
| Storage | 2x 2.5" SATA bays (1 internal, 1 hot-swap), RAID 0/1/5 |
| Expansion | 2x M.2 B-Key (NVMe/AI/4G/5G), 1x M.2 E-Key |
| EDGEBoost I/O | 1x EDGEBoost I/O Expansion |
| I/O Ports | 3x COM (external) + 2x COM (internal), 6x USB 3.2 Gen2 |
| LAN | 2x 2.5GbE (Intel® I226, TSN) |
| Digital I/O | 8-in / 8-out isolated |
| Power Input | 9–48V DC, AT/ATX, ignition power management |
| Operating Temp | -25°C to 70°C (45W/35W CPU) |
| Certifications | UL 61010-1/-2-201, CE, FCC A, UKCA, ICES-003, EMC Conformity with EN50155 & EN50121-3-2 |
| Dimensions (WxDxH) | 192 x 227 x 60.3 mm |

## RCO-6000-RPL SERIES

MORE

intel ai

| Model | RCO-6000-RPL |
|---|---|
| Processor | 12th/13th/14th/Core 200S Gen Intel® Core™ i3 to i9 (65W/45W/35W TDP, LGA 1700) |
| Chipset | Intel® R680E |
| Memory | 2x DDR5 SODIMM, Max. 64GB |
| Graphics | Intel® UHD Graphics |
| AI Accelerator Support | Supports up to 3x Hailo-8™ AI modules |
| Display | 2x DP 1.4a + 1x DVI-I (triple display) |
| Storage | 2x 2.5" SATA bays (1 internal, 1 hot-swap), RAID 0/1 |
| Expansion | 1x M.2 B-Key (AI/NVMe/4G/5G), 1x M.2 E-Key, 1x Mini-PCIe |
| EDGEBoost I/O | 2x EDGEBoost I/O Expansion |
| I/O Ports | 2x COM (rear) + 4x COM (internal), 8x USB 3.2 Gen2 + 1x USB 3.2 Gen1 + 2x USB 2.0 |
| LAN | 2x 2.5GbE (Intel® I226, TSN) |
| Digital I/O | 8-in / 8-out isolated |
| Power Input | 9–48V DC, AT/ATX, ignition power management |
| Operating Temp | -25°C to 70°C (45W/35W CPU) -25°C to 60°C (65W CPU) |
| Certifications | UL 62368-1 Ed.3, CE, FCC A, UKCA, ICES-003 |
| Dimensions (WxDxH) | 240 x 261 x 79 mm |



SMALL FORM FACTOR RUGGED COMPUTER & HIGH-PERFORMANCE INDUSTRIAL COMPUTER

RCO SERIES

## RCO-6000-RPL SERIES EDGEBOOST TECHNOLOGIES

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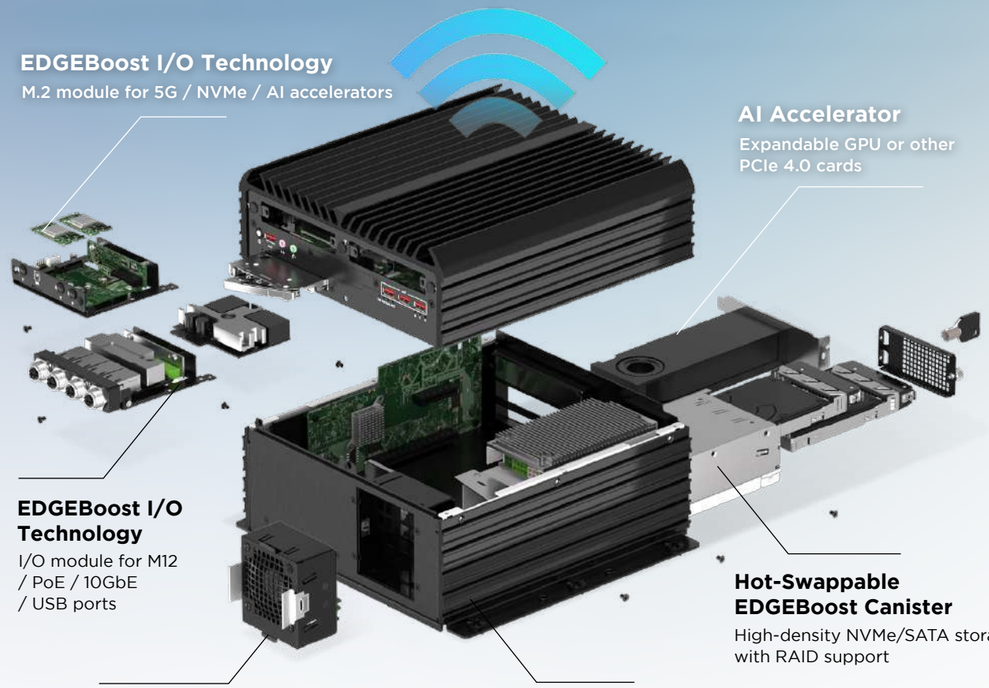
| Model | RCO-6000-RPL-2-2PWR | RCO-6000-RPL-2-4B7M | RCO-6000-RPL-4N-1E | RCO-6000-RPL-8NS |
|---|---|---|---|---|
| Top Nodes | RCO-6000-RPL | | | |
| EDGEBoost Node Type | GPU Expansion | Storage Expansion | GPU + Storage Expansion | Storage Expansion |
| Primary Function | Add-on PCIe acceleration (GPU/AI/ Networking) | High-density hot-swap SATA storage | High-speed NVMe storage + AI compute | Maximum NVMe density for AI data pipelines |
| PCIe Expansion | 1x PCIe x16 Gen4 + 1x PCIe x1 Gen3 or 1x PCIe x16 (8-lane) Gen4 + 1x PCIe x8 Gen4 | - | 1x PCIe x16 (GPU or RAID), + 1x PCIe x8 (open-ended) | - |
| Card Dimension | 235 (L) x 112 (H) mm 2 Slots | - | 235 (L) x 112 (H) mm 2 Slots | - |
| Validated GPU | NVIDIA RTX 2000 ADA, 4000 SFF ADA | - | NVIDIA RTX 2000 ADA, 4000 SFF ADA | - |
| Drive Bays | - | 4x 7mm SATA SSD (hot-swap) | 4x 7mm U.2 NVMe SSD (hot-swap) | 8x 7mm U.2 NVMe SSD (hot-swap) |
| RAID | RAID 0/1 (via base system) | RAID 0/1/5/10 | RAID 0/1/5 + optional hardware RAID 6 controller | RAID 0/1/5/10 (Software RAID only) |
| Additional Features | Hot-Swap Smart Fan | Hot-Swap Smart Fan, Protective Storage Bracket | Hot-Swap Smart Fan, Lockable Storage Bracket | |
| Power Budget | 300W | - | 300W | |
| Power Requirements | 12–48V for GPU/Card expansion (4-pin terminal block) | Standard 9–48V | 12–48V for NVMe/GPU Node | 12–48V for NVMe Node |
| Operating Temp | -25°C to 60°C | -25°C to 70°C | -25°C to 45°C (with GPU) | -25°C to 60°C |
| Dimensions (WxDxH) | 240 x 261 x 129.8 mm | | 240 x 261 x 166.9 mm | |

# EDGEBoost TECHNOLOGIES




Introducing our EDGEBoost Technologies – taking modular industrial solutions to new heights. The three versatile EDGEBoost Series are precisely engineered to maximize flexibility, performance, and resilience across our solution lineup. With EDGEBoost Technologies, our industrial computers become easily customizable and upgradable to meet diverse industrial demands.

- Modular, Scalable Design
- Industrial Ruggedness
- Certification-Ready
- Cost Effective
- No MOQ





## EDGEBOOST I/O FOR RCO-1000 SERIES

MORE

EBIO is the perfect solution for those looking to optimize their edge infrastructure. These flexible add-on modules are a modular and scalable solution that is designed to tackle the limitations that may occur at the rugged edge. EDGEBoost I/Os are built to integrate seamlessly with our industrial computers to provide reliable expandability for mission critical I/O.

## EBIO Modules for Industrial Mini Computers

### EDGEBoost I/O Expansion

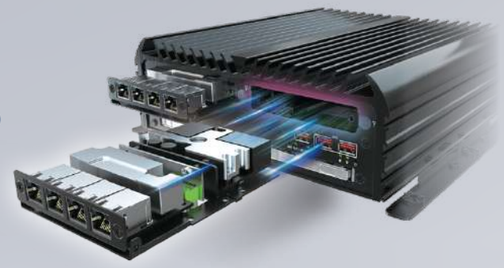
| **RCO-1000-10** Series | **RCO-1000-20** Series | **RCO-1000-30** Series |
|---|---|---|
| up to 1x EDGEBoost I/O support | up to 2x EDGEBoost I/O support | up to 3x EDGEBoost I/O support |

### Digital & Analog Digital and Analog EBIO Modules

| **EBIO-DP-DIO** | **EBIO-HDMI-DIO** | **EBIO-4USB** | **EBIO-2COM** |
|---|---|---|---|
| up to 1x | up to 1x | up to 1x | up to 2x |
| • 1x DP (4K UHD)<br>• 1x DIO (4 in / 4 out, Isolated) | • 1x HDMI Port (Full-HD)<br>• 1x DIO (4 in / 4 out, Isolated) | • 4x USB 2.0, Type A Ports (with USB hub) | • 2x COM Ports (RS-232/422/485) |

# EDGEBOOST I/O FOR 3000 & 6000 SERIES

MORE



## USB Interface Modules

| EBIO-4U3 | EBIO-4U3-J | EBIO-4U3L-J |
|---|---|---|
| • 4x USB 3.0, Type-A Ports | | • 4x USB 3.2 Gen 1 (5 Gbps, 900mA)<br>• Type-A Locking Ports |

## Connectivity & Network Modules

| EBIO-4ETH | EBIO-4ETH-J | EBIO-4ETH-M12 | EBIO-4ETH-M12-J |
|---|---|---|---|
| • 4x 1GbE LAN, RJ45 Port<br>• Intel® Ethernet Controller I350<br>• PCIe x1 Gold Fingers Interface (PCIe 3.0 x4 Performance)<br>• Support Power over Ethernet by an optional PoE module | | • 4x 1GbE LAN, M12 Port X-code 8-Pin<br>• Intel® Ethernet Controller I350<br>• PCIe x1 Gold Fingers Interface (PCIe 3.0 x4 Performance)<br>• Support Power over Ethernet by an optional PoE module | |

| EBIO-4ETH-POE | EBIO-4ETH-POE-J | EBIO-4ETH-POE-M12 | EBIO-4ETH-POE-M12-J |
|---|---|---|---|
| | • Up to 25.5 watt per port | • Complies with IEEE 802.3at | |

| EBIO-D10G | EBIO-D10G-J | EBIO-OOB | EBIO-OOB-J |
|---|---|---|---|
| • 2x 10 GbE LAN, RJ45 Ports<br>• Intel® Ethernet Controller X710-AT2<br>• PCIe x1 Gold Fingers Interface (PCIe 3.0 x4 Performance) | | • RJ45 Hardware-Based Features: Out-of-Band and In-Band<br>• Power Control & Management<br>• OOB Cloud Serial Console<br>Optional:<br>• Backup & Recovery • Temper Detection • Thermo-Guard | |

## Cellular, Edge AI, and Storage Modules

| EBIO-M2BK | EBIO-2M2BK | EBIO-M2MK | EBIO-M2MK-J |
|---|---|---|---|
| • 1x M.2 B-Key 3042/3052<br>• Supports 4G/5G module<br>• 2x SIM slot, 1x SIM Switch<br>• 1x Dedicated Heat block<br>• Occupied 2x Universal Slots | • 2x M.2 B-Key 2242/3042/3052<br>• Supports 4G/5G/AI/NVMe modules<br>• 1x Mini SIM Slot (on-board)<br>• 1x Dedicated Heat block<br>• 3x Antenna Holes | • 1x M.2 M-Key 2242/2260<br>• Supports AI/NVMe module<br>• 1x Dedicated Heat block | |





# EDGEBOOST I/O Compatible Industrial Computers

EBIO is the perfect solution for those looking to optimize their edge infrastructure. These flexible add-on modules are a modular and scalable solution that is designed to tackle the limitations that may occur at the rugged edge. EDGEBoost I/Os are built to integrate seamlessly with our industrial computers to provide reliable expandability for mission critical I/O.

## Edge AI Industrial Computers

Super-Rugged SFF Computers

Super-Rugged Edge AI Computers

Railway & In-Vehicle Computers

| EBIO Modules | RCO-3000 Series | RCO-6000 Series | ACO-6000 Series |
|---|---|---|---|
| EBIO-4U3 | ● | ● | ● |
| EBIO-4ETH | ● | ● | ● |
| EBIO-4ETH-POE | ● | ● | ● |
| EBIO-4ETH-M12 | ● | ● | ● |
| EBIO-4ETH-POE-M12 | ● | ● | ● |
| EBIO-D10G | ● | ● | ● |
| EBIO-OOB | ● | | ● |
| EBIO-M2BK | | ● | ● |
| EBIO-2M2BK | ● | ● | ● |
| EBIO-M2MK | ● | ● | ● |

CE FC EN50155 EN50121-3-2 E-Mark Certification UL CERTIFIED E357184 NVIDIA

Jetson AI Edge Industrial Computers

| EBIO Modules | JCO-6000 Series |
|---|---|
| EBIO-4U3-J | ● |
| EBIO-4U3L-J | ● |
| EBIO-4ETH-J | ● |
| EBIO-4ETH-POE-J | ● |
| EBIO-4ETH-M12-J | ● |
| EBIO-4ETH-POE-M12-J | ● |
| EBIO-D10G-J | ● |
| EBIO-OOB-J | ● |
| EBIO-M2MK-J | ● |

3 TYPES
of High-Speed Camera Support

8x GMSL2

4x PoE
10x LAN

10x USB Vision

# EDGEBoost Nodes


## EDGE AI PERFORMANCE ACCELERATORS MODULES

EDGEBoost Nodes are modular add-on nodes designed for our AI Edge Inference Computer or also known as the RCO-6000 Series. These add-on nodes provide an easy and cost-effective upgrade for the rugged, fanless computer. They elevate computer performance through additional performance accelerators. The EDGEBoost Nodes deliver powerful real-time inferencing capabilities and high-speed data storage performance for intensive industrial-grade Edge AI applications.

## Customize Your Performance Accelerators


GPU Card PCIe x16

Multiple PCIe
Expansion Slots

Up to 8x NVMe

NVMe/SATA
Hotswap Storages

RAID 0, 1, 5, 6, 10

Software &
Hardware RAID


20G
Shock

3 Grms
Vibration

GPU Locking Brackets

## Tested & Validated GPU List

| Model Name | RAM | CUDA Cores | TDP | Display | Interface | Active Cooling | Slots |
|---|---|---|---|---|---|---|---|
| NVIDIA RTX 2000 ADA | 16G | 2816 | 70 | 4x mDP | PCIe 4.0 x8 | Yes | 2 |
| NVIDIA RTX 4000 SFF | 20G | 6144 | 70 | 4x mDP | PCIe 4.0 x16 | Yes | 2 |

* The EDGEBoost Nodes supports GPU cards with dimension of 235 mm in length, 112 mm in width, and up to 3-slot high.

** The second power supply delivers stable power up to 280W for the GPU card and the NVMe drives with a wide voltage of 12-48VDC support.





# EDGEBoost Nodes

MORE

## Configuration Guide

The RCO-6000 Series is a standalone, fanless industrial computer that can be enhanced with EDGEBoost Nodes for additional performance upgrades. This two-piece modular design allows the EBND add-on nodes to seamlessly attach to the lower portion of the RCO-6000, delivering advanced performance accelerators optimized for AI edge computing.

## Configure Your Fanless Computer

| Top - Compatible RCO-6000 Series | | | |
|---|---|---|---|
| RCO-6000-RPL | | RCO-6000-CML | |
|  | • Intel® Raptor/Bartlett Lake CPU<br>1x Hotswap SATA SSD (7mm)<br>1x Internal SATA SSD (9mm)<br>1x M.2 B Key, 1x M.2 E Key, 1x mPCIe<br>2x EDGEBoost I/O Slots |  | • Intel® 10th Gen CML CPU<br>2x Hotswap SATA SSD (7mm)<br>1x Internal SATA SSD (9mm)<br>1x M.2 E Key, 2x mPCIe<br>2x EDGEBoost I/O Slots |

## Configure Your EDGEBoost Nodes

| | Bottom - Modular "EDGEboost Nodes" Configurations | | |
|---|---|---|---|
| GPU / Other PCIe Cards | PCI or PCIe Expansion Series | | GPU Series |
| |  | • EBND-2-EXP-G4 (RCO-6000-RPL)<br>1x PCIe x16 (Gen 4), 1x PCIe x1 (Gen 3) or<br>1x PCIe x16 (Gen 4), 1x PCIe x8 (Gen 4)<br>• EBND-2-EXP (RCO-6000-CML)<br>PCIe x16, PCI Expansions |  • EBND-2-PWR-G4 (RCO-6000-RPL)<br>1x PCIe x16 (Gen 4), 1x PCIe x1 (Gen 3) or<br>2x PCIe x8 (Gen 4)<br>12-48VDC Power Supply (280W)<br>• EBND-2-PWR (RCO-6000-CML)<br>PCIe x16, PCI Expansions<br>12-48VDC Power Supply (280W) |
| Storages | SATA Storage Series | | |
| |  | • EBND-2-2SATA<br>2x Hot-Swap 2.5" SATA Drives (15mm)<br>RAID 0, 1, 5, 10 |  • EBND-2-4SATA<br>4x Hot-Swap 2.5" SATA Drives (7mm)<br>RAID 0, 1, 5, 10 |
| | NVMe Series | | |
| |  | • EBND-2-2NVME-G4 (RCO-6000-RPL only)<br>2x Hot-Swap 2.5" NVMe SSD Bay (15mm)<br>PCIe Gen 4 Expansion |  • EBND-8NVME-S<br>8x Hot-Swap 2.5" U.2 NVMe Drives (7mm)<br>RAID 0, 1, 5, 10 |
| |  | • EBND-4NVME-S<br>4x Hot-Swap 2.5" U.2 NVMe Drives (15mm)<br>RAID 0, 1, 5, 10 |  • EBND-4NVME-H<br>4x Hot-Swap 2.5" U.2 NVME Drives (15mm)<br>Hardware RAID 0, 1, 5, 6, 10 |
| Storages + GPU | NVMe and GPU Series | | |
| |  | • EBND-4NVME-GPU<br>1x GPU Expansion<br>4x Hot-Swap 2.5" U.2 NVMe Drives (7mm) |  • EBND-2NVME-GPU<br>1x GPU Expansion<br>2x Hot-Swap 2.5" U.2 NVMe Drives (15mm) |
| |  | • EBND-4N-1E<br>1x PCIe x16, 1x PCIe x1 Slots<br>Hardware RAID 0, 1, 5, 10<br>4x Hot-Swap 2.5" U.2 NVMe Drives (7mm) | |

# ECO SERIES

## SUPERCAPACITOR UPS BACKUP SYSTEM



## POWER REDUNDANCY AND SAFETY AT THE RUGGED EDGE

The ECO-1000 Series EDGEBoost EnergyPack is an industrial-grade supercapacitor that provides reliable power backup, safe shutdown, and power regulation for industrial computers and HMI displays in mission-critical and remote edge deployments, ensuring uninterrupted performance during power fluctuations in unstable environments.

10-Year Lifespan

Wide Temperature, Shock, and Vibration Resistant

UL Safety & CB Scheme IEC 62368-1: 2018

EN50155 (EMC) & EN50121-3-2







# ECO-1000 EDGEBOOST ENERGYPACK

MORE

- Up to 200W Max. Power Output
- 1x COM, 1x USB for GUI Remote Management and Monitoring
- Shock and Vibration Resistance (20G, 5Grms)
- 3 Smart Modes with Remote On/Off, Ignition Control, Delay Time
- 12V/24V Compatibility: Industrial PCs, Panel PCs, Displays
- Optional LCM Display Module and Button Control

EMC Conformity EN50155 & EN50121-3-2

| Model | ECO-1000 |
|---|---|
| Capacity | ECO-1000-8S: 8x 370 Farads Supercapacitors<br>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)<br>Available Discharge Mode: 12 or 24V |
| Output Power | ECO-1000-8S: Max.100W output<br>ECO-1000-16S: Max.200W output |
| Output Connector | 3-pin Terminal Block (V+, GND) |
| I/O | 1x RS-232,<br>1x USB Type A,<br>2x DI + 2x DO with isolation<br>Others: 1x Remote Power On/Off, 1x Smart Mode Switch, 1x Mode Reset Switch |
| Charging Mode | Quick and Normal Charging |
| Power Ignition | Power Ignition Management |
| Operating Temp | -25°C to 55°C |
| Shock & Vibration | 20 G; 5 Grms |
| Certification | CE, FCC Class A, UL 62368-1 Ed. 3<br>EMC Conformity with EN50155 |
| Dimensions (WxDxH) | 100 x 192 x 192 mm |
| Weight | 1.8 kg ~ 2.6 kg |
| Mounting Options | Wall Mounting, DIN Rail Mounting (Optional) |

# JCO SERIES


## JETSON AI EDGE INDUSTRIAL COMPUTERS

**1000 Ultra Compact**

- Jetson Orin Nano Super 4GB/8GB with 10W-25W Power Options
- Jetson Orin NX Super 8GB/16GB with 10W-40W Power Options
- 20-157 TOPS of AI Performance
- High-Speed I/O and Wireless Connectivity

**3000 Small Form Factor**

- Jetson Orin Nano Super 4GB/8GB with 10W-25W Power Options
- Jetson Orin NX 8GB/16GB with 10W-25W Power Options
- Up to 100 TOPS of AI Performance
- Up to 3X the Performance of Jetson Xavier NX
- Optional 2x LAN or 4x PoE RJ45

**6000 High Performance**

- Jetson AGX Orin 32GB/64GB with 15W-60W Power Options
- Up to 275 TOPS of AI Performance
- Up to 8X the Performance of Jetson AGX Xavier
- 2x EDGEBoost I/O Expansions

## RUGGED EDGE AI POWERED BY NVIDIA JETSON MODULES

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

- EDGEBoost I/O Support
- Rich I/O Configuration
- World-Class Certification
- Ruggedized Fanless Solution





## JCO-1000-ORN SERIES MORE



| Model | JCO-1000-ORN-A | JCO-1000-ORN-B | JCO-1000-ORN-C |
|---|---|---|---|
| Processor | NVIDIA® Jetson Orin™ NX Super/Nano Super | | |
| TOPS and Memory | NX 16 GB: 1024-core NVIDIA Ampere architecture GPU (40W/157 TOPS)<br>NX 8 GB: 1024-core NVIDIA Ampere architecture GPU (40W/117 TOPS)<br>Nano 8 GB: 1024-core NVIDIA Ampere architecture GPU (25W/67 TOPS)<br>Nano 4 GB: 512-core NVIDIA Ampere architecture GPU (25W/34 TOPS) | | |
| Display Output | 1x HDMI (Nano: 4K30Hz, NX: 4K60Hz) | | |
| Storage | 1x M.2 M-Key NVMe SSD (2242/2280, 128GB default) + microSD | | |
| Expansion | 1x M.2 B-Key (4G/5G),<br>1x M.2 E-Key (Wi-Fi/BT), 2x SIM | | |
| LAN | 1x GbE | 1x GbE (RGMII),<br>1x 2.5 GbE (Intel® i226 IT) | 1x GbE M12 (RGMII),<br>1x 2.5 GbE M12 (Intel® i226 IT) |
| Optional Feature | Out-of-Band Management | 4x GMSL2 via Quad Mini Fakra Module | |
| I/O Ports | 4x USB 3.2 Gen2,<br>1x USB-C (OS flash),<br>1x Micro-USB (console),<br>2x COM | 1x USB 3.2 Gen2,<br>1x USB 2.0, 1x USB-C (OS flash),<br>1x Micro-USB (console),<br>1x COM | |
| DIO / CAN | 4x DI + 4x DO (isolated),<br>1x CAN 2.0B | | |
| Operating System | Linux Ubuntu 22.04 with Jetpack 6.2 | | |
| Power Input | 9-36V DC, AT/ATX mode, ignition supported | | |
| Operating Temp | -20°C to 55°C (15W/25W)<br>-20°C to 35°C (40W) | | |
| Certifications | UL 62368-1 Ed.3, CE, FCC B, UKCA, ICES-003 | UL 62368-1 Ed.3, E-Mark, EN50155 EMC, CE, FCC B, UKCA, ICES-003 | |
| Dimensions (WxDxH) | 150 x 105 x 65 mm | | |
| Weight | 1.1 kg | | |

# JCO-3000-ORN SERIES

MORE

| Model | JCO-3000-ORN-B |
|---|---|
| Processor | NVIDIA® Jetson Orin™ NX / Nano Super |
| TOPS and Memory | NX 16 GB: 1024-core NVIDIA Ampere architecture GPU (25W/100 TOPS)<br>NX 8 GB: 1024-core NVIDIA Ampere architecture GPU (25W/70 TOPS)<br>Nano 8 GB: 1024-core NVIDIA Ampere architecture GPU (25W/67 TOPS)<br>Nano 4 GB: 512-core NVIDIA Ampere architecture GPU (25W/34 TOPS) |
| Display Output | 1x HDMI (Nano: 4K30Hz, NX: 4K60Hz) |
| Storage | 1x M.2 M-Key NVMe SSD (2242/2280, default 128GB) + microSD |
| Expansion | 1x M.2 B-Key (4G/5G),<br>1x M.2 E-Key (Wi-Fi/BT), 1x Dual SIM |
| LAN | 4x GbE RJ45 (RGMII, Intel® I226),<br>optional 4x PoE+ (120W total, Max. 25W/port) |
| Optional Feature | Out-of-Band Management (1x RJ45) |
| I/O Ports | 4x USB 3.2 Gen2, 1x USB-C (OS flash),<br>1x Micro-USB (console),<br>2x COM (RS-232/422/485),<br>1x CAN 2.0B |
| DIO / CAN | 8x DI + 8x DO (isolated), 1x CAN 2.0B |
| Operating System | Linux Ubuntu 22.04 with JetPack 6.2 |
| Power Input | 9–36V DC, AT/ATX mode, ignition supported |
| Operating Temp | -20°C to 60°C (15W mode)<br>-20°C to 55°C (25W mode) |
| Certifications | UL 62368-1 Ed.3, E-Mark, EN50155 EMC,<br>CE, FCC B, UKCA, ICES-003 |
| Dimensions (WxDxH) | 192 x 140 x 58 mm |
| Weight | 2.8 ~ 3.6 kg |







# JCO-6000-ORN SERIES

MORE

| Model | JCO-6000-ORN-A |
|---|---|
| Processor | NVIDIA® Jetson AGX Orin™ — 12-core (64GB, 60W, 275 TOPS)<br>or 8-core (32GB, 40W, 200 TOPS) |
| TOPS and Memory | AGX 64 GB: 2048-core NVIDIA Ampere GPU, 12-core ARM Arm® Cortex® (275 TOPS)<br>AGX 32 GB: 1792-core NVIDIA Ampere GPU, 8-core ARM Arm® Cortex® (200 TOPS) |
| Display Output | 1x HDMI (3840 x 2160 @ 60Hz) |
| Storage | 1x eMMC 5.1 (64GB),<br>1x M.2 M-Key NVMe SSD (2280, PCIe x4, 128GB default) + microSD |
| Expansion | 1x M.2 B-Key (4G/5G),<br>1x M.2 E-Key (Wi-Fi/BT), 2x SIM |
| EDGEBoost I/O | 2x EDGEBoost I/O Brackets supporting:<br>LAN, PoE, M12, 10 GbE, USB 3.0 Locking and NVMe M.2 SSD |
| LAN | 1x 1GbE (Marvell 88E1512),<br>1x 10GbE (Marvell AQC113) |
| Camera Support | Optional GMSL2 (2x Quad Mini-Fakra)<br>supporting 8x Cameras @ 1280x720 @ 30FPS |
| I/O Ports | 1x USB 3.2 Gen2, 1x USB 2.0 (OS Flash),<br>1x USB-C (Console),<br>2x COM (RS-232/422/485), 2x CAN 2.0B |
| DIO / CAN | 8x DI + 8x DO (isolated),<br>2x CAN 2.0B |
| Operating System | Linux Ubuntu 22.04 with JetPack 6.2 |
| Power Input | 9-48V DC, AT/ATX mode, adjustable ignition sensing |
| Operating Temp | -20°C to 55°C (AGX 64GB MaxN, non-throttle)<br>-20°C to 50°C (AGX 64GB with PoE/10G/USB modules, full CPU+GPU load) |
| Certifications | UL 62368-1 Ed.3, E-Mark, EN50155 EMC,<br>CE, FCC B, UKCA, ICES-003 |
| Dimensions (WxDxH) | 270 x 190 x 95 mm |
| Weight | 6 ~ 7 kg |

# ACO SERIES

## RAILWAY & IN-VEHICLE
## INDUSTRIAL COMPUTERS

### 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 high-performance computing in vehicles, they efficiently process data from various sensors and IoT devices, ensuring swift, low-latency communication.

Scalable
16x PoE

EN50155 / EN45545
and E-Mark

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

MIL-STD-810H
Compliant
Method 514 & 517







## ACO-6000-CML SERIES MORE

| Model | ACO-6000-CML | ACO-6000-CML-1 |
|---|---|---|
| Processor | 10th Gen Intel® Core™ i3 to i9 (65W/35W TDP, LGA 1200), Intel® XEON-W Processors | |
| Memory | 2x DDR4 SODIMM, Max. 64GB | |
| Display Output | 2x DP + 1x DVI-I (Triple Display) | |
| Storage | 1x Internal + 2x Hot-swap 2.5" SATA (RAID 0/1/5) | |
| Expansion | 1x M.2 E-Key,<br>2x Full-size Mini-PCIe,<br>2x EDGEBoost I/O slots | 1x M.2 E-Key,<br>2x Full-size Mini-PCIe,<br>4x EDGEBoost I/O slots, 1x PCIe x16 |
| LAN Options | 2x GbE | 2x GbE<br>+ Optional 16x GbE (RJ45/M12; LAN/PoE) |
| Power Input | 9-48VDC; 48-110VDC (Optional) | |
| Operating Temperature | -25°C to 70°C (35W CPU) | |
| Certifications | EN50155 / EN50121-3-2 Railway EMC, E-Mark,<br>CE, FCC A, UKCA, ICES-003 | |
| Dimensions (WxDxH) | 240 x 261 x 79.2 mm | 240 x 261 x 127.3 mm |

# ACO-6000-RPL


| Model | ACO-6000-RPL |
|---|---|
| Processor | 12th/13th/14th Gen Intel® Core™ i3 to i9 (65W/35W TDP, LGA 1700) |
| Memory | 2x DDR5 SODIMM, Max. 64GB (ECC / Non-ECC) |
| Display Output | Triple Display: 2x DisplayPort + 1x DVI-I |
| Storage | 3x 2.5" SATA bays (1 internal + 2 hot-swap), RAID 0/1 |
| Expansion | 1x M.2 B-Key (AI/Storage/4G/5G),<br>1x M.2 E-Key (Wi-Fi/BT),<br>1x Full-size Mini-PCIe,<br>2x EDGEBoost I/O Slot |
| LAN Options | 2x 2.5GbE LAN,<br>4x USB 3.2 Gen2, 2x USB 2.0,<br>2x COM, 8x DI + 8x DO (isolated),<br>1x CAN 2.0B |
| Power Input | 9-48V DC input, AT/ATX mode, Ignition Power Management |
| Operating Temperature | -25°C to 70°C (35W CPU)<br>-25°C to 60°C (65W CPU) |
| Certifications | EN50155 / EN50121-3-2 Railway EMC,<br>UL 62368-1 Ed.3,<br>CE, FCC A, UKCA, ICES-003 |
| Dimensions (WxDxH) | 240 x 261 x 79.1 mm |







# ACO-3000-ORN SERIES


| Model | ACO-3000-ORN-4L-IP66 |
|---|---|
| Processor | NVIDIA® Jetson Orin™ NX Super/Nano Super |
| TOPS and Memory | NX 16 GB: 1024-core NVIDIA Ampere architecture GPU (40W/157 TOPS)<br>NX 8 GB: 1024-core NVIDIA Ampere architecture GPU (40W/117 TOPS)<br>Nano 8 GB: 1024-core NVIDIA Ampere architecture GPU (25W/67 TOPS)<br>Nano 4 GB: 512-core NVIDIA Ampere architecture GPU (25W/34 TOPS) |
| Storage | M.2 M-Key NVMe SSD (128GB default) and<br>1x MicroSD 3.0 slot. |
| Expansion | 1x M.2 E-Key (Wi-Fi), 1x M.2 B-Key (4G/5G), and<br>1x M.2 B-Key (PCIe x1 + USB2.0, 2242/2280). |
| LAN | 4x 2.5GbE (M12 X-coded, waterproof rugged connectors). |
| USB & Console | USB 3.2 Gen2 Type-A,<br>USB 2.0 Type-A, USB-C (OS Flash),<br>Micro-USB (Console). |
| Serial & Camera | 2x COM RS-232/422/485 (M12 A-coded) and<br>4x GMSL2 Fakra-Z camera ports (optional). |
| DIO / CAN / Audio | 4x DI / 4x DO (Isolated),<br>CAN 2.0B (M12 A-coded),<br>Mic-in + Line-out (M12 A-coded). |
| PoE | Optional 4-port 60W PoE module supporting IEEE 802.3af<br>(4 ports) and 802.3at (2 ports). |
| Operating System | Ubuntu 22.04 with NVIDIA JetPack 6.2. |
| Power Input | 9-48V DC via M12 K-code connector,<br>AT/ATX mode, ignition sensing, OVP/OCP/Reverse Protection. |
| Operating Temperature | -20°C to 50°C (40W mode) and<br>-20°C to 60°C (25W/15W power modes). |
| Certifications & Protection | IP66 Waterproof; CE, FCC Class B, ICES-003, UKCA;<br>Railway EMC: EN50155; E-Mark (E24);<br>UL 62368-1 Ed.3 |

# DCO SERIES

## DIN RAIL FANLESS INDUSTRIAL COMPUTERS

### COMPACT & RICH I/O CONFIGURATION FOR DIN RAIL APPLICATIONS

The DCO-1000-ASL is a compact, fanless DIN-rail industrial computer designed for demanding IoT environments. Built to operate reliably in extreme temperatures and resist shock and vibration, it's ideal for space-constrained industrial applications requiring advanced remote management and top-tier durability.

- Compact Form Factor
- Rich I/O Configuration
- Industrial IoT Solutions
- Ruggedized Fanless Solution





# DCO-1000-ASL MORE

Designed for flexibility, the DCO-1000-ASL features a comprehensive I/O suite and multiple M.2 expansion slots, enhancing connectivity and customization for industrial applications. Perfect for demanding environments, it provides advanced remote management and robust certifications, ensuring reliable performance in automation and smart city infrastructure.

intel ai

| Model | DCO-1000-ASL |
|---|---|
| Processor | Intel® Atom® x7433RE (Quad-Core, 3.4GHz Turbo, 9W TDP)<br>Intel® Atom® x7835RE (8-Core, 3.6GHz Turbo, 12W TDP) |
| Memory | 1x DDR5 4800MHz SODIMM, Max. 16GB<br>(In-Band ECC supported) |
| Display Output | 2x DisplayPort 1.4 (4096x2160 @ 60Hz),<br>Dual Independent Display |
| Storage | 1x M.2 B-Key (PCIe x2 NVMe, 2242) |
| Expansion | 1x M.2 B-Key (4G/5G module),<br>1x M.2 E-Key (Wi-Fi/BT), Dual SIM |
| I/O Ports | 4x 2.5GbE LAN (Intel® I226),<br>2x COM (RS-232/422/485), 2x USB 3.2 Gen2,<br>2x USB 2.0, 4x DI + 4x DO (isolated) |
| Optional Feature | Out-of-Band Management (RJ45),<br>CAN Bus x2 (internal header) |
| Power Input | 9–36V DC, 3-pin terminal block, AT/ATX mode, OVP/OCP/Reverse Protection |
| Operating Temp | -40°C to 65°C |
| Operating System | Windows 10 / Windows 11, Linux Kernel 6.2 |
| Certification | UL 61010-1, UL 61010-2-201,<br>CE, FCC Class A,<br>UKCA, ICES-003, RoHS3, REACH |
| Shock & Vibration | Shock: 20G, 11ms;<br>Vibration: 5 Grms (5–500Hz) DIN-Rail / Wall-Mount |
| Dimensions (WxDxH) | 150 x 105 x 50 mm |
| Weight | 0.85 kg |

# WCO SERIES


## IP68/IP69K
## WATERPROOF INDUSTRIAL COMPUTERS

### DELIVER EDGE INTELLIGENCE AMID WATER AND DUST EXPOSURES

The WCO Series unifies advanced CPU compute capabilities, I/O expandability, and AI acceleration for dynamic industrial deployments. The WCO Series is designed to fit into a rugged industrial environment where dust and water resistance are a must. Equipped with fanless design and IP68/IP69K ratings, the WCO series expands the limitation of regular embedded systems in extremely harsh deployments.

- IP68/IP69K Rating
- Wide Range Voltage 9-36V or 48-110V
- Scalable M12 Ports
- High-Quality Compact Construction







# WCO-3000-EHL

MORE

| Model | WCO-3000-EHL |
|---|---|
| Processor | Intel® Atom® x6425E (Quad-Core, 2.0 GHz, 12W TDP) |
| Memory | 1x DDR4 SODIMM, Max. 32GB |
| Display Output | 1x DisplayPort 1.4 (4096x2160 @ 60Hz) or optional HDMI |
| Storage | 1x Internal 2.5" SATA drive bay + 1x mSATA (shared with Mini-PCIe) |
| Expansion | 1x M.2 B-Key (3042/3052, PCIe x1 + USB 3.2), 1x Mini PCIe, 2x Internal SIM |
| I/O & LAN | 2x LAN (M12 X-Code: 1x 1GbE + 1x 2.5GbE),<br>1x RS-232/422/485 (M12 A-Code),<br>2x USB 3.2 Gen2 (M12),<br>2x CAN Bus (internal header),<br>Audio (Mic-in / Line-out) |
| Optional Features | HDMI, 2x PoE, AI Hailo/5G, Ignition Power Control |
| Power Input | 9–36V DC (M12 S-Code),<br>optional 48–110V DC; AT/ATX mode; OVP/OCP/Reverse Protection |
| Operating Temperature | –40°C to 60°C (per IEC60068-2-1/2/3/14 environmental tests) |
| Operating System | Windows 10, Linux Kernel 5.x |
| IP Rating | IP68 / IP69K waterproof & dustproof (sealed M12 I/O, fully enclosed chassis) |
| Certifications | CE, FCC Class A, ICES-003, UKCA,<br>IEC60068-2-27 shock, IEC60068-2-64 vibration, MIL-STD-810H compliant |
| Mechanical Design | Extruded aluminum + heavy-duty metal;<br>M12 rustproof I/O; wall-mount |
| Dimensions (WxDxH) | 231 x 292 x 57 mm |

IP68: A rating standard for dust and water resistance
- 6: Dust-tight, meaning no dust ingress. Full protection against dust.
- 8: Withstand continuous immersion in water (typically up to 1 meter or more)

IP69K: Specifically tested for high-pressure, high-temperature water jets.
- 6: Dust-tight, providing complete protection against dust ingress. (Same as IP68)
- 9K: Withstand high-temperature water jets (water temperatures up to 80°C) & High-pressure water jets (pressure up to 100 bar (1450 psi))

# VCO SERIES

## MACHINE VISION
## INDUSTRIAL COMPUTERS

### PCIE CARD EXPANSION FOR INTELLIGENT COMPUTER VISION

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 (FHFL)
- PCIe Gen 4 Performance
- Scalable NVMe & SATA Storage
- Shock & Vibration Resistance



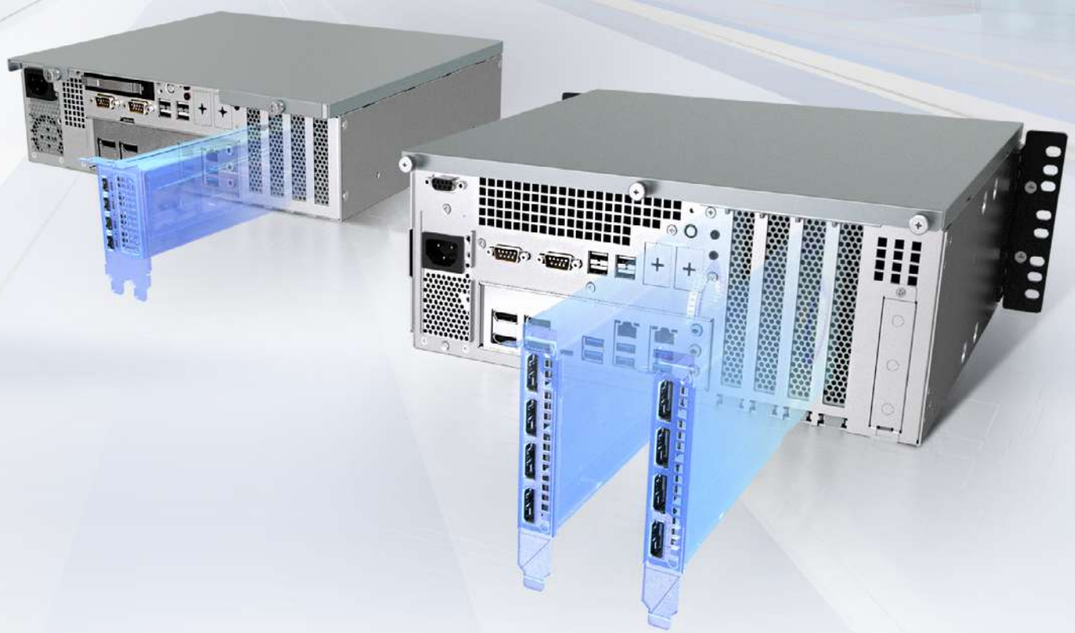


## VCO-6000-RPL SERIES MORE

intel ai

| Model | VCO-6000-RPL-3-2PWR | VCO-6000-RPL-4-2PWR |
|---|---|---|
| Processor | 12th/13th/14th/Core 200S Gen Intel® Core™ i3 to i9 (65W/45W/35W TDP, LGA1700) | |
| Chipset | Intel® R680E | |
| Memory | 2x DDR5 SODIMM, Max. 64GB (ECC / Non-ECC) | |
| Display Output | 2x DP 1.4a + 1x DVI-I (Triple Display) | |
| Storage | 1x Internal 2.5" SATA + 1x Removable 2.5" SATA (RAID 0/1)<br>Optional 2x/4x Hot-Swap 2.5" SATA/NVMe (RAID 0/1/5/10) | |
| Expansion | 1x M.2 B-Key (NVMe / AI / 4G/5G),<br>1x M.2 E-Key, 1x Mini-PCIe, Dual SIM | |
| I/O Ports | 2x 2.5GbE LAN (Intel® I226, TSN),<br>4x USB 3.2 Gen2, 2x USB 3.2 Gen1 (internal),<br>6x COM (4 internal),<br>8x DI + 8x DO, Universal I/O bracket | |
| PCIe Expansion | 1x PCIe x16 (Gen4)<br>2x PCIe x4 (1-Lane, Gen2) | 2x PCIe x16 Slot (8-lane, Gen 4)<br>1x PCIe x4 (1-lane, Gen 3) |
| Card Dimension | 310 (L) x 112 (H) mm, 3-Slot | 310 (L) x 112 (H) mm, 4-Slot |
| GPU Power | 600W power budget via dedicated 48V GPU power rail | |
| Validate GPU | NVIDIA RTX 2000 ADA, 4000 SFF ADA, 4000 ADA, 4500 ADA, 5000 ADA | Support Dual GPU |
| Power Input | 9–48V DC + 48V GPU power rail, AT/ATX, Ignition Control, OVP/OCP/Reverse Protection | |
| Operating Temperature | -25°C to 70°C (35W CPU)<br>-25°C to 60°C (65W CPU) | |
| Certifications | UL 62368-1 Ed. 3, CE, FCC A,<br>UKCA, ICES-003, MIL-STD-810H Compliant | |
| Dimensions (WxDxH) | 157 x 340 x 240 mm | 177 x 340 x 240 mm |

# KCO SERIES



## FANNED INDUSTRIAL COMPUTERS

### ACTIVE COOLING INDUSTRIAL COMPUTER FOR INSPECTION & INTELLIGENT COMPUTER VISION

Introducing the KCO-RPL Series, a line of high-performance fanned industrial computers powered by Intel® 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.

- Support Dual GPU
- Rich M.2 and PCIe Expansions
- Internal Flex Power Supply
- Rackmountable Industrial Solution





## KCO-2000-RPL

MORE

| Model | KCO-2000-RPL |
|---|---|
| Processor | 12th/13th/14th Gen Intel® Core™ i3 to i9 (65W, LGA1700) |
| Chipset | Intel® Q670E |
| Memory | 4x DDR4 DIMM, Max. 128GB |
| Display Output | 4x DP++ |
| Storage | 1x Hot-swap 2.5" SSD (7mm), 4x SATA III |
| M.2 Expansion | 2x M-Key (NVMe Gen4), 1x E-Key |
| I/O & LAN | 1x 2.5GbE + 1x 1GbE, USB-C Gen2x2,<br>6x USB 3.1 Gen2, 4x USB 2.0,<br>2x COM + 4x internal COM, Audio |
| PCIe Expansion | 1x PCIe x16 Gen5,<br>1x PCIe x16 Gen4 (x4 electrical),<br>1x PCIe x4 Gen4 (open-end),<br>1x PCIe x4 Gen3 (open-end) |
| PCIe Slots | 4x slots, low-profile |
| Validated GPU | NVIDIA 2000 ADA / 4000 SFF ADA |
| Power Input | 250W Flex PSU (AC 100–240V) |
| Operating Temperature | 0°C to 40°C |
| Certifications | UL 62368-1 Ed. 3,<br>CE, FCC, ICES-003, UKCA |
| Form Factor | 2U Short-Depth |
| Dimensions (WxDxH) | 324 x 276 x 89 mm |

# KCO-3000-RPL

MORE

intel ai

| Model | KCO-3000-RPL |
|---|---|
| Processor | 12th/13th/14th Gen Intel® Core™ i3 to i9 (65W, LGA1700) |
| Chipset | Intel® Q670E |
| Memory | 4x DDR4 DIMM, Max. 128GB |
| Display Output | 4x DP++ |
| Storage | 1x 3.5" HDD or 2x 2.5" SSD/HDD (15mm), 4x SATA III |
| M.2 Expansion | 2x M-Key (NVMe Gen4), 1x E-Key |
| I/O & LAN | 1x 2.5GbE + 1x 1GbE, USB-C Gen2x2,<br>6x USB 3.1 Gen2, 4x USB 2.0,<br>2x COM + 4x internal COM, Audio |
| PCIe Expansion | 1x PCIe x16 Gen5,<br>1x PCIe x16 Gen4 (4-Lane),<br>1x PCIe x4 Gen4 (open-end),<br>1x PCIe x4 Gen3 (open-end) |
| PCIe Slots | 4x slots |
| Validated GPU | NVIDIA RTX 2000 ADA,<br>4000 SFF ADA, 4000 ADA, 4500 ADA, 5000 ADA |
| Power Input | 500W Flex PSU (AC 100–240V) |
| Operating Temperature | 0°C to 50°C |
| Certifications | UL 62368-1 Ed. 3,<br>CE, FCC, ICES-003, UKCA |
| Form Factor | 3U Rackmount |
| Dimensions (WxDxH) | 324 x 300 x 133 mm |







# KCO-6000-ARL

intel

Coming Soon

| Model | KCO-6000-ARL |
|---|---|
| Processor | Intel® Core™ Ultra 9/7/5 (65W TDP, LGA1851) |
| Chipset | Intel® W880 |
| Memory | 2x DDR5 5200MHz SODIMM, Max. (Non-ECC) |
| Display Output | 2x DP, 1x HDMI (Triple Display) |
| Storage | 1x M.2 M-Key (PCIe x4 NVMe / SATA),<br>1x 2.5" SATA bay |
| Expansion | 1x M.2 E-Key (Wi-Fi),<br>1x M.2 B-Key (PCIe x2 NVMe/USB3.2, SIM holder) |
| I/O & LAN | 3x 2.5GbE LAN,<br>6x USB 3.2 Gen2,<br>6x COM,<br>Line-out + Mic-in, GPIO |
| PCIe Expansion | 4x PCIe Slots,<br>PCIe x16 Gen5 and Gen4 |
| Supported GPU | Full-Length, Full-Height Blackwell GPUs |
| Power Input | DC-IN, AT/ATX mode (default ATX),<br>4-pin terminal block, OVP/OCP/Reverse Protection |
| Operating Temperature | -10°C to 50°C |
| Certifications | UL 62368-3,<br>CE, FCC A, ICES-003, UKCA |
| Mounting Options | Wall Mount |

# LLM SERIES

# 1U EDGE AI
## RACKMOUNTABLE SERVER

### SCALE GEN AI AT THE EDGE

The LLM-1U-RPL Series is a high-performance, short-depth 1U edge AI server engineered for on-premises multimodal deployment in industrial environments. It delivers low latency inferencing to enable real-time genAI and LLM workloads by processing the sensor data at the source of data generation.

- Real-Time Performance
- Gen AI Inferencing
- Operational Redundancy
- Robust Physical Security







## LLM-1U-RPL MORE

intel ai


| Model | LLM-1U-RPL |
|---|---|
| Processor | 12th/13th/14th Gen Intel® Core™ i3 to i9 (65W/35W TDP, LGA 1700) |
| Chipset | Intel® Q670E |
| Memory | 2x DDR4 3200 SODIMM, Max. 64GB |
| Display Output | Triple Display: 2x DP 1.4a + 1x HDMI 1.4b |
| Storage | 2x 2.5" Hot-swap SATA SSD bays (7mm/15mm), RAID 0/1 supported |
| M.2 Expansion | 1x M-Key (PCIe Gen3 x4 NVMe), 1x B-Key (NVMe/AI/4G/5G), 1x E-Key (Wi-Fi/BT) |
| I/O Ports | 3x 2.5GbE LAN,<br>6x USB 3.2 Gen2 (Rear),<br>2x USB 3.2 Gen1 (Front), 2x COM |
| PCIe Slot | 1x PCIe x16 Gen4<br>or 2x PCIe x8 Gen4 |
| Card Dimension | 267 (L) x 112 (H) mm, dual-slot GPU |
| Validated GPU | NVIDIA RTX 2000 ADA,<br>4000 SFF ADA, 4000 ADA, 4500 ADA, 5000 ADA |
| Power Input | Dual 600W Redundant PSU (AC 115–230V or DC -36 to -72V),<br>AT/ATX mode, ignition supported |
| Operating Temperature | 0°C to 35°C (with 0.6 m/s airflow) |
| Certifications | UL 62368-1 Ed. 3,<br>CE, FCC Class A, ICES-003, UKCA |
| Mounting Options | Standard 1U rackmount<br>(19-inch rack compatible) |
| Dimensions (WxDxH) | 483 x 480 x 44 mm |

# INDUSTRIAL DISPLAY SYSTEMS

## FIO SERIES

**IP65 OPEN FRAME**

INDUSTRIAL TOUCHSCREEN MONITORS

## HIO SERIES

**IP65 OPEN FRAME**

INDUSTRIAL TOUCHSCREEN COMPUTERS

## AIO SERIES

**IP65 ALL-IN-ONE**

INDUSTRIAL TOUCHSCREEN COMPUTERS

**IP65 DISPLAY**

INDUSTRIAL TOUCHSCREEN MONITORS

## VIO SERIES

**IP65 MODULAR SYSTEMS**

HIGH-BRIGHTNESS DISPLAY

### PC SERIES

**VIO COMPUTER MODULES**

PC MODULE FOR INDUSTRIAL DISPLAY

### MX SERIES

**VIO MONITOR MODULES**

MONITOR MODULE FOR INDUSTRIAL DISPLAY

## SIO SERIES

**IP66/69K STAINLESS STEEL**

INDUSTRIAL TOUCHSCREEN COMPUTERS



# BUILT RUGGED. BUILT READY.


| Model | SIO SERIES | VIO SERIES | AIO SERIES | HIO SERIES | FIO SERIES |
|---|---|---|---|---|---|
| **Ruggedness** | **Super-Rugged** | **Rugged** | **Semi-Rugged** | **Durable** | |
| System Configuration | Touchscreen Computer | Touchscreen Computer or Monitor | Touchscreen Computer or Monitor | Touchscreen Computer | Touchscreen Monitor |
| Processor | • Intel® Alder Lake N97<br>• Intel® Celeron® J1900<br>• Intel® 8th Gen i5 | • Intel® Core™ Ultra 5/7<br>• Intel® 7th Gen i3/i5<br>• Intel® Celeron® J6413<br>• Intel® Celeron® J1900 | • Intel® Core™ Ultra 5/7<br>• Intel® Alder Lake N97<br>• Intel Atom® X7835RE<br>• Rockchip RK3568J | • Intel® Alder Lake N97 | - |
| Wireless Connectivity | Wi-Fi 6E, BT 5.x, 5G/4G/LTE | | | Wi-Fi 6E, BT 5.x | - |
| IP Rating | Full IP66/69K | Front IP65 | | | |
| Built Design | Rugged Stainless-Steel SUS 316 Design | Modular Flexible Design | All In One Simple Design | Industrial Open Frame Design | |
| Screen Sizes | 15“ - 23.8” | 12.1” - 23.8” | 10.1“ - 21.5” | | 15” - 27” |
| Touch Options | PCAP | PCAP/Resistive | PCAP | | |
| Optical Bonding | Standard | Optional | - | - | - |
| Mounting Options | VESA Mount<br>Yoke Mount | VESA Mount<br>Panel Mount | | Open-Frame<br>Wall Mount | Open-Frame<br>VESA Mount<br>Panel Mount |
| Shock & Vibration | 20G & 2.4Grms | 20G & 1.5Grms | 20G & 3Grms<br>MIL-STD-810H Method 516.7<br>& 514.7 Procedure 1 | | - |
| Certifications | CE, FCC | CE, FCC, UL | | CE, FCC | CE, FCC, UL |

Our industrial touchscreen computers and monitors offer tailored solutions for diverse needs, featuring modular designs, stainless steel washdown panels, and open-frame PCs—built to tackle application challenges with precision and reliability.

# FIO SERIES

# INDUSTRIAL OPEN-FRAME
## TOUCHSCREEN MONITORS

### INDUSTRIAL HMI TOUCHSCREENS

The FIO Series are selection of standardized industrial open-frame touchscreen monitors that are designed to seamlessly integrate into both future and existing HMI systems. With the slim industrial-grade design, extended lifespan and world-class certifications, the FIO Series are purpose-built for ruggedized and suitable for various industries required minimal to no maintenance.

10-Points
PCAP Touch

Front Panel
IP65

50,000+
Hours MTBF

World Class Certifications
(UL, CE, FCC)







## FIO SERIES MORE

HMIs (Human-Machine Interfaces) are critical data points for real-time controls, status, and information. Premio's line of rugged open-frame 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 1080 @60Hz | |
| Brightness (cd/m2) | 350 nits | 250 nits | | 300nits |
| Contrast Ratio | 1000:1 | | 3000:1 | |
| 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 | | | |
| I/O | 1x Mini Din (External OSD)<br>1x USB (Type B)<br>1x DP<br>1x HDMI<br>1x VGA | | | |
| Power | 12 VDC<br>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<br>Rear Mounting, Side Mounting | | VESA: 100×100 mm<br>Rear Mounting,<br>Side Mounting | VESA: 100×100 mm,<br>100x200 mm<br>Rear Mounting,<br>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 |

* The FIO Series is available exclusively for the North Americas, contact sales@premioinc.com for more information.

# HIO SERIES


## IP65 OPEN-FRAME
## INDUSTRIAL TOUCHSCREEN COMPUTERS

### OEM INTEGRATION READY FOR HUMAN MACHINE INTERFACE SOLUTIONS

The HIO Series is a versatile panel PC solution that unifies high efficient computing capabilities with I/O expandability. Designed for seamless industrial and commercial application integration with its sleek open frame design and advanced functionality.

10-Points
PCAP Touch

Diverse I/O
Customization

Front Panel
IP65

High Computing
Efficiency







## HIO-200-ADL SERIES MORE

HIO Series provides a selection of Open Frame Touchscreen Computers ranging from 10.1" to 21.5" for seamless integration for HMI deployments. With ultimate screen readability and clarity, this series is front panel IP65 rated with 7H scratch resistant. All while being powered by Intel® Alder Lake N97 processor.

| Model | HIO-W210-ADL | HIO-W215-ADL | HIO-W221-ADL |
|---|---|---|---|
| Display Size & Resolution | 10.1"<br>1280 x 800 (WXGA) | 15.6"<br>1920 x 1080 (FHD) | 21.5"<br>1920 x 1080 (FHD) |
| Brightness | 400 nits | 400 nits | 500 nits |
| Touchscreen | 10-Point PCAP, 7H hardness | | |
| Processor | Intel® Processor N97, up to 3.6GHz | | |
| Memory & Storage | 8GB DDR5 (max 16GB) + 128GB M.2 B-Key SSD | | |
| I/O & LAN | 4x USB 3.2 Gen2, 4x USB 2.0 (internal),<br>2x 2.5GbE LAN, 2x COM, Line-out | | |
| Display Output | 1x DP (4K@60), 1x HDMI (UHD@30) | | |
| Expansion | 1x M.2 E-Key (Wi-Fi 6E optional), dual PIFA antenna support | | |
| Power Input | 9–36V DC (60W adapter default) | | |
| Operating Temperature | -10°C to 50°C | | |
| Mounting Options | Open-frame panel mount, wall mount | | |
| Dimensions (WxHxD) | 252 x 166 x 39 mm | 395 x 245 x 40 mm | 533 x 325 x 46 mm |

# AIO SERIES

IP65 DISPLAY

**INDUSTRIAL TOUCHSCREEN MONITORS**

- AIO-200-MX Series

IP65 ALL-IN-ONE

**INDUSTRIAL TOUCHSCREEN COMPUTERS**

- AIO-200-ROK Series
- AIO-200-ADL Series
- AIO-200-MTL Series

## IP65 ALL-IN-ONE
## INDUSTRIAL TOUCHSCREEN COMPUTERS

### SIMPLE SOLUTION FOR HUMAN MACHINE INTERFACE DEPLOYMENTS

The AIO Series is a reliable all in one panel PC solution that simplifies HMI solutions with high efficient computing capabilities and advanced I/O connectivity. Designed for simple industrial and commercial applications with its sleek all in one panel design and comprehensive functionality.

All In One Integrated System

10-Point PCAP Touch

Range of Display Size

Triple Independent Displays







## AIO-200-MX SERIES

MORE

The AIO-200-MX Series offers a range of rugged touchscreen monitors engineered for industrial automation, factory HMI, and control room operations. Available in 10.1", 15.6", and 21.5" sizes, these fanless, cableless, and glove-friendly displays deliver exceptional durability and seamless performance—even in the most demanding conditions.

| Model | AIO-W210-MX | AIO-W215-MX | AIO-W221-MX |
|---|---|---|---|
| Display Size & Resolution | 10.1" 1280 x 800 (WXGA) | 15.6" 1920 x 1080 (FHD) | 21.5" 1920 x 1080 (FHD) |
| Brightness | 400 nits | 450 nits | 400 nits |
| Touchscreen | PCAP, 10-point, 7H / IK07 | | |
| Front IP Rating | IP65 | | |
| I/O Ports | 1x DP 1.1, 1x HDMI 1.4a, 2x USB 2.0, 1x USB Type-B (touch), Audio out, Speakers | | |
| Power Input | 12–24V DC (60W adapter included) | | |
| Operating Temperature | -10°C to 50°C | 0°C to 50°C | |
| MTBF | 30,000 hours | 50,000 hours | |
| Mounting Options | VESA 75/100, Panel Mount (optional) | | |
| Dimensions (WxHxD) | 256 x 170 x 50 mm | 400 x 249 x 50 mm | 538 x 329 x 62 mm |

## AIO-200-ROK SERIES

MORE

Rockchip

NEW

NEW

| Model | AIO-W210-RK3568J | AIO-W215-RK3568J |
|---|---|---|
| Display Size & Resolution | 10.1" 1280 x 800 (WXGA) | 15.6" 1920 x 1080 (FHD) |
| Brightness | 500 nits | |
| Touchscreen | PCAP, 7H / IK07 hardness | |
| IP Rating | IP65 (front bezel) | |
| Processor | Rockchip RK3568J Quad Cortex-A55, up to 2.0 GHz | |
| Memory & Storage | 4GB LPDDR4 + 64GB eMMC | |
| I/O Ports | 2x USB 3.0, 2x COM, 2x GbE LAN, 1x CAN, Line-out | |
| Expansion | 1x M.2 E-Key (Wi-Fi 6), 1x M.2 B-Key (4G/LTE), antenna support | |
| Operating System | Android 13, Debian 11, Ubuntu 22.04 | |
| Power Input | 12-24V DC, 60W AC adapter | |
| Operating Temperature | -20°C to 60°C | |
| Mounting Options | VESA 75/100, Panel Mount (optional) | |

## AIO-200-ADL SERIES

MORE

intel.

| Model | AIO-W210-ADL | AIO-W215-ADL | AIO-W221-ADL |
|---|---|---|---|
| Display Size & Resolution | 10.1" 1280 x 800 (WXGA) | 15.6" 1920 x 1080 (FHD) | 21.5" 1920 x 1080 (FHD) |
| Brightness | 400 nits | 400 nits | 500 nits |
| Touchscreen | PCAP, 7H / IK07 hardness | | |
| IP Rating | IP65 (front bezel) | | |
| Processor | Intel® Processor N97, up to 3.6 GHz | | |
| Memory & Storage | DDR5 up to 16GB + 128GB M.2 B-Key SSD (Default) | | |
| I/O Ports | 4x USB 3.2 Gen2, 2x COM, 2x 2.5GbE LAN, Line-out | | |
| Expansion | 1x M.2 E-Key (Wi-Fi 6E), antenna support | | |
| Operating System | Windows 10/11, Ubuntu 22.04 / 24.04 LTS | | |
| Power Input | 12-36V DC, 60W AC adapter | | |
| Operating Temperature | -10°C to 50°C | | |
| Mounting Options | VESA 75/100, Panel Mount (optional) | | |







## AIO-200-MTL SERIES

MORE

intel.

NEW

NEW

NEW

| Model | AIO-W210-MTL | AIO-W215-MTL | AIO-W221-MTL |
|---|---|---|---|
| Display Size & Resolution | 10.1" 1280 x 800 (WXGA) | 15.6" 1920 x 1080 (FHD) | 21.5" 1920 x 1080 (FHD) |
| Brightness | 400 nits | 400 nits | 500 nits |
| Touchscreen | PCAP, 10-point, 7H / IK07 + Glove Mode | | |
| IP Rating | IP65 | | |
| Processor | Intel® Core™ Ultra 5 125U / Ultra 7 155U | | |
| Memory & Storage | DDR5 up to 32GB + 128GB M.2 M-Key NVMe SSD | | |
| I/O Ports | 1x USB-C, 2x USB 3.2 Gen1, 1x USB 2.0, 2x COM, 3x 2.5GbE LAN, 2x DP | | |
| Expansion | 1x M.2 B-Key (4G/5G), 1x M.2 E-Key (Wi-Fi/Bluetooth), 1x SIM | | |
| Operating System | Windows 10/11, Ubuntu 22.04 / 24.04 LTS | | |
| Power Input | 12-24V DC, 150W AC adapter | | |
| Operating Temperature | -10°C to 50°C | | |
| Mounting Options | VESA 75/100, Panel Mount (optional) | | |

## AIO-200-ASL SERIES

MORE

intel.

| Model | AIO-W210-ASL | AIO-W215-ASL | AIO-W221-ASL |
|---|---|---|---|
| Display Size & Resolution | 10.1" 1280 x 800 (WXGA) | 15.6" 1920 x 1080 (FHD) | 21.5" 1920 x 1080 (FHD) |
| Brightness | 400 nits | 400 nits | 500 nits |
| Touchscreen | PCAP, 10-point, 7H / IK07 | | |
| IP Rating | IP65 (front bezel) | | |
| Processor | Intel® N97 / x7835RE | | |
| Memory & Storage | DDR5 up to 16GB + 128GB M.2 B-Key SSD (Default) | | |
| I/O Ports | 2x USB 3.2 Gen2, 2x COM, 3x 2.5GbE LAN, DP, HDMI | | |
| Expansion | 1x M.2 E-Key (Wi-Fi 6E), 1x M.2 B-Key (4G/5G/SATA), Dual SIM | | |
| Operating System | Windows 10/11, Ubuntu 22.04 / 24.04 LTS | | |
| Power Input | 12-36V DC, 60W AC adapter | | |
| Operating Temperature | -10°C to 50°C | | |
| Mounting Options | VESA 75/100, Panel Mount (optional) | | |

# VIO SERIES

## IP65 MODULAR INDUSTRIAL TOUCHSCREEN COMPUTERS & MONITORS

### RUGGED IP65 MODULAR PANEL PC

The VIO Series modular touch display systems deliver an industrial-grade IP65 display solution designed specifically for HMI automation, information and communication applications. Its unique modular design makes the display system more flexible and versatile by providing a unique solution for both an industrial panel pc and a touch monitor.

PCAP/Resistive Touch

Modular Design

Wide Operating Temperature

Scratch-Resistant 7H Glass Screen





## VIO-200 SERIES MORE

The VIO-200 Series display module offers a diverse range of standard screen sizes, resolutions, and touch technologies. Designed for seamless integration, it is fully compatible with both the PC Modules and Monitor Module, enabling effortless configuration, upgrades, and maintenance.

### 16:9
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) | 500 nits | | 450 nits |
| | 1,000 nits (Optional) | | |
| Contrast Ratio | 1,000:1 | | |
| LCD Color | 16.7M | | |
| Life Cycle Time | 50,000 Hours | 30,000 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
Thin Frame

| Model | VIO-212 | VIO-215 | VIO-217 | VIO-219 |
|---|---|---|---|---|
| LCD Size | 12.1″ | 15″ | 17″ | 19″ |
| Max. Resolution | 1024 x 768 (XGA) | | 1280 x 1024 (SXGA) | |
| Brightness (cd/m2) | 600 nits | 350 nits | | |
| | 1,000 nits (Optional) | | | |
| Contrast Ratio | 1000:1 | | 800:1 | 1000:1 |
| LCD Color | 16.2M | 16.7M | | |
| Life Cycle Time | 50,000 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 |

# VIO-300 SERIES

## 16:9
Thin Frame




| Model | VIO-W315 | VIO-W321 | VIO-W324 |
|---|---|---|---|
| LCD Size | 15.6" | 21.5" | 23.8" |
| Max. Resolution | 1920 x 1080 (Full HD) | | |
| Brightness (cd/m2) | 500 nits | | |
| | 1,000+ nits (Optional) | | |
| Contrast Ratio | 1000:1 | | |
| LCD Color | 16.7M | | |
| Life Cycle Time | 50,000 Hours | | |
| Viewing Angle (H-V) | 178 / 178 | | |
| Internal Speaker | 2W | | |
| Touch Type | Resistive 5-wire Touch / Projected Capacitive Touch | | |
| Operating Temperature | -10°C to 60°C | | |

## 4:3
Thin Frame




| Model | VIO-312 | VIO-315 | VIO-317 |
|---|---|---|---|
| LCD Size | 12.1" | 15" | 17" |
| Max. Resolution | 1024 x 768 (XGA) | | 1280 x 1024 (SXGA) |
| Brightness (cd/m2) | 600 nits | 350 nits | |
| | 1,000 nits (Optional) | | |
| Contrast Ratio | 1000:1 | | - |
| LCD Color | 16.2M | 16.7M | |
| Life Cycle Time | 50,000 Hours | | |
| Viewing Angle (H-V) | 178 / 178 | 170 / 160 | 178 / 178 |
| Internal Speaker | - | 2W | |
| Touch Type | Resistive 5-wire Touch / Projected Capacitive Touch | | |
| Operating Temperature | -10°C to 60°C | | |







# MX100H

MORE

- 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 | MX100H |
|---|---|
| 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 | 3-pin, AT/ATX 9-48V |
| Operating Temperature | -10°C up to 60°C (with display module) |
| Dimensions (WxDxH) | 246 x 220 x 37 (mm) |

# PC100-EHL SERIES

MORE

| Model | PC100-EHL | PC100-EHL-1 |
|---|---|---|
| Processor | Intel® Celeron® J6413, 4 cores, 10W TDP, up to 3.0 GHz | |
| Memory & Storage | 1x DDR4 SODIMM, Max. 32GB;<br>1x 2.5" SATA HDD bay;<br>1x mSATA; 2x SIM sockets | |
| Expansion | 1x full-size Mini PCIe (USB2.0/SATA);<br>M.2 E-Key (Wi-Fi);<br>M.2 B-Key (PCIe x2 + USB3.2 Gen1) | Same as PC100-EHL plus 1x PCIe x4 slot (1-lane) and 1x Universal I/O Bracket |
| I/O & LAN | 2x LAN (1x GbE + 1x 2.5GbE),<br>6x COM (4 external + 2 internal),<br>USB 3.2 Gen2 & USB 2.0,<br>DP, LVDS, Audio,<br>8x DI / 8x DO (isolated), CAN | Same I/O & LAN configuration |

# PC100-TWL SERIES

| Model | PC100-TWL |
|---|---|
| Processor | Intel® Processor N150 (4 cores, 6W) |
| Memory & Storage | 1x DDR5 SO-DIMM 4800/5600 MT/s, Max. 32GB;<br>M.2 M-Key NVMe SSD (Gen3 x2) + Hot-swap 2.5" SATA SSD |
| Expansion | M.2 B-Key (PCIe x1 / USB3.0, 4G/5G, Dual Nano SIM),<br>M.2 E-Key (Wi-Fi),<br>1x PCIe Gen3 x1 (x4 open-end) |
| I/O & LAN | 2x 2.5GbE LAN (Intel® i226-IT),<br>6x COM, USB 3.2 Gen2 Type-A & Type-C,<br>DIO 8-in/8-out (isolated), CAN-FD |
| Power, OS & Environment | 9–36V DC (AT/ATX),<br>OVP/OCP/Reverse/Surge protection;<br>Windows 10/11, Ubuntu 22.04/24.04 LTS;<br>-20°C to 60°C operation |





# PC600-MTL SERIES

| Model | PC600-MTL | PC600-MTL-1E |
|---|---|---|
| Processor | Intel® Core™ Ultra 5 125U | |
| Memory | 1x DDR5 5600 SODIMM, Max 32GB | |
| Storage | 1x Hot-swap 2.5" SATA (RAID 0/1),<br>1x M.2 M-Key NVMe | |
| Display Output | 1x DP 1.2,<br>1x HDMI 2.0b,<br>1x LVDS<br>Compatible with VIO-300 Touch Display Module | |
| Expansion | 2x M.2 B-Key + 1x M.2 E-Key | |
| PCIe Slot | - | 1x PCIe x4 (4-lane) |
| I/O & LAN | 2x 2.5GbE LAN, 2x USB 3.2 Gen1, 1x USB-C Gen2, 1x USB2 TYPE A,<br>6x COM (4 external + 2 internal),<br>Audio, DIO 8-in/8-out with isolation, 2x CAN (Optional),<br>4x antenna holes,<br>+ 1x Universal I/O bracket for PC600-MTL-1E | |
| Operating System | Windows 10/11, Ubuntu 22.04 / 24.04 LTS | |
| Power Input | 9–48V DC,<br>AT/ATX mode, OVP/OCP/Reverse Protection | |
| Operating Temperature | 0°C to 55°C | |
| Certifications | CE, FCC Class A,<br>MIL-STD-810H (shock/vibration) | |

# SIO SERIES

## IP66/69K STAINLESS STEEL INDUSTRIAL TOUCHSCREEN COMPUTERS

### SUS 316 WASHDOWN TOUCHSCREEN COMPUTER

The SIO Series unifies advanced compute capabilities, I/O expandability and interactive display for dynamic industrial deployments. The stainless steel SIO Series are designed fanless, strong and tightly sealed to sustain punishing temperatures, harsh impacts, caustic contact and intense equipment washdowns.

Optical Bonding

Wide Temperature

Shock And Vibration Resistance

TPM 2.0 Security Module







## SIO-300-ADL SERIES MORE

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| Model | SIO-315-ADL | SIO-W315-ADL | SIO-W321-ADL | SIO-W324-ADL |
|---|---|---|---|---|
| Processor | Intel® Processor N97 (up to 3.6 GHz, 4-core) | | | |
| Display Size & Resolution | 15″<br>1024 x 768 (XGA) | 15.6″<br>1920 x 1080 (FHD) | 21.5″<br>1920 x 1080 (FHD) | 23.8″<br>1920 x 1080 (FHD) |
| Brightness | 450 nits | | 400 nits | 450 nits |
| Touchscreen | PCAP, 7H hardness,<br>IK07 impact rating, optical bonding | | | |
| Front IP Rating | Full System IP66 / IP69K, SUS316 stainless steel enclosure | | | |
| Memory | 1x DDR5 4800MT/s SODIMM, up to 16GB (non-ECC) | | | |
| Storage | 1x M.2 B key NVMe SSD | | 1x M.2 B key NVMe SSD<br>2.5″ SATA SSD, Support | |
| Expansion | 1x M.2 E-Key (Wi-Fi 6E),<br>2x Antenna Holes | | 1x M.2 B-Key (4G/5G)<br>+ 1x M.2 E-Key (Wi-Fi 6E),<br>4x Antenna Holes | |
| I/O Ports (M12) | 3x 2.5GbE LAN (M12 X-code),<br>1x COM RS-232/422/485(Default RS232),<br>1x COM RS232 (M12 A-Code),<br>2x USB 2.0 (M12 A-code) | | | |
| Operating System | Windows 10/11, Ubuntu 22.04 / 24.04 LTS | | | |
| Power Input | 110-240V AC, M12 S-code connector,<br>ATX mode (Default) | | | |
| Operating Temperature | -10°C to 50°C (fanless) | | | |
| Certifications | CE, FCC Class A;<br>MIL-STD-810H shock & vibration compliant | | | |
| Mounting Options | VESA 100x100 / 200x100, Yoke mount optional | | | |

# INDUSTRIAL BOARD SOLUTIONS

**1.8"** SERIES

**FEMTO ITX**
MINI INDUSTRIAL SBC

**2.5"** SERIES

**PICO ITX**
COMPACT INDUSTRIAL SBC

**3.5"** SERIES

**3.5-INCH**
SFF INDUSTRIAL SBC

**MINI-ITX** SERIES

**RICH I/O**
INDUSTRIAL MOTHERBOARD

**MICRO ATX** SERIES

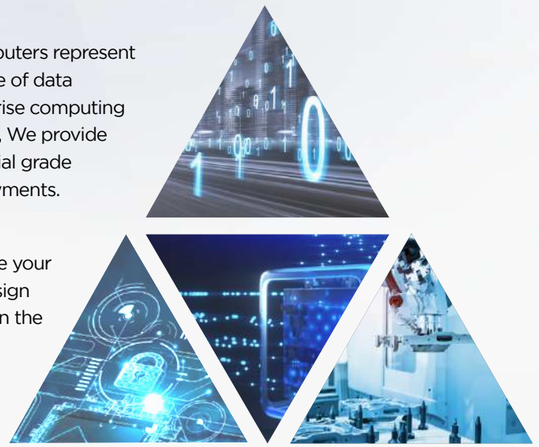
**RICH EXPANSIONS**
INDUSTRIAL MOTHERBOARD

**ATX** SERIES

**HIGH-PERFORMANCE**
INDUSTRIAL MOTHERBOARD

Our 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, We provide 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.









## BOARDS SERIES

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We offer 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

| Model | CT-NR101 |
|---|---|
| CPU | AMD Ryzen™ Embedded R1606G with Radeon™ Vega 3 Graphics (3.5GHz/2 Core) |
| Memory | 1x DDR4-2400 Single-Channel Memory 4GB (Up to 8GB, Optional) |
| Storage | eMMC up to 64GB |
| Display | 2x Micro HDMI 1.4 (4K DCI) |
| Rear I/O | 1x RJ45 (GbE)<br>1x Type C USB 3.1 Gen 1 (5V/3A)<br>2x 5-pin header DIO (4-in/4-out) |
| Internal I/O | 1x USB 2.0 (4-pin header, internal) |
| Expansion | 1x Full-size Mini PCIe (PCIe x1, USB 2.0)<br>1x SMBus |
| Operating Systems | Windows 10, Linux Kernel 5.x |
| Power | ACPI, DC IN 12V |
| Operating Temperature | 0°C to 60°C |
| TPM | TPM 2.0 |
| Dimension | 84 x 55 mm |

### 2.5" PICO ITX SERIES

| Model | CT-PBT01 |
|---|---|
| CPU | Intel® Celeron Processor J1900 (2.0GHz/4 Core/10W) |
| Memory | 1x 204-Pin DDR3L 1066/1333MHz SODIMM. Max. up to 8GB |
| Storage | 1x SATA 3.0Gb/s<br>1x mSATA (shared by 1x Mini PCIe) |
| Display | 1x HDMI (2048x1080 @60Hz)<br>1x LVDS |
| Rear I/O | 1x USB 3.0, 1x USB 2.0<br>1x RJ45 |
| Internal I/O | 1x RS-232/422/485, 1x RS-232<br>2x USB 2.0<br>1x 8-bit GPIO (4-in/4-out) |
| Expansion | 1x Half-size Mini PCIe<br>1x Half-size Mini PCIe (Full-size optional) |
| Operating Systems | Windows 10, Windows 7, WES7<br>Linux kernel 3.X |
| Power | ACPI, DC IN 12V |
| Operating Temperature | -10°C to 70°C |
| TPM | N/A |
| Dimension | 100 x 72 mm |

# BOARDS 3.5” SBC SERIES

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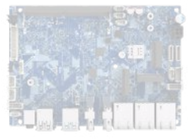
| Model | CT-DR101 | CT-DAL01 | CT-DAL11 |
|---|---|---|---|
| Processor | AMD Ryzen™ Embedded R1000/V1000 Series | Intel® N97 / Intel® Core i3-N305 | Intel® N97 / Intel® Atom® x7835RE |
| Memory | 2x DDR4 SODIMM, Max 32GB | 1x DDR5 SODIMM, Max 16GB | 1x DDR5 SODIMM, Max 16GB |
| Storage | 1x M.2 B-Key (SATA), 1x SATA | 1x SATA | 1x SATA |
| Expansion | 1x Full-size Mini PCIe, 1x M.2 B-Key | 1x M.2 B-Key, 1x M.2 E-Key | 1x M.2 B-Key (SATA/PCIe/USB3), 1x M.2 E-Key |
| I/O & LAN | 2x GbE, DP, HDMI, 2x USB 3.2 Gen2, 2x USB 2.0, 2x COM | 2x 2.5GbE, DP, HDMI, 2x USB 3.2 Gen2, 2x USB 3.2 Gen1, 4x USB2.0, 2x COM | 3x 2.5GbE, DP, HDMI, eDP, 2x USB 3.2 Gen2, 2x USB2.0, Dual Nano SIM, 2x COM |



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| Model | CT-DAS01 / CT-DAS02 | CT-DML01 | CT-DPL01 |
|---|---|---|---|
| Processor | • CT-DAS01: Intel® X7433RE/X7835RE Wide Temperature<br>• CT-DAS02: Intel® N150 | Intel® Core™ Ultra 5 125U / Ultra 7 155U | Intel® Core™ Ultra Series 3 (Panther Lake-H), 25W |
| Memory | 1x DDR5 4800 SODIMM (Max 16GB) | 1x DDR5 5600 SODIMM (Max 32GB) | 1x DDR5 SO-DIMM, (Max 128GB) |
| Storage | 1x M.2 M-Key NVMe + 1x SATA (share with B Key) | 1x M.2 M-Key (NVMe/SATA Auto-Detect) | 1x M.2 M-Key 2280, PCIe Gen4 x4 NVMe |
| Expansion | M.2 B-Key (NVMe/4G/5G), M.2 E-Key (Wi-Fi/BT) | M.2 B-Key (4G/5G), M.2 E-Key (Wi-Fi/BT) | M.2 E-Key (Wi-Fi/BT), M.2 B-Key (4G/5G), Dual Nano SIM |
| I/O & LAN | 2x 2.5GbE, DP, HDMI, USB-C, 3x USB 3.2, COM, DIO | 3x 2.5GbE, 2x DP, USB-C, USB 3.2, COM, DIO, Dual SIM | 3x 2.5GbE, USB-C + PD, DP, USB 3.0, 4x COM, GPIO, Audio |







# BOARDS MINI ITX SERIES

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| Model | CT-XRL02 | CT-XAR01 |
|---|---|---|
| Processor | Intel® 12th/13th/14th Gen Core™ i9/i7/i5/i3 (65W, LGA1700) | Intel® Arrow Lake-S Core Ultra 9/7/5 Series (65W, LGA1851) |
| Chipset | Intel® Q670E | Intel® W880 |
| Memory | 2x DDR4 3200 SODIMM, max 64GB | 2x DDR5 5600 SODIMM, ECC/Non-ECC, max 96GB |
| Display Output | 2x DP, 1x HDMI (Triple Display) | 2x DP, 1x HDMI, 1x LVDS/eDP (Quad Display) |
| Storage | 1x M.2 M-Key NVMe (Gen3), 3x SATA 6Gb/s (RAID 0/1/5) | 1x M.2 M-Key (NVMe/SATA, 2280), 2x SATA 6Gb/s (RAID 0/1) |
| Expansion | 1x PCIe x16 (Gen4 via golden-finger riser), 1x M.2 E-Key, 1x M.2 B-Key (with Nano SIM) | 1x PCIe x16 (Gen5), 1x M.2 E-Key, 1x M.2 B-Key |
| LAN | 3x 2.5GbE (Intel® I226 series) | |
| I/O Ports | 6x USB 3.2 Gen2, 2x USB 3.2 Gen1 (internal), 2x USB2.0 (internal), 2x COM RS-232/422/485, Audio | 6x USB 3.2 Gen2, 2x COM RS-232/422/485, Audio Line-out/Mic-in |
| Operating System | Windows 10/11, Linux Kernel | Windows 10/11 IoT Enterprise, Ubuntu 22.04/24.04 LTS |
| Power Mode | ATX 24-Pin + 12V-8Pin | ATX 24-Pin |
| Environment & Certification | 0°C to 60°C, CE, FCC Class A | 0°C to 60°C, CE, FCC Class A, UKCA |
| Form Factor | 170 x 170 mm | |

# BOARDS MICRO ATX SERIES

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| Model | CT-MRL01 | CT-MBL01 |
|---|---|---|
| Processor | 12th/13th/14th Gen Intel® Core™ i9/i7/i5/i3 (65W, LGA1700) | 12th/13th/14th Gen Intel® Core™ Ultra / Core™ (Alder Lake-S / Raptor Lake-S / Bartlett Lake-S), up to 65W |
| Chipset | Intel® Q670E | |
| Memory | 4x DDR4 DIMM (2133–2666MHz), max 128GB | 4x DDR5-4400 UDIMM, max 128GB |
| Display Output | 4x DP++ (quad-display support) | 4x DP++ (quad-display support) |
| Storage | 2x M.2 M-Key NVMe/SATA (2242/2260/2280), 4x SATA 6Gb/s | 2x M.2 M-Key NVMe/SATA (2242/2260/2280), 4x SATA 6Gb/s |
| Expansion Slots | 1x PCIe x16 Gen5, 1x PCIe x16 Gen4 (4-lane), 1x PCIe x4 Gen4, 1x PCIe x4 Gen3 | 1x PCIe x16 Gen5, 1x PCIe x16 Gen4 (4-lane), 1x PCIe x4 Gen4, 1x PCIe x4 Gen3 |
| LAN | 1x 1GbE (Intel® I219LM), 1x 2.5GbE (Intel® I225-V) | 2x 2.5GbE (Intel® I226 series) |
| I/O Ports | 6x USB 3.1 Gen2, 1x USB-C Gen2x2, 2x USB 3.0 (internal), 4x USB 2.0 (internal), 6x RS-232, Audio, 8-bit DIO | 6x USB 3.1 Gen2, 1x USB-C Gen2x2, 2x USB 3.0 (internal), 4x USB 2.0 (internal), 6x RS-232, Audio, 8-bit DIO |
| Operating System | Windows 10/11, Linux Kernel 5.x | Windows 11 IoT, Ubuntu 22.04/24.04 |
| Power | ATX power, ACPI 5.0, dual 12-pin + 2-pin headers | ATX power, ACPI 5.0, dual 12-pin + 2-pin headers |
| Environment & Certifications | Operating: 0°C to 60°C; Storage: –40°C to 85°C; 10–90% RH; CE, FCC Class B | Operating: 0°C to 60°C; Storage: –40°C to 85°C; 10–90% RH; CE, FCC Class B |
| Form Factor | 244 x 244 mm | |







# BOARDS ATX SERIES

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| Model | CT-ARL01 | CT-AR701 |
|---|---|---|
| Processor | 12th/13th/14th Gen Intel® Core™ i9/i7/i5/i3, Pentium®, Celeron® (LGA1700), up to 125W TDP. | AMD Ryzen™ 9000/8000/7000 Series Desktop CPUs & EPYC™ 4004 (Socket AM5), up to 170W TDP |
| Chipset | Intel® R680E Express Chipset. | AMD B650 |
| Memory | 4x DDR5 4400 ECC/non-ECC UDIMM slots, up to 128GB. | 4x DDR5 UDIMM, dual-channel, up to 256GB (DDR5 5200 MT/s 1DPC) |
| Display Output | 3 independent displays: 1x DP (4096x2160@60Hz), 1x HDMI (4096x2304@60Hz), 1x VGA (1920x1200@60Hz). | 1x DP 1.4a (4096x2160@60Hz), 1x HDMI 2.0 (4096x2160@60Hz); dual independent displays |
| Storage | 4x SATA 3.0 (RAID 0/1/5/10), 2x M.2 M-Key (1 from CPU, 1 shared with PCIe Slot 5). | 4x SATA 3.0 (AHCI), 1x M.2 M-Key (2242/2280) |
| Expansion Slots | PCIe Slots: 2x PCIe x16 (Gen5, configurable as x16 or dual x8), 4x PCIe x4, 1x PCIe x1. | 2x PCIe x16 (Gen5/Gen4, x16 or dual x8), 1x PCIe x4 (open-end), 2x PCIe x1 |
| M.2 Expansion | M.2 Slots: 1x M-Key, 1x E-Key (PCIe x1), 1x B-Key (PCIe x2). | 1x M.2 M-Key (PCIe x4, NVMe), 1x M.2 E-Key 2230 (PCIe x1 + USB 2.0) |
| LAN | 4x 2.5GbE (Intel® I225-LM). | 2x 1GbE (Intel® I210AT, RJ-45) + 2x 10GbE (Broadcom BCM57412, SFP+) |
| I/O Ports | Rear I/O: 8x USB 3.2 Gen2, 1x DP, 1x HDMI, 1x VGA, 1x Mic-in, 1x Line-out, 1x PS/2. | Rear: USB 3.2 Gen2 Type-A, DP+HDMI stack, Audio jack, LAN; Internal USB headers supported |
| Internal I/O | Internal: 2x USB 3.2 Gen1, 3x USB 2.0, 6x COM (RS-232/422/485), GPIO (16-bit), SMBus, I  C, PMBus. | 6x COM, multiple USB headers, TPM 2.0, GPIO, fan headers, OOB connector, watchdog |
| Operating System | Windows 10 IoT Enterprise 2021 LTSC, Windows 11 IoT Enterprise 22H2, Linux Kernel 5.xx, Ubuntu 22.04 LTS. | Windows 11 (Ryzen 7000/8000), Linux Kernel 5.x, Ubuntu 22.04 LTS (pre-scan) |
| Power | ATX-Power 24-Pin + 12V-8Pin; ACPI 5.0; Watchdog Timer; TPM 2.0 (Infineon SLB9672). | ATX power: 24-pin ATX + 8-pin 12V, AT/ATX selectable |
| Environment & Certifications | Operating Temp: 0 to 60°C; Storage: -20 to 80°C; Humidity: 10-90% RH. | Operating 0 to 60°C, Storage -20 to 80°C, 10-90% RH (non-condensing) |
| Certifications | Certifications: CE, FCC Class-B, DSMI, RCM, VCCI. | CE, FCC Class B, RoHS compliant |
| Form Factor | 305 x 244 mm | |

* The CT-ARL01 Series is available exclusively in the North Americas, contact sales@premioinc.com for more information.

## INDUSTRIAL COMPUTING SOLUTIONS

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