



C&T SOLUTION INC.

# PRODUCT SOLUTION GUIDE

# 2023

INDUSTRIAL COMPUTING  
SOLUTIONS FROM THE  
EDGE TO THE CLOUD



**BUILT RUGGED. BUILT READY.**



YOUR TOP CHOICE PARTNER FOR

# INDUSTRY LEADING SOLUTIONS

Established in 2011, Taipei, C&T Solution Inc. is becoming one of the fastest-growing companies in the Industrial Computing Systems field. With its obsession with creating the best rugged edge computers as the core of great industrial leading solutions, C&T has become one of the top enterprises in providing world-class industrial embedded systems.

C&T is a global solutions provider specializing in industrial computer and embedded fields. We are committed to developing and manufacturing rugged edge computers, industrial panel PCs, industrial display systems, and industrial motherboards. C&T strives for the highest standards in innovation and technology to stay ahead of competitors in terms of design, technology, reliability, and versatility.

Our teams have worked strongly and closely with the customers to provide the high-quality and high-value creation of robust embedded computers. Moreover, our engineering specialty and agile manufacturing push the technical boundaries in embedded IoT computers. As a result, C&T is determined to become your top choice partner in industrial computing solutions. Therefore, C&T has an extensive customer base through global network and distribution partners from offices located worldwide.

C&T proudly offers diverse industrial technologies to meet various customers' needs based on their applications and industries. Our application-ready solutions are contributing to escalating advancement in a varied array of industrial sectors, including:



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



## OUR MISSION

C&T is dedicated to creating and delivering world-class technology solutions that empower our clients to reach their business goals. We will apply the highest creativity, integrity, quality, and innovation standards to our products and concepts.



## OUR VISION

Our vision is to create the best rugged edge computers as the core of great solutions that transform people's life. We will relentlessly innovate to deliver world-class edge computers for industry-leading solutions.



## OUR SERVICES

We strive to exceed our customers' expectations with innovative and competitive solutions. For us, this means providing unsurpassed service, delivering premium value, and offering a competitive edge to our customers. Additionally, our OEM and ODM collaboration constantly aim to deliver high-quality products, reliable partnerships, professional service, and competitive price, service, and competitive price.



## OUR CORE VALUES

We deliver our core brand values through the way we conduct business. C&T'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 C&T, we treat customers with dignity, respect, and courtesy. We listen objectively to their needs and respond in a timely, efficient, and responsible manner.

## FANLESS EMBEDDED SYSTEMS 12

C&T'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, C&T fanless embedded systems deliver a compelling platform that is needed in today's demanding workloads and industrial needs.

### ▶ 2023 FEATURED INDUSTRIAL SOLUTIONS 06

<b>FANLESS MINI PC</b>	<b>RUGGED</b>	<b>EDGEBOOST NODE</b>
<b>BCO SERIES 14</b>	<b>RCO SERIES 17</b>	<b>AI EDGE INFERENCE 24</b>



## INDUSTRIAL DISPLAY SYSTEMS 44

C&T'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 C&T industrial panel PCs and touch monitors as human machine interfaces to achieve better productivity and operational efficiency in their enterprise projects.

<b>TOUCH MODULE</b>	<b>DISPLAY MODULE</b>	<b>SYSTEM MODULE</b>
<b>VIO MX SERIES 49</b>	<b>VIO SERIES 50</b>	<b>PC SERIES MX SERIES 52</b>



<b>IN-VEHICLE</b>	<b>MACHINE VISION</b>
<b>ACO SERIES 30</b>	<b>VCO SERIES 33</b>
<b>AI EDGE INFERENCE</b>	<b>IP65/67 WATERPROOF</b>
<b>EDGE SERIES 36</b>	<b>WCO SERIES 41</b>

### MODULE SERIES 38

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

<b>IP65 PANEL PC</b>	<b>IP66 WATERPROOF</b>	<b>IP66/IP69 WASHDOWN</b>
<b>VIO PC SERIES 46</b>	<b>WIO SERIES 56</b>	<b>SIO SERIES 57</b>

### MOTHERBOARD SYSTEMS 58

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



## 2023 FEATURED INDUSTRIAL SOLUTIONS

**NEW**  
**ACO-6000-CML** series  
 In-Vehicle Fanless Computer

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

**EN50155  
 E-Mark**  
 Certification Ready

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



VISIT P.31



## 5G & AI MODULE SERIES

Expandable Performance Accelerators

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

**DTB-2M2BK** coming soon  
 2x M.2 B Key for AI/5G/NVMe module  
 VISIT P.38



**DTB-M2MK** coming soon  
 1x M.2 M Key for AI/NVMe module  
 VISIT P.38



coming soon  
**RCO-6000-ADL** series  
 AI Edge Inference Computer **EDGEBoost Nodes**

VISIT P.27

**12<sup>th</sup>**  
 Intel® 12<sup>th</sup> Gen  
 Processor  
 (Alder Lake)

**EDGEBoost**  
 GPU/NVMe/SATA  
 Performance  
 Upgrade

**2x**  
 Support  
 2x Universal I/O  
 Brackets

**PCIe 4.0**  
 Up to 16 GT/s  
 per lane

**VCO-6000-ADL** series coming soon  
 High-Performance  
 Machine Vision Computer

VISIT P.35



**Industrial-Grade  
 Locking Brackets**  
 Securely locks GPU cards

**Full-Length  
 GPU Support**  
 Support x16 PCIe 4.0

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

**4x**  
 Up to 4x PCIe  
 Expansion Slots

# RCO-3000-CML series coming soon

Small Form Factor Industrial Computer

VISIT P.22

## 10<sup>th</sup> Ultra Compact

LGA 1200 for Intel® 10<sup>th</sup> Gen Processor (Comet Lake S)

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

### DDR4

2x SO-DIMM, up to 64GB

### 2x

Intel GbE supports WoL & PXE

### 4k

4K Independent Displays

### -25°C to 60°C

Extended Operating Temperature Range

NEW

# BCO-2000-V1605B series

MINI INDUSTRIAL EMBEDDED COMPUTER  
AMD Ryzen™ Series

VISIT P.16

### AMD Ryzen™

Support AMD Ryzen™ Embedded R1000/V1000 Series Processor

### ECC

Support DDR4 Up to 32GB

### M.2 PCIe

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

### 4k

2x 4K, 1x LVDS

### -20°C to 55°C

Extended Operating Temperature Range

### 10Y

Ten Years Availability

# RCO-1000-EHL series coming soon

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

### Elkhart Lake

Intel Atom® x6425E and Celeron® J6413 Series

### 15 Year

IOTG Product Lifecycle Support

### DDR4

1x SO-DIMM, Up to 32GB

### 4k

Up to 3x Displays

### 3x

Up to 3x I/O Expansions

### -40°C to 70°C

Extreme Operating Temperature

VISIT P.18

coming soon

# ECO-1000 series ENERGY PACK

Portable. Smart. Ruggedized.

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

VISIT P.42

### 16x

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

### 12/24V

Support Dual Voltage Coverage

### EN50155

Railway Certification for In-Vehicle Deployments

### Ultra-Compact

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

### 200W

Robust Max Power Output

### GUI

GUI software for quick, easy setup

### 3x

Support three smart modes for various application deployments

coming soon

## PC100-EHL series

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

VISIT P.53

### Elkhart Lake

Intel Atom® & Celeron® SoC onboard

### DDR4

1x SO-DIMM, Up to 32GB

### 3x

Triple Independent Displays

### M.2 PCIe

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

### 2x

Intel® LAN (WoL & PXE)

### Rich I/O

6x COM, 4x USB, DIO, Audio

### Hot-Swappable

1x Removable 2.5" SATA SSD/HDD

1x PCIe/PCI Expansion



VISIT P.51

IP65 Modular Panel PC and Monitor



VISIT P.57

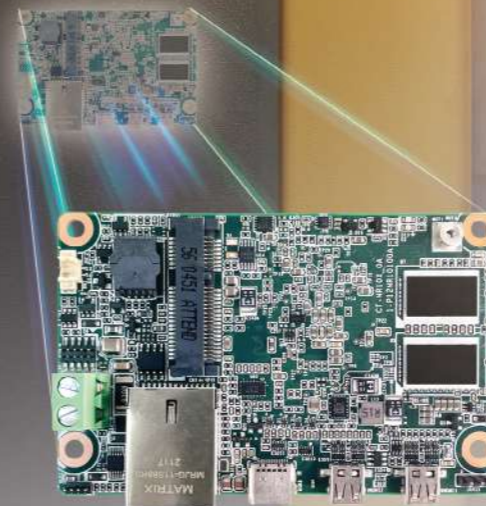
IP66/69K Washdown Touchscreen Computer

## 24" INDUSTRIAL PANEL PCS NEW

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

# AMD RYZEN EMBEDDED

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



## FEMTO FORM FACTOR 1.8" SBC NEW

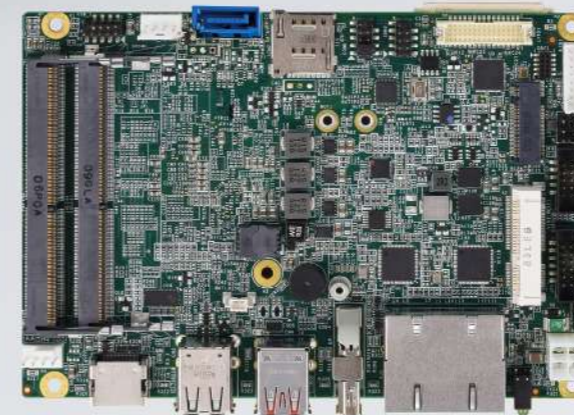
NEW

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

VISIT P.60

## COMPACT FORM FACTOR 3.5" SBC NEW

NEW



VISIT P.61

- AMD Ryzen™ Embedded R1000/V1000 Series
- Rich Industrial I/O Ports
- 2x DDR4 RAM up to 32GB
- Triple Independent Displays
- Industrial-grade Ruggedized Design
- 50x PCIe Pin for Customizable I/O



# C&T FANLESS EMBEDDED SYSTEMS PRODUCT FAMILY



**In-Vehicle**  
Fanless  
Computer

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

**ACO-6000** Series  
Skylake &  
Kabylake-S

**IP65/IP67  
Waterproof**  
Fanless  
Embedded  
System

**WCO-3400** Series  
Kabylake-U

**Mini**  
Fanless  
Computer

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

**BCO-2000** Series  
Whiskey Lake

**BCO-1000** Series  
Bay Trail

**Machine  
Vision  
System**

**VCO-6000-ADL** Series  
Alder Lake S

**VCO-6100** Series  
CFL-R S

**VCO-6000** Series  
Skylake & Kabylake-S

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

**Rugged**  
Fanless  
Embedded  
System

**RCO-6000-ADL** Series  
Alder Lake S

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

**RCO-6100** Series  
CFL-R S

**RCO-6000** Series  
Skylake & Kabylake-S

**RCO-3000-CML** Series  
Comet Lake S

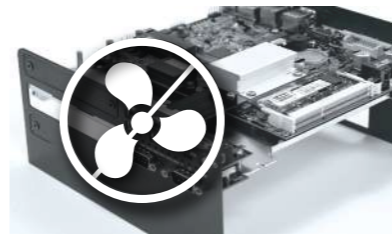
**RCO-3000-CFL** Series  
Coffee Lake R

**RCO-3600** Series  
Skylake & Kabylake-S

**RCO-3400** Series  
Kabylake-U

**RCO-1000-EHL** Series  
Elkhart Lake

**RCO-1000** Series  
Bay Trail



## FANLESS DESIGN

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



## ONE-PIECE DESIGN

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



## POWER PROTECTION

- Over voltage protection
- Over current protection
- Reverse protection



## SHOCK & VIBRATION

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



## EXPANDABLE & MODULARIZATION

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



## EXTENDED OPERATING TEMPERATURE RANGE

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

## THERMAL PERFORMANCE

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



## INDUSTRIAL GRADE COMPONENT

Strict component selection adopting industrial grade parts like capacitors, power chokes, etc. Better electrical performance and more stable system performance. Product longevity supported Less RMA + Longer Product Lifecycle = Lower TCO (Total Cost of Ownership)



# BCO-1000 SERIES

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

More info



- Ultra Compact Size Design
- Fanless & Cable-less in Design
- TPM 2.0 Supported (Optional)



Model	BCO-1000	BCO-1010	BCO-1020	BCO-1030
	Basic Fanless System ideal for space-constrained applications	Support up to 1x I/O module	Support up to 2x I/O module	Support up to 3x I/O module
CPU Onboard	Intel® Celeron® J1900			
Memory	1x 204-pin DDR3L-1066/1333MHz SO-DIMM, up to 8GB			
Graphic Output	1x DVI-I (optional DisplayPort: BCO-1010A, BCO-1020C & BCO-1030)			
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)			
Storage	1x mSATA (shared by 1x Mini PCIe)	1x mSATA (shared by 1x Mini PCIe), 1x Internal 2.5" SATA HDD Bay		
Internal Expansion Slot	2x Full-size mini-PCIe (1x shared with mSATA)			
Power	9-30 VDC, AT/ATX Select, 3-pin Terminal Block			
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-20°C to 50°C			
Dimensions (WxDxH)	142 x 101 x 30 mm	142 x 101 x 41.5 mm	142 x 101 x 58 mm	142 x 101 x 75 mm
Weight	0.46 kg	0.58 ~ 0.62 kg	0.68 kg	0.72 kg
Universal Expansion Slot	0	1 (rear)	2 (rear)	3 (rear) 1 (front)
DP, 8-bit Isolated DIO (rear)		BCO-1010A		
2x COM (rear)		BCO-1010B		
4x USB (rear)		BCO-1010U		
DP, 8-bit Isolated DIO, 2x COM (rear)			BCO-1020C	
4x COM (rear)			BCO-1020D	
DP, 8-bit Isolated DIO, 4x COM (rear)				BCO-1030

# BCO-2000 SERIES

- Support 8<sup>th</sup> Gen. Intel® Core™ i5 & Intel® Celeron® Processor
- 1x 260-pin DDR4 2400 SO-DIMM. Max. up to 32GB
- 2x Intel® GbE (Support Wake-on-LAN and PXE)
- Dual display by 1x HDMI and 1x DisplayPort support
- 2x Mini PCIe (Gen3) with 1x SIM slot support
- 4x USB 3.2 Gen 2, 4x RS-232/422/485 (w/ 2x Internal)

More info



- 1x Internal 2.5" SATA HDD Bay and 1x mSATA
- Watchdog timer, software programmable supports 1-225 sec. system reset
- TPM 2.0 Supported



Model	BCO-2000
	Basic Fanless System ideal for space-constrained applications
CPU Support	Support 8 <sup>th</sup> Gen. Intel® WL-UE Processor (15W TDP) Intel® Core™ i5-8365UE Processor 6M Cache, up to 4.10 GHz Intel® Celeron® Processor 4305UE 2M Cache, 2.00 GHz
Memory	1x 260-Pin DDR4 2400MHz SO-DIMM, up to 32GB
Graphic Output	1x DisplayPort, 1x HDMI (Optional)
LAN	2x RJ45 GbE (Support Wake-on-LAN and PXE)
USB, Serial	4x USB 3.2 Gen 2, 2x USB 2.0 header (internal), 2x RS-232/422/485
Storage	1x mSATA (shared by 1x Mini PCIe), 1x Internal 2.5" SATA HDD Bay
Internal Expansion Slot	2x Full-size Mini-PCIe (1x shared with mSATA)
Power	AT/ATX 12V Select, 3-pin Terminal Block
Audio	Line-out / Mic-in Internal
Operating Temperature	-20°C to 60°C
Dimensions (WxDxH)	140 x 192 x 61 mm
Weight	1.4 kg
Universal Expansion Slot	2
Expansion (Option)	<ul style="list-style-type: none"> <li>• 2x LAN</li> <li>• 2x PoE (Support 1x Universal Slot Only)</li> <li>• 2x COM</li> <li>• 2x USB 2.0 (Support 1x Universal Slot Only)</li> <li>• 4x COM</li> <li>• 2x USB 3.2 Gen1 (Support 1x Universal Slot Only)</li> </ul>



# BCO-2000-V1605B SERIES



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



Model	BCO-2000-V1605B	BCO-2000-R1606G
	Basic Fanless System ideal for space-constrained applications	
	Support AMD Ryzen™ Embedded R1000/V1000 Series	
CPU Support	AMD Ryzen™ Embedded V1605B with Radeon™ Vega 8 Graphics, 4M Cache, 4 Cores, 8 Threads, Up to 3.6 GHz	AMD Ryzen™ Embedded R1606G with Radeon™ Vega 3 Graphics, 4M Cache, 2 Cores, 4 Threads, Up to 3.5 GHz (Optional)
Memory	2x 260-Pin DDR4 2400 MHz SO-DIMM. Max 32 GB	
Graphic Output	1x DisplayPort, 1x 24-bit dual channel LVDS, 1x HDMI (Optional)	
LAN	2x RJ45 GbE (Support Wake-on-LAN and PXE)	
USB, Serial	2x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x internal), 2x RS-232/422/485	
Storage	1x M.2 B Key, 3042, Support SATA, 1x Internal 2.5" SATA HDD Bay (support H=9.5mm)	
Internal Expansion Slot	1x M.2 B Key (PCIe x1 & USB 3.0, 3042/3052, SATA, USIM, Support 4G/5G) 1x Full-Size Mini PCIe for expansion modules	
Power	AT, ATX 12VDC	
Operating Temperature	-20°C to 55°C (25W CPU)	
Dimensions (WxDxH)	140 x 192 x 61 mm	
Weight	1.5 kg	
Universal Expansion Slot	2	
Expansion (Option)	<ul style="list-style-type: none"> <li>• 2x COM</li> <li>• 4x COM</li> </ul>	<ul style="list-style-type: none"> <li>• 2x USB 2.0 (Support 1x Universal Slot Only)</li> <li>• 2x USB 3.2 Gen1 (Support 1x Universal Slot Only)</li> </ul>

# RCO-1000 SERIES



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



Model	RCO-1000	RCO-1010	RCO-1020	RCO-1030
	Ultra Compact Fanless System ideal for space-constrained applications	Support up to 1x I/O module	Support up to 2x I/O module	Support up to 3x I/O module
CPU Onboard	Intel® Atom® E3845, or Celeron® J1900			
Memory	1x 204-pin DDR3L-1066/1333MHz SO-DIMM, up to 8GB			
Graphic Output	1x DVI-I (optional DisplayPort: RCO-1010A, RCO-1020C & RCO-1030)			
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)			
Storage	1x mSATA (shared by 1x Mini PCIe)	1x mSATA (shared by 1x Mini PCIe), 1x Internal 2.5" SATA HDD Bay		
Internal Expansion Slot	2x Full-size mini-PCIe			
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block			
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-40 °C to 70 °C			
Dimensions (WxDxH)	150 x 105 x 37 mm	150 x 105 x 49 mm	150 x 105 x 65 mm	150 x 105 x 85 mm
Weight	0.69 kg	0.85 ~ 0.88 kg	0.97 ~ 0.98 kg	1.11 kg
Universal Expansion Slot	0	1 (rear)	2 (rear) 1 (front)	3 (rear) 2 (front)
DP, 8-bit Isolated DIO (rear)		RCO-1010A		
2x COM (rear)		RCO-1010B		
Power Ignition Management (internal)		RCO-1010G		
DP, 8-bit Isolated DIO, 2x COM (rear)			RCO-1020C	
4x COM (front)			RCO-1020D	
DP, 8-bit Isolated DIO, 4x COM (rear)				RCO-1030

# RCO-1000-EHL SERIES

- Intel® Atom™/Celeron® Processor (Up to 12W TDP)
- Dual Independent Display by 2x DisplayPort
- 1x 2.5GbE, 1x GbE supporting (Wake-on-LAN and PXE)
- 1x 2.5" SATA HDD Bay, 1x mSATA, 1x M.2 (B Key, 2242/3042/3052, Support 4G/5G)
- 1x Full-size mini PCIe for communication or expansion modules
- 2x RS-232/422/485, 3x USB 3.2 Gen2, 1x USB 2.0
- 9 to 36 VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -40°C to 70°C
- TPM 2.0 Supported



Coming Soon



Model	RCO-1000-EHL-10	RCO-1000-EHL-20	RCO-1000-EHL-30
	Ultra Compact Fanless System ideal for space-constrained applications		
CPU Support	Support Intel® EHL Processor (Up to 12W TDP) Intel® Atom® Processor x6425E, Quad Core, 1.5 MB Cache, 2.0 GHz, ECC supported Intel® Celeron® Processor J6413, Quad Core, 1.5 MB Cache, 1.8 GHz		
Memory	1x 260-Pin DDR4 2400/2667/3200MT/s SO-DIMM. Max. up to 32 GB		
Graphic Output	Dual Independent Display by 2x DisplayPort		
LAN	2x RJ45 (2.5 & 1 GbE), Support Wake-on-LAN and PXE		
USB, Serial	3x USB 3.2 Gen 2 (10 Gbps), 1x USB 2.0, 2x RS-232/422/485		
Storage	1x Internal 2.5" SATA HDD Bay (support H=9.5 mm)		
Internal Expansion Slot	1x Full-size Mini PCIe		
Power	9-36 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	1x Mic-in, 1x Line-out		
Operating Temperature	-40°C to 70°C		
Dimensions (WxDxH)	150 x 105 x 49 mm	150 x 105 x 66 mm	150 x 105 x 83 mm
Weight	0.9 kg	1 kg	1.2 kg
Universal Expansion Slot	Up to one Universal Expansion Slots	Up to three Universal Expansion Slots	Up to five Universal Expansion Slots
Expansion	Expansion Modules (Optional) : • 2-port COM module with Super I/O Chipset (Up to 2x Slot) • 4-Port USB module with USB hub (1x Slot Only) • 1-Port DP 1.4 and DIO (4 in / 4 out, Isolated, 1x Slot Only) • 1-Port HDMI 2.0 (1x Slot Only)		

# RCO-3400 SERIES

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

More info



Model	RCO-3400	RCO-3411	RCO-3422
	Advanced Fanless System based on Intel® KabyLake-U processors	Up to one PCI or PCIe x4 expansion slot	Up to two PCI or PCIe x4 expansion slot
CPU Onboard	Intel® 7 <sup>th</sup> Gen. (KabyLake-U) Processor Core™ i5-7300U, Core™ i3-7100U		
Memory	1x 260-pin DDR4 1866/2133MHz SO-DIMM, up to 16GB		
Graphic Output	1x VGA, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	4x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0, 5x RS-232/422/485 (w/ 3x internal), 16x isolated digital I/O		
Storage	2x 2.5" SATA HDD Bay (1x internal, 1x removable) with RAID 0, 1, 5, 10 support, 1x mSATA (shared by 1x Mini PCIe), and 1x CFast (shared by 1x mSATA)		
Internal Expansion Slot	2x Full-size mini-PCIe		
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-40 °C to 70 °C		
Dimensions (WxDxH)	185 x 197 x 57.4 mm	185 x 197 x 85 mm	185 x 197 x 105 mm
Weight	2.17 ~ 2.66 kg	2.73 ~ 3.1 kg	2.95 ~ 3.32 kg
1x PCIe x4		RCO-3411E	
1x PCI		RCO-3411P	
2x PCIe x4			RCO-3422EE
2x PCI			RCO-3422PP
Proprietary Module Expansion	Up to 1x Module : • DTB-4LAN • DTB-4LAN-M12 • DTB-4LAN-PWR • DTB-4LAN-PWR-M12		

# RCO-3600 SERIES

More info



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



Model	RCO-3600
	Advanced Fanless System based on Intel® Skylake & Kaby Lake-U processors
CPU Support	Support 6 <sup>th</sup> & 7 <sup>th</sup> Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151) 7 <sup>th</sup> Gen Intel® Core™ i7-7700T / i5-7500T / i3-7101TE, 6 <sup>th</sup> Gen Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE, Intel® Pentium® G4400TE / Celeron® G3900TE
Memory	2x DDR4 1866/2133MHz SO-DIMM. Max. up to 32GB
Graphic Output	Intel® HD Graphics 530 / 630 1x DisplayPort, and 1x HDMI (optional)
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)
USB, Serial, & Digital I/O	6x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0 (internal), 4x RS-232/422/485 (2x internal), 16x isolated digital I/O
Storage	2x internal 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), and 1x CFast
Internal Expansion Slot	2x Full-size mini-PCIe
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block
Audio	Speaker-out / Mic-in Phone Jack
Operating Temperature	-25°C to 60°C
Dimensions (WxDxH)	185 x 197 x 57.4 mm
Weight	2.28 kg

# RCO-3000-CFL SERIES

More info



- Support 8<sup>th</sup>/9<sup>th</sup> Gen Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Intel® Q370 Chipset
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe (shared by 1x mSATA), and 2x SIM socket
- 2x 2.5" SATA HDD Bay with RAID 0, 1, 5 support, 1x mSATA (Shared by 1x Mini PCIe)
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 4x USB 3.2 Gen 2, 4x USB 2.0 (2x internal), 5x RS-232/422/485 (2x internal)
- 8x DI + 8x DO with isolation
- 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported



Model	RCO-3000-CFL	RCO-3000-CFL-2E
	Superior Fanless Embedded System with LGA 1151 for Intel 8 <sup>th</sup> /9 <sup>th</sup> Gen CPU & Q370 PCH	Superior Fanless Embedded System with LGA 1151 for Intel 8 <sup>th</sup> /9 <sup>th</sup> Gen CPU & Q370 PCH, 2x PCIe x 16
CPU Support	Support 8 <sup>th</sup> & 9 <sup>th</sup> Gen Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T	
Memory	2x 260-Pin DDR4 2400/2666MHz SO-DIMM. Max. up to 64GB (Un-buffered and Non-ECC)	
Graphic Output	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x internal), 5x RS-232/422/485 (2x internal), 16x isolated digital I/O	
Storage	2x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 1x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)	
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key	
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Speaker-out	
Operating Temperature	-25°C to 60°C (35W CPU) -25°C to 50°C (65W CPU)	
Dimensions (WxDxH)	192 x 197 x 60.3 mm	192 x 197 x 107.8 mm
Weight	2.28 kg	3.10 kg
PCI Express	0	2x PCIe x16 (8-Lane)
Proprietary Module Expansion	Up to 1x Module : • DTB-D10G • DTB-4U3 • DTB-4ETH • DTB-4ETH-M12 • DTB-M2MK • DTB-2M2BK	

# RCO-3000-CML SERIES

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



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



Coming Soon

Model	RCO-3000-CML
	Superior Fanless Embedded System with LGA 1200 for Intel 10 <sup>th</sup> Gen CPU & Q470E PCH
CPU Support	Support 10 <sup>th</sup> Gen Intel® CML-R S Processor (LGA 1200 35W TDP) Core™ i9-10900TE, Core™ i7-10700TE, Core™ i5-10500TE, Core™ i3-10100TE, Pentium® G6400TE, or Celeron® G5900TE
Memory	2x 260-Pin DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB (ECC and Non-ECC)
Graphic Output	3x DisplayPort, support resolution 4096 x 2304 (1x DP Port Co-layout HDMI Connector)
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)
USB, Serial, & Digital I/O	6x USB 3.2 Gen 2 (10 Gbps) 2x USB 3.2 Gen 1 (5 Gbps, internal) 3x RS-232/422/485 (2x internal)
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 1x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)
Internal Expansion Slot	1x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 B Key Support 4G/5G/AI/NVMe, 1x M.2 E Key
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block
Audio	Speaker-out
Operating Temperature	-25°C to 70°C (35W CPU)
Dimensions (WxDxH)	192 x 197 x 60.3 mm
Weight	2.4 kg
Proprietary Module Expansion	Up to 1x Module : <ul style="list-style-type: none"> <li>• DTB-D10G</li> <li>• DTB-4U3</li> <li>• DTB-4ETH</li> <li>• DTB-4ETH-M12</li> <li>• DTB-4ETH-PWR</li> <li>• DTB-4ETH-PWR-M12</li> <li>• DTB-M2MK</li> <li>• DTB-2M2BK</li> </ul>

# RCO-6000 SERIES

More info



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

- Fanless & Cable-less in Design
- TPM 2.0 Supported



Model	RCO-6000	RCO-6011	RCO-6022
	Superior Fanless System with LGA-1151 socket for Intel® KabyLake & Skylake-S processors	With one PCI or PCIe x16 expansion slot	With two PCI or PCIe x8 / x16 expansion slot
CPU Support	Intel® 6 <sup>th</sup> /7 <sup>th</sup> Gen. (KabyLake & Skylake-S) Desktop Processor Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE		
Memory	2x 260-pin DDR4-1866/2133MHz SO-DIMM, up to 32GB		
Graphic Output	1x DVI-I, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	6x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0, 4x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O		
Storage	4x 2.5" SATA HDD Bays with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)		
Internal Expansion Slot	4x Full-size mini-PCIe		
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	Speaker-out / Mic-in Phone Jack		
Operating Temperature	-25 °C to 70 °C		
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 107 mm	240 x 261 x 127 mm
Weight	4.37 ~ 5.21 kg	4.67 ~ 6.40 kg	5.54 ~ 6.64 kg
Universal Expansion Slot (front)	2	2	2
Universal Expansion Slot (rear)	0	1	2
1x PCIe x16		RCO-6011E	
1x PCI		RCO-6011P	
2x PCIe x8			RCO-6022EE
2x PCI			RCO-6022PP
1x PCIe x16 & 1x PCI			RCO-6022PE
Proprietary Module Expansion	Up to 2x Module : <ul style="list-style-type: none"> <li>• DTB-4LAN</li> <li>• DTB-4LAN-PWR</li> <li>• DTB-4LAN-M12</li> <li>• DTB-4LAN-PWR-M12</li> </ul>		

## HIGH-PERFORMANCE INDUSTRIAL COMPUTER

# RCO-6100 SERIES

- Support 8<sup>th</sup>/9<sup>th</sup> Gen. Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Intel® Q370 chipset
- 2x DDR4 2400/2666Hz SO-DIMM. Max. up to 64GB
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 4x USB 3.2 Gen 2, 6x USB 3.2 Gen1 (1x internal), 6x RS-232/422/485 (w/ 2x internal)
- 4x 2.5" SATA HDD Bay and 1x mSATA. Support RAID 0, 1, 5, 10
- 1x NVMe M.2 SSD, 1x M.2 E Key for WiFi

More info



- Wide Operating Temperature -25°C to 70°C
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- Fanless & Cable-less in Design
- TPM 2.0 Supported



Model	RCO-6100	RCO-6122PE
	Superior Fanless System with LGA-1151 socket for Intel® CFL-R S Processor	
CPU Support	Support 8 <sup>th</sup> /9 <sup>th</sup> Gen. Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T	
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)	
Graphic Output	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps), 6x USB 3.2 Gen1 (1x internal), 6x RS-232/422/485 (2x internal), 16x isolated digital I/O	
Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe), 1x NVMe M.2 M Key	
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key	
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-25°C to 70°C (35W CPU) -25°C to 60°C (65W CPU)	
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2	
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127.3 mm
Weight	5.97 kg	7.73 kg
Universal Expansion Slot	1 (by mini PCIe interface)	3 (by mini PCIe interface)
PCI & PCI Express	0	RCO-6122 PE: 1x PCI, 1x PCIe x16 PP: 2x PCI (Optional) EE: 2x PCIe x8 (Optional)
Proprietary Module Expansion	Up to 1x Module : <ul style="list-style-type: none"> <li>• DTB-M2BK</li> <li>• DTB-D10G</li> <li>• DTB-4U3</li> <li>• DTB-4ETH</li> <li>• DTB-4ETH-M12</li> <li>• DTB-4ETH-PWR</li> <li>• DTB-4ETH-PWR-M12</li> <li>• DTB-M2MK</li> <li>• DTB-2M2BK</li> </ul>	

## AI EDGE INFERENCE COMPUTERS

# RCO-6000-CFL EDGEBOOST NODE SERIES

## PERFORMANCE AND STORAGE AT THE RUGGED EDGE

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

More info



Model	RCO-6000-CFL-2N-2060S	RCO-6000-CFL-4NS	RCO-6000-CFL-4NH
	Support 8 <sup>th</sup> /9 <sup>th</sup> Gen. Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T		
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)		
GPU	RTX 2060S		
Graphic Output	1x DVI-I, 1x DVI-D, 1x HDMI (GPU), 3x DisplayPort	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps); 6x USB 3.2 Gen1 (5 Gbps, 1x internal); 6x RS-232/422/485 (2x internal), 16x isolated digital I/O		
SATA Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)	4x 2.5" SATA SSD/HDD bay with RAID 0, 1, 5, 6, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)	
NVMe Storage	1x NVMe M.2 M Key 1x Removable 2 Bay NVMe SSD Module (15mm)  *Patented NVMe drives trays are toolless and hot-swappable	1x NVMe M.2 M Key 2x Removable 2 Bay NVMe SSD Module (15mm)  *Patented NVMe drives trays are toolless and hot-swappable *Software RAID Available	1x NVMe M.2 M Key 2x Removable 2 Bay NVMe SSD Module (15mm)  *Patented NVMe drives trays are toolless and hot-swappable *Hardware RAID Available
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key		
Power	9-48 VDC, 3-pin Terminal Block, AT/ATX Select, 12-48 VDC, 4-pin Terminal Block, AT/ATX Select, for GPU/Storage		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 60°C (35W / 65W CPU)		
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2		
Dimensions (WxDxH)	261 x 240 x 168 mm		
Weight	11.1 kg	10.1 kg	10.2 kg
Universal Expansion Slot	1 (by mini PCIe interface)		
PCI Express	1x PCIe x4 (x1 Lane)		
Proprietary Module Expansion	Up to 1x Module : <ul style="list-style-type: none"> <li>• DTB-D10G</li> <li>• DTB-M2BK</li> <li>• DTB-4U3</li> <li>• DTB-4ETH</li> <li>• DTB-4ETH-PWR</li> <li>• DTB-4ETH-M12</li> <li>• DTB-4ETH-M12-PWR</li> <li>• DTB-M2MK</li> <li>• DTB-2M2BK</li> </ul>		

[More info](#)

# RCO-6000-CML EDGEBOOST NODE SERIES

- Support 10<sup>th</sup> Gen. Intel® CML S Processor (LGA 1200, 65W/35W TDP)
- Intel® W480E chipset
- 2x DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 8x RS-232/422/485 (6x internal), 6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal)
- Wide Operating Temperature -25°C to 70°C

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



Model	RCO-6000-CML	RCO-6000-CML-2C	RCO-6000-CML-2C-4B7M
	Support 10 <sup>th</sup> Gen. Intel® CML S Processor (LGA 1200, 65W/35W TDP) Xeon® W-1290TE/1270TE/1250TE, Core™ i9-10900E/10900TE, Core™ i7-10700E/10700TE, Core™ i5-10500T/10500TE, Core™ i3-10100T/10100TE		
Memory	2x 260-Pin DDR4 2666 /2933MHz SO-DIMM, up to 64GB		
Graphic Output	1x DVI-I, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal), 2x USB 2.0 header (internal), 8x RS-232/422/485 (6x internal), 16x isolated digital I/O		
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 2x removable & hot-swappable)	6x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (6x removable & hot-swappable)	
SIM Socket	2x External SIM socket (Mini PCIe attached) (2x External SIM socket : M.2 B Key attached, 5G Module only, Optional)		
Power	9-48 VDC, AT/ATX Select, 5-pin Terminal Block		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 70°C (35W/65W CPU)		-25°C to 60°C (35W/65W CPU)
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127 mm	
Weight	3.1~3.5 kg	5.6 kg	5.7~5.85 kg
Universal Expansion Slot	2 (by mini PCIe interface)		
PCI Express	RCO-6000-CML-2C: 1x PCI, 1x PCIe x16 2I: 2x PCI (Optional) 2E: 2x PCIe x16 (8-lane) (Optional)		
Proprietary Module Expansion	Up to 2x Module : <ul style="list-style-type: none"> <li>• DTB-M2BK (Support 1x Universal Slot Only)</li> <li>• DTB-D10G</li> <li>• DTB-4U3</li> <li>• DTB-4ETH</li> <li>• DTB-4ETH-M12</li> <li>• DTB-4ETH-PWR</li> <li>• DTB-4ETH-PWR-M12</li> <li>• DTB-M2MK</li> <li>• DTB-2M2BK</li> </ul>		

# RCO-6000-ADL EDGEBOOST NODE SERIES

- Support 12<sup>th</sup> Gen. Intel® ADL S Processor (LGA 1700, 65W/35W TDP)
- Intel® R680E chipset
- 2x DDR5 4800 MHz SO-DIMM. Max. up to 64GB
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 8x RS-232/422/485 (6x internal), 2x USB 2.0 (internal)
- 1x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)

- 1x M.2 (B Key, PCIe x2, 3042/3052, Support 4G/5G/AI/NVMe)
- Wide Operating Temperature -25°C to 70°C
- Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported



Coming Soon



Model	RCO-6000-ADL	RCO-6000-ADL-2C	RCO-6000-ADL-2C-4B7M	RCO-6000-ADL-2C-2PWR	RCO-6000-ADL-20-2060S
	Support 12 <sup>th</sup> Gen. Intel® ADL S Processor (LGA 1700, 65W/35W TDP) Xeon® W-1290TE/1270TE/1250TE, Core™ i9-10900E/10900TE, Core™ i7-10700E/10700TE, Core™ i5-10500T/10500TE, Core™ i3-10100T/10100TE				
Memory	2x 262-Pin DDR5 4800MHz SO-DIMM. Max. up to 64GB (ECC and Non-ECC)				
GPU					RTX 2060S
Graphic Output	1x DVI-I, 2x DisplayPort				1x DVI-I, 1xDVI-D, 1x HDMI, 3x DP
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)				
USB, Serial, & Digital I/O	8x USB 3.2 Gen 2, 2x USB 2.0 header (internal), 6x RS-232/422/485 (2x internal), 8x DI + 8x DO with isolation				
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x Internal, 1x Removable, 1x mSATA)	7x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (5x removable & hot-swappable)	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal, 1x removable & hot-swappable)		
SIM Socket	2x External SIM socket (Mini PCIe/M.2 B Key attached)				
Power	9-48 VDC, 5-pin Terminal Block, AT/ATX Select, 12-48 VDC, 4-pin Terminal Block, AT/ATX Select, for GPU/Storage				
Audio	Line-out / Mic-in Phone Jack				
Operating Temperature	-25°C to 70°C (35W/65W CPU)		-25°C to 60°C (35W/65W CPU)		
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127 mm			
Weight	3.1~3.5 kg	5.6 kg	5.7~5.85 kg	5.6 kg	6.2 kg
Universal Expansion Slot	2 (by mini PCIe interface)				
PCI Express	RCO-6000-ADL-2C: 1x PCI, 1x PCIe x16 2I: 2x PCI (Optional) 2E: 2x PCIe x16 (8-lane) (Optional)				
Proprietary Module Expansion	Up to 2x Module : <ul style="list-style-type: none"> <li>• DTB-M2BK (Support 1x Universal Slot Only)</li> <li>• DTB-D10G</li> <li>• DTB-4U3</li> <li>• DTB-4ETH</li> <li>• DTB-4ETH-M12</li> <li>• DTB-4ETH-PWR</li> <li>• DTB-4ETH-PWR-M12</li> <li>• DTB-M2MK</li> <li>• DTB-2M2BK</li> </ul>				

# Mix & Match EDGEBoost Nodes Performance Accelerators Upgrade



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

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

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




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

# MIX & MATCH EDGEBoost Nodes

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

Here are the different EDGEBoost Nodes C&T offers:

## Top Industrial Fanless PC:

- |  |  |  |
|--|--|--|
|  <p><b>RCO-6000-CFL Series</b></p> <ul style="list-style-type: none"> <li>• 2x Hotswap SATA SSD (7mm)</li> <li>• 2x Internal SATA SSD (9mm)</li> <li>• 1x M.2 M Key 2280</li> </ul> |  <p><b>RCO-6000-CML Series</b></p> <ul style="list-style-type: none"> <li>• 2x Hotswap SATA SSD (7mm)</li> <li>• 1x Internal SATA SSD (9mm)</li> <li>• 1x M.2 E Key 2230</li> </ul> |  <p><b>RCO-6000-ADL Series</b></p> <ul style="list-style-type: none"> <li>• 2x Hotswap SATA SSD (7mm)</li> <li>• 1x Internal SATA SSD (9mm)</li> <li>• 1x M.2 B Key 2242</li> </ul> |
|--|--|--|

## Bottom Modular "EDGEboost Nodes" Configurations:

- |  |   |
|--|---|
|  <p><b>2C</b></p> <ul style="list-style-type: none"> <li>• 1x PCI and 1x PCIe x16 Expansion Slots</li> <li>• Fanless Design</li> </ul>   |  <p><b>2C-2PWR</b></p> <ul style="list-style-type: none"> <li>• 1x PCIe x16 for GPU Expansion</li> <li>• Dedicated Wide-Voltage 12-48VDC for GPU</li> <li>• Highspeed Exhaust Fan</li> </ul>              |
|  <p><b>2C-2B15M</b></p> <ul style="list-style-type: none"> <li>• 1x PCI, 1x PCIe x16 (8-lane)</li> <li>• 2x Hotswap 2.5" SATA SSD (15mm)</li> <li>• Software RAID 0, 1, 5, 10</li> <li>• Highspeed Exhaust Fan</li> </ul> |  <p><b>20-2060S</b></p> <ul style="list-style-type: none"> <li>• 1x Nvidia RTX 2060</li> <li>• Dedicated Wide Voltage 12-48VDC for GPU</li> <li>• Highspeed Exhaust Fan</li> </ul>                       |
|  <p><b>2C-4B7M</b></p> <ul style="list-style-type: none"> <li>• 1x PCI, 1x PCIe x16 (8-lane)</li> <li>• 4x Hotswap 2.5" SATA SSD (7mm)</li> <li>• Software RAID 0, 1, 5, 10</li> <li>• Highspeed Exhaust Fan</li> </ul>   |  <p><b>8NS (7mm)</b></p> <ul style="list-style-type: none"> <li>• 1x PCIe x4 (1-lane)</li> <li>• 8x Hotswap NVMe SSD</li> <li>• Software RAID 0, 1, 5, 10</li> <li>• Hot-Swappable Smart Fan</li> </ul>  |
|  <p><b>4NH (15mm)</b></p> <ul style="list-style-type: none"> <li>• 1x PCIe x8 (for RAID Card)</li> <li>• 4x Hotswap NVMe SSD</li> <li>• Hardware RAID 0, 1, 5, 6, 10</li> <li>• Hot-Swappable Smart Fan</li> </ul>        |  <p><b>4NS (15mm)</b></p> <ul style="list-style-type: none"> <li>• 1x PCIe x4 (1-lane)</li> <li>• 4x Hotswap NVMe SSD</li> <li>• Software RAID 0, 1, 5, 10</li> <li>• Hot-Swappable Smart Fan</li> </ul> |
|  <p><b>2N-2060S</b></p> <ul style="list-style-type: none"> <li>• 1x Nvidia RTX 2060</li> <li>• 2x Hotswap NVMe SSD (15mm)</li> <li>• 1x PCIe x4 (1-lane)</li> <li>• Hot-Swappable Smart Fan</li> </ul>                    |  <p><b>4N-2060S</b></p> <ul style="list-style-type: none"> <li>• 1x Nvidia RTX 2060</li> <li>• 4x Hotswap NVMe SSD (7mm)</li> <li>• 1x PCIe x4 (1-lane)</li> <li>• Hot-Swappable Smart Fan</li> </ul>    |



HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER

# ACO-6000 SERIES

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

More info



- TPM 2.0 Supported
- Power Ignition Management



Model	ACO-6000	ACO-6010	ACO-6011
	Surveillance Applied Fanless System with LGA-1151 socket for Intel® KabyLake & Skylake-S processors	With 16 GbE in RJ-45 or M12 connectors with PoE option.	With one PCI or PCIe x16 expansion slot
CPU Support	Intel® 6 <sup>th</sup> /7 <sup>th</sup> Gen. (KabyLake & Skylake-S) Desktop Processor Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE		
Memory	2x 260-pin DDR4-1866/2133MHz SO-DIMM, up to 32GB		
Graphic Output	1x DVI-I, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	6x USB 3.2 Gen1, 2x USB 2.0 (Internal), 5x RS-232/422/485 (w/ 3x internal), 16x isolated digital I/O		
Storage	4x 2.5" SATA HDD Bays with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)		
Internal Expansion Slot	3x Full-size mini-PCIe (shared with mSATA)		
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	Speaker-out / Mic-in Phone Jack		
Operating Temperature	-25 °C to 70 °C		
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2		
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 100 mm	240 x 261 x 107 mm
Weight	3.94 ~ 4.98 kg	5.34 ~ 6.82 kg	5.14 ~ 6.21 kg
Universal Expansion Slot (front)	2		
Universal Expansion Slot (rear)	2		1
1x PCIe x16			ACO-6011E
1x PCI			ACO-6011P
Proprietary Module Expansion	Up to 2x Module : • DTB-D10G • DTB-4U3 • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-M12-PWR • DTB-M2MK • DTB-2M2BK	Up to 4x Module : • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-M12-PWR	Up to 2x Module : • DTB-D10G • DTB-4U3 • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-M12-PWR • DTB-M2MK • DTB-2M2BK

HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER

# ACO-6000-CML SERIES

- LGA 1200 socket for 10<sup>th</sup> Gen. Intel® CML S Processor (65W/35W TDP)
- Intel® W480E chipset
- 2x DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe for communication or expansion modules, 2x SIM socket
- 3x 2.5" SATA HDD Bay (1x Internal) with RAID 0, 1, 5 support
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 8x RS-232/422/485 (6x internal), 6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal)

More info



- 8x DI + 8x DO with isolation
- 9 to 48 VDC or 48 to 110 VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature -25°C to 70°C (35W/65W CPU)
- TPM 2.0 Supported
- Power ignition management




Model	ACO-6000-CML	ACO-6000-CML-1E
	Surveillance Applied Fanless System with LGA1200 for Intel® 10 <sup>th</sup> Gen CPU & W480E PCH	Surveillance Applied Fanless System with LGA-1200 for Intel® 10 <sup>th</sup> Gen CPU & W480E PCH, 1x PCIe x16 expansion slot
CPU Support	Support 10 <sup>th</sup> Gen Intel® CML S Processor (LGA 1200, 65W/35W TDP) Xeon® W-1290TE/1270TE/1250TE, Core™ i9-10900E/10900TE, Core™ i7-10700E/10700TE, Core™ i5-10500T/10500TE, Core™ i3-10100T/10100TE	
Memory	2x 260-Pin DDR4 2666 /2933MHz SO-DIMM, up to 64GB (ECC and Non-ECC)	
Graphic Output	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	6x USB 3.2 Gen 2, 3x USB 3.2 Gen 1 (1x internal), 2x USB 2.0 header (internal), 8x RS-232/422/485 (6x internal), 8x DI + 8x DO with isolation	
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x internal; 2x removable & hot-swappable)	
Internal Expansion Slot	2x Full-size mini-PCIe, 1x M.2 (E Key, PCIe x2, 2230, USB 2.0, Support CNVi)	
Power	9-48VDC, 5-pin Terminal Block. 48-110VDC (Optional), 3-pin Terminal Block. AT/ATX Select	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-25°C to 70°C (35W/65W CPU)	
Certification	E-Mark, EMC Conformity with EN50155 & EN50121-3-2	
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 127 mm
Weight	4.4 ~ 4.7 kg	6.2 ~ 6.6 kg
Universal Expansion Slot	2 (by mini PCIe interface)	4 (by mini PCIe interface)
PCI & PCI Express		ACO-6000-CML-1E: 1x PCIe x16 ACO-6000-CML-1I: 1x PCI (Optional)
Proprietary Module Expansion	Up to 2x Module : • DTB-M2BK (Support 1x Universal Slot Only) • DTB-D10G • DTB-4U3 • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-M12-PWR • DTB-M2MK • DTB-2M2BK	Up to 4x Module : • DTB-4U3 • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-M12-PWR





# GPU SERIES INDUSTRIAL EDGE COMPUTER


- AI EDGE INFERENCE COMPUTER
- MACHINE VISION COMPUTER



 Additional Expansions:  
SATA/NVMe/M.2 SSDs

 Dedicated GPU  
for Inference and  
Machine Learning

 Ruggedized Design  
for Harsh Edge  
Environments

 PCIe 3.0 and PCIe 4.0 Expansions

C&T's GPU Series Industrial Computers support robust AI accelerators for inference analysis and powerful machine learning at the rugged edge. The computers are tested and validated for their reliability and durability while performing real-time analysis in the harshest industrial environments.

## HIGH-PERFORMANCE MACHINE VISION COMPUTER

[More info](#)



## VCO-6000 SERIES

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

**intel**  
Skylake-S  
Kaby Lake-S



Model	VCO-6000	VCO-6011	VCO-6022	VCO-6033	VCO-6044	VCO-6055C
		With one PCI or PCIe expansion slot	With two PCI or PCIe expansion slot	With three PCI or PCIe expansion slot	With four PCI or PCIe expansion slot	With five PCI or PCIe expansion slot
CPU Support	Intel® 6 <sup>th</sup> /7 <sup>th</sup> Gen. (Kaby Lake & Skylake-S) Desktop Processor Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE					
Memory	2x DDR4-1866/2133MHz SO-DIMM, up to 32GB					
Graphic Output	1x DVI-I, 2x DisplayPort					
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)					
USB, Serial, & Digital I/O	4x USB 3.2 Gen1 (5 Gbps), 4x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O					
Storage	2x Removable 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast					
Internal Expansion Slot	3x Full-size Mini-PCIe (Share by 2x mSATA)					
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block					
Audio	Speaker-out / Mic-in Phone Jack					
Operating Temperature	-25 °C to 70 °C					
Dimensions (WxDxH) mm	77 x 256 x 240	117 x 256 x 240	137 x 256 x 240	157 x 256 x 240	177 x 256 x 240	197 x 256 x 240
Weight	3.83 kg	5.29 kg	5.34 ~ 5.39 kg	5.42 ~ 5.86 kg	5.94 ~ 6.02 kg	6.21 kg
PCI & PCI Express		<ul style="list-style-type: none"> <li>• VCO-6011E : 1x PCIe x16</li> <li>• VCO-6011P : 1x PCI</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6022E : 2x PCIe x8</li> <li>• VCO-6022P : 2x PCI</li> <li>• VCO-6022C : 1x PCIe x16 1x PCI</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6033E : 2x PCIe x1 1x PCIe x16</li> <li>• VCO-6033P : 3x PCI</li> <li>• VCO-6033C : 1x PCIe x16 2x PCI</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6044P : 4x PCI</li> <li>• VCO-6044C : 2x PCIe x4 1x PCIe x8 1x PCI</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6055C : 2x PCIe x4 1x PCIe x8 2x PCI</li> </ul>



HIGH-PERFORMANCE MACHINE VISION COMPUTER

# VCO-6100 SERIES

- Support 8<sup>th</sup>/9<sup>th</sup> Gen. Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Intel® Q370 chipset
- 2x DDR4 2400/2666Hz SO-DIMM. Max. up to 64GB (Un-buffered and Non-ECC)
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x External 2.5" SATA HDD bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe), 2x M.2
- Wide Operating Temperature -25°C to 70°C
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode

More info



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



Model	VCO-6122	VCO-6133	VCO-6144	VCO-6155
	With two PCI or PCIe expansion slot	With three PCI or PCIe expansion slot	With four PCI or PCIe expansion slot	With five PCI or PCIe expansion slot
CPU Support	Support 8 <sup>th</sup> /9 <sup>th</sup> Gen. Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium® G5400T, or Celeron® G4900T			
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)			
Graphic Output	1x DVI-I, 2x DisplayPort			
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)			
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2, 6x internal USB 3.2 Gen1 (5 Gbps), 6x RS-232/422/485 (4x internal), 16x isolated digital I/O			
Storage	2x Internal 2.5" SATA HDD Bay (Support H=9mm) 2x Removable 2.5" SATA HDD Bay (Support H=7mm, Hot-swappable) Support RAID 0, 1, 5, 10 1x mSATA (shared by 1x Mini PCIe), 1x NVMe M.2 M Key			
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key			
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block			
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-25°C to 70°C (35W CPU) -25°C to 60°C (65W CPU)			
Dimensions (WxDxH)	137 x 340 x 240 mm	157 x 340 x 240 mm	177 x 340 x 240 mm	197 x 340 x 240 mm
Weight	8.5 Kg	9.1 Kg	9.5 kg	10.1 kg
PCI & PCI Express	<ul style="list-style-type: none"> <li>• VCO-6122E : 2x PCIe x8</li> <li>• VCO-6122P : 2x PCI</li> <li>• VCO-6122C : 1x PCIe x16 1x PCI</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6133E : 2x PCIe x1 1x PCIe x16</li> <li>• VCO-6133P : 3x PCI</li> <li>• VCO-6133C : 1x PCIe x16 2x PCI</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6144P : 4x PCI</li> <li>• VCO-6144C : 2x PCIe x4 1x PCIe x16 (8-lane) 1x PCI</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6155C : 2x PCIe x4 1x PCIe x16 (8-Lane) 2x PCI</li> </ul>



HIGH-PERFORMANCE MACHINE VISION COMPUTER

# VCO-6000-ADL SERIES

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



Coming Soon

Model	VCO-6000-ADL-2	VCO-6000-ADL-3	VCO-6000-ADL-4
	Up to 2x PCI/PCIe Expansion Slots	Up to 3x PCI/PCIe Expansion Slots	Up to 4x PCI/PCIe Expansion Slots
CPU Support	Support 12 <sup>th</sup> Gen. Intel® ADL S Processor (LGA 1700, 65W/35W TDP) Xeon® W-1290TE/1270TE/1250TE, Core™ i9-10900E/10900TE, Core™ i7-10700E/10700TE, Core™ i5-10500T/10500TE, Core™ i3-10100T/10100TE		
Memory	2x 262-Pin DDR5 4800MHz SO-DIMM. Max. up to 64GB (ECC and Non-ECC)		
Graphic Output	1x DVI-I, 2x DisplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB, Serial, & Digital I/O	8x USB 3.2 Gen 2 (10 Gbps, 4x internal) 2x USB 2.0 header (internal), 6x RS-232/422/485 (4x internal), 8x DI + 8x DO with isolation		
Storage	3x 2.5" SATA HDD bay with RAID 0, 1, 5 support (1x Internal; 1x Removable; 1x mSATA)		
Internal Expansion Slot	1x Full-size mini-PCIe (1 shared by 1x mSATA) 1x M.2 B Key (3042/3052, Support 4G/5G/AI/NVMe) 1x M.2 E Key (2230, Support Wi-Fi/Bluetooth)		
Power	5-pin Terminal Block, 9-48 VDC, AT/ATX Select, 4-pin Terminal Block, 12-48VDC, for GPU Card		
Audio	Line-out / Mic-in Phone Jack (internal)		
Operating Temperature	-25°C to 70°C (35W/65W CPU)		
Dimensions (WxDxH)	137 x 340 x 240 mm	157 x 340 x 240 mm	177 x 340 x 240 mm
Weight	9.1 kg	9.5 kg	9.9 kg
PCI Express	<ul style="list-style-type: none"> <li>• VCO-6000-ADL-2E : 2x PCIe x8</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6000-ADL-3E : 2x PCIe x1, 1x PCIe x16</li> </ul>	<ul style="list-style-type: none"> <li>• VCO-6000-ADL-4E : 1x PCIe x1, 2x PCIe x8 (Dual-Slot Width)</li> </ul>

# GPU SERIES

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



Model	RCO-6020-1050TI	VCO-6020-1050TI	VCO-6022C-2PWR
	Industrial GPU Computer With 6 <sup>th</sup> /7 <sup>th</sup> Gen Intel <sup>®</sup> Core™ Processor and Q170 PCH, GTX 1050Ti Integrated	Industrial GPU Computer With 6 <sup>th</sup> /7 <sup>th</sup> Gen Intel <sup>®</sup> Core™ Processor and Q170 PCH, GTX 1050Ti Integrated	Industrial GPU Computer With 6 <sup>th</sup> /7 <sup>th</sup> Gen Intel <sup>®</sup> Core™ Processor and Q170 PCH, 24V Power for GPU
CPU Support	Intel <sup>®</sup> 6 <sup>th</sup> /7 <sup>th</sup> Gen. (KabyLake & Skylake-S) Desktop Processor Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium <sup>®</sup> G4400TE, or Celeron <sup>®</sup> G3900TE		
Memory	2x DDR4-1866/2133MHz SO-DIMM, up to 32GB		
GPU	GTX 1050 TI		1x PCIe x16 for GPU
Graphic Output	2x DVI-I, 3x DisplayPort, 1x HDMI		1x DVI-I, 2x DisplayPort
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		
USB	6x USB 3.2 Gen1 (5 Gbps), 2x USB 2.0	4x USB 3.2 Gen1 (5 Gbps)	
Serial & Digital I/O	4x RS-232/422/485 (2x internal), 16x isolated digital I/O		
Storage	4x 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)	2x Removable 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast	
Internal Expansion Slot	4x Full-size mini-PCIe (shared with 2x mSATA)	3x Full-size mini-PCIe (shared with mSATA)	
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	System: 9-50 VDC, GPU: 24 VDC, AT/ATX Select
Audio	Speaker-out / Mic-in Phone Jack		
Operating Temperature	-25 °C to 60 °C		-25 °C to 70 °C
Dimensions (WxDxH)	240 x 261 x 127 mm	137 x 256 x 240 mm	137 x 256 x 240 mm
Weight	7.76 kg	7.71 kg	7.83 kg
Universal Expansion Slot (front)	2		

# GPU SERIES

[More info](#)



Model	RCO-6120-2060S	VCO-6122C-2PWR
	AI Edge Inference Computer with 8 <sup>th</sup> /9 <sup>th</sup> Gen Intel Core Processor and Q370 PCH, RTX 2060 Super Integrated	AI Edge Inference Computer with 8 <sup>th</sup> /9 <sup>th</sup> Gen Intel <sup>®</sup> Core™ Processor, 1x PCIe x16, 24V Power for GPU
CPU Support	8 <sup>th</sup> /9 <sup>th</sup> Gen. Intel <sup>®</sup> CFL-R S Processor (LGA 1151, 65W/35W TDP) Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE/8500T, Core™ i3-9100E/9100TE/8100T, Pentium <sup>®</sup> G5400T, or Celeron <sup>®</sup> G4900T	
Memory	2x DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)	
GPU	RTX 2060S	1x PCIe x16 for GPU
Graphic Output	1x DVI-I, 1x DVI-D, 1x HDMI, 3x DisplayPort	1x DVI-I, 2x DisplayPort
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB	4x USB 3.2 Gen 2 (10 Gbps) 6x USB 3.2 Gen 1 (5 Gbps, 1x internal)	4x USB 3.2 Gen 2 (10 Gbps) 6x internal USB 3.2 Gen 1 (5 Gbps)
Serial & Digital I/O	6x RS-232/422/485 (2x internal), 16x isolated digital I/O	6x RS-232/422/485 (4x internal), 16x isolated digital I/O
Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe), 1x M.2 (M Key, PCIe x4, 2280, Support NVMe)	
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA)	
Power	9-48 VDC, 3-pin Terminal Block, AT/ATX Select, 12-48 VDC, 4-pin Terminal Block for GPU expansion	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-25 °C to 60 °C	
Certification	E-Mark, EMC Conformity with EN 50155, EN 50121-3-2	
Dimensions (WxDxH)	240 x 261 x 79.2 mm	137 x 340 x 240 mm
Weight	8.1 kg	7.83 kg
Universal Expansion Slot (front)	1 (by mini PCIe interface)	2 (by mini PCIe interface)

# MODULE SERIES

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

[More info](#)



# MODULE SERIES

[More info](#)



DTB-2M2BK	DTB-M2MK
2x M.2 B Key for AI/5G/NVMe module <ul style="list-style-type: none"> <li>• 2x M.2 B Key slot, Support 2x AI/5G Module (Support 1x 5G Only)</li> <li>• M.2 B Key, PCIe x2, 2242/3042/3052</li> <li>• 1x SIM slot</li> <li>• Support 1x Universal Slot Only</li> </ul>	1x M.2 M Key for AI/NVMe module (PCIe x4) <ul style="list-style-type: none"> <li>• M.2 M Key slot, Support AI/NVMe Module</li> <li>• M.2 B Key, PCIe x4, 2242/2260</li> <li>• Support 1x Universal Slot Only</li> </ul>

COMPATIBLE LIST	DTB-2M2BK	DTB-M2MK
RCO-6000-ADL	•	•
RCO-6000-CML	•	•
RCO-6100 (RCO-6000-CFL)	•	•
ACO-6000-ADL	•	•
ACO-6000-CML	•	•
ACO-6000	• AI/NVMe Only	•
RCO-3000-CML	•	•
RCO-3000-CFL	• AI/NVMe Only	•



DTB-4ETH	DTB-4ETH-M12	DTB-4LAN	DTB-4LAN-M12
<ul style="list-style-type: none"> <li>• Intel® Ethernet Controller I350</li> <li>• 1x PCIe x4 Gold finger (x4 Lane)</li> <li>• 4x 1GbE LAN, RJ45 Port</li> <li>• Support Power over Ethernet by</li> <li>• an optional PoE module</li> </ul>	<ul style="list-style-type: none"> <li>• Intel® Ethernet Controller I350</li> <li>• 1x PCIe x4 Gold finger (x4 Lane)</li> <li>• 4x 1GbE LAN, M12 Port</li> <li>• Support Power over Ethernet by</li> <li>• an optional PoE module</li> </ul>	<ul style="list-style-type: none"> <li>• Intel® Ethernet Controller I210</li> <li>• 1x PCIe x1 Gold finger</li> <li>• 4x 1GbE LAN, RJ45 Port</li> <li>• Support Power over Ethernet by</li> <li>• an optional PoE module</li> </ul>	<ul style="list-style-type: none"> <li>• Intel® Ethernet Controller I210-AT</li> <li>• 1x PCIe x1 Gold finger</li> <li>• 4x 1GbE LAN, M12 Port</li> <li>• Support Power over Ethernet by</li> <li>• an optional PoE module</li> </ul>
DTB-4ETH-PWR	DTB-4ETH-PWR-M12	DTB-4LAN-PWR	DTB-4LAN-PWR-M12
<ul style="list-style-type: none"> <li>• Up to 25.2 watt per port</li> <li>• Complies with IEEE 802.3at</li> </ul>			



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

COMPATIBLE LIST	DTB-4ETH DTB-4ETH-PWR	DTB-4ETH-M12 DTB-4ETH-PWR-M12	DTB-4LAN DTB-4LAN-PWR	DTB-4LAN-M12 DTB-4LAN-PWR-M12
RCO-6000-ADL	•	•		
RCO-6000-CML	•	•		
RCO-6100 (RCO-6000-CFL)	•	•		
ACO-6000-ADL	•	•		
ACO-6000-CML	•	•		
ACO-6000	•	•		
RCO-6000			•	•
RCO-3400			•	•
RCO-3000-CML	•	•		
RCO-3000-CFL	• DTB-4ETH only	• DTB-4ETH-M12 only		

COMPATIBLE LIST	DTB-D10G	DTB-M2BK	DTB-4U3
RCO-6000-ADL	•	•	•
RCO-6000-CML	•	•	•
RCO-6100 (RCO-6000-CFL)	•	•	•
ACO-6000-ADL	•	•	•
ACO-6000-CML	•	•	•
ACO-6000	•	• AI/NVMe Only	•
RCO-3000-CML	•	•	•
RCO-3000-CFL	•	• AI/NVMe Only	•

MACHINE VISION COMPUTER

# KCO-6000-CML SERIES

- Support 10<sup>th</sup> Gen. Intel® CML S Processor (LGA 1200, 65W/35W TDP)
- Intel® W480E chipset
- 2x DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe, 2x SIM socket
- 3x 2.5" SATA HDD Bay (2x Internal) with RAID 0, 1, 5 support
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 8x RS-232/422/485 (6x internal), 6x USB 3.2 Gen 2 (2x internal)
- 110 ~ 240 VAC AC Input, AT/ATX Mode
- Wide Operating Temperature -25°C to 70°C (35W/65W CPU)
- TPM 2.0 Supported



Model	KCO-6000-CML-3E-650W	KCO-6000-CML-2B15M	KCO-6000-CML-4B7M	KCO-6000-CML-4M2
	1x PCIe x16, 2x PCIe x1, 650W	1x PCIe x16, 2x PCIe x1, 5x HDD, 650W	1x PCIe x16, 2x PCIe x1, 7x HDD, 650W	1x PCIe x8, 1x PCIe x1, 4x M.2, 650W
CPU Support	Support 10 <sup>th</sup> Gen Intel® CML S Processor (LGA 1200, 65W/35W TDP) Xeon® W-1290TE/1270TE/1250TE, Core™ i9-10900E/10900TE, Core™ i7-10700E/10700TE, Core™ i5-10500T/10500TE, Core™ i3-10100T/10100TE			
Memory	2x DDR4 2666/2933MHz SO-DIMM. Max. up to 64GB			
Graphic Output	1x DVI-I, 2x DisplayPort			
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)			
USB, Serial, & Digital I/O	6x USB 3.2 Gen 2 (10 Gbps, 2x Internal), 3x USB 3.2 Gen 1 (5 Gbps, internal), 2x USB 2.0 header (internal), 8x RS-232/422/485 (6x internal), 8x DI + 8x DO with isolation			
SATA Storage	<ul style="list-style-type: none"> <li>• 2x 2.5" SATA/SSD HDD Bay (support H=9mm, Internal)</li> <li>• 1x 2.5" SATA/SSD HDD Bay (support H=7mm, Hot-swappable)Support RAID 0, 1, 5</li> </ul>	<ul style="list-style-type: none"> <li>• 2x 2.5" SATA/SSD HDD Bay (support H=9mm, Internal)</li> <li>• 1x 2.5" SATA/SSD HDD Bay (support H=7mm, Hot-swappable)</li> <li>• 2x 2.5" SATA/SSD HDD Bay (support H=15mm, Hot-swappable) Support RAID 0, 1, 5, 10</li> </ul>	<ul style="list-style-type: none"> <li>• 2x 2.5" SATA/SSD HDD Bay (support H=9mm, Internal);</li> <li>• 5x 2.5" SATA/SSD HDD Bay (support H=7mm, Hot-swappable)Support RAID 0, 1, 5, 10</li> </ul>	<ul style="list-style-type: none"> <li>• 2x 2.5" SATA/SSD HDD Bay (support H=9mm, Internal);</li> <li>• 1x 2.5" SATA/SSD HDD Bay (support H=7mm, Hot-swappable)Support RAID 0, 1, 5</li> </ul>
NVMe Storage				4x M.2 PCIe x2, 2280 (Removable, Raid 0, 1 Support)
Internal Expansion Slot	2x Full-size mini-PCIe, 1x M.2 (E Key, PCIe x2, 2230, USB 2.0, Support CNVi)			
Power	AC Input : 650W: 110 ~ 240 VAC or 800W: 110 ~ 240 VAC (Optional), AT/ATX Select			
Audio	1x Mic-in, 1x Line-out (Internal)			
Operating Temperature	-25°C to 70°C (35W/65W CPU)			
Dimensions (WxDxH)	290 x 340 x 157 mm			
Weight	8.5 ~ 9 Kg			
PCI & PCI Express	1x PCIe x16, 2x PCIe x4 (1-lane)		1x PCIe x16 (8-lane) for GPU Card, 1x PCIe x4 (1-lane)	

IP65/IP67 WATERPROOF COMPUTER

# WCO-3400 SERIES

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

More info



Model	WCO-3400
	IP65/IP67 Waterproof System with Intel® Kaby Lake-U processor
CPU Support	Intel® 7 <sup>th</sup> Gen. (Kaby Lake-U) Processor Core™ i5-7300U, Core™ i3-7100U
Memory	1x DDR4-1866/2133MHz SO-DIMM, up to 16GB
Graphic Output	1x VGA (Waterproof connector)
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE) by M12 X-Code 8-pin
USB	1x USB 3.2 Gen1 (5 Gbps, Waterproof connector), 2x USB 2.0 by M12 D-Code 8-pin
Serial	1x RS-232/422/485 by M12 D-Code 8-pin
Storage	1x internal 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCI Express)
Internal Expansion Slot	2x Full-size mini-PCIe
Power	9-50 VDC, M12 A-code 4-pin
Operating Temperature	-40 °C to 70 °C
Dimensions (WxDxH)	231 x 292 x 56.5 mm
Weight	4.18 Kg
IP65	WCO-3400
IP67	WCO-3400-IP67

# ECO-1000 ENERGY PACK

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



Coming Soon

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

### Connect ECO's GUI to an External System

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

### LCM DisplayModule (Optional)

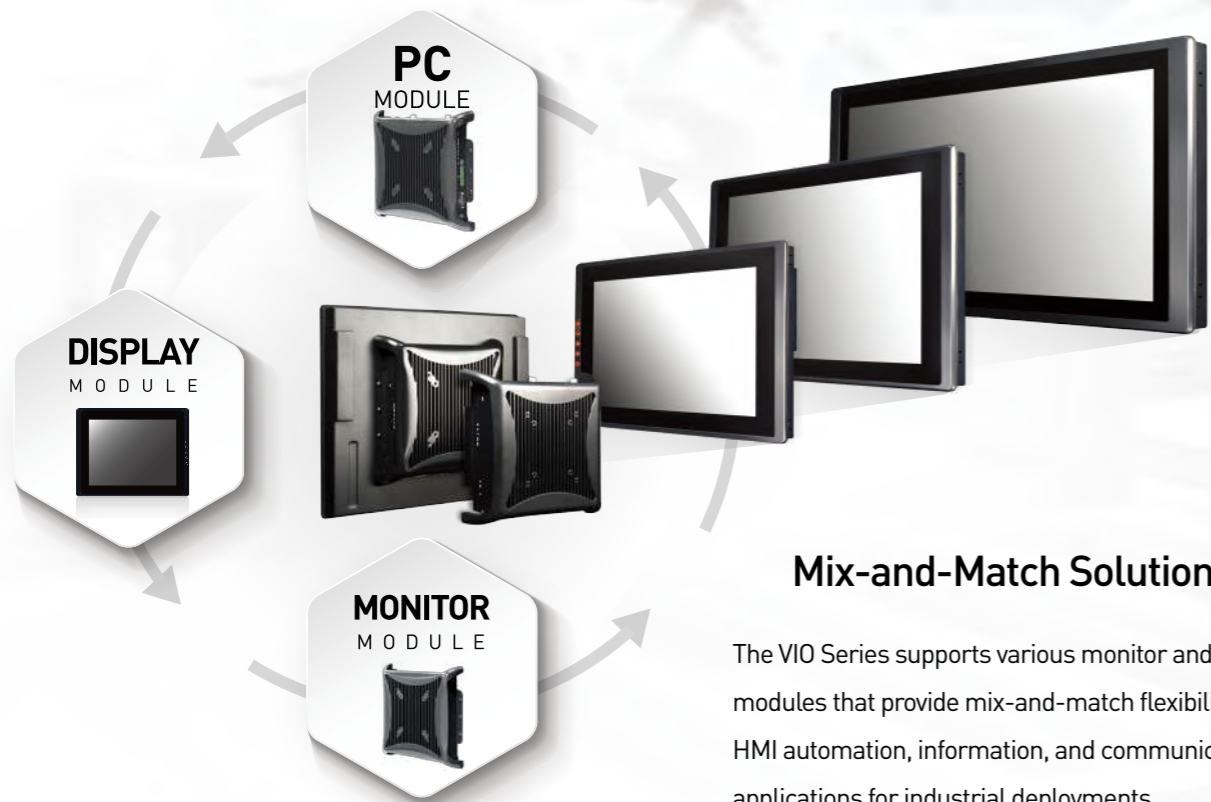
The LCM module provides a quick set up and monitoring for field operators at the deployment location.

### Power Ignition Management

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

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

# INDUSTRIAL DISPLAY SYSTEMS



## Mix-and-Match Solution

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

# C&T INDUSTRIAL DISPLAY SYSTEMS

## PRODUCT FAMILY



**System**  
Module

**IP66 / IP69**  
Panel PC



**Display**  
Module



**Touch**  
Monitor

**PC400 Series**  
KabyLake-U

**PC100-EHL Series**  
Elkhart Lake

**PC100 Series**  
Bay Trail

**MX200 Series**  
Monitor Module

**SIO-200 Series**  
Bay Trail

**WIO-W221C Series**  
KabyLake-U

## Panel PC

**VIO-200/PC400 Series**  
KabyLake-U  
Thin Frame

**VIO-200/PC100-EHL Series**  
Elkhart Lake  
Thin Frame

**VIO-200/PC100 Series**  
Bay Trail  
Thin Frame

**VIO-200/MX200 Series**  
Thin Frame

**VIO-200 Series**  
Thin Frame



**Scalability in Panel Sizes**

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

**Flexibility in Touch Screen**

Resistive Touch  
Capacitive Touch

**Different Frame Options**

Standard Frame  
Thin Frame

**Different System Options**

PC Modules  
Monitor Modules

**intel**

**Diverse Platform Options**

Intel® Elkhart Lake  
Intel® Kaby Lake-U  
Intel® Bay Trail

**Easy Installation & Maintenance**

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

# VIO-200/PC100 SERIES

[More info](#)



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



Model	VIO-200/PC100	VIO-200/PC110
	Thin Frame Industrial Panel PC based on Intel® Bay Trail processors	
CPU Onboard	Intel® Celeron® J1900	
Memory	1x 204-pin DDR3L-1066/1333 SO-DIMM, up to 8GB	
Graphic Output	1x VGA, 1x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	1x USB 3.2 Gen1 (5 Gbps), 3x USB 2.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe), 1x CFast (shared by 1x mSATA & 1x Mini PCIe)	
Internal Expansion Slot	1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB + SATA) 1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB)	
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-10 °C to 60 °C -10 °C to 50 °C (19" and 23.8" Panel PC only)	
LCD Size	4:3 12.1" / 15" / 17" / 19" 16:9 15.6" / 21.5" / 23.8"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	2

# VIO-200/PC100-EHL SERIES



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



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



INDUSTRIAL PANEL PC

# VIO-200/PC400 SERIES

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

More info



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



Model	VIO-200/PC400	VIO-200/PC410
	Thin Frame Industrial Panel PC based on Intel® Kabylake-U processors	
CPU Onboard	Intel® 7 <sup>th</sup> Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U	
Memory	1x 260-Pin DDR4 1866/2133MHz SO-DIMM. Max. up to 16GB	
Graphic Output	1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen1 (5 Gbps), up to 6x RS-232/422/485, 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe, 1x CFAST (shared by 1x mSATA)	
Internal Expansion Slot	2x Full-size Mini PCIe	
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-10 °C to 60 °C -10 °C to 50 °C (19" and 23.8" Panel PC only)	
LCD Size	4:3 12.1" / 15" / 17" / 19" 16:9 15.6" / 21.5" / 23.8"	
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch	
Universal Expansion Slot	0	2

INDUSTRIAL TOUCH MONITOR

# VIO-200/MX200 SERIES

- 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

More info



Model	VIO-200/MX200
	Thin Frame Industrial Touch Monitor
Touch Type	Resistive / Capacitive Touch
VGA	1x VGA Input
HDMI	1x HDMI Input
DisplayPort	1x DisplayPort Input
USB	1x USB 2.0 Input
COM Port	1x COM Port Input / Resistive
Audio	1x Audio Input
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block
Operating Temperature	-10 °C to 60 °C -10 °C to 50 °C (19" and 23.8" Panel PC only)
LCD Size	4:3 12.1" / 15" / 17" / 19" 16:9 15.6" / 21.5" / 23.8"

[More info](#)



## VIO 4:3 SERIES

The Display Modules VIO-100 and VIO-200 series are compatible with PC modules PC400, PC100-EHL, PC100 series and monitor modules MX200 series for different display sizes and touchscreens. These modules allow to be used for configuring, upgrading and maintaining your Panel PC or touch monitor

### VIO-100 SERIES

### VIO-200 SERIES

Standard Frame



Model	VIO-110
LCD Size	10.4"
Max. Resolution	800 x 600 (SVGA)
Brightness [cd/m2]	400
Contrast Ratio	700:1
LCD Color	16.2M
Pixel Pitch [mm]	0.264 (H) x 0.264 (V)
Viewing Angle (H-V)	160 / 130
Internal Speaker	AMP 5W + 5W
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch
Operating Temperature	-10°C to 60°C

Thin Frame



Model	VIO-212	VIO-215	VIO-217	VIO-219
LCD Size	12.1"	15"	17"	19"
Max. Resolution	1024 x 768 (XGA)		1280 x 1024 (SXGA)	
Brightness [cd/m2]	500	350		
	1000 nits (Optional)			
Contrast Ratio	700:1		800:1	1000:1
LCD Color	16.2M		16.7M	
Pixel Pitch [mm]	0.24 x 0.24 (H) x (V)	0.297 x 0.297 (H) x (V)	0.264 x 0.264 (H) x (V)	0.294 x 0.294 (H) x (V)
Viewing Angle (H-V)	160 / 160	170 / 160		
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	

[More info](#)



## VIO 16:9 SERIES

### VIO-200 SERIES

Thin Frame



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

# PC100 SERIES

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

More info



Model	PC100	PC110
	PC Module based on Intel® Bay Trail processors	PC Module based on Intel® Bay Trail processors and with two universal I/O bracket
CPU Onboard	Intel® Celeron® J1900	
Memory	1x 204-pin DDR3L-1066/1333 SO-DIMM, up to 8GB	
Graphic Output	1x VGA, 1x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	1x USB 3.2 Gen1 (5 Gbps), 3x USB 2.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe), 1x CFast (shared by 1x mSATA & 1x Mini PCIe)	
Internal Expansion Slot	1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB + SATA) 1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB)	
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-40 °C to 70 °C	
Universal Expansion Slot	0	2

# PC100-EHL SERIES

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



Coming Soon

Coming Soon

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

PC MODULE

# PC400 SERIES

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

More info



Model	PC400	PC410
	PC Module based on Intel® Kabylake-U processors	
CPU Onboard	Intel® 7 <sup>th</sup> Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U	
Memory	1x 260-Pin DDR4 1866/2133MHz SO-DIMM. Max. up to 16GB	
Graphic Output	1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen1 (5 Gbps), up to 6x RS-232/422/485, 16x isolated digital I/O	
Storage	1x 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe), 1x CFast (shared by 1x mSATA)	
Internal Expansion Slot	2x Full-size Mini PCIe	
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack	
Operating Temperature	-40 °C to 70 °C	
Universal Expansion Slot	0	2

MONITOR MODULE

# MX200 SERIES

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

More info



Model	MX200
	Monitor Module
VGA	1x VGA Input
HDMI	1x HDMI Input
DisplayPort	1x DisplayPort Input
USB	1x USB 2.0 Input
COM Port	1x COM Port Input (Resistive Touch Only)
Audio	1x Audio Input
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block
Operating Temperature	-10 °C to 60 °C

IP66 WATERPROOF TOUCHSCREEN COMPUTER

[More info](#)



# WIO-W221C SERIES

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



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

IP66/IP69K WASHDOWN TOUCHSCREEN COMPUTER

[More info](#)



# SIO-200 SERIES

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



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

# INDUSTRIAL BOARD SOLUTIONS

C&T's line of industrial motherboards and single board computers represent the standard of embedded computing as well as the future of data processing and I/O connectivity. From OEM /ODM enterprise computing designs to embedded single board computer applications, C&T provides reliability and longevity with standard off-the-shelf industrial grade motherboards for the most challenging embedded deployments.

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



Industrial-Grade  
Materials



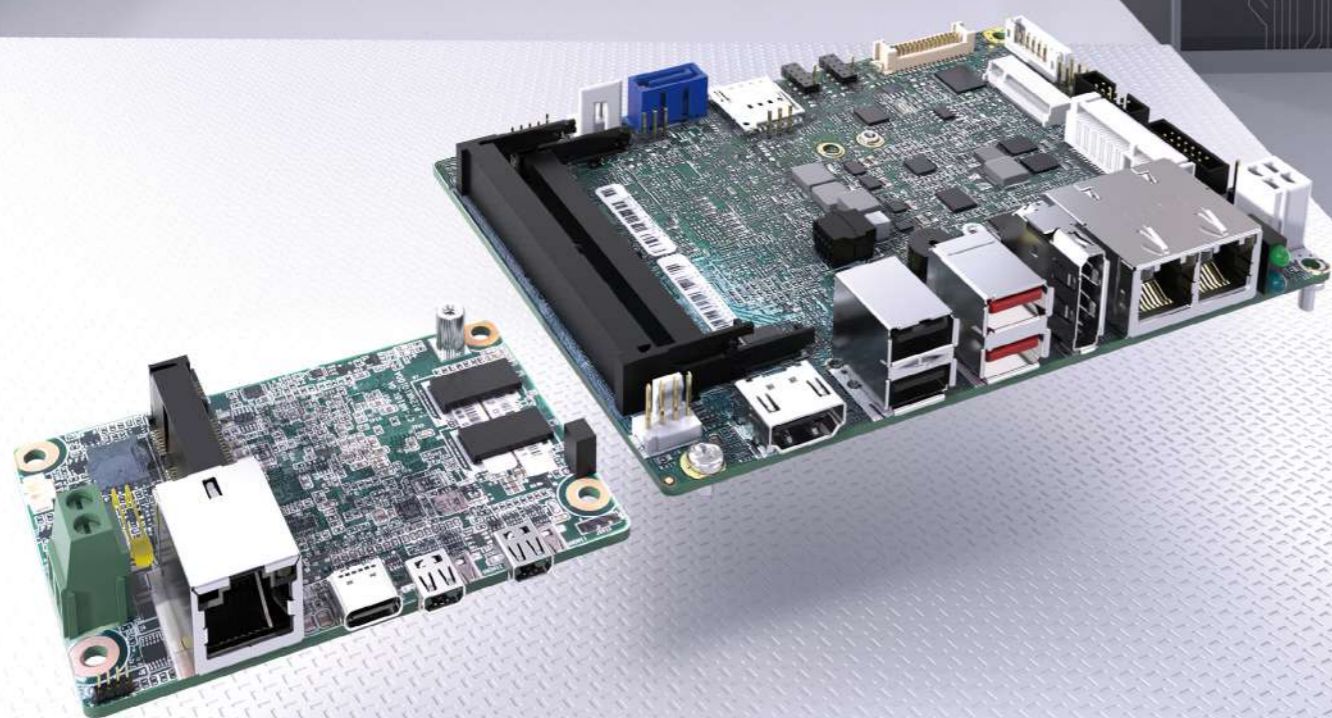
Tested and  
Validated



Long Product  
Lifecycle



Fast  
Delivery Time



## INDUSTRIAL MOTHERBOARDS & SINGLE BOARD COMPUTERS



**1.8" FEMTO ITX**  
Motherboards



**3.5" SBC**  
Motherboards



**2.5" PICO ITX**  
Motherboards



**MINI ITX**  
Motherboards



**MICRO ATX**  
Motherboards

[More info](#)

# BOARDS SERIES

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

Motherboards

## 1.8" FEMTO ITX SERIES



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

Motherboards

## 2.5" PICO ITX SERIES



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

[More info](#)

# BOARDS SERIES

Motherboards

## 3.5" SBC SERIES



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

[More info](#)

# BOARDS SERIES

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

Motherboards

## MINI ITX SERIES



NEW



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

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

[More info](#)

# BOARDS SERIES

Motherboards

## MICRO ATX SERIES



Model	CT-MSL01	CT-MCL01
	LGA 1151 socket supporting 6 <sup>th</sup> Gen Intel® Core™ i3/i5/i7 Desktop Processor, Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE	Support 8 <sup>th</sup> /9 <sup>th</sup> Gen Intel® CFL-R S Processor (LGA 1151, 95W/65W/35W TDP), Intel® Core™ i7-9700E / i5-9500E / i3-9100E or Intel® Pentium® G5400T, G5400
Memory	4x 288-Pin DDR4 1866/2133MHz DIMM	4x 288-Pin DDR4 2133/2400/2666MHz DIMM
BIOS	AMI uEFI 128MB SPI flash	AMI uEFI 256MB SPI flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset	
TPM	TPM 2.0 supported (optional)	
Display Interface	1x VGA, 1x DVI-D, 1x DisplayPort	1x VGA, 1x DVI-D, 2x DisplayPort (DP 1.2)
Rear IO	1x VGA, 1x DVI-D, 1x DP, 1x HDMI, 2x RS-232/422/485, 4x USB 3.2 Gen1 (5 Gbps), 2x RJ45 GbE LAN, 1x Line-in, 1x Line-out, 1x Mic-in	1x VGA, 1x DVI-D, 2x DP, 2x RS-232/422/485, 4x USB 3.2 Gen 2, 2x RJ45, 1x Line-in, 1x Line-out, 1x Mic-in
Internal I/O	4x RS-232, 2x USB 3.2 Gen1 (5 Gbps), 6x USB 2.0, 4 x SATA 6.0Gb/s, 1x Front panel audio, 1x 8-bit GPIO (4-in/4-out), 1x PS/2 KB/MS, 1x LPC, 1x Front panel, 1x CPU fan, 2x System fan	4x RS-232, 1x USB 3.2 Gen 1, 7x USB 2.0, 6 x SATA 6.0Gb/s, 1x Front panel audio, 1x 8-bit DIO (4-in/4-out), 1x SPI header, 1x LPC, 1x Front panel, 1x CPU fan, 2x System fan
Power	ATX power, 2x12-pin and 2x2-pin power connector	
Operating Temperature	0°C to 60°C	
Dimension	244 x 244mm	





## C&T Solution Inc.

17F.-2, No. 700, Rd., Zhonghe Dist.,  
New Taipei City 235, Taiwan (R.O.C.)

Tel: +886-2-7731-7888  
Fax: +886-2-7731-7855

[www.candtsolution.com](http://www.candtsolution.com)  
Email: [info@candtsolution.com](mailto:info@candtsolution.com)



© C&T Solution Inc. All rights reserved.

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