

PRODUCT SOLUTION GUIDE

2025

INDUSTRIAL COMPUTING SOLUTIONS FROM THE EDGE TO THE CLOUD

BUILT RUGGED. BUILT READY.

















YOUR TOP CHOICE PARTNER IN INDUSTRIAL COMPUTING FROM THE

EDGE TO THE CLOUD

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

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

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



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



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

OUR MISSION

OUR VALUE





AGILITY

INNOVATION

COLLABORATION

ACCOUNTABILITY

COMMITMENT

- employees, customers, and partners.

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

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

OUR CORE VALUES

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

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.

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

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

We always hold ourselves accountable for our products, services, and actions to our

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



US BASED COMPANY WITH WORLDWIDE OPERATIONS A STORY OF GROWTH & EVOLUTION

▶ 1989-2000

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

▶ 2000

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

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

▶ 2000-2011

Starting from the year 2000, "Premio PC" transformed its brand identity into "Premio Inc." – becoming a pivotal partner and key advisor in manufacturing and servicing premier technology companies around the world. Furthermore, Premio also restructured its mission and core values around a customer-centric business model with "total customer satisfaction" driving its core.

By 2010, Premio Inc. achieved yet another milestone by successfully engaging with over 50+ customers worldwide ranging from enterprise level companies to start-ups that were eventually acquired by major fortune 500 companies.

▶ 2011-2017

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

- Enterprise Servers and Storage Solutions
- Industrial Embedded Computing Solutions

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

success over time.

Present

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

(Design – Manufacturing – Services)

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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.



INDUSTRIAL PANEL PCS AND TOUCH MONITORS 52

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



IP65 OPEN-FRAME INDUSTRIAL TOUCHSCREEN MONITORS



HIO SERIES

IP65 OPEN-FRAME INDUSTRIAL TOUCHSCREEN COMPUTERS



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),







INDUSTRIAL BOARD SOLUTIONS 68

Mini-ITX, Micro-ATX, and ATX Boards.





APPLICATION **RAILWAY** & ROLLING STOCK



JCO-6000-ORN Series INVIDIA. NVIDIA Jetson AGX Orin Visit P.41





16x M12 PoE **FULL** Certification EN50155 EN45545











IN-VEHICLE & AGV







RCO-1000-EHL Series intel.









Edge Al Enabled

Rich I/O Expansion

Shock & Vibration Resistant

Compact & Fanless







JCO-3000-ORN Series

Mid-Range AI Computer with NVIDIA Jetson Orin NX and Orin Nano Visit P.40

4x RJ45 PoE



5G 2x SIM Slot

MINI 150 x105 x49 mm

Rich I/O Customizable I/O Modules

> -40°C to 70°C Wide Temperature

Compact fanless embedded Computer with Intel[®] Elkhart Lake x6425E Atom[®] Processor Visit P.26

MACHINE VISION INDUSTRIAL COMPUTERS

- Robust CPU Performance
- Rich I/O Expansion
- GPU Supports
- Industrial Grade

BCO-6000-RPL Series Visit P.23

High-Performance Industrial Edge Computer with Intel® 12th/13th Gen Processors

GPU

Cost Effective



2.2.2.2

VCO-6000-RPL Series Visit P.49

Machine Vision Computer with Intel[®] 12th/13th Gen Processors



Dual GPU 600W RTX 4000 GPU Power SFF ADA







KCO-3000-RPL Series Visit P.51

3U Rackmount Fanned Industrial Computer with Intel[®] 12th/13th Gen Processors









M12 IP68/69K Dustproof & Optional 2x PoE Waterproof

-40°C to 60°C Wide Temperature

200W 10Year

Extra

Longevity

High Power

Output

-25°C to 55°C Wide Temperature

-20°C to 60°C Wide Temperature

Edge AI Enabled

Rich I/O Rich I/O Ports and M.2 Expansions

150 x 105 x 61 mm

Intel[®] NUC Alternative

4G/5G High-Speed Wireless Connectivity DP and HDMI

Rich I/O Rich I/O Ports and M.2 Expansions

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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.



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.

Series leverages power-efficient X86 Intel platforms for various kiosks and openframe mounted applications.

INDUSTRIAL EDGE COMPUTERS



BCO SERIES SEMI-RUGGED INDUSTRIAL COMPUTERS



WCO SERIES

IP68/IP69K WATERPROOF INDUSTRIAL COMPUTERS



RCO SERIES SUPER-RUGGED INDUSTRIAL COMPUTERS



ACO SERIES RAILWAY & IN-VEHICLE INDUSTRIAL COMPUTERS



JCO SERIES JETSON AI EDGE INDUSTRIAL COMPUTERS



VCO SERIES MACHINE VISION INDUSTRIAL COMPUTERS



DCO SERIES DIN RAIL FANLESS INDUSTRIAL COMPUTERS



KCO SERIES FANNED INDUSTRIAL COMPUTERS

EDGEBoost Technologies



EDGEBoost Nodes

EBND SERIES

EDGE AI PERFORMANCE ACCELERATORS MODULES



EDGEBoost I/O

EBIO SERIES

FLEXIBLE I/O AND M.2 EXPANSION MODULES



EDGEBoost EnergyPack

ECO SERIES SUPERCAPACITOR UPS BACKUP SYSTEM



FANLESS DESIGN

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



SHOCK & VIBRATION

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

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.

INDUSTRY LEADING SAFETY CERTIFICATIONS

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



E-Mark Certification



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



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.







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 & Ruggeddized Design



BCO 1000 Compact

BCO-1000 SERIES



BCO-500 SERIES



intel.

BCO-500 SERIES

- Intel[®] Alder Lake / Intel[®] Atom[®] Processors
- Mini Form Factor
- High-Speed I/O Ports and Wireless Connectivity
- Competitive Price and Long Lifetime Support

BCO-3000 SERIES

- Intel[®] Core Processors
- Powerful 35W Edge Performance
- Rich I/O Ports and M.2 Expansions
- Up to Triple Displays / Triple RJ45 LAN Ports

BCO SERIES

BC0 3000 Balanced Performance

BCO 6000 High Performance

BCO-6000 SERIES

BCO-3000 SERIES

BCO-1000 SERIES

- Intel[®] Alder Lake / Intel[®] Atom[®] Processors
- Power Efficient 12W Performance

- Digital and Analog I/O Connectivity
- Competitive Price and Long Lifetime Support

BCO-6000 SERIES

- Intel[®] Core Processors
- Powerful 35W Edge Performance
- Rich I/O Ports and M.2 Expansions
- 2x PCIe Gen 4 Slots with GPU Support

BCO-500-ADL SERIES

FANLESS MINI COMPUTER

BCO-1000-ADLN SERIES MORE

Alder Lake	Q other
Model	BC0-500-ADL
CPU Support	12 th Gen Intel [®] IoTG Alder Lake-N N97 Processor Intel [®] Core™ i3-N305 Processor
Memory	1x 262-Pin DDR5 4800MT/s SODIMM. Max. up to 16GB (Default 8GB)
Display	1x 4K HDMI 1.4b 1x 4K DisplayPort 1.4a
Storage	1x M.2 B Key (2242/3042, SATA/PCIe x1, support NVMe/SATA)
Expansion	1x M.2 E Key (2230, PCIe x1, USB 2.0, support Wifi/Bluetooth)
I/O	2x RJ45 (2.5GbE) 1x RS-232/422/485 1x RS-232 4x USB 3.2 Gen 2 (10 Gbps)
Power	3-pin, AT/ATX 12~36V
Operating Temp	-10°C to 50°C (12W CPU)
Certification	CE, FCC Class A, UL, VCCI, RCM
Dimensions (WxDxH)	225 x 130 x 41 (mm)

NEW

intel. Amston Lake / Alder Lake				
Model	BCO-1000-ADLN	BCO-1000-ADLN-B-3L		
CPU Support	$12^{ m th}$ Gen Intel $^{\circ}$ IoTG Alder Lake-N N97 Processor	12 th Gen Intel [®] IoTG Alder Lake-N N97 Processor Intel [®] Atom [®] x7835RE Processor		
Memory	DDR5 4800MT/s SODIMM. M	DDR5 4800MT/s SODIMM. Max. up to 16GB (Default 8GB)		
Display	1x 4K Displ 1x 4K H	layPort 1.4a DMI 1.4b		
Storage	1x Internal 2.5" SATA S	SD Bay (7mm or 9mm)		
Expansion	1x M.2 B Key (2242/2280/3042, SATA/PCIe x1, support NVMe/SATA) 1x M.2 E Key (2230, PCIe x1 & USB 2.0, support Wifi 6E & BT-5.1)	1x M.2 B Key (2242/2280/3042, SATA/PCIe x1/USB3.0 support LTE/4G/Storage Module), 1x M.2 E Key (2230, PCIe x1 & USB 2.0, support Wifi 6E & BT-5.1) 1x Dual SIM Socket (SIM1/SIM2)		
1/0	2x RJ45 (2.5GbE) 1x RS-232/422/485 1x RS-232 2x USB 3.2 Gen2 (10 Gbps) 2x USB 3.2 Gen1 (5 Gbps) 2x USB 2.0, 8x GPIO Line-in/Line-out/Mic-in	3x RJ45 (2.5GbE) 1x RS-232/422/485 1x RS-232 2x USB 3.2 Gen1 (5 Gbps) 2x USB 2.0 8x GPIO Line-in/Line-out/Mic-in		
Power	3-pin, AT, ATX 9~36V	3-pin, AT, ATX 12~36V		
Operating Temp	0°C to	50°C		
Certification	CE, FCC Class A	UL 62368 Ed.3, CE, FCC Class A		
Dimensions (WxDxH)	192 x 140 x 68 (mm)			



BCO SERIES

SMALL FORM FACTOR EDGE COMPUTER

BCO SERIES BCO-2000-WHL-U SERIES MORE

Whiskey Lake	
CENTRAL CENTRAL E357184	







	-		
Model	BC0-2000-WHL-U	Model	
CPU Support	8 th Gen Intel [®] WL-UE Processor, Core™ i5-8365UE or Celeron [®] 4305UE	CPU Support	with F
Memory	1x 260-Pin DDR4 2400MT/s SODIMM. Max. up to 32GB (Default 8GB)	Memory	Max
Display	1x 4K DisplayPort 1x 4K HDMI (optional)	Display	
Storage	1x Internal 2.5" SATA HDD Bay (support H=9.5mm), 1x Internal SATA 7P connector 1x mSATA (Shared by 1x Mini PCI Express)	Storage	1x Inte
Expansion	2x Full-size Mini PCIe (1x shared by 1x mSATA) 1x Internal SIM slot	Expansion	1x M.2
I/O Expansion	2x I/O Expansion for USB and COM Ports	I/O Expansion	2:
I/O	2x RJ45 (2.5GbE) 2x RS-232/422/485 4x USB 3.2 Gen 2 (10 Gbps) 2x USB 2.0 header (internal)	1/0	2x US
Power	3-pin, AT/ATX 12V	Power	
Operating Temp	-20°C up to 60°C	Operating Temp	

UL 62368 Ed.3, CE,

FCC Class A

140 x 192 x 61 (mm)

CPU Support	AMD Ryzen™ Embedded V1605B with Radeon™ Vega 8 Graphics, 3.6 GHz (4 Cores)
Memory	2x 260-pin DDR4 2400MT/s SODIMM. Max. up to 32GB (Default: 8GB, ECC/non-ECC)
Display	1x 4K DisplayPort 1.4, DP++ 1x 4K HDMI 2.0b
Storage	1x Internal 2.5" SATA HDD Bay (support H=9.5mm 1x M.2 B Key (3042, support SATA)
Expansion	1x Full-Size Mini PCIe 1x M.2 B Key (3042/3052, PCIe x1 & USB 3.0, SATA USIM, Support 4G/5G)
I/O Expansion	2x I/O Expansion for USB and COM Ports
 1/0	2x RJ45 (2.5GbE) 2x RS-232/422/485 2x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (internal)
Power	3-pin, AT/ATX 12V
 Operating Temp	-20°C to 55°C (25W CPU)
Certification	UL 62368 Ed.3, CE, FCC Class A
Dimensions (WxDxH)	140 x 192 x 57.6 (mm)

BCO-2000-RYZ SERIES

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Raptor Lake / Alder Lake	
Model	BC0-30
CPU Support	12 th /13 th (
Memory	2
Display	
Storage	(2242/:
Expansion	1x M.2 B Ke 1x M
PCIe	
1/0	
Power	4-pin, AT,
Operating Temp	
Shock & Vibration	
Certification	
Dimensions (WxDxH)	192 x 240

Certification

Dimensions

(WxDxH)



RCO SERIES SUPER-RUGGED INDUSTRIAL COMPUTERS

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 Nodes Support



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Scalable NVMe, SATA, and RAID Card



Scalable Robust GPU Cards



RCO-3000 SERIES





intel

RCO-1000 SERIES

- 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
- Wid
 -25'
 FN
- •

RCO SERIES



RCO-6000 SERIES

RCO-3000 SERIES

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

RCO-6000 SERIES

RCO

6000

High

Performance

- Intel[®] Core Processors
- 2x EDGEBoost I/O
- High-Al 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

ULTRA COMPACT RUGGED COMPUTER

RCO-1000-ASL SERIES					
	Amston Lake				· · · · · · · · · · · · · · · · · · ·
	Model	RCO-1000-ASL-10	RCO-1000-ASL-20	RCO-1000-ASL-30	RCO-1000-ASL-30-2P
	CPU	I	ntel [®] Atom [®] x7835RE Pro Intel [®] Atom [®] x7433RE Pro	cessor, 8 cores, 3.6 GHz (ocessor, 8 cores, 3.4 GHz (I 2W TDP) 9W TDP)
	Memory	1x	262-pin DDR5	50-DIMM Max. up to 32GB	(Non-ECC)
	Display	1x HDMI 1.4b (3840 x 2160), 1x DP (4096 x 2304)			
	Storage	1x SATA 3.0 6Gb/s, 1x M.2 B Key: 2242/3042/3052 for AI/Storage/4G/5G			
	Expansion	1x M.2 E Key: 2230 (PCIe x1, USB 2.0), 1x M.2 B Key: 3042/3052 for AI/Storage/4G/5G, 2x SIM Socket			
	Ι/Ο	2x RJ45 (2.5 GbE), 2x RS-232/422/485, 2x 2.5 GbE, 2x RS- 3x USB 3.2, 1x USB 2.0, 232/422/485, 3x USB 3.2 2x CAN, 1x I2C 3-pin, 1x USB 2.0, 2x CAN, 1x I2 1x Power Ignition Switch 3-pin, 2x GbE RJ45 (Poel 1x Power Ignition Switch			2x 2.5 GbE, 2x RS- 232/422/485, 3x USB 3.2, 1x USB 2.0, 2x CAN, 1x I2C 3-pin, 2x GbE RJ45 (PoE), 1x Power Ignition Switch
	EDGEBoost I/O Expansion	1x EDGEBoost I/O	2x EDGEBoost I/O	3x EDGEBoost I/O	3x EDGEBoost I/O
	00B	1x RJ45 (Out-of-band Management module)			
	Power	3-pin, AT/ATX 9~36VDC			
	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)

intel. Elkhart Lake











Model	RCO-1000-EHL-10	RCO-1000-EHL-20	RCO-1000-EHL-30	RCO-1000-EHL-30-2P	
CPU Support		Intel [®] Atom [®] x6425E Processor (Up to 12W T			
Memory		1x 260-pin DDR4 5	50-DIMM. Max. up to 32GE	3	
Display		2x DisplayPort 1.4	, DP++ (4096 x 2160@60Hz	2]	
Storage		1x Internal 2.5" SATA	SSD Bay (support H=9.5 r	nm)	
Expansion	1x Full-size Mini PCIe, 2x External SIM socket, 1x Universal I/O Bracket			sal I/O Bracket	
I/O	2x 2.5 GbE, 3	2x 2.5 GbE, 3x USB 3.2, 2x RS-232/422/485, 2x CAN			
EDGEBoost I/O Expansion	1x EDGEBoost I/O	1x EDGEBoost I/O 2x EDGEBoost I/O 3x EDGEBoost I/O			
Power	3-pin, AT/ATX 9~36VDC				
Operating Temp	-40°C to 70°C -40°C to 50°C			-40°C to 50°C	
Shock & Vibration	With SSD: 50G & 5 Grms (1 Grms with HDD)				
Certification	UL 62368 Ed. 3, CE, FCC Class A CE, FCC Class A			CE, FCC Class A	
Dimensions (WxDxH)	150 x 105 x 49 (mm) 150 x 105 x 65 (mm) 150 x			105 x 83 (mm)	

SMALL FORM FACTOR RUGGED COMPUTER

RCO-3000-R	PL SERIES MORE
Raptor Lake / Alder Lake	EMC Conformity 50155 & EN50121-3-2
Model	
CPU Support	12 th /13 th Gen
Memory	1
Display	4x
Storage	2x 2.5" SATA dr
Expansion	1x M.
1/0	2 6x U
EDGEBoost I/O Expansion	
00B	
SIM Slot	1x Extern
Power	
Operating Temp	
Shock & Vibration	
Dimensions (WxDxH)	

RCO-3000-CML SERIES MORE





Model	
CPU Support	10 th
Memory	2x 260-Pin [
Display	
Storage	2x 2.5" SATA SSI
Expansion	1> 1
Ι/Ο	2 6x
EDGEBoost I/O Expansion	
SIM Slot	
Power	
Operating Temp	
Shock & Vibration	
Dimensions (WxDxH)	





RCO-3000-RPL

Gen Intel[®] RPL S / ADL Processor i3/i5/i7/i9 (LGA 1700, 35W TDP)

1x DDR5 4800/5600MHz SODIMM. Max. up to 32GB

4x DisplayPort (1x DP Port Co-layout HDMI Connector)

A drive bay with RAID 0, 1, 5 support (1x internal, 1x hot-swappable)

2x M.2 B key Type: 2242/3042/3052, x M.2 B key Type: 2242/3042/3052, 1x M.2 E key slot (2230)

2x RJ45 (2.5 GbE), 5x RS-232/422/485 (2x internal), 6x USB 3.2 Gen 2, 16x isolated digital I/O, 1x Power Switch

1x EDGEBoost I/O

1x RJ45 (optional OOB Management module)

ternal Standard SIM socket, 1x External Dual Nano SIM socket

9~48 VDC, AT/ATX Select, 3-pin Terminal Block

-25°C to 70°C

With SSD: 50G & 5 Grms

192 x 227 x 60.3 (mm)



RCO-3000-CML

Gen Intel[®] CML S Processor i3/i5/i7/i9 (LGA 1200, 35W TDP)

DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB (ECC and Non-ECC)

3x DisplayPort (1x DP Port Co-layout HDMI Connector)

D bay with RAID 0, 1, 5 support (1x internal, 1x hot-swappable), 1x mSATA

x Full-size mini PCIe, 1x M.2 E Key: 2230 (PCIe x1, USB 2.0) 1x M.2 B Key: 2242/3042/3052 for AI/NVMe/4G/5G module

x RJ45 (2.5 GbE & 1 GbE), 5x RS-232/422/485 (2x internal), USB 3.2 Gen 2 (10 Gbps), 16x isolated digital I/O, 1x Line-out

1x EDGEBoost I/O

2x External Standard SIM socket

3-pin, AT/ATX 9~48 VDC

-25°C to 70°C

With SSD: 50G & 5 Grms

192 x 227 x 60.3 (mm)

RCO-6000-CML SERIES MORE

RCO-6000-RPL SERIES MORE

Model RC0-6000-CML RC0-6000-CML-2-2PWR RC0-6000-CML-2-4B CPU 10 th Gen Intel® CML S Processor i3/i5/i7/i9/Xeon® (LGA 1200, 35W TDP)	7M		
CPU 10 th Gen Intel [®] CML S Processor i3/i5/i7/i9/Xeon [®] (LGA 1200, 35W TDP)			
Memory 2x 260-Pin DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB (ECC and Non-ECC)			
Display 2x DisplayPort, DP++ (4096 x 2304) 1x DVI-I (1920 x 1200)			
Storage3x 2.5" SATA SSD bay with RAID 0, 1, 5 support7x 2.5" SATA SSD bay wStorage(1x internal, 2x hot-swappable)(1x internal, 6x hot-swappable)	th able)		
2x CAN, 2x RJ45 (GbE), 6x USB 3.2 Gen 2 (10 Gbps), 3x USB 3.2 Gen 1 (1x internal), 2x USB 2.0 header (internal), 1x Mic-in, 1x Line-out 8x RS-232/422/485 (6x internal), 16x isolated digital I/O	2x CAN, 2x RJ45 (GbE), 6x USB 3.2 Gen 2 (10 Gbps), 3x USB 3.2 Gen 1 (1x internal), 2x USB 2.0 header (internal), 1x Mic-in, 1x Line-out 8x RS-232/422/485 (6x internal), 16x isolated digital I/O		
EDGEBoost I/O Expansion 2x EDGEBoost I/O	2x EDGEBoost I/O		
Expansion1x M.2 E Key: 2230 (PCIe x1, USB 2.0)1x M.2 E Key: 2230 (PCIe x1, USB 2.0) 2x Full-size Mini PCIe for 2x Full-size Mini PCIe for Cellular/Wifi/BTExpansion2x Full-size Mini PCIe for Cellular/Wifi/BT2x Full-size Mini PCIe for Cellular/Wifi/BT			
SIM slot 2x External Standard SIM socket			
Power 5-pin, AT/ATX 9~48 VDC 2x Power Input, AT/ATX Select 5-pin, 9~48 VDC 5-pin, AT/ATX 9~48 VDC 4-pin, 12~48 VDC (GPU Expansion) 5-pin, AT/ATX 9~48 VD	2		
Operating Temp -25°C to 70°C (35W CPU)	-25°C to 70°C (35W CPU)		
Certification UL 62368 Ed. 3 & CE, FCC Class A			
Shock & VibrationWith SSD: 50G & 5 Grms (1 Grms with HDD)With SSD: 20G & 3 Grms (1 Grms with HDD)With SSD: 50G & 5 Grm (1 Grms with HDD)	S		
Dimensions (WxDxH) 240 x 261 x 79 (mm) 240 x 261 x 126.8 (mm)			

Raptor Lake / Alder Lake			
Model	RCO-6000-RPL	RCO-6000-RPL-8NS	RCO-6000-RPL-4N-1E
CPU	12 th /13 th Ge	n Intel [®] RPL & ADL Processor i3/i5/i	7/i9 (LGA 1700, 35W TDP)
Memory		2x 262-Pin DDR5 4800/5600MHz Max. up to 64GB (ECC and Not	SO-DIMM. n-ECC)
Display		2x DisplayPort (Up to 7680 x - 1x DVI-I (1920 x 1200)	4320),
Storage	2x 2.5" SATA SSD bay with RAID 0, 1 support (1x internal, 1x hot-swappable)	2x 2.5" SATA SSD bay (1x internal, 1x hot-swappable), 8x 2.5" NVMe SSD bay (hot-swappable), Support RAID 0, 1, 5, 10	2x 2.5" SATA SSD bay (1x internal, 1x hot-swappable), 4x 2.5" NVMe SSD bay (hot-swappable), Support RAID 0, 1, 5
Expansion	1x M.2 E Key: 2230 for Wifi/BT, 1x M.2 B Key: 2242/3042/3052 for Al/Storage/Cellular 1x Full-size Mini PCIe for Cellular		
GPU	- CPU support: NVIDIA RTX A2000, NVIDIA ADA, NVIDIA RTX 4000 S		
1/0	2x RJ45 (2.5 GbE), 6x RS-232/422/485 (4x internal), 8x USB 3.2 Gen 2, 1x USB 3.2 Gen 1 (internal), 2x USB 2.0 (internal), 16x isolated digital I/O, 1x Line-out		
EDGEBoost I/O Expansion		Up to 2x EDGEBoost I/C	1
SIM slot		2x External SIM socket	
Power	5-pin, AT/ATX 9~48 VDC	AT/ATX, 5-pin, 9~48 VDC, 4-pi	n, 12~48 VDC for EDGEBoost Node
Operating Temp	-25°C to 70°C (35W CPU)	-25°C to 60°C (35W CPU)	-25°C to 45°C (35W CPU, with GPU)
Certification	UL 62368 Ed. 3 & CE, FCC Class A		
Shock & Vibration	With SSD: 50G & 5 Grms (1 Grms with HDD) With SSD: 20G & 3 Grms (1 Grms with HDD)		
Dimensions (WxDxH)	240 x 261 x 79 (mm)	240 x 261 x 166.9 (mm)	240 x 261 x 166.9 (mm)





EDGE Boost **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.

















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 PCle x16



Hotswap Storages

Model Name	RAM	CUDA Cores	TDP	Display	Interface	Active Cooling	Slots
NVIDIA T1000	4G	896	50	4x mDP	PCle 3.0 x16	Yes	1
NVIDIA RTX A2000	12G	3328	70	4x mDP	PCle 4.0 x16	Yes	2
NVIDIA RTX 2000 ADA	16G	2816	70	4x mDP	PCle 4.0 x8	Yes	2
NVIDIA RTX 4000 SFF	20G	6144	70	4x mDP	PCle 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.

Modular, Scalable Design

Industrial Ruggedness

Certification-Ready

Cost Effective

30

Up to 8x NVMe NVMe/SATA

EDGEBoost Nodes





Tested & Validated GPU List

**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

Configuration Guide

EDGEBoost I/O

Flexible I/O and M.2 Expansion Modules

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



Configure Your EDGEBoost Nodes

Hardware RAID 0, 1, 5, 10

4x Hot-Swap 2.5" U.2 NVMe Drives (7mm)

	Bottom - Modular "EDGEboost Nodes" Configurations			
ards	P	CI or PCle Expansion Series		GPU Series
GPU / Other PCle C		 EBND-2-EXP-G4 (RCO-6000-RPL) 1x PCle x16 (Gen 4), 1x PCle x1 (Gen 3) or 1x PCle x16 (Gen 4), 1x PCle x8 (Gen 4) EBND-2-EXP (RCO-6000-CML) PCle x16, PCI Expansions 		 EBND-2-PWR-G4 (RCO-6000-RPL) 1x PCle x16 (Gen 4), 1x PCle x1 (Gen 3) or 2x PCle x8 (Gen 4) 12~48VDC Power Supply (280W) EBND-2-PWR (RCO-6000-CML) PCle x16, PCI Expansions 12~48VDC Power Supply (280W)
		SATA Sto	orage Series	
	<u>in</u>	• EBND-2-2SATA 2x Hot-Swap 2.5" SATA Drives (15mm) RAID 0, 1, 5, 10	<u>í</u>	• EBND-2-4SATA 4x Hot-Swap 2.5" SATA Drives (7mm) RAID 0, 1, 5, 10
ages		NVM	e Series	
Stor		• EBND-2-2NVME-G4 (RCO-6000-RPL only) 2x Hot-Swap 2.5" NVMe SSD Bay (15mm) PCle Gen 4 Expansion		• EBND-8NVME-S 8x Hot-Swap 2.5" U.2 NVMe Drives (7mm) RAID 0, 1, 5, 10
		• EBND-4NVME-S 4x Hot-Swap 2.5" U.2 NVMe Drives (15mm) RAID 0, 1, 5, 10		• EBND-4NVME-H 4x Hot-Swap 2.5" U.2 NVME Drives (15mm) Hardware RAID 0, 1, 5, 6, 10
	NVMe and GPU Series			
s + GPU		• EBND-4NVME-GPU 1x GPU Expansion 4x Hot-Swap 2.5" U.2 NVMe Drives (7mm)		• EBND-2NVME-GPU 1x GPU Expansion 2x Hot-Swap 2.5" U.2 NVMe Drives (15mm)
torages		• EBND-4N-1E 1x PCIe x16. 1x PCIe x1 Slots		

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.

Compatible Industrial Computers

Industrial Mini Computers



Super-Rugged Mini

EBIO Modules for Industrial Mini Computers



• 1x DP (4K UHD)	• 1x HDMI Port (Full-H
 1x DIO (4 in / 4 out, Isolated) 	



Edge AI Industrial Computers



RCO-3000 Series Super-Rugged SFF



JCO-6000 Series Jetson Edge Al Industrial



RCO-6000 Series Super-Rugged EDGE AI



ACO-6000 Series Railway & In-Vehicle

og Digital and Analog EBIO Modules		
I	EBIO-4USB	EBIO-2COM
ID)	• 4x USB 2.0, Type A Ports (with USB hub)	• 2x COM Ports (RS-232/422/485)

EBIO Modules for

Edge Al Industrial Computers

USB Interface Modules



Connectivity & Network Modules

		0000	0101010
EBIO-4ETH	EBIO-4ETH-J	EBIO-4ETH-M12	EBIO-4ETH-M12-J
 4x 1GbE LAN, RJ45 Port Intel[®] Ethernet Controller I350 PCIe x1 Gold Fingers Interface (P Support Power over Ethernet by a 	Cle 3.0 x4 Performance) an optional PoE module	 4x 1GbE LAN, M12 Port X-code 8- Intel[®] Ethernet Controller 1350 PCIe x1 Gold Fingers Interface (Pi Support Power over Ethernet by a 	-Pin Cle 3.0 x4 Performance) 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-00B	EBIO-00B-J
 2x 10 GbE LAN, RJ45 Ports Intel[®] Ethernet Controller X710-A PCIe x1 Gold Fingers Interface (P 	NT2 Cle 3.0 x4 Performance)	RJ45 Hardware-Based Features: Power Control & Management OOB Cloud Serial Console	Out-of-Band and In-Band
		Uptional: Backup & Recovery Temper	· Detection · Thermo-Guard

EBIO-4U3L-J

Cellular, Edge AI, and Storage Modules

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

EDGEBoost 1/0 Series

	12 10 11 12
EBIO Modules	
BIO-HDMI	
BIO-DP-DIO	
BIO-2COM	
BIO-4U3	



Super-Rugged SFF Computers

EBIO Modules	RCO-3000 Series	RCO-6000 Series	ACO-6000 Series
EBI0-4U3	•	•	•
EBIO-4ETH	•	•	•
EBIO-4ETH-POE	•	•	•
EBIO-4ETH-M12	•	•	•
EBIO-4ETH-POE-M12	•	•	•
EBIO-D10G	•	•	•
EBI0-00B	•		•
EBIO-M2BK		•	•
EBI0-2M2BK	•	•	•
EBIO-M2MK	•	•	•





EBIO Modules	
EBIO-4U3-J	•
EBIO-4U3L-J	•
EBIO-4ETH-J	٠
EBIO-4ETH-POE-J	•
EBIO-4ETH-M12-J	•
EBIO-4ETH-POE-M12-J	•
EBIO-D10G-J	•
EBIO-00B-J	•
EBIO-M2MK-J	•







•



Super-Rugged Edge AI Computers

Railway & In-Vehicle Computers



Jetson AI Edge Industrial Computers

JCO-6000 Series





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

INDUSTRIAL-GRADE SUPERCAPACITOR FOR REDUNDANT POWER

ECO-1000 EDGEBOOST ENERGYPACK

- 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



Model	
Capacity	
Input Voltage	
Input Connector	
Output Voltage	
Output Power	
Output Connector	
Ι/Ο	Others: 1x F
Charging Mode	
Power Ignition	
Operating Temp	
Shock & Vibration	
Certification	
Dimensions (WxDxH)	
Weight	
Mounting Options	



0-0-0-0



ECO-1000

12 ~ 35 VDC

3-pin Terminal Block (V+, GND, IGN IN)

Charge mode: DC IN Voltage bypass (DC OUT = DC IN) Available Discharge Mode: 12 or 24V

> ECO-1000-8S: Max.100W output ECO-1000-16S: Max.200W output

3-pin Terminal Block (V+, GND)

1x RS-232,

1x USB Type A

2x DI + 2x DO with isolation

Remote Power On/Off, 1x Smart Mode Switch, 1x Mode Reset Switch

Quick and Normal Charging

Power Ignition Management

-25°C to 55°C

20 G: 5 Grms

CE, FCC Class A, UL 62368-1 Ed. 3 EMC Conformity with EN50155

100 x 192 x 192 (mm)

1.8 kg ~ 2.6 kg

Wall Mounting, DIN Rail Mounting (Optional)



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

- Jetson Orin Nano Super 4GB/8GB with 7W-25W Power Options
- Jetson Orin NX 8GB/16GB with 10W-25W Power Options
- 20-100 TOPS of AI Performance

JCO-3000-ORN SERIES

- with 7W-25W Power Options
- Jetson Orin NX 8GB/16GB with
- 10W-25W Power Options
- Up to 100 TOPS of AI Performance

JCO-6000-ORN SERIES

- 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

JCO SERIES

JCO-1000-ORN SERIES JCO-3000-ORN SERIES MORE

5

5

	NEW NEW	Coming Soon	NEW
Model	JCO-1000-ORN-A	JCO-3000-0RN-A	JCO-3000-ORN-B
CPU Support	N	NVIDIA Jetson Orin™ NX 16GB/8GB VIDIA Jetson Orin™ Nano Super 8GB/4G	В
TOPS	Orin NX: 70-100 TOPS Orin Nano: 20- 67 TOPS		
Display	1x 4K HDMI 2.0	1x 2K HDMI	1x 4K HDMI
Storage	1x M.2 (M Key, 2242/2280, PCIe x4, NVMe) (Default 128GB) 1x Micro 2.0 SD Slot	1x M.2 (M Key, 2242/2280, PC	le x4, NVMe) (Default 128GB)
Expansion	1x M.2 B Key (2242/3042/3052, PCIe x1, USB 3.2 Gen1, support 4G/5G Module) 1x M.2 E Key (2230, PCIe x1, USB 2.0, support Wi-Fi/Bluetooth) 1x External Dual Nano SIM socket	1x M.2 B Key (3042/3052, USB 3.2 Gen1, support 4G/5G) 1x M.2 E Key (2230, PCIe x1, USB 2.0, support Wi-Fi/Bluetooth) 1x External Micro SIM Socket	1x M.2 B Key (3042/3052, USB 3.2 Gen1, support 4G/5G) 1x M.2 E Key (2230, PCIe x1, USB 2.0, support Wi-Fi/Bluetooth) 1x External Dual Nano SIM socket
1/0	1x RJ45 (2.5 GbE) 1x CAN 2.0 B, 2x RS-232/422/485, 4x USB 3.2 Gen 2 (10 Gbps), 1x USB Type-C (Flash), 1x Micro USB (Console)	2x RJ45 (1GbE) 1x CAN 2.0 A, 2x RS-232/485, 4x USB 3.0, 1x Micro USB (0TG)	1x CAN 2.0 B, 2x RS-232/422/485 4x RJ45 (Optional, PoE+ 120W Module), 4x USB 3.2 Gen 2 (10 Gbps), 1x USB Type-C (Flash), 1x Micro USB (Console)
00B	1x	RJ45 (Optional OOB Management Modu	le)
Power	3-pin, AT, ATX 9~36V	3-pin, AT 12-24V	3-pin, AT/ATX 9-36V 12V: PoE Power Budget Supports Up to 60W 24V: PoE Power Budget Supports Up to 120W
Operating Temp		-20°C to 55°C (25W, NX Module) -20°C to 60°C (15W, Nano Module)	
Shock & Vibration	With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 50G half-sin 11ms)
Certification	UL 62368 Ed. 3, CE, FCC Class B	UL 62368 Ed.3, CE, FCC Class A	UL 62368 Ed. 3, CE, FCC Class A, E mark
Operating System	l	Linux Ubuntu 20.04 with JetPack 6.x SDP	<
Dimensions (WxDxH)	150 x 105 x 61 (mm)	192 x 140	x 58 (mm)

	3 Charles and the	1 15 1 Start Barrier Barrier
NVIDIA JETSON (DRIN INDUSTRIAL COMPUTER	
JCO-6000	J-ORN SERIES MORE	
EMC Conforr INVIDIA EN50155 & EN50	nity 121-3-2	
Model	JCO-6000-ORN-A	JCO-6000-ORN-B
CPU Support	NVIDIA Jetson AGX 0rin™ AI Computer with 8-o	- core/12-core Arm [®] Cortex [®] -A78AE v8.2 64-bit CPU
Memory	AGX Orin 32 GB/64 GB LF	PDDR5 @ 3200 MHz on SOM
TOPS	200 TOPS/40W 275 TOPS/60W	
Display	1x 4K HDMI 2.0	
Storage	1x eMMC 5.1, 64 GB, 1x M.2 (M Key, 2280, PCIe x4, support NVMe) (Default 128GB)	
Expansion	1x M.2 (B Key, 3042/3052, USB 3.2 Gen 2, support 4G/5G Module) 1x M.2 (E Key, 2230, PCIe x1, USB 2.0, support Wi-Fi/Bluetooth) 1x Micro SD Socket, 2x Micro SIM Sockets	
I/O Expansion	2x I/O Expansion for USB/LAN/M12/NVMe Storage	4x I/O Expansion for USB/LAN/M12/NVMe Storage
PoE	By Optional PoE Power Module, Support up to 4x RJ45/M12 LAN Module	By Optional PoE Power Module, Support up to 12x RJ45/M12 LAN Module
1/0	2x CAN, 2x RS-232/422/485, 2x RJ45 (1GbE, 10GbE), 1x USB 3.2 Gen 2 (10 Gbps), 1x USB 2.0 (Flash) 1x USB Type C (Console), 8 in / 8 out (Isolated) to I/O Part	
00B	1x RJ45 (00B Manage	ement Module, Optional)
Power	3-pin, AT, ATX 9~48\	V or 48~110V (Optional)
Operating Temp	-20°C	C to 55°C
Shock & Vibration	With SSD: 5 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 50G half-sin 11ms	
Certification	CE, FCC Class E-Mark, E	A, UL 62368 Ed. 3, EMC EN50155
Operating System	Linux Ubuntu 20.04 with JetPack 6.x SDK	
Dimensions (WxDxH)	270 x 19	0 x 95 (mm)



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



NO BE REAL

Ruggedized Fanless Solution



DCO-1000-ASL SERIES

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. Amston Lake

Model	
CPU Support	
Memory	1x 262-Pin DD
Display	
Storage	
Expansion	1x M.2 B 1x
1/0	
00B	
Power	
Operating Temp	
Shock & Vibration	Wa DIN
Certification	
Operating System	
Dimensions (WxDxH)	
Mounting Options	



DCO-1000-ASL

Intel[®] Atom[®] x7433RE Processor

DR5 4800MT/s SODIMM. Max. up to 16GB (Default 8GB, ECC/Non-ECC)

2x 4K DisplayPort 1.4, DP

1x M.2 (B Key, 3042/3052, PCIe x2), Default 128GB

3 Key (3042/3052, USB 3.2 Gen2 + USB 2.0 for 4G/5G Module only) M.2 E Key (2230, PCIe x1 + USB 2.0, support Wifi/Bluetooth) 1x Dual Nano SIM Socket

> 4x RJ45 (2.5GbE) 2x RS-232/422/485 2x USB 3.2 Gen 2 (10 Gbps), 2x USB 2.0

1x RJ45 (OOB Management Module, Optional)

3-pin, AT, ATX 9~36V

-40°C to 55°C

With SSD: 20G, half sine, 11ms all Mounting with NVMe SSD: 5 Grms, 5 - 500 Hz, 0.5hr/axis Rail Mounting with NVMe SSD: 5 Grms, 5 - 500 Hz, 0.5hr/axis

UL 61010-2-201, CE, FCC Class A

Windows 10, Windows 11, Linux kernel 5.X

150 x 105 x 49 (mm)

DIN-Rail Mounting Wall Mounting (Optional)



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.



Rating

IP68/IP69K



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



Scalable M12 Ports



High-Quality **Compact Construction**



WCO-3000-EHL SERIES MORE

intel. Elkhart Lake

Model	
CPU	Intel [®] Atom
Memory	
Display	1x D
1/0	
Storage	
Expansion	1x M.2 (B Key,
Power	
Certification	
Operating Temperature	
ТРМ	
Dimensions (WxDxH)	

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))



WC0-3000-EHL

1x 260-Pin DDR4 2400/2667/3200MT/s SODIMM. Max. up to 32 GB (Non-ECC)

DisplayPort 1.4, DP++ (4K DCI@60Hz) or 1x HDMI (Optional), Single Display, Waterproof

2x LAN by M12 X-Code (1x 1GbE, 1x 2.5GbE) 2x USB 3.2 Gen 2 Type A (10Gbps, Waterproof) 1x RS-232/422/485 by M12 A-Code 2x M12 Waterproof Cover for PoE or COM Expansion

> 1x mSATA shared by 1x Mini PCI Express 1x Internal 2.5" SATA HDD Bay

3042/3052, PCIe x1 + USB 3.2 Gen2, Support 4G/5G/Hailo AI Module), 2x Internal SIM socket. 1x Full-size Mini PCIe

AT/ATX, DC IN 9-36 V, DC IN 48-110 V (Optional) M12 S-code 4-pin

IP68, IP69K, CE, FCC Class A

-40 °C to 60 °C

TPM 2.0

231 x 292 x 57 (mm)



DELIVER INTELLIGENCE AT THE MOBILE EDGE

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



Scalable 16x PoE



EN50155 / EN45545 and E-Mark



Wide Power Range 9~48V, 24V~72V and 48~110V



MIL-STD-810G Compliant Method 514 & 517

HIGH-PERFORMANCE RAILWAY & IN-VEHICLE FANLESS COMPUTER

ACO-6000-RPL SERIES

intel.

Raptor Lake / Alder Lake



Model	ACO-6000-RPL	ACO-6000-RPL-1	
CPU	12 th /13 th Gen Intel [®] RPL & ADL Proce	essor i3/i5/i7/i9 (LGA 1700, 35W TDP)	
Memory	2x 262-Pin DDR5 4800/5600MHz SO-DIM	IM. Max. up to 64GB (ECC and Non-ECC)	
Storage	2x 2.5" SATA drive bay with RAID 0, 1 s	upport (1x internal; 1x hot-swappable)	
Display	2x DisplayPort (Up to 8k	(), 1x DVI-I (1920 x 1200)	
I/O	2x RJ45 (2.5GbE), 6x RS-232/422/485 (2x Re 1x USB 3.0 (5 Gbps, Internal), 2x USB 2.	ar, 4x Internal), 8x USB 3.2 Gen 2 (10 Gbps), 0 (internal), 1x 8-in/8-out DIO (Isolated)	
00B	1x RJ45 (optional OOB Management module)		
Expansion	1x Full-size mPCIe (shared by 1x mSATA), 2x External SIM socket (mPCIe attached) 1x M.2 B Key (PCIe x2 or PCIe x1 & USB 3.2 Gen1) for Al/Storage/4G/5G 1x M.2 E Key (2230, PCIe x1, USB 2.0) for Wi-Fi/BT		
Power	9~48VDC (Default); 24V to 72V (Optional); 48~110VDC (Optional) OVP (Over Voltage Protection); OCP (Over Current Protection); Power Ignition Management		
Certification	FULL EN50155 Certified & EN45545-2 (Fire & Smoke Protection), CE, FCC Class A, E-Mark, UL 62368 Ed. 3		
Temperature	-25°C up to 70°C (35W CPU)		
Shock & Vibration	50G Shock & 5Grms Vibration Resistant (MIL-STD-810G Compliant)		
PCIe Expansion	N/A	1x PCle x16	
EDGEBoost I/O Expansion	Up to 2x EDGEBoost I/O, Up to 8x M12/RJ45 GbE (Optional PoE, 25.5W for each port)	Up to 4x EDGEBoost I/O, Up to 16x M12/RJ45 GbE (Optional PoE, 25.5W for each port)	

ACO-6000-CML SERIES





Model	ACO-6000-CML	ACO-6000-CML-1	
CPU	Support 10 th Gen Intel [®] CML S Processor (LGA 1200, 35W TDP), Intel [®] XEON-W Processors, Intel [®] Core™ i3 to i9		
Memory	2x 260-Pin DDR4 2666 /2933MHz SODIM	M. Max. up to 64GB (ECC and Non-ECC)	
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 suppor	t (1x internal; 2x removable & hot-swappable)	
Display	2x DisplayPe	ort, 1x DVI-I	
Ι/Ο	2x RJ45 (GbE), 6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal), 2x USB 2.0 header (internal), 8x RS-232/422/485 (6x internal), 8x DI + 8x D0 with isolation		
Expansion	1x M.2 (E Key, PCIe x1, USB 2.0, 2230), 2x Full-size mPCIe, 2x External SIM socket (mPCIe attached)		
Power	9~48VDC; 48~110VDC (Optional) OVP (Over Voltage Protection); OCP (Over Current Protection); Power Ignition Management		
Certification	EN50155 EMC, E-Mark, CE, FCC Class A		
Temperature	-25°C to 70°C (35W CPU)		
Shock & Vibration	50G Shock & 5Grms Vibration Res	istant (MIL-STD-810G Compliant)	
PCI & PCIe Expansion	N/A 1x PCIe x16, 1x PCI (Optional)		
EDGEBoost I/O Expansion	Up to 2x EDGEBoost I/O, Up to 8x M12/RJ45 GbE (Optional PoE, 25.5W for each port)	Up to 4x EDGEBoost I/O, Up to 16x M12/RJ45 GbE (Optional PoE, 25.5W for each port)	
Dimensions (WxDxH)	240 x 261 x 79 (mm)	240 x 261 x 127 (mm)	











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 industryleading 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



:0-6000-RI	PL SERIES MORE			
Lake / Alder Lake				
Model	VCO-6000-RPL-3-2PWR	VCO-6000-RPL-4-2PWR		
CPU Support	12 th /13 th Gen Intel [®] RPL & ADL i3/i5/	i7/i9 Processor (LGA 1700, 35W TDP)		
System Chipset	Intel [®] R680E E	xpress Chipset		
Memory	2x 262-Pin DDR5 480 Max. 64GB (Default 8G	0/5600MHz SODIMM. B), (ECC and Non-ECC)		
Storage	1x Hot-Swappable 2.5" SSD, 1x Internal 2.5" SSD, Optional 4x Hot-Swappable 2.5" NVMe 2.5" SSD			
Expansion	1x M.2 B Key, 1x mPCle, 2x SIM 1x M.2 B Key, 1x mPCle, 2x SIM 1x PCle x16 (Gen4), 2x PCle x1 (Gen3) 2x PCle x16 (Gen4), 1x PCle x4 (Gen3)			
PU Card Dimension	310 (L) x 112 (H) mm			
I/O	2x 5K DisplayPort up to 8K), 1x 2K DVI-I 2x RJ45 (2.5GbE), 4x USB 3.2 Gen 2 (10 Gbps)			
Power	5-pin, AT, ATX 9~48V, 12~48V (Optional 300W power for GPU Expansion)			
Operating Temp	-25°C to 70°C (35W CPU)			
Shock & Vibration	With SSD: 3 Grms (5 - 500 Hz, 0.5 hr/axis) With SSD: 20G half-sin 11ms			
Certification	UL 62368 Ed. 3,	CE, FCC Class A		
)imensions (WxDxH)	157 x 340 x 240 (mm)	177 x 340 x 240 (mm)		

VCU-6UUU-CFL SERIES MORE

intel. Coffee Lake R Model VCO-6000-CFL-2 Memory 2x 260-pin DDR4-2 Power Operating Temperature PCI & PCI Express • 1x PCIe x16 1x PCI 137 x 340 x 240 mm Dimensions (WxDxH)







VCO-6000-CFL-3	VCO-6000-CFL-4	VCO-6000-CFL-5		
Intel [®] CFL-R S i3/i5/i7 Processor (LGA 1151, 35W TDP)				
400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)				

9-48 VDC, AT/ATX Select, 3-pin Terminal Block

-25°C to 70°C (35W CPU)				
With three PCI or PCIe expansion slot	With four PCI or PCIe expansion slot	With five PCI or PCIe expansion slot		
1x PCIe x162x PCI	 2x PCIe x4 1x PCIe x16 (8-lane) 1x PCI 	 2x PCle x4 1x PCle x16 (8-Lane) 2x PCl 		
157 x 340 x 240 mm	177 x 340 x 240 mm	197 x 340 x 240 mm		



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



Support Dual GPU



Rich M.2 and PCIe Expansions



Internal Flex Power Supply



Rackmountable Industrial Solution



HIGH-PERFORMA	INCE FANNED INDUSTRIAL COMPUTER				
KCO RPL	SERIES MORE				
Raptor Lake / Alder Lake					
Model	KCO-2000-RPL	KC0-3000-RPL			
CPU	12 th /13 th Gen Intel [®] Core™ Processor:	s i3/i5/i7/i9 (LGA 1700, 65W Max TDP)			
Memory	4x DDR4 2133/2400/2666MHz DIMM. Max 128GB				
Display	4x DP++				
Storage	1x 2.5" SATA Drive Bay (Hot-swappable), 1x 3.5" SATA HDD drive or 2x 2.5" S 4x SATA 3.0 (6Gb/s) Support RAID 0, 1, 5, 10 4x SATA 3.0 (6Gb/s) Support RAID				
M.2	2x M.2 M Key: 2242/2260/2280 (NVMe/SATA, PCIe x4 Gen 4), 1x M.2 E Key: 2230 (PCIe x2 Gen 3, USB 2.0)				
PCIe	1x PCle x16 (Gen 5), 1x PCle x16 (Gen 4), 1x PCle x4 (Gen 4), 1x PCle x4 (Gen 4)				
I/O	2x RS-232, 2x RJ45 (2.5GbE & 1GbE), 6x USB 3.1 Gen 2 (10 Gbps), 1x USB 3.2 Gen 2x2 Type C (20 Gbps), 4x USB 2.0	2x RS-232 2x RJ45 (2.5GbE & 1GbE), 6x USB 3.1 Gen 2 (10 Gbps), 1x USB 3.2 Gen 2x2 Type C (20 Gbps), 4x USB 2.0, 2x USB 3.0 Gen 1			
Internal I/O	4x RS-232, 2x USB 3.0 Gen 1, 8-bit digital I/0, 1x Front panel audio	4x RS-232, 8-bit digital I/O, 1x Front panel audio			
Supported GPU	RTX A2000, RTX 2000 ADA, RTX 4000 SFF ADA	RTX A2000, RTX 2000 ADA, RTX 4000 SFF ADA, RTX 4000 ADA, RTX 4500 ADA, RTX 5000 ADA			
Power	100~240 AC, Internal 250W Flex Power Supply	100~240 AC, Internal 500W Flex Power Supply			
Operating Temp	0°C to 40°C	0°C to 50°C			
Certification	CE, FCC Class A,	UL 62368-1 Ed. 3			
Dimensions (WxDxH)	324 x 276 x 89 (mm)	334 x 300 x 133 (mm)			







MORE

Model	KCO-2000-CFL	KCO-3000-CFL	
CPU	8 th /9 th Gen Intel [®] CFL-R S Processo	r i3/i5/i7 (LGA 1151, 65W/35W TDP)	
Memory	4x 288-pin DDR4 DIM	1M Max. up to 128GB	
Display	2x DP 1.2, 1x	K DVI, 1x VGA	
Storage	1x 2.5" SATA Drive Bay (Hot-swappable)	1x 3.5" SATA HDD drive or 2x 2.5" SSD/HDD	
M.2	2x M.2 M Key: 2242/2260/2280 (NVMe, PCIe x4) for Storage 1x M.2 E Key: 2230 (PCIe x2, USB 2.0) for Wi-Fi/BT		
PCIe	1x PCIe x16 (low profile, up to 9" card length)	1x PCIe x16 (full-height, up to 10" card length), 2x PCIe x4	
I/O	4x RS-232/422/485, 2x RJ45 (1GbE), 6x USB 3.1 Gen 2 (10 Gbps), 7x USB 2.0	4x RS-232/422/485, 2x RJ45 (1GbE), 4x USB 3.1 Gen 2 (10 Gbps), 6x USB 2.0	
Power	AT/ATX, Internal 250W Flex Power Supply	AT/ATX, Internal 300W Flex Power Supply	
Operating Temp	0°C to 35°C	0°C to 45°C	
Certification	CE, FCC Class A, UL 62368-1 Ed. 3		
Dimensions (WxDxH)	324 x 276 x 89 (mm)	334 x 300 x 133 (mm)	



KCO SERIES



BUILT RUGGED. BUILT READY.



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.

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 Intel[®] Celeron[®] J1900 Intel[®] 8th Gen i5 	 Intel[®] Core[™] Ultra 5/7 Intel[®] 7th Gen i3/i5 Intel[®] Celeron[®] J6413 Intel[®] Celeron[®] J1900 	 Intel[®] Core[™] Ultra 5/7 Intel[®] Alder Lake N97 Intel Atom[®] X7835RE 	• Intel [®] Alder Lake N97	-
Wireless Connectivity	V	i-Fi 6E, BT 5.x, 5G/4G/LTE		Wi-Fi 6E, BT 5.x	-
IP Rating	Full IP68/69K	Front IP65			
Built Design	Rugged Stainless- Steel SUS 316 Design	Modular FlexibleAll In One SimpleIndustrial Open FramDesignDesignDesign		n Frame Design	
Screen Sizes	12.1" - 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 Yoke Mount Panel Mount	VESA Mount Panel Mount		Open-Frame Wall Mount	Open-Frame VESA Mount Panel Mount
Shock & Vibration	20G & 2.4Grms	20G & 1.5Grms	20G & MIL-STD-810G & 514.7 Pr	3Grms 9 Method 516.7 rocedure 1	-
Certifications		CE, FCC, UL 62368 Ed. 3		CE, FCC	CE, FCC, UL

INDUSTRIAL DISPLAY SYSTEMS



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FIO SERIES

IP65 OPEN FRAME INDUSTRIAL TOUCHSCREEN MONITORS

HIO SERIES

IP65 OPEN FRAME

INDUSTRIAL

COMPUTERS

TOUCHSCREEN

AIO SERIES

IP65 ALL-IN-ONE

INDUSTRIAL

TOUCHSCREEN

COMPUTERS

IP65 DISPLAY

TOUCHSCREEN

INDUSTRIAL

MONITORS

_



VIO SERIES

IP65 MODULAR SYSTEMS HIGH-BRIGHTNESS DISPLAY

PC SERIES

VIO COMPUTER MODULES PC MODULE FOR



MX SERIES VIO MONITOR MODULES

MONITOR MODULE FOR INDUSTRIAL DISPLAY

-IP68/69K STAINLESS STEEL INDUSTRIAL

TOUCHSCREEN COMPUTERS

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SIO SERIES



52



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 industial grade design, extended lifespan and world-class certifications, the FIO Series are purpose-built for ruggedize and various industries required minimal to no maintenance.



10-Points PCAP Touch



Front Panel IP65



50,000+ Hours MTBF



FIO SERIES MORE

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

Open Frame



OPEN-FRAME TOUCHSCREE

Model	FIO-XG1500C	FIO-SX1900C	FIO-FH2150C	FIO-FH2700C	
LCD Size	15" (4:3)	19" (5:4)	21.5" (16:9)	27" (16:9)	
Max. Resolution	1024 x 768 @60Hz	1280 x 1024 @60Hz	1920 x 10	1920 x 1080 @60Hz	
Brightness (cd/m2)	350 nits	250	nits	300nits	
Contrast Ratio	100	00:1	300	00:1	
LCD Color		16.	7M		
Viewing Angle (H-V)	176/176		178/178		
Internal Speaker	AMP 5W + 5W		AMP 10W + 10W		
Touch Type	Projected Capacitive (PCAP) Touch, Multi-Touch up to 10 points				
I/O	1x Mini Din (External OSD) 1x USB (Type B) 1x DP 1x HDMI 1x VGA				
Power	12 VDC 100-240V AC, 50-60Hz				
Operating Temperature	0°C to 40°C 0°C to 5		0°C to 50°C	0°C to 40°C	
Certification	FCC, CE, UL 62368-1 3rd Ed				
Mounting Options	VESA: 75×75mm, 100×100 mm Rear Mounting, Side Mounting		VESA: 100×100 mm Rear Mounting, Side Mounting	VESA: 100×100mm, 100x200mm Rear Mounting, Side Mounting	
Dimensions (WxHxD)	358 x 284.9 x 40.3 mm	420.1 x 348.1 x 42.1 mm	516 x 311 x 37.9 mm	644.2 x 388.4 x 40.8 mm	
Weights (Net)	3.52 kg	4.82 kg	5.56 kg	7.35 kg	



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 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.

intel . Alder Lake	NEW
Model	HIO-W210-ADL
CPU Onboard	Inte
Memory	
Graphic Output	
LAN	
Ι/Ο	
Storage	1x M
Expansion	
Power	
Operating Temp	
Certification	
LCD Size	10.1" (16:10) WUXGA
Brightness (cd/m2)	400 nits
MTBF	30,000 Hours
Projected Capacitive	
Mounting	



Wall-mount Bracket (optional)



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.







10-Point PCAP Touch



Range of Display Size



Triple Independent Displays





intol	
Amston Lake / Alder Lake	



Model	AIO-200-ADL	AIO-200-ASL-3L	
LCD Size	10.1" (16:10), 15.6" (16:9), 21.5" (16:9)		
Max. Resolution	Max 1920 x 1080 (Full HD)		
Brightness (cd/m²)		Max 500 nits	
/iewing Angle (H/V)		Max 89/89/89	
MTBF		Max 50,000 Hours	
Processor	Intel [®] Alder lake N97 Processor	Intel [®] Atom [®] x7835RE Processor 6M Cache, up to 3.60 GHz, 8 core, 12W Intel [®] Alder Lake N97 6M Cache, up to 3.60 GHz, 4 Core, 12W	
Memory	DDR5 4800MT/s S(DDIMM. Max up to 16GB (Non-ECC), (Default 8GB)	
Storage	1x M.2 B Key (Default 128 GB)	1x M.2 B Key (2242/2280/3042) for NVMe/4G/5G (Default 128GB), 1x SATA 3.0 6Gb/s port (Support AHCI)	
Display		1x 4K DP, 1x 4K HDMI	
I/O	2x RJ45 (2.5GbE), 2x RS-232/422/485, 4x USB 3.2 Gen 2, up to 6x Antenna	3x RJ45 (2.5GbE), 1x Dual Nano SIM Socket (M.2 B Key), 2x USB 3.2 Gen 2 (10 Gbps), 2x USB 2.0, 2x RS-232-/422/485, up to 6x Antenna	
Expansion	1x M.2 E-Ke	y (2230, PCIe x1, USB2.0) for Wifi/Bluetooth	
Operating System	Windows 10, Windows 11, Linux Ubuntu 22.04		
Certification	CE, FC	C Class B, CB, UL 62368 Ed, UKCA, IC	
Operating Temp.		-10°C to 50°C	
Power	DC IN 12~36V AT/ATX Power, DC IN 12~36V		
	AIO-200-MTL	AIO Monitor	
Model	AIO-200-MTL-3L	AIO-200-MX	
LCD Size		1'' (16:10), 15.6'' (16:9), 21.5'' (16:9)	
Processor	Intel [®] Meteor Lake Core™ Ultra	5/7 -	
Memory	DDR5 5600MT/S, Max. 16GB	-	
Storage	1x M.2 M Key (Default 128GB	-	
Ι/Ο	2x DP, 3x RJ45 (2.5GbE), 2x USB 3.2 1x USB Type C (5 Gbps), 1x USB 2.0, 2x COM, 2x Nano S	2 Gen 1, 1x DP, 1x HDMI (Display Input) 1x USB 2.0 Type B	
Expansion	1x M.2 E Key for Wifi/BT 1x M.2 B Key for 4G/5G	-	
Operating System	Windows 10/11, Linux Ubunt	u -	
One meting Tenen	1000 to E000	109C to 509C	

Model	AIO-200-ADL	AIO-200-ASL-3L	
LCD Size	10.1'' (16:10), 15.6'' (16:9), 21.5'' (16:9)		
Max. Resolution	Max 1920 x 1080 (Full HD)		
Brightness (cd/m²)		Max 500 nits	
Viewing Angle (H/V)		Max 89/89/89/89	
MTBF		Max 50,000 Hours	
Processor	Intel [®] Alder lake N97 Processor	Intel [®] Atom [®] x7835RE Processor 6M Cache, up to 3.60 GHz, 8 core, 12W Intel [®] Alder Lake N97 6M Cache, up to 3.60 GHz, 4 Core, 12W	
Memory	DDR5 4800MT/s S0	DIMM. Max up to 16GB (Non-ECC), (Default 8GB)	
Storage	1x M.2 B Key (Default 128 GB)	1x M.2 B Key (2242/2280/3042) for NVMe/4G/5G (Default 128GB), 1x SATA 3.0 6Gb/s port (Support AHCI)	
Display		1x 4K DP, 1x 4K HDMI	
I/O	2x RJ45 (2.5GbE), 2x RS-232/422/485, 4x USB 3.2 Gen 2, up to 6x Antenna	3x RJ45 (2.5GbE), 1x Dual Nano SIM Socket (M.2 B Key), 2x USB 3.2 Gen 2 (10 Gbps), 2x USB 2.0, 2x RS-232-/422/485, up to 6x Antenna	
Expansion	1x M.2 E-Ke	(2230, PCIe x1, USB2.0) for Wifi/Bluetooth	
Operating System	Windows 10, Windows 11, Linux Ubuntu 22.04		
Certification	CE, FCC Class B, CB, UL 62368 Ed, UKCA, IC		
Operating Temp.		-10°C to 50°C	
Power	DC IN 12~36V AT/ATX Power, DC IN 12~36V		
	AIO-200-MTL	AIO Monitor	
Model	AIO-200-MTL-3L	AIO-200-MX	
LCD Size	10.1" (16:10), 15.6" (16:9), 21.5" (16:9)		
Processor	Intel® Meteor Lake Core™ Ultra	5/7 -	
Memory	DDR5 5600MT/S, Max. 16GB	-	
Storage	1x M.2 M Key (Default 128GB) -	
I/O	2x DP, 3x RJ45 (2.5GbE), 2x USB 3.2 1x USB Type C (5 Gbps), 1x USB 2.0, 2x COM, 2x Nano S	Gen 1, 1x DP, 1x HDMI (Display Input) 1x USB 2.0 Type B	
Expansion	1x M.2 E Key for Wifi/BT 1x M.2 B Key for 4G/5G	-	
Operating System	Windows 10/11, Linux Ubunt	-	
Operating Temp.	-10°C to 50°C	-10°C to 50°C	
Power			

AI0-200-ASL





RUGGED IP65 MODULAR PANEL PC

The VIO Series modular touch display systems delivers 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





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	SERIES
Thin Fra	me



hin 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		
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	AMP 10W + 10W		
Touch Type Resistive 5-wire Touch / Projected Capacitive Touch			
Operating Temperature -10°C to 60°C -10°C to 50°C			
hin Frame	1		
Model VIO-212 VIO-215 VIO-217	VIO-219		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17"	VIO-219 19"		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17" Max. Resolution 1024 x 768 [XGA] 1280 x 1024 [String states and stat	VIO-219 19" SXGA)		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17" Max. Resolution 1024 x 768 (XGA) 1280 x 1024 (S Brightness (cd/m2) 600 nits 350 nits	VIO-219 19" SXGAJ		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17" Max. Resolution 1024 x 768 (XGA) 1280 x 1024 (S Brightness (cd/m2) 600 nits 350 nits	VIO-219 19" SXGA)		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17" 4 Max. Resolution 1024 x 768 (XGA) 1280 x 1024 (State and the and	VIO-219 19" SXGA) 1000:1		
ModelVIO-212VIO-215VIO-217LCD Size12.1"15"17"1Max. Resolution 1024×78 (XGA) 1280×1024 (SOC) 1280×1024 (SOC)Brightness (cd/m2) 600 nits 350 nits 350 nitsContrast Ratio $100 \times 100 \times 100 \times 1000$ nits (Optional) $800:1$ $100 \times 1000 \times 1000$ LCD Color $16.2M$ $16.7M$ $16.7M$	VIO-219 19" SXGA) 1000:1		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17" 1 Max. Resolution 1024 x 768 (XGA) 1280 x 1024 (S 1280 x 1024 (S Max. Resolution 600 nits 350 nits 1280 x 1024 (S Brightness (cd/m2) 600 nits 350 nits 1000 nits (Optional) Contrast Ratio 1000:1 800:1 1 LCD Color 16.2M 16.7M 1 Life Cycle Time 50,000 Hours 50,000 Hours 50	VIO-219 19" SXGAJ 1000:1		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17" 4 Max. Resolution 1024 x 768 (XGA) 1280 x 1024 (S 4 Max. Resolution 600 nits 350 nits 1280 x 1024 (S Brightness (cd/m2) 600 nits 350 nits 350 nits Contrast Ratio 1000 nits 0000 nits 0000 nits LCD Color 16.2M 16.7M 16.7M Life Cycle Time 50,000 Hours 1000 nits 1000 nits Viewing Angle (H-V) 178 / 178 170 / 160 178 / 178	VIO-219 19" SXGA) 1000:1 170 / 160		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17" 1 Max. Resolution 1024 x 768 (XGA) 1280 x 1024 (S 1 Max. Resolution 600 nits 350 nits 1280 x 1024 (S Brightness (cd/m2) 600 nits 350 nits 350 nits Contrast Ratio 1000 rits 1,000 nits (Optional) 1 LCD Color 16.2M 16.7M 1 Life Cycle Time 50,000 Hours 1 1 Viewing Angle (H-V) 178 / 178 170 / 160 178 / 178 Internal Speaker AMP 5W + 5W AMP 10W + 10W 1	VIO-219 19" SXGA) 1000:1 170 / 160		
Model VIO-212 VIO-215 VIO-217 LCD Size 12.1" 15" 17" 1 Max. Resolution 1024 x 768 (XGA) 1280 x 1024 (S 1028 x 1024 (S Max. Resolution 600 nits 350 nits 1026 x 1024 (S Brightness (cd/m2) 600 nits 350 nits 1000 nits (Optional) Contrast Ratio 1000 nits 800:1 1000 nits LCD Color 16.2M 16.7M 1000 nits Life Cycle Time 50,000 Hours 1000 nits 1000 nits Viewing Angle (H-V) 178 / 178 170 / 160 178 / 178 Internal Speaker AMP 5W + 5W AMP 10W + 10W 1000 nits	VIO-219 19" SXGA) 1000:1 170 / 160		



6:9 SERIES					
Model	VIO-W215	VIO	-W221	VIO-W224	
LCD Size	15.6"	2	21.5"	23.8"	
Max. Resolution	1920 x 1080 (Full HD)				
Brightness (cd/m2)		500 nits		(50 pitc	
	1	,000 nits (Optional)		450 mts	
Contrast Ratio		1,	,000:1		
LCD Color		1	6.7M		
Life Cycle Time	50,000 Hours		30,000 Hours		
Viewing Angle (H-V)		17	8 / 178		
Internal Speaker	AMP 10W + 10W				
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch				
Operating Temperature	-10°C to 60°C		-10°C to 50°C		
4:3 SERIES					
Model	VIO-212	VIO-215	VIO-217	VIO-219	
LCD Size	12.1"			19"	
Max. Resolution	1024 x 768 (XGA) 1280 x 1024 (SXGA)		024 (SXGA)		
Prightness (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		-10°C to 50°C		

PC600-MTL SERIES MORE			PC100-KBL-U	
Intel. Meteor Lake	Coming Soon	Coming Soon	intel. Kabylake-U	
Model	PC600-MTL	PC600-MTL-1	Model	РС100-К
CPU Onboard	Intel [®] Core™ Ultra 7 Processor ⁻ Intel [®] Core™ Ultra 5 Processor ⁻	155U 12M Cache, up to 4.80 GHz 125U 12M Cache, up to 4.80 GHz	CPU Onboard	
Memory	1x DDR5 5600MT/s SODIMM. I	Max. up to 32GB (Default 8GB)	Memory	1x 2
Display	1x 4K Disp 1x 4K HI	layPort 1.2 DMI 2.0b	Display	
Storage	1x Hotswap 2.5" SATA HE 1x M.2 M Key (2280, PCIe x4 Gen	ID Bay, support RAID 0, 1 4, for NVMe/AI), (Default 128GB)	Storage	
Expansion	1x Dual Nan 2x M.2 B Key (2242,305	o SIM socket 2, for NVMe/AI/4G/5G)	Expansion	
PCIe	-	1x PCIe x4 (x4 Lane, Gen 3)	I/O Expansion	-
1/0	4x RS-232/422/485, 2x R 2x RJ45 2x USB 3.2 G 1x USB-C 3.2 Ge 2x C	S-232/422/485 (internal) (2.5GbE) en 1 (5 Gbps) en 2, 1x USB 2.0 CAN	1/0	2x RJ/ 4x USB 4x RS-232/4
Power	3-pin, AT, /	ATX 9~48V	Power	
Operating Temperature	-20°C t -10°C to 50°C (wit	o 50°C h display module)	Operating Temperature	
Operating System	Windows 10, Windows	5 11, Linux Kernel 5.X	Operating System	
Dimensions (WxDxH)	246 x 220 x 42 (mm)	246 x 220 x 64 (mm)	Certification	

Note:

• The PC600-MTL Series is not compatible with the VIO-200 Series.

• The PC600-MTL Series is only compatible with the upcoming VIO-300 Series display module.



C100-KBL-U

PC MODULE

Dimensions (WxDxH)

PC100-KBL-U-1

1x 260-Pin DDR4 1866/2133MT/s SODIMM. Max. up to 16GB

1x DisplayPort, 1x VGA

1x 2.5" SATA HDD Bay, support RAID 0, 1 1x mSATA (shared by 1x Mini PCIe) 1x CFast (shared by 1x mSATA)

> 2x Full-size Mini PCIe 2x External SIM socket

-	2x I/O Expansion (CAN/COM)
2x RJ45 4x USB 3.0 RS-232/422/485	2x RJ45 4x USB 3.0 4x RS-232/422/485 2x RS-232/422/485 (internal)

3-pin, AT, ATX 9~48V

-40°C to 70°C -10°C up to 60°C (with display module)

Windows 10, Linux Kernel

UL 62368 Ed. 3, CE, FCC Class A

246 x 220 x 42 (mm)

246 x 220 x 64 (mm)

PC100-EHL SERIES	MORE	
Elkhart Lake	Circles and	
Model	PC100-EHL	PC100-EHL-1
CPU Onboard	Intel [®] Celeron [®] J6413 Processor Quad o	core (1.5M Cache,1.8GHz up to 3.00 GHz)
Memory	1x 260-Pin DDR4 2400/2667/3200MT	/s SODIMM. Max. 32GB (Default 8GB)
Display	1x 4K Disp 1x 4K HDMI 2	layPort 1.2 .0b (Optional)
Storage	1x mSATA, 1x Remova 1x M.2 B Key (2242/3042/3052 for 5G	ble 2.5" SATA HDD Bay /AI/Storage Module), (Default 128GB)
Expansion	1x Full-size Mini PCIe (USB 2.0, SATA), 2x External SIM socket, 1x M.2 E Key (2230, PCIe x1, USB 2.0, support Wifi/Bluetooth)	
I/O Expansion	-	1x I/O Expansion (CAN/COM)
PCIe Express	-	1x PCIe x4 (x1 Lane, Gen 3)
1/0	2x RJ45 (GbE, 2.5GbE), 4x RS-232/422/485, 2x RS-232/422/485 (internal)	

I/O	2x RJ45 (GbE, 2.5GbE), 4x RS-232/422/485, 2x RS-232/422/485 (internal) 2x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x Internal)
Power	3-Pin, AT, ATX 9~36V
Operating Temperature	0°C up to 60°C (with display module)
Certification	UL 62368 Ed. 3, CE, FCC Class A

PC100-J1900 SERIES

intel. Bay Trail



Model	PC100-J1900	PC100-J1900-1	
CPU Onboard	Intel [®] Celeron [®] Processor J1900 (4 cores, 2MB Cache, 2.0 GHz)		
Memory	1x 204-pin DDR3L-1066/1333MT/s SODIMM, up to 8GB		
Display	1x VGA, 1x DisplayPort		
Storage	1x Removable 2.5" SATA HDD Bay 1x CFast (Shared by 1x mSATA & 1x Mini PCIe) 1x mSATA (Shared by 1x Mini PCIe)		
Expansion	1x Full-size Mini PCIe Socket with uSIM Socket (PCIe + USB + SATA) 1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB) 2x External SIM socket		
I/O Expansion	- 2x I/O Expansion (CAN/COM)		
Ι/Ο	2x RJ45, 4x RS-232/422/485 2x RS-232/422/485 (internal), 1x USB 3.0, 3x USB 2.0		
Power	3-Pin , AT/ATX 9~48V		
Operating Temperature	-40°C to 70°C -10°C to 60°C (with display module)		
Certification	UL 62368 Ed. 3, CE, FCC Class A		
Dimensions (WxDxH)	246 x 220 x 42 (mm) 246 x 220 x 64 (mm)		

MONITOR MODULE

MX100H SERIES 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	
VGA	
HDMI	
DisplayPort	
USB	
COM Port	
Audio	
Power	
Operating Temperature	
Dimensions (WxDxH)	





MX100H

1x VGA Input

1x HDMI Input

1x DisplayPort Input

1x USB 2.0 Input

1x COM Port Input (Resistive Touch Only)

1x Audio Input

3-pin, AT/ATX 9-48V

-10°C up to 60°C (with display module)

246 x 220 x 37 (mm)

SIO SERIES IP68/69K 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



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TPM 2.0 Security Module

Model	SIO-315-ADL	SIO-W315-ADL	SIO-W321-ADL	SIO-W324-ADL
CPU Onboard		Intel [®] Alder Lake N97 Proces	ssor 4 cores, 3.60 GHz (12W)	
Memory		1x 262-pin DDR5 4800 MT/s	SO-DIMM Max. up to 16GB	
I/O	3x 2.5GbE by M12 X-Code 8-pin, 2x RS-232/422/485 by M12 A-Code 8-pin, 1x USB 3.0 by M12 A-Code 8-pin, 4x USB 2.0 by M12 A-Code 8-pin, 1x Pressure Valve			
torage & Expansion	1x M.2 M Key for NVMe/AI (Default 128GB) 1x M.2 B Key for 4G/5G, 1x M.2 E Key for Wifi/BT			
Power	M12 S-code 4-pin, ATX 110~240V			
Operating Temp		-10°C t	o 50°C	
LCD Size	15" (4:3) TFT XGA	15.6" (16:9) Full HD	21.5" (16:9) Full HD	23.8" (16:9) Full HD
rightness (cd/m2)	450 nits	450 nits	400 nits	450 nits
Touch Screen	PCAP, 7H/IK07, Optical Bonding			
IP Level	Full System IP68/69K			
Certification	CE, FCC Class B, UL 62368 Ed. 3			
Mounting	VESA Mount Ontional: Yoke Mount Panel Mount			

SIO-200-J1900 SERIES (MORE)



Model	SIO-215-J1900	SIO-W215-J1900	SIO-W221-8365UE	SIO-W224-8365UE	
CPU Onboard	Intel [®] Celeron [®] J1900 Pr	ocessor, 4 cores, 2.0 GHz	Intel [®] Core™ i5-8365UE Processor, 4 cores, 4.10 GHz		
Memory	1x 204-pin DDR3L SODIMM Max. up to 8GB (Default 8GB)		1x 260-pin DDR4 2400MHz SODIMM Max. up to 32GB (Default 8GB)		
I/O	2x GbE by M12 X-Code 8-pin, 2x RS-232/422/485 by M12 A-Code 8-pin, 4x USB 2.0 by M12 A-code 8-pin, 1x Pressure Valve				
Storage & Expansion	1x mSATA (Default 128GB), 1x Full-size Mini PCIe (internal)				
Power	M12 S-code 4-pin, ATX 110~240V				
Operating Temp	-20°C to 55°C -10°C to 50°C			o 50°C	
LCD Size	15" (4:3) TFT XGA	15.6" (16:9) Full HD	21.5" (16:9) Full HD	23.8" (16:9) Full HD	
Brightness (cd/m2)	300 nits	450 nits	350 nits	450 nits	
Touch Screen	Resistive 5-wire Touch / Projective Capacitive, Optical Bonding				
IP Level	Full System IP66/69K				
Certification	CE, FCC Class A				
Mounting	VESA Mount Optional: Yoke Mount, Panel Mount				

IP69K WASHDOWN TOUCHSCREEN COMPUTER WITH FUL





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BOARDS SERIES MORE

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	Model	CT-PBT01
CPU	AMD Ryzen™ Embedded R1606G with Radeon™ Vega 3 Graphics (3.5GHz/2 Core)	CPU	Intel [®] Celeron Processor J1900 (2.0GHz/4 Core/10W)
Memory	1x DDR4-2400 Single-Channel Memory 4GB (Up to 8GB, Optional)	Memory	1x 204-Pin DDR3L 1066/1333MHz SODIMM. Max. up to 8GB
Storage	eMMC up to 64GB	Storage	1x SATA 3.0Gb/s 1x mSATA (shared by 1x Mini PCIe)
Display	2x Micro HDMI 1.4 (4K DCI)	Display	1x HDMI (2048x1080 @60Hz) 1x LVDS
Rear I/O	1x RJ45 (GbE) 1x Type C USB 3.1 Gen 1 (5V/3A) 2x 5-pin header DIO (4-in/4-out)	Rear I/O	1x USB 3.0, 1x USB 2.0 1x RJ45
Internal I/O	1x USB 2.0 (4-pin header, internal)	Internal I/O	1x RS-232/422/485, 1x RS-232 2x USB 2.0 1x 8-bit GPI0 (4-in/4-out)
Expansion	1x Full-size Mini PCIe (PCIe x1, USB 2.0) 1x SMBus	Expansion	1x Half-size Mini PCIe 1x Half-size Mini PCIe (Full-size optional)
Operating Systems	Windows 10, Linux Kernel 5.x	Operating Systems	Windows 10, Windows 7, WES7 Linux kernel 3.X
Power	ACPI, DC IN 12V	Power	ACPI, DC IN 12V
Operating Temperature	0°C to 60°C	Operating Temperature	-10°C to 70°C
ТРМ	TPM 2.0	TPM	N/A
Dimension	84 x 55 (mm)	Dimension	100 x 72 (mm)

INDUSTRIAL BOARD SOLUTIONS



1.8" SERIES FEMTO ITX MINI INDUSTRIAL



PICO ITX COMPACT INDUSTRIAL



3.5" SERIES





MINI-ITX SERIES RICH I/O INDUSTRIAL MOTHERBOARD

SBC



RICH EXPANSIONS 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

2.5" PICO ITX SERIES



INDUSTRIAL BOARDS

BOARDS SERIES

3.5" SBC SERIES

BOARDS SERIES MORE

intel. RYZEN EMBEDDED







Model	CT-DR101	CT-DWL01	CT-DAL01
CPU	AMD Ryzen™ Embedded V1605B (3.6 GHz/4 Core/15W) AMD Ryzen™ Embedded R1606G (3.5 GHz/2 Core/25W)	8th Gen. Intel [®] Core™ Processor i3/ i5/i7 Intel [®] Celeron [®] Processor (up to 4.4 GHz/4 Core/15W)	12 th Gen Intel [®] IoTG Alder Lake-N Processor N97 QC (3.60GHz/4 core/12W) 12 th Gen Intel [®] IoTG Alder Lake-N Processor Core i3-N305 (3.80GHz/8 Core/9W up to 15W)
Memory	2x 260-pin DDR4 2400 SO-DIMM. Max. up to 32GB (ECC and Non-ECC)	1x 260-Pin DDR4 2400MHz SO-DIMM Max. up to 32GB	1x 262-pin DDR5 4800 SO-DIMM. Max. up to 16GB (Non-ECC)
Storage	1x SATA 7-Pin Connector	2x SATA Gen3	1x SATA 3.0 6Gb/s (Support AHCI)
Display	1x DisplayPort 1.4 (Support DP++, 4K UHD) 1x HDMI 2.0b (4K UHD, Optional) 1x LVDS	1x DisplayPort (4K) 1x HDMI (1920 x 1200, Optional) 1x LVDS & 1x EDP internal connector	1x DisplayPort 1.4 (4K DCI) 1x HDMI (4K UHD) 1x LVDS (FHD)
Rear I/O	2x RJ45 (GbE) 2x USB 3.2 Gen2 (10 Gbps) 2x USB 2.0	2x RJ45 (GbE) 4x USB 3.2 Gen 2 (10 Gbps)	2x RJ45 (2.5GbE) 2x USB 3.2 Gen 2 (10 Gbps) 2x USB 3.2 Gen 1 (5 Gbps)
Internal I/O	2x 6-Pin Front Panel Header for Audio	4x RS-232/422/485 2x USB 2.0 2x 4-bit DIO (4-in/4-out) 1x Front Panel Audio	2x RS-232-/422/485 6x USB 2.0 Internal 2.0 1x 8-pin GPIO (4-in/4-out)
Expansion	1x Full-size mPCIe (PCIe x1, USB 2.0) 1x M.2 B Key, 3042, Support SATA 1x SIM socket (M.2 B Key attached)	2x mPCle x1 (Gen3)	1x M.2 B Key (2242/3042/2280, SATA/PCIe x1), 1x M.2 E Key (2230, PCIe x1, USB 2.0)
Operating Systems	Windows [®] 10, Linux Kernel 5.x		Windows® 10 Enterprise, 11 IoT Enterprise Linux Kernel 5.x
Power	AT/ ATX Power, DC IN 12V		AT/ ATX Power, DC IN 9~36V
Operating Temperature	-40°C to 75°C	-40°C to 70°C	-10°C to 60°C
TPM	TPM 2.0	TPM 2.0 Through Infineon	TPM 2.0
Dimension		146 x 102 (mm)	

INDUSTRIAL BOARDS

BOARDS SERIES MORE				
3.5" SBC SERIES				
intel	Coming Soon			
Model	CT-DAS01	CT-DAL11	CT-DML01	
CPU	Intel [®] Atom [®] x7433RE Processor (3.40 GHz/4 core/12W) Intel [®] Atom [®] x7835RE Processor, (3.60/8 core/20W)	12 th Gen Intel [®] Alder Lake-N Processor N97 (3.60 GHz/4 Core/12W) Intel [®] Atom [®] x7835RE Processor (3.60 GHz/8 Core/12W)	Intel [®] Core™ Ultra 5 Processor 125U, up to 4.30 GHz (2+8+2 core) Intel [®] Core™ Ultra 7 Processor 155U, up to 4.80 GHz (2+8+2 core)	
Memory	1x DDR5 4800 MT/s up to 16GB (Non-ECC)	1x 262-pin DDR5 4800 SO-DIMM. Max. up to 16GB (Non-ECC)	1x 262-Pin DDR5 5200MHz SO-DIMM. Max. up to 32GB	
Storage	1x M.2 M Key (2242/2260/2280, PCIe x2) for NVMe SSD	1x SATA 3.0 6Gb/s (Support AHCI)	1x M.2 M Key (2280, PCIe x4 Gen 4/SATA) for NVMe/SATA, auto detect	
Display	1x 4K DP 1x 4K HDMI 1x eDP / 1x LVDS	1x DisplayPort 1.4 (4K DCI) 1x HDMI (4K UHD) 1x eDP 1.4b (FHD) 1x LVDS (FHD)	2x DP++ 1.4 (4K UHD) 1x eDP 1.4b (4K UHD) 1x LVDS (WUXGA)	
Rear I/O	2x RJ45 (2.5GbE), 2x RS232 1x Nano SIM Socket (Attached to M.2 B Key), 3x USB 3.2 Type A Gen 1 (5 Gbps) 1x USB 3.2 Type C Gen 1 (5 Gbps)	3x RJ45 (2.5GbE) 1x Dual Nano SIM Socket 2x USB 3.2 Gen 2 (10 Gbps)	3x RJ45 (2.5GbE) 2x SIM Nano Socket 1x USB 3.2 Type-C GEN 1 (5 Gbps) 2x USB 3.2 Gen 1 (5 Gbps) 1x USB 2.0	
Internal I/O	2x RS232/422/485 2x USB 2.0 1x 4-in / 4-out DIO	2x RS-232/422/485 2x USB 2.0 1x 8-pin GPIO (4-in/4-out)	4x RS-232/422/485 (internal) 1x 8-pin GPIO (4-in/4-out) 4x USB 2.0	
Expansion	1x M.2 E Key (2230, PCIe x1, USB 2.0) for Wi-Fi/Bluetooth, 1x M.2 B key (2242/3042/3052, PCIe x1) for NVMe/SATA/4G/5G Module,	1x M.2 B Key (2242/2280/3042) support for NVMe/4G/5G, 1x M.2 E Key (PCIe x1, USB 2.0, 2230) for Wifi/Bluetooth	1x M.2 B Key (3042/3052, PCIe x2 +USB 3.0) for 4G/5G 1x M.2 E Key (2230) for Wifi/Bluetooth	
Operating Systems	Windows [®] 10 Enterprise, Windows [®] 11 IoT Enterprise Linux Linux Ubuntu 22.04			
Power	AT/ATX Power, DC IN 9~36V	AT/ATX Power, DC IN 12~36V	AT/ATX Power, DC IN 12~24V	
Operating Temperature	-40°C to 85°C	-10°C to 60°C	0°C to 60°C	
TPM		TPM 2.0		
Dimension	146 x 102 (mm)			







INDUSTRIAL BOARDS

BOARDS SERIES MORE

MINI ITX SERIES







	2.2.C.14		
Model	CT-XSL01	CT-XCL01	CT-XRL02
CPU	Intel [®] 6 th Gen. Core™ i3/i5/i7 Processor (LGA 1151, 35W)	8 th /9 th Gen Intel [®] CFL-R S Processor (LGA 1151, 95W/65W/35W)	12 th /13 th /14 th Gen. Intel i3/i5/i7/i9 (Max 65W)
Memory	2x DDR4 1866/2133MHz SODIMM. Max. 32 GB	2x DDR4 2133/2400/2666 SODIMM. Max. up to 32 GB	2x 260-pin DDR4 SO-DIMMs 3200 MHz (Non-ECC) Max. 64 GB
Storage	4x SATA 6.0Gb/s 1x mSATA (shared by 1x mPCIe) 1x M.2 M-Key (2280)	4x SATA 3.0Gb/s (support RAID 0, 1, 5, 10) 1x M.2 M-Key (2280, SATA)	3x SATA 6.0Gb/s (RAID 0, 1, 5, 10), 1x M.2 M-Key (2242/2280, PCIe x4 Gen 4)
Display	1x DVI-D 1x DisplayPort 1x LVDS	1x DP 1.2, 1x DVI-D 1x HDMI 1.4 1x LVDS	1x HDMI Real 4K 2x Real 4K DP
Rear I/O	2x RJ45 (GbE), 1x RS-232/422/485, 4x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0	2x RJ45 (GbE), 1x RS-232/422/485, 4x USB 3.1 Gen 2 (10 Gbps), 1x USB 3.1 Type-C (optional)	3x RJ45 (2.5GbE) 6x USB 3.2 Gen 2 2x RS-232/422/485
Internal I/O	4x RS-232 2x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0, 1x 8-bit GPI0 (4-in/4-out)	4x RS-232 2x USB 3.2 Gen 1 (5 Gbps) 2x USB 2.0 1x 8-bit DIO (4-in/4-out)	2x USB 3.2 Gen 2 (10 Gbps) 1x Front panel audio 2x USB. 2.0 1x 16-bit DIO (8-in/8-out)
Expansion	1x Full-size mPCIe 1x PCIe x16	1x Full-size mPCIe 1x PCIe x16 (Gen 3)	1x PCIe x16 Gen4 Gold Finger for Riser Card Expansion (1x PCIe x16 or 2x PCIe x8), 1x M.2 B-Key 3042 (with Nano SIM for 4G/5G), 1x M.2 E-Key 2230 (for Wifi/BT)
Operating Systems	Windows 10, Windows 8.1, WES8.1, Windows 7, WES7, Linux Kernel 4.X	Windows 10 Linux Kernel 5.X	Windows 10/11 Linux Kernel
Power	ATX Power	ATX Power	ATX-Power 24P, 12V-8P
Operating Temperature	0°C to 60°C		
TPM	TPM 2.0	(Optional)	TPM 2.0
Dimonsion			

INDUSTRIAL BOARDS



MICRO ATX SERIES



Model	CT-MCL01	CT-MRL01	CT-ARL01
CPU	8 th /9 th Gen. Intel [®] Core™ i3/i5/i7 CFL-R S Processor (LGA 1151, 95W/65W/35W TDP)	12 th /13 th /14 th Gen Intel [®] Core™ i3/i5/ i7/i9 Alder lake-S, Raptor Lake-S (LGA 1700, 65W Max)	12 th /13 th /14 th Gen Intel [®] Core™ i3/i5/ i7/i9 Alder lake-S, Raptor Lake-S (LGA 1700, 125W Max)
Memory	4x Pin DDR4 2133/2400/2666MHz DIMM. Max. 64 GB	4x DDR4 2133/2400/2666MHz DIMM. Max 128GB	4x DDR5 4400MHz UDIMM (ECC/non-ECC) Max. 128GB
Storage	6x SATA 6.0Gb/s 1x M.2 M-Key (2242/2260/2280, PCIe x4) for NVMe/SATA	4x SATA 6.0Gb/s 2x M.2 M-Key (2242/2260/2280, PCIe x4 Gen4) for NVMe/SATA	4x SATA 3.0 (RAID 0, 1, 5, 10) 1x M.2 M-Key (2280/22110), 1x M.2 M-Key (2242/2280)
Display	1x VGA 1x DVI-D 2x DP 1.2	4x DP++ (4K)	1x 4K DP, 1x 4K HDMI, 1x VGA (WUXGA)
Rear I/O	2x RJ45 (GbE) 2x RS-232/422/485 4x USB 3.2 Gen 2 (10 Gbps)	2x RJ45 (GbE, 2.5GbE) 1x USB-C 3.2 Gen 2x2 (20 Gbps) 6x USB 3.1 Gen 2 (10 Gbps)	4x RJ45 (2.5GbE), 8x USB 3.2 Gen 2, 1x COM, 1x Mic-In, 1x Mix-Out
Internal I/O	4x RS-232 1x USB 3.2 Gen 1 (5 Gbps) 7x USB 2.0 1x 8-bit DIO (4-in/4-out)	6x RS-232 2x USB 3.0 Gen 1 (5 Gbps) 4x USB 2.0 1x 8-bit DIO (4-in/4-out)	2x USB 3.2 Gen 1, 3x USB 2.0, 5x RS-232/422/485, 16x GPIO
Expansion	1x PCle x16 (Gen3) 2x PCle x4 (Gen3) 1x PCle x1 (Gen3) 1x M.2 E-Key (2230, PCle x2, USB 2.0)	1x PCIe x16 Slot (Gen 5) 1x PCIe x16 (Gen 4, 4-Lane) 1x PCIe x4 (Gen 4, Open End) 1x PCIe x4 (Gen 3, Open End) 1x M.2 E-Key (2230, PCIe x2 Gen3) for USB 2.0	2x PCIe x16 (1x 16-Lane or 2x 8-Lane), 4x PCIe x4, 1x PCIe x1
Operating Systems	Windows 10, Linux Linux Kernel 5.X	Windows 10/11, Linux Kernel 5.X	
Power	ATX Power		
Operating Temperature	0°C to 60°C		
TPM		TPM 2.0	
Dimension	2// x 2// [mm]		305 x 244 (mm)

ATX SERIES





COMING SOON **PRODUCTS**

INDUSTRIAL EDGE COMPUTERS

BCO-500-MTL Series

Fanless Mini PC with Intel Meteor Lake CPU

- **4G/5G** High-Speed Wireless
- Type-C High-Speed I/O
- EDGE AI Intel[®] AI Boost
- CORE ULTRA Core Ultra 5 125U / Core Ultra 7 155U



JCO-1000-ORN-B Series

intel

Fanless Mini PC with NVIDIA Jetson Orin NX/Nano Super Module

- 157 TOPS Edge AI Enabled
- -20°C to 55°C Wide Temperature
- **2x LAN** Rich I/O Ports and M.2 Expansions
- **Mini** 150 x 105 x 61 mm

INDUSTRIAL DISPLAY SYSTEMS

AIO-200-MTL Series

All-in-One IP65 Industrial Panel PC with Intel Meteor Lake Processor

- **IP65** Front Panel Protection
- **SLIM** 5~6.2 cm Thick
- EDGE AI Intel[®] AI Boost
- **CORE ULTRA** Core Ultra 5/7



SIO-300-ASL Series

Stainless Steel Industrial Panel PC with Intel Atom[®] X7835RE / X7433RE

- SUS316 Corrosion Proof
- IP68/69K Dust & Waterproof
- -20°C to 60°C Wide Temperature



CT-PMG01 2.5" Series MediaTek Geno MTK G510/G700

COMING SOON

VIO-300 Display Module Series



IP65 Display Module for PC600 Series

- High-Brightness 1000+ NITS
- **SLIM** Thin Rugged Design
- **OPTICAL BONDING**
- IP65 Front Panel Protection



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CT-DAS01 3.5" Series Intel Amston Lake X7835RE / X7433RE





CT-XAR01 Mini-ITX Series Intel Arrow Lake Core Ultra Series

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