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

Premio's Offers a Full Range of Validated and Tested Industrial Systems to meet the demands from Industry 4.0
Premio is a global solutions provider specializing in computing technology from the edge to the cloud. We design and manufacture highly reliable, world-class computing solutions for enterprises with complex, highly specialized requirements for over 30 years. Our engineering specialty and agile manufacturing pushes the technical boundaries in Embedded IoT Computers, Rugged Edge Computers, and HMI Displays.

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

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

- Factory Automation
- Machine Automation
- Transportation
- Kiosk & Retail
- Surveillance
- Digital Signage
OUR VISION
Premio aims to maintain lifetime and profitable partnership with its customers by delivering high standard design, solution, integration and validation. Through our research and staff expertise, we will continue to provide high quality products and application-ready hardware to fulfill a variety of market demands.

OUR MISSION
Premio is dedicated to offer more diversified and innovative industrial embedded solutions with unsurpassed designs and highest quality to meet world-class standards and manufacturing demands in the coming years.

OUR BRAND POSITION
Apart from our application-ready hardware, Premio is also dedicated to provide a more customer-oriented approach in our product design, development, and marketing strategy. Our research team is focused in analyzing customer expectations and embracing idea changes to its entire operation to fit our customers’ needs.

OUR CORE VALUES
Premio is committed to assure the interests of its customers by offering the following:

<table>
<thead>
<tr>
<th>INNOVATION</th>
<th>Premio provides customers with cutting-edge and friendly-price products with unmatched flexibility and longevity to achieve mutual win-win situation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMITMENT</td>
<td>To assure the highest level of quality control in systems assembly and testing, Premio has designed a comprehensive quality control program that addresses the entire process from component inspection to final testing.</td>
</tr>
<tr>
<td>COLLABORATION</td>
<td>Premio has strong relationships with its suppliers, sales team and product managers, which benefit the customer by having up to date information, better support programs and product compatibilities.</td>
</tr>
<tr>
<td>ACCOUNTABILITY</td>
<td>Premio is driven to step forward by accepting change and moving ahead with speed and accuracy. We continue to increase our decision-making efficiency and speed of execution to attain the best possible solution for our customers’ needs.</td>
</tr>
<tr>
<td>AGILITY</td>
<td>Premio keeps its promises by providing customers high quality products, competitive price and excellent before-after sales services.</td>
</tr>
</tbody>
</table>

OUR PRODUCTS
Premio produces exceptionally wide range of Industrial Embedded Computers and Industrial Display

INDUSTRIAL AND EDGE COMPUTER
Premio fanless embedded computers are extremely flexible and reliable to provide integrated solutions to meet different needs. With its superior features integration, exceptional system performance, flexible I/O connections, wide range power input, smart management functions and rugged reliability, Premio fanless embedded computers deliver a compelling platform that is needed in today’s demanding workloads and industrial needs.

INDUSTRIAL DISPLAY COMPUTERS
Premio’s industrial display computers are patented, reliable, industrial-grade. They are customized to provide solutions for automation, information and communication applications. The innovative modular design makes the display systems more flexible and versatile. With its rugged and well-designed features, it can easily withstand any kind of environments and conditions.
Premio, which means “Prize” in Spanish, emerged as “Premio PC”, a personal computer manufacturer providing computers nationwide to many educational programs (K-12) around the nation. From its inception in 1989 to 2000, Premio pioneered and remained a trusted partner and manufacturer for many educational institutions in the United States.

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

This monumental shift demanded Premio to move its operational infrastructure into a fully automated 150,000 square feet Los Angeles based manufacturing facility that was fully customized for ultimate flexibility and unlimited scalability. Even today Premio’s world-class manufacturing facility continues to be a testament for state-of-the-art automation and assembly for many leading OEMs in computing technology.
In 2011 Premio decided to once again refine its business operations and developed more advanced technologies by investing into the research and development of home grown purpose-built Premio products in:
- Enterprise Servers and Storage Solutions
- Industrial Embedded Computing Solutions
- Industrial Touch Display Solutions
By combining our home grown products with our design capabilities plus our renowned OEM services, Premio’s advantage lies within its ability in providing a customized turnkey solution that can scale efficiently but also seamlessly align with the goals of our customers, resulting in ROI growth and measurable success over time.

Starting from the year 2000, “Premio PC” transformed its brand identity into “Premio Inc.” – becoming a pivotal partner and key advisor in manufacturing and servicing premier technology companies around the world. Furthermore, Premio also restructured its mission and core values around a customer-centric business model with “total customer satisfaction” driving its core.
By 2010, Premio Inc. achieved yet another milestone by successfully engaging with over 50+ customers worldwide ranging from enterprise level companies to start-ups that were eventually acquired by major fortune 500 companies.

Today, Premio has successfully evolved into a full-service technology company that specializes in top-notch computing designs, scalable manufacturing for both variety and volume, and robust end-to-end business services that result in streamlined growth and success with global expansion (Design – Manufacturing – Services)
INDUSTRIAL GRADE COMPONENT
Strict component selection adopting industrial grade parts like capacitor, power choke, etc. Better electrical performance and more stable system performance. Product longevity supported Less RMA + Longer product lifecycle = Lower TCO (total cost of ownership)

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

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
Fanless embedded computer systems support extended temperature to allow applications to function in difficult and harsh environment.

FANLESS EMBEDDED COMPUTER PRODUCT FAMILY
## BCO-1000 SERIES
MINI FANLESS EMBEDDED COMPUTER

<table>
<thead>
<tr>
<th>BCO-1000</th>
<th>BCO-1010</th>
<th>BCO-1020</th>
<th>BCO-1030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini Fanless Computer ideal for space-constrained applications</td>
<td>With one Universal Expansion Slot</td>
<td>With two Universal Expansion Slots</td>
<td>With 8-bit Digital I/O, DVI-I/DP dual display output, and 6x COM ports</td>
</tr>
</tbody>
</table>

### CPU Onboard

- **Intel® Celeron® J1900**

### Memory
- 1x 204-pin DDR3L-1066/1333MHz SO-DIMM, up to 8GB

### Graphic Output
- 1x DVI-I (optional Display Port: BCO-1010A, BCO-1020C & BCO-1030)

### LAN
- 1x GbE RJ45 (Support Wake-on-LAN and PXE)

### Storage
- 1x mSATA
- 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
- 0.10 kg
- 0.19 ~ 0.21 kg
- 0.26 ~ 0.28 kg
- 0.34 kg

### Universal Expansion Slot (front)
- 0 (BCO-1000)
- 0
- 0
- 1

### Universal Expansion Slot (rear)
- 0
- 1 (BCO-1010)
- 0
- 0

### DP, 8-bit Isolated DIO (rear)
- BCO-1010A
- BCO-1010B
- BCO-1010U

### 2x COM (rear)
- BCO-1020C

### 4x USB (rear)
- BCO-1020D

### DP, 8-bit Isolated DIO, & 4x COM (rear)
- BCO-1030
## RCO-1000 SERIES

**COMPACT INDUSTRIAL EMBEDDED COMPUTER**

### RCO-1000
- **Ultra compact Industrial Computer**
- Ideal for space-constrained applications

### RCO-1010
- With one Universal Expansion Slot

### RCO-1020
- With three Universal Expansion Slots

### RCO-1030
- With 8-bit Digital I/O, DVI-I/DP dual display output, and 6x COM ports

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<table>
<thead>
<tr>
<th><strong>CPU Onboard</strong></th>
<th>Intel® Atom® E3845, or Celeron® J1900</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Memory</strong></td>
<td>1x 204-pin DDR3L-1066/1333MHz SO-DIMM, up to 8GB</td>
</tr>
<tr>
<td><strong>Graphic Output</strong></td>
<td>1x DVI-I (optional DisplayPort: RCO-1010A, RCO-1020C &amp; RCO-1030)</td>
</tr>
<tr>
<td><strong>LAN</strong></td>
<td>2x GbE RJ45 (Support Wake-on-LAN and PXE)</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>1x mSATA (shared by 1x Mini PCIe) &amp; 1x Internal 2.5&quot; SATA HDD Bay</td>
</tr>
</tbody>
</table>

### Internal Expansion Slot | 2x Full-size mini-PCIe

### Power
- 9-48 VDC, AT/ATX Select, 3-pin Terminal Block
- 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 (front)
- 0 (RCO-1000)

### Universal Expansion Slot (rear)
- 0
- 1 (RCO-1010)
- RCO-1010A
- RCO-1010B
- RCO-1010G
- RCO-1020C
- RCO-1020D
- RCO-1030
# RCO-3000 Series

**Advanced Industrial Computer based on Intel® Broadwell-U processors**

<table>
<thead>
<tr>
<th>Model</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RCO-3000</strong></td>
<td>With one PCI or PCIe x4 expansion slot</td>
</tr>
<tr>
<td><strong>RCO-3011x</strong></td>
<td>With two PCI or PCIe x4 expansion slot</td>
</tr>
</tbody>
</table>

**CPU Onboard**

- Intel® 5th Gen. Core™ i5-5350U, i3-5010U, Celeron® 3765U

**Memory**

- 1x 204-pin DDR3L-1333/1600MHz SO-DIMM, up to 8GB

**Graphic Output**

- 1x DVI-I, 1x DisplayPort

**LAN**

- 2x GbE RJ45 (Support Wake-on-LAN and PXE)
- 2x USB 3.0, 6x USB 2.0, 4x RS-232/422/485, 8x isolated digital I/O

**Storage**

- 2x 2.5” SATA HDD Bay (1x internal, 1x removable) with RAID 0, 1, 5, 10 support, and 2x mSATA (RAID 0/1/5/10)
- 2x Full-size mini-PCIe (shared with mSATA)

**Power**

- 9-48 VDC, AT/ATX Select, 3-pin Terminal Block
- Speaker-out / Mic-in Phone Jack

**Operating Temperature**

- -40 °C to 70 °C

**Dimensions (WxDxH)**

- RCO-3000: 185 x 197 x 57.4 mm
- RCO-3011E: 185 x 197 x 85 mm
- RCO-3022EE: 185 x 197 x 105 mm

**Weight**

- RCO-3000: 2.16 ~ 2.54 kg
- RCO-3011E: 2.64 ~ 3.09 kg
- RCO-3022EE: 2.87 ~ 3.29 kg

**UniversalExpansion Slot**

- Front: 1x PCIe x4
- Rear: 1x PCIe x4

**4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)**
# RCO-3200 Series

**Power Efficient Rugged Edge Computer based on Intel® Apollo Lake processors**

## Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>RCO-3200</th>
<th>RCO-3211x</th>
<th>RCO-3222xx</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU Onboard</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Memory</strong></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Graphic Output</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>LAN</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>USB, Serial, &amp; Digital I/O</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internal Expansion Slot</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-40 °C to 70 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions (WxDxH)</strong></td>
<td>185 x 197 x 57.4 mm</td>
<td>185 x 197 x 85 mm</td>
<td>185 x 197 x 105 mm</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>1.93 ~ 2.35 kg</td>
<td>2.43 ~ 2.79 kg</td>
<td>2.83 ~ 3.38 kg</td>
</tr>
<tr>
<td><strong>Universal Expansion Slot (front)</strong></td>
<td>0 (RCO-3200)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Universal Expansion Slot (rear)</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>1x PCIe x4</strong></td>
<td></td>
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<tr>
<td><strong>1x PCI</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>2x PCIe x4</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>2x PCI</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)</strong></td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

## Intel® Pentium® N4200

- 1x 204-pin DDR3L-1600/1867MHz SO-DIMM, up to 8GB (un-buffered and non-ECC)
- 1x DVI-I, 1x DisplayPort
- 2x GbE RJ45 [Support Wake-on-LAN and PXE]
- 2x USB 3.0, 2x USB 2.0, 6x RS-232/422/485 (w/ 4x internal), 16x isolated digital I/O
- 2x 2.5” SATA HDD Bay (1x internal, 1x removable), 1x mSATA (shared by 1x Mini PCIe & 1x SATA), and 1x CFast (shared by 1x mSATA & 1x SATA)
- 2x Full-size mini-PCIe (1x shared by SATA)
- 9-50 VDC, AT/ATX Select, 3-pin Terminal Block
- Line-out / Mic-in Phone Jack

## Universal Expansion Slot

- **(Front)**
  - RCO-3200: 0
  - RCO-3211E: 1
  - RCO-3222EE: 1
- **(Rear)**
  - RCO-3200: 0
  - RCO-3211P: 0
  - RCO-3222PP: 0
**RCO-3400 SERIES**

**HIGH-PERFORMANCE RUGGED EDGE COMPUTER**

#### RCO-3400
High Performance Rugged Edge Computer based on Intel® Skylake & Kabylake-U processors

- **Intel® 7th Gen. (Kabylake-U) Processor** Core™ i5-7300U, Core™ i3-7100U
- 1x 260-pin DDR4 1866/2133MHz SO-DIMM, up to 16GB
- 1x VGA, 2x DisplayPort
- 2x GbE RJ45 (Support Wake-on-LAN and PXE)
- 4x USB 3.0, 2x USB 2.0, 5x RS-232/422/485 (w/ 3x internal), 16x isolated digital I/O
- 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)

#### RCO-3411x
With one PCI or PCIe x4 expansion slot

- 1x PCIe x4
- 1x PCI
- 2x PCIe x4
- 2x PCI
- 4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)

#### RCO-3422xx
With two PCI or PCIe x4 expansion slot

- 1x PCIe x4
- 1x PCI
- 2x PCIe x4
- 2x PCI
- 4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)

**CPU Onboard**

**Memory**

**Graphic Output**

**LAN**

**USB, Serial, & Digital I/O**

**Storage**

**Internal Expansion Slot**

**Power**

**Audio**

**Operating Temperature**

**Dimensions (WxDxH)**

**Weight**

- 9-50 VDC, AT/ATX Select, 3-pin Terminal Block

- Line-out / Mic-in Phone Jack

- -40 °C to 70 °C

- 185 x 197 x 57.4 mm

- TBC

- 185 x 197 x 85 mm

- TBC

- 185 x 197 x 105 mm

- TBC

RCO-3411E
RCO-3411P
RCO-3422EE
RCO-3422PP
## CPU Support

Support 6th & 7th Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151)
- 7th Gen Intel® Core™ i7-7700T / i5-7500T / i3-7101TE
- 6th Gen Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE
- Intel® Pentium® G4400TE / Celeron® G3900TE

## Memory

2x DDR4 1866/2133MHz SODIMM. Max. up to 32GB

## Graphic Output

Intel® HD Graphics 530 / 630
1x VGA (by optional split cable),
1x DisplayPort, and 1x HDMI (optional)

## LAN

2x GbE RJ45 (Support Wake-on-LAN and PXE)

## USB, Serial, & Digital I/O

6x USB 3.0, 2x USB 2.0,
4x RS-232/422/485 (w/ 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-6000 SERIES

**Performance Fanless Industrial Computer with LGA-1151 socket for Intel® Kabylake & Skylake-S processors**

<table>
<thead>
<tr>
<th>RCO-6000</th>
<th>RCO-6011x</th>
<th>RCO-6022xx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Fanless Industrial Computer with one PCI or PCIe x16 expansion slot</td>
<td>With two PCI or PCIe x8/x16 expansion slot</td>
<td></td>
</tr>
</tbody>
</table>

### CPU Support
- Intel® 6”/7th 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
- 1x DVI-I, 2x DisplayPort

### Graphic Output
- 2x GbE RJ45 (Support Wake-on-LAN and PXE)
- 6x USB 3.0, 2x USB 2.0, 4x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O

### LAN
- 4x 2.5” SATA HDD Bays with RAID 0, 1, 5, 10 support
  (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)

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

### Universal Expansion Slot (front)
- 2 (RCO-6000)
- 2 (RCO-6011E)
- 2 (RCO-6011P)

### Universal Expansion Slot (rear)
- 2 (RCO-6022EE)
- 2 (RCO-6022PP)
- 2 (RCO-6022PE)

### USB, Serial, & Digital I/O
- 6x USB 3.0, 2x USB 2.0
- 4x RS-232/422/485 (w/ 2x internal)
- 16x isolated digital I/O

### Storage
- 4x Full-size mini-PCIe
- 4 Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)

### Weight
- 4.37 ~ 5.21 kg
- 5.38 ~ 6.40 kg
- 5.56 ~ 6.64 kg
## RCO-6100 SERIES
HIGH-PERFORMANCE INDUSTRIAL COMPUTER

### RCO-6100
High-Performance Industrial Computer with LGA-1151 socket for Intel® CFL-R S Processor

### CPU Support
8th / 9th 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/8100TE,
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), 5x USB 3.2 Gen 1 (5 Gbps),
6x RS-232/422/485 (w/ 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-swapable),
1x mSATA (shared by 1x Mini PCIe), 1x NVMe M.2

### 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)
240 x 261 x 79 mm

### Weight
TBD

### Universal Expansion Slot
1 (by mini PCIe interface)

### 4-Port GbE Expansion Option in Front Universal Expansion Slot
(RJ-45 or M12 with PoE option)
ACO-3000 SERIES
COMPACT IN-VEHICLE FANLESS COMPUTER

Intel® 5th Gen. Core™ i5-5350U, i3-5010U, Celeron® 3765U

**ACO-3000**
In-Vehicle Compact Fanless Computer based on Intel® Broadwell-U processors

**ACO-3011x**
With one PCI or PCIe x4 expansion slot

**ACO-3022xx**
With two PCI or PCIe x4 expansion slot

<table>
<thead>
<tr>
<th>Feature</th>
<th>ACO-3000</th>
<th>ACO-3011E</th>
<th>ACO-3011P</th>
<th>ACO-3022EE</th>
<th>ACO-3022PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Onboard</td>
<td>Intel® 5th Gen. Core™ i5-5350U, i3-5010U, Celeron® 3765U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memory</td>
<td>1x 204-pin DDR3L-1333/1600MHz SO-DIMM, up to 8GB</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Graphic Output</td>
<td>1x DVI-I, 1x DisplayPort</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LAN</td>
<td>2x GbE RJ45 (Support Wake-on-LAN and PXE)</td>
<td></td>
<td></td>
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<tr>
<td>USB, Serial, &amp; Digital I/O</td>
<td>4x RS-232/422/485, 2x USB 3.0, 2x USB 2.0, 8x isolated digital I/O</td>
<td></td>
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</tr>
<tr>
<td>Storage</td>
<td>2x 2.5” SATA HDD Bay (1x internal, 1x removable) with RAID 0, 1, 5, 10 support, and 2x mSATA (shared by 2x Mini PCIe)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Internal Expansion Slot</td>
<td>2x Full-size mini-PCIe (shared with mSATA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>9-48 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td></td>
<td></td>
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<tr>
<td>Ignition Management</td>
<td>Delay On/Off, Battery Level Monitoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio</td>
<td>Speaker-out / Mic-in Phone Jack</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40 °C to 70 °C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certification</td>
<td>E-Mark, EMC Conformity with EN50155 &amp; EN50121-3-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (WxDxH)</td>
<td>185 x 197 x 57.4 mm</td>
<td>185 x 197 x 85 mm</td>
<td>185 x 197 x 105 mm</td>
<td></td>
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<tr>
<td>Weight</td>
<td>2.16 - 2.54 kg</td>
<td>3.36 ~ 3.91 kg</td>
<td>3.56 ~ 4.18 kg</td>
<td></td>
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</tr>
<tr>
<td>Universal Expansion Slot</td>
<td>1 (ACO-3000)</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(front)</td>
<td>0</td>
<td>ACO-3011E</td>
<td>ACO-3011P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(rear)</td>
<td>0</td>
<td>ACO-3022EE</td>
<td>ACO-3022PP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCIe x4</td>
<td>1</td>
<td>1</td>
<td>1</td>
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</tr>
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<td>PCI</td>
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<td>0</td>
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<tr>
<td>PCIe x4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Port GbE Expansion</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)
**ACO-6000 SERIES**

**HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER**

**ACO-6000**
High-Performance In-Vehicle Fanless Computer with LGA-1151 socket for Intel® Kabylake & Skylake-S processors

**ACO-6010**
With 16 GbE in RJ-45 or M12 connectors with PoE option.

**ACO-6011x**
With one PCI or PCIe x16 expansion slot

---

**Intel® 6th/7th Gen (Kabylake & Skylake-S) Desktop Processor**
(Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE)

---

**CPU Support**

**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 3.0, 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 2 Mini PCIe)

**Internal Expansion Slot**
3x Full-size mini-PcLe (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 EN50155 & EN50121-3-2

**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 (ACO-6000)

**Universal Expansion Slot (rear)**
0

**1x PCIe x16**

**4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)**
2

**4x Installed (ACO-6010)**

---

**FANLESS EMBEDDED COMPUTER**

ACO-3000 series / ACO-6000
### CPU Support

8th / 9th 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), 5x USB 3.2 Gen 1 (5 Gbps),
6x RS-232/422/485 [w/ 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-swappatable],
1x mSATA [shared by 1x Mini PCIe], 1x NVMe M.2

### Internal Expansion Slot

2x Full-size mini-PCIe [1 shared by 1x mSATA], 1x M.2 E Key

### Power

9-36 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 EN50155 & EN50121-3-2

### Dimensions (Wx Dx H)

240 (W) x 261 (D) x 79 (H) mm

### Weight

TBD

### Universal Expansion Slot

1 (by mini PCIe interface)

### Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)
**VCO-3100 SERIES**

**ENTRY PERFORMANCE MACHINE VISION COMPUTER**

<table>
<thead>
<tr>
<th>CPU Onboard</th>
<th>VCO-3100</th>
<th>VCO-3111x</th>
<th>VCO-3122x</th>
<th>VCO-3133P</th>
<th>VCO-3144P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>Intel® Celeron® J1900</td>
<td>Intel® Celeron® J1900</td>
<td>Intel® Celeron® J1900</td>
<td>Intel® Celeron® J1900</td>
<td>Intel® Celeron® J1900</td>
</tr>
<tr>
<td>Graphic Output</td>
<td>1x 204-pin DDR3L-1066/1333MHz SO-DIMM, up to 8GB</td>
<td>1x DVI-I, 1x DisplayPort</td>
<td>2x GbE RJ45 [Support Wake-on-LAN and PXE]</td>
<td>1x USB 3.0, 3x USB 2.0, 6x RS-232/422/485 [w/ 4x internal], 16x isolated digital I/O</td>
<td>2x 2.5” SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe &amp; 1x SATA), and 1x CFast (shared by 1x mSATA &amp; 1x SATA)</td>
</tr>
<tr>
<td>LAN</td>
<td>2x GbE RJ45 [Support Wake-on-LAN and PXE]</td>
<td>1x USB 3.0, 3x USB 2.0, 6x RS-232/422/485 [w/ 4x internal], 16x isolated digital I/O</td>
<td>2x Full-size mini-PCIe (1x shared by SATA)</td>
<td>2x 2.5” SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe &amp; 1x SATA), and 1x CFast (shared by 1x mSATA &amp; 1x SATA)</td>
<td>2x 2.5” SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe &amp; 1x SATA), and 1x CFast (shared by 1x mSATA &amp; 1x SATA)</td>
</tr>
<tr>
<td>USB, Serial, &amp; Digital I/O</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Internal Expansion Slot</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
</tr>
<tr>
<td>Audio</td>
<td>Line-out / Mic-in Phone Jack</td>
<td>Line-out / Mic-in Phone Jack</td>
<td>Line-out / Mic-in Phone Jack</td>
<td>Line-out / Mic-in Phone Jack</td>
<td>Line-out / Mic-in Phone Jack</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (WxDxH)mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59 x 197 x 185</td>
<td>99 x 197 x 185</td>
<td>119 x 197 x 185</td>
<td>139 x 197 x 185</td>
<td>159 x 197 x 185</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>3.28 kg</td>
<td>3.31 ~ 3.37 kg</td>
<td>3.42 ~ 3.45 kg</td>
<td>4.22 kg</td>
<td>4.45 kg</td>
</tr>
<tr>
<td>1x PCIe x4</td>
<td>VCO-3111E</td>
<td>VCO-3111P</td>
<td>VCO-3122E</td>
<td>VCO-3122P</td>
<td>VCO-3144P</td>
</tr>
<tr>
<td>1x PCI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2x PCIe x4</td>
<td>VCO-3133P</td>
<td>VCO-3144P</td>
<td>VCO-3133P</td>
<td>VCO-3144P</td>
<td>VCO-3144P</td>
</tr>
<tr>
<td>2x PCI</td>
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<tr>
<td>3x PCI</td>
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<tr>
<td>4x PCI</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**NEW**

For more details please scan our QR code.
# VCO-3400 Series

## Compact Performance Machine Vision Computer

**VCO-3400**
- Machine Vision computer based on Intel® Skylake & Kabylake-U processors

**VCO-3411x**
- With one PCI or PCIe x4 expansion slot

**VCO-3422x**
- With two PCI or PCIe x4 expansion slot

**VCO-3433P**
- With three PCI expansion slot

**VCO-3444P**
- With four PCI expansion slot

## Specification Table

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU Onboard</strong></td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>1x 260-pin DDR4 1866/2133MHz SO-DIMM, up to 16GB</td>
</tr>
<tr>
<td><strong>Graphic Output</strong></td>
<td>1x VGA, 2x DisplayPort</td>
</tr>
<tr>
<td><strong>LAN</strong></td>
<td>2x GbE RJ45 (Support Wake-on-LAN and PXE)</td>
</tr>
<tr>
<td><strong>USB, Serial, &amp; Digital I/O</strong></td>
<td>4x USB 3.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>2x 2.5” SATA HDD Bay [1x internal, 1x removable] with RAID 0, 1, 5, 10 support, 1x mSATA (shared by 1x Mini PCIe &amp; 1x SATA), and 1x CFast (shared by 1x mSATA &amp; 1x SATA)</td>
</tr>
<tr>
<td><strong>Internal Expansion Slot</strong></td>
<td>2x Full-size mini-PCIe</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td>Line-out / Mic-in Phone Jack</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-40 °C to 70 °C</td>
</tr>
<tr>
<td><strong>Dimensions</strong> (WxDxH)mm</td>
<td>59 x 197 x 185, 99 x 197 x 185, 119 x 197 x 185, 139 x 197 x 185, 159 x 197 x 185</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>TBC, TBC, TBC, TBC, TBC</td>
</tr>
<tr>
<td>1x PCIe x4 (1 Lane)</td>
<td>VCO-3411E, VCO-3411P</td>
</tr>
<tr>
<td>1x PCI</td>
<td>VCO-3422E, VCO-3422P</td>
</tr>
<tr>
<td>2x PCIe x4 (1 Lane)</td>
<td>VCO-3433P, VCO-3444P</td>
</tr>
<tr>
<td>2x PCI</td>
<td>VCO-3433P, VCO-3444P</td>
</tr>
<tr>
<td>3x PCI</td>
<td>VCO-3433P, VCO-3444P</td>
</tr>
<tr>
<td>4x PCI</td>
<td>VCO-3433P, VCO-3444P</td>
</tr>
</tbody>
</table>

For more details please scan our QR code.
**VCO-6000 SERIES**

**HIGH-PERFORMANCE MACHINE VISION COMPUTER**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6000</td>
<td>Machine Vision Computer based on Intel® Kabylake &amp; Skylake-S processors</td>
</tr>
<tr>
<td>VCO-6011x</td>
<td>With one PCI or PCIe expansion slot</td>
</tr>
<tr>
<td>VCO-6022x</td>
<td>With two PCI or PCIe expansion slot</td>
</tr>
<tr>
<td>VCO-6033x</td>
<td>With three PCI or PCIe expansion slot</td>
</tr>
<tr>
<td>VCO-6044x</td>
<td>With four PCI or PCIe expansion slot</td>
</tr>
<tr>
<td>VCO-6055C</td>
<td>With five PCI or PCIe expansion slot</td>
</tr>
</tbody>
</table>

**CPU Onboard**

- Intel® 6th/7th Gen. (Kabylake & Skylake-S) Desktop Processor
  - Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7100T/6100TE, Pentium® G4400TE, or Celeron® G3900TE

**Memory**

- 2x DDR4-1866/2133MHz SO-DIMM, up to 32GB
- 1x DDR4

**Graphic Output**

- 1x DVI-I, 2x DisplayPort
- 2x HDMI

**LAN**

- 2x GbE RJ45 (Support Wake-on-LAN and PXE)
- 4x USB 3.0, 4x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O
- 2x Removable 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast

**Storage**

- 3x Full-size Mini-PCIe (Share by 2x mSATA)
- 9-50 VDC, AT/ATX Select, 3-pin Terminal Block
- Speaker-out / Mic-in Phone Jack

**Power**

- 9-50 VDC, AT/ATX Select, 3-pin Terminal Block
- 3.83 kg
- 5.29 kg
- 5.34 ~ 5.39 kg
- 5.42 ~ 5.86 kg
- 5.94 ~ 6.02 kg
- 6.21 kg

**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

**Audio**

- 1x PCIe x16 & 1x PCI
- 1x PCIe x16 & 2x PCI
- 2x PCIe x1 & 1x PCI
- 2x PCIe x1 & 2x PCI
- 3x PCI
- 2x PCIe x4 & 1x PCIe x8 & 1x PCI
- 4x PCIe

**Operating Temperature**

- -25 °C to 70 °C

**For more details please scan our QR code.**
# VCO-6100 Series

High-Performance Machine Vision Computer

## CPU Support

<table>
<thead>
<tr>
<th>Model</th>
<th>CPU Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6100</td>
<td>With one PCI or PCIe expansion slot</td>
</tr>
<tr>
<td>VCO-6111x</td>
<td>With two PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6122x</td>
<td>With three PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6133x</td>
<td>With four PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6144x</td>
<td>With five PCI or PCIe expansion slots</td>
</tr>
</tbody>
</table>

## 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)
4x RS-232/422/485, 16x isolated digital I/O

## Storage

2x 2.5" SATA HDD bay with RAID 0, 1 support (2x removable & hot-swapplable), 1x mSATA (shared by 1x Mini PCIe), 1x NVMe M.2

## Internal Expansion Slot

2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key

## Power

2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key

## Audio

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

Line-out / Mic-in Phone Jack

## Operating Temperature

-25°C to 70°C (35W CPU); -25°C to 60°C (65W CPU)

## Dimensions (WxDxH)

TBC

## Weight

TBC

## Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>CPU Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6100</td>
<td>With one PCI or PCIe expansion slot</td>
</tr>
<tr>
<td>VCO-6111E</td>
<td>With one PCI or PCIe expansion slot</td>
</tr>
<tr>
<td>VCO-6111P</td>
<td>With one PCI or PCIe expansion slot</td>
</tr>
<tr>
<td>VCO-6122E</td>
<td>With two PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6122P</td>
<td>With two PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6122C</td>
<td>With two PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6133E</td>
<td>With three PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6133C</td>
<td>With three PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6133P</td>
<td>With three PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6144E</td>
<td>With four PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6144C</td>
<td>With four PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6144P</td>
<td>With four PCI or PCIe expansion slots</td>
</tr>
<tr>
<td>VCO-6155C</td>
<td>With five PCI or PCIe expansion slots</td>
</tr>
</tbody>
</table>

## Additional Notes

- 8th / 9th Gen. Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Core™ i7-9700E/9700TE/8700T, Core™ i5-9500E/9500TE, Core™ i3-9100E/9100TE/8100TE, Pentium® G5400T, or Celeron® G4900T

---

*Coming soon*
New Experience & Unparalleled Performance
Premio GPU Computing System

Key Industrial Features
- Kaby Lake & Skylake-S - LGA 1151 socket for 6th/7th Gen. Intel® Core™ i7/i5/i3 or Pentium®/Celeron® Desktop Processor
- NVIDIA GeForce® GTX 1050 Ti Graphics engine based on NVIDIA Pascal™ GPU architecture
- Wide Operating Temperature (-25°C to 70°C)

Reduce network traffic and cloud lock-in
Accelerate time to action and control
Cost efficiency

Versatile Industrial I/O Interfaces & Diverse Expandability

Support up to 8K Resolution & 6 Independent Displays

Robust system design enabling GPU computing in harsh environment

Autonomous driving
## GPU SERIES
### INDUSTRIAL GPU COMPUTER

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCO-6020-1050TI</td>
<td>Industrial GPU Computer with LGA-1151 socket for Intel® Kabylake &amp; Skylake-S processors and Q170 PCH, GTX 1050Ti Integrated</td>
</tr>
<tr>
<td>VCO-6020-1050TI</td>
<td>Industrial GPU Computer with LGA-1151 socket for Intel® Kabylake &amp; Skylake-S processors and Q170 PCH, GTX 1050Ti Integrated</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>Industrial GPU Computer with LGA-1151 socket for Intel® Kabylake &amp; Skylake-S processors and Q170 PCH, 24V Power for GPU</td>
</tr>
</tbody>
</table>

#### CPU Support

<table>
<thead>
<tr>
<th>Model</th>
<th>Intel® 6th/7th Gen. [Kabylake &amp; Skylake-S] Desktop Processor (Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE, Core™ i3-7101TE/6100TE, Pentium® G4400TE, or Celeron® G3900TE)</th>
</tr>
</thead>
</table>

#### Memory

<table>
<thead>
<tr>
<th>Model</th>
<th>2x DDR4-1866/2133MHz SO-DIMM, up to 32GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>2x DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>4x USB 3.0</td>
</tr>
</tbody>
</table>

#### Graphic Output

<table>
<thead>
<tr>
<th>Model</th>
<th>2x DVI-I, 3x DisplayPort, 1x HDMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>1x DVI-I, 2x DisplayPort</td>
</tr>
</tbody>
</table>

#### LAN

<table>
<thead>
<tr>
<th>Model</th>
<th>2x GbE RJ45 (Support Wake-on-LAN and PXE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>4x RS-232/422/485 [w/ 2x internal], 16x isolated digital I/O</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>6x USB 3.0, 2x USB 2.0</td>
</tr>
</tbody>
</table>

#### USB

<table>
<thead>
<tr>
<th>Model</th>
<th>4x USB 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>4x USB 3.0</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>4x USB 3.2 Gen 2 (10 Gbps)</td>
</tr>
</tbody>
</table>

#### Serial & Digital I/O

<table>
<thead>
<tr>
<th>Model</th>
<th>4x 2.5” SATA HDD Bay with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>2x Removable 2.5” SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>2x Full-size mini-PCIe (shared with 2x mSATA)</td>
</tr>
</tbody>
</table>

#### Internal Expansion Slot

<table>
<thead>
<tr>
<th>Model</th>
<th>4x Full-size mini-PCIe (shared with 2x mSATA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>3x Full-size mini-PCIe (shared with mSATA)</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>2x Full-size mini-PCIe (shared with 2x mSATA)</td>
</tr>
</tbody>
</table>

#### Power

<table>
<thead>
<tr>
<th>Model</th>
<th>9-48 VDC, AT/ATX Select, 3-pin Terminal Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>System: 9-50VDC, GPU: 24VDC, AT/ATX Select, 3-pin Terminal Block</td>
</tr>
</tbody>
</table>

#### Audio

<table>
<thead>
<tr>
<th>Model</th>
<th>Speaker-out / Mic-in Phone Jack</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>-25 °C to 60 °C</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>-25 °C to 70 °C</td>
</tr>
</tbody>
</table>

#### Operating Temperature

<table>
<thead>
<tr>
<th>Model</th>
<th>-25 °C to 60 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>4x 2.5” SATA HDD Bay with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>2x Removable 2.5” SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast</td>
</tr>
</tbody>
</table>

#### Dimensions(WxDxH)

<table>
<thead>
<tr>
<th>Model</th>
<th>240 x 261 x 127 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>137 x 256 x 240 mm</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>137 x 256 x 240 mm</td>
</tr>
</tbody>
</table>

#### Weight

<table>
<thead>
<tr>
<th>Model</th>
<th>TBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>7.71 kg</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>TBC</td>
</tr>
</tbody>
</table>

#### Universal Expansion Slot (front)

<table>
<thead>
<tr>
<th>Model</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCO-6020-1050TI</td>
<td>1</td>
</tr>
<tr>
<td>VCO-6022C-2PWR</td>
<td>1</td>
</tr>
</tbody>
</table>
### VCO-6120-2060S

Industrial GPU Computer with LGA-1151 socket for Intel® CFL-R S processors and Q370 PCH, RTX 2060 Super Integrated

---

- **8th / 9th 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/8100TE, Pentium® G5400T, or Celeron® G4900T]

- **Memory**
  - 2x DDR4-2400/2666MHz SO-DIMM, up to 32GB (Un-buffered and Non-ECC)
  - 2x DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)

- **Graphic Output**
  - 2x DVI-I, 3x DisplayPort, 1x HDMI
  - 2x DVI-I, 2x DisplayPort
  - 1x DVI-I, 2x DisplayPort

- **LAN**
  - 2x GbE RJ45 (Support Wake-on-LAN and PXE)
  - 2x GbE RJ45 (Support Wake-on-LAN and PXE)

- **USB**
  - 6x USB 3.0, 2x USB 2.0
  - 4x USB 3.0
  - 4x USB 3.2 Gen 2 (10 Gbps)

- **Serial & Digital I/O**
  - 4x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O
  - 4x RS-232/422/485, 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 2x Mini PCIe), 2x NVMe M.2
  - 2x Removable 2.5” SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast
  - 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), 2x NVMe M.2

- **Internal Expansion Slot**
  - 4x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key
  - 3x Full-size mini-PCIe (shared with mSATA)
  - 2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key

- **Power**
  - 9-48 VDC, GPU: 24VDC, AT/ATX Select, 3-pin Terminal Block
  - 9-48 VDC, GPU: 24VDC, AT/ATX Select, 3-pin Terminal Block

- **Audio**
  - Speaker-out / Mic-in Phone Jack
  - Line-out / Mic-in Phone Jack

- **Operating Temperature**
  - -25 °C to 70 °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
  - TBC

- **Weight**
  - 7.71 kg
  - 7.71 kg
  - TBC

- **Universal Expansion Slot (front)**
  - 2
  - 1 (by mini PCIe interface)

---

*Coming soon*
WCO Series IP65 / IP67 Waterproof System
Ideal for use in harsh, wet & dusty environments

💧 IP65 Protection
Full system IP65 level dustproof & waterproof

Refrined Craft Design
The design provides seamless integration, toughness, longevity and reliability

Lockable M12 I/O Connectors
To against vibration and shock, the M12 connector offers a reliable performance for high-quality data acquisition or transmission.

💧 IP67 Protection
Full system IP67 level dustproof & waterproof

up to 1 m of submersion

Outdoor digital signage
Smart City
Agriculture
Food and beverage manufacturing
**WCO SERIES**

**IP65/IP67 WATERPROOF COMPUTER**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>IP65/IP67 Waterproof Computer with Intel® Apollo Lake processor</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td>IP65/IP67 Waterproof Computer with Intel® Kabylake-U processor</td>
</tr>
</tbody>
</table>

**CPU Support**

<table>
<thead>
<tr>
<th>Model</th>
<th>Processor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>Intel® Pentium® N4200</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
</tbody>
</table>

**Memory**

<table>
<thead>
<tr>
<th>Model</th>
<th>Memory Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>1x DDR4-1600/1867MHz SO-DIMM, up to 8GB</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td>1x DDR4-1866/2133MHz SO-DIMM, up to 16GB</td>
</tr>
</tbody>
</table>

**Graphic Output**

<table>
<thead>
<tr>
<th>Model</th>
<th>Graphic Output Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>1x VGA (Waterproof connector)</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td></td>
</tr>
</tbody>
</table>

**LAN**

<table>
<thead>
<tr>
<th>Model</th>
<th>LAN Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>2x GbE RJ45 [Support Wake-on-LAN and PXE] by M12 X-Code 8-pin</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td></td>
</tr>
</tbody>
</table>

**USB**

<table>
<thead>
<tr>
<th>Model</th>
<th>USB Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>1x USB 3.0 (Waterproof connector), 2x USB 2.0 by M12 D-Code 8-pin</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Serial**

<table>
<thead>
<tr>
<th>Model</th>
<th>Serial Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>1x RS-232/422/485 by M12 D-Code 8-pin</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Storage**

<table>
<thead>
<tr>
<th>Model</th>
<th>Storage Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>1x internal 2.5” SATA HDD Bay, 1x mSATA (shared by Mini PCIe)</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td>1x internal 2.5” SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by Mini PCIe)</td>
</tr>
</tbody>
</table>

**Internal Expansion Slot**

<table>
<thead>
<tr>
<th>Model</th>
<th>Internal Expansion Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>2x Full-size mini-PCIe</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Power**

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>9-50 VDC, M12 A-code 4-pin</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Operating Temperature**

<table>
<thead>
<tr>
<th>Model</th>
<th>Operating Temperature Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>-40 °C to 70 °C</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Dimensions (WxDxH)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions (WxDxH)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>231 x 292 x 56.5 mm</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td></td>
</tr>
</tbody>
</table>

**IP65/IP67**

<table>
<thead>
<tr>
<th>Model</th>
<th>IP65/IP67 Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WCO-3200</strong></td>
<td>WCO-3200-IP67</td>
</tr>
<tr>
<td><strong>WCO-3400</strong></td>
<td>WCO-3400-IP67</td>
</tr>
</tbody>
</table>
Premio’s Industrial touch display computer is based on modularized design concept which offers widely configuration. More flexible and scalable.
INDUSTRIAL TOUCH DISPLAY COMPUTER

PRODUCT PORTFOLIO

Panel PC

VIO-100/PC100 Series
Bay Trail
Standard Frame

VIO-200/PC100 Series
Bay Trail
Thin Frame

VIO-100/PC300 Series
Broadwell-U
Standard Frame

VIO-200/PC300 Series
Broadwell-U
Thin Frame

VIO-100/PC400 Series
Kabylake-U
Standard Frame

VIO-100/PC400 Series
Kabylake-U
Thin Frame

Touch Monitor

VIO-100/MX100 Series
Standard Frame

VIO-200/MX100 Series
Thin Frame

System Module
PC100 Series
Bay Trail
PC300 Series
Broadwell-U
PC400 Series
Kabylake-U
MX100 Series

IP66 Panel PC
WI0-W221C Kabylake-U

Display Module

VIO-100 Series
Standard Frame
VIO-200 Series
Thin Frame
# INDUSTRIAL PANEL PC

## VIO-100/PC100 SERIES

### VIO-100x/PC100

- Industrial Panel PC based on Intel® Bay Trail processors

### VIO-100x/PC110

- With two universal I/O bracket

## VIO-200/PC100 SERIES

### VIO-200x/PC100

- Thin Frame Industrial Panel PC based on Intel® Bay Trail processors

### VIO-200x/PC110

- With two universal I/O bracket

---

### Table: Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>VIO-100x/PC100 Series</th>
<th>VIO-200x/PC100 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Onboard</td>
<td>Intel® Celeron® J1900</td>
<td>Intel® Celeron® J1900</td>
</tr>
<tr>
<td>Memory</td>
<td>1x 204-pin DDR3L-1066/1333 SO-DIMM, up to 8GB</td>
<td>1x 204-pin DDR3L-1066/1333 SO-DIMM, up to 8GB</td>
</tr>
<tr>
<td>Graphic Output</td>
<td>1x VGA, 1x DisplayPort</td>
<td>1x VGA, 1x DisplayPort</td>
</tr>
<tr>
<td>LAN</td>
<td>2x GbE RJ45 [Support Wake-on-LAN and PXE]</td>
<td>2x GbE RJ45 [Support Wake-on-LAN and PXE]</td>
</tr>
<tr>
<td>USB, Serial, &amp; Digital I/O</td>
<td>1x USB 3.0, 3x USB 2.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O</td>
<td>1x USB 3.0, 3x USB 2.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O</td>
</tr>
<tr>
<td>Storage</td>
<td>1x 2.5” SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe), and 1x CFast (shared by 1x mSATA &amp; 1x Mini PCIe)</td>
<td>1x 2.5” SATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe), and 1x CFast (shared by 1x mSATA &amp; 1x Mini PCIe)</td>
</tr>
<tr>
<td>Internal Expansion Slot</td>
<td>1x Full-size Mini PCIe Socket with USIM Socket [PCIe + USB + SATA]</td>
<td>1x Full-size Mini PCIe Socket with USIM Socket [PCIe + USB]</td>
</tr>
<tr>
<td>Power</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
</tr>
<tr>
<td>Audio</td>
<td>Line-out / Mic-in Phone Jack</td>
<td>Line-out / Mic-in Phone Jack</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10 °C to 60 °C</td>
<td>-10 °C to 60 °C</td>
</tr>
<tr>
<td></td>
<td>-10 °C to 70 °C (15.6” Panel PC only)</td>
<td>-10 °C to 70 °C (15.6” Panel PC only)</td>
</tr>
<tr>
<td></td>
<td>-10 °C to 50 °C (19” Panel PC only)</td>
<td>-10 °C to 50 °C (19” Panel PC only)</td>
</tr>
<tr>
<td>LCD Size</td>
<td>4:3 - 10.4” / 12.1” / 15” / 17” / 19” 16:9 - 15.6” / 21.5”</td>
<td>4:3 - 12.1” / 15” / 17” / 19” 16:9 - 15.6” / 21.5”</td>
</tr>
<tr>
<td>Touch Type</td>
<td>Resistive 5-wire Touch / Projected Capacitive Touch</td>
<td>Resistive 5-wire Touch / Projected Capacitive Touch</td>
</tr>
<tr>
<td>Universal Expansion Slot</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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For more details please scan our QR code.

VIO series
## VIO-100/PC300 Series

**VIO-100/PC300**

**CPU Onboard**
- Intel® Core™ i5-5350U, i3-5010U, Celeron® 3765U

**Memory**
- 1x 204-pin DDR3L-1333/1600 SO-DIMM, up to 8GB

**Graphic Output**
- 1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS

**LAN**
- 2x GbE RJ45 [Support Wake-on-LAN and PXE]

**USB, Serial, & Digital I/O**
- 3x USB 3.0, 1x USB 2.0, 4x RS-232/422/485 (w/ 2x internal), 8x isolated digital I/O

**Storage**
- 1x 2.5" SATA HDD Bay with RAID 0, 1, 5 support and 2x mSATA (shared by 2x Mini PCIe)

**Internal Expansion Slot**
- 2x Full-size mini-PCIe

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

**Audio**
- Speaker-out / Mic-in Phone Jack

**Operating Temperature**
- -10 °C to 60 °C
- -10 °C to 50 °C [19" Panel PC only]

**LCD Size**

### VIO-100/PC300 Series
- 4 : 3 - 10.4" / 12.1" / 15" / 17" / 19"
- 16:9 - 15.6" / 21.5"

### Touch Type
- Resistive 5-wire Touch / Projected Capacitive Touch

**Universal Expansion Slot**
- 0 (VIO-100/PC300)
- 1

**VIO-100/PC311E**

**VIO-100/PC311P**

## VIO-200/PC300 Series

**VIO-200/PC311x**

**CPU Onboard**
- Intel® Broadwell-U processors

**Graphic Output**
- 1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS

**LAN**
- 2x GbE RJ45 [Support Wake-on-LAN and PXE]

**USB, Serial, & Digital I/O**
- 3x USB 3.0, 1x USB 2.0, 4x RS-232/422/485 (w/ 2x internal), 8x isolated digital I/O

**Storage**
- 1x 2.5" SATA HDD Bay with RAID 0, 1, 5 support and 2x mSATA (shared by 2x Mini PCIe)

**Internal Expansion Slot**
- 2x Full-size mini-PCIe

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

**Audio**
- Speaker-out / Mic-in Phone Jack

**Operating Temperature**
- -10 °C to 60 °C
- -10 °C to 50 °C [19" Panel PC only]

**LCD Size**

### VIO-200/PC300 Series
- 4 : 3 - 12.1" / 15" / 17" / 19"
- 16:9 - 15.6" / 21.5"

### Touch Type
- Resistive 5-wire Touch / Projected Capacitive Touch

**Universal Expansion Slot**
- 0 (VIO-200/PC300)
- 1

**VIO-200/PC311E**

**VIO-200/PC311P**

---

**INDUSTRIAL PANEL PC**

**VIO-100/PC300 SERIES**

**VIO-200/PC300 SERIES**

**INDUSTRIAL TOUCH DISPLAY COMPUTER**
# INDUSTRIAL PANEL PC

## VIO-100/PC400 SERIES

### VIO-100x/PC400
- Industrial Panel PC based on Intel® Kabylake-U processors

### VIO-100x/PC410
- with 2x universal I/O bracket

## VIO-200/PC400 SERIES

### VIO-200x/PC400
- Thin Frame Industrial Panel PC based on Intel® Kabylake-U processors

### VIO-200x/PC410
- with 2x universal I/O bracket

### Technical Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>VIO-100x/PC400</th>
<th>VIO-200x/PC400</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Onboard</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td>Memory</td>
<td>1x 260-Pin DDR4 1866/2133MHz SODIMM. Max. up to 16GB</td>
<td>1x 260-Pin DDR4 1866/2133MHz SODIMM. Max. up to 16GB</td>
</tr>
<tr>
<td>Graphic Output</td>
<td>1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS</td>
<td>1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS</td>
</tr>
<tr>
<td>LAN</td>
<td>2x GbE RJ45 (Support Wake-on-LAN and PXE)</td>
<td>2x GbE RJ45 (Support Wake-on-LAN and PXE)</td>
</tr>
<tr>
<td>USB, Serial, &amp; Digital I/O</td>
<td>4x USB 3.0, up to 6x RS-232/422/485, 16x isolated digital I/O</td>
<td>4x USB 3.0, up to 6x RS-232/422/485, 16x isolated digital I/O</td>
</tr>
<tr>
<td>Storage</td>
<td>1x 2.5&quot; SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe, and 1x CFast (shared by 1x mSATA)</td>
<td>1x 2.5&quot; SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe, and 1x CFast (shared by 1x mSATA)</td>
</tr>
<tr>
<td>Internal Expansion Slot</td>
<td>2x Full-size Mini PCIe</td>
<td>2x Full-size Mini PCIe</td>
</tr>
<tr>
<td>Power</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
</tr>
<tr>
<td>Audio</td>
<td>Line-out / Mic-in Phone Jack</td>
<td>Line-out / Mic-in Phone Jack</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10 °C to 60 °C</td>
<td>-10 °C to 60 °C</td>
</tr>
<tr>
<td></td>
<td>-10 °C to 70 °C (15.6” Panel PC only)</td>
<td>-10 °C to 70 °C (15.6” Panel PC only)</td>
</tr>
<tr>
<td></td>
<td>-10 °C to 50 °C (19” Panel PC only)</td>
<td>-10 °C to 50 °C (19” Panel PC only)</td>
</tr>
<tr>
<td>LCD Size</td>
<td>VIO-100/PC100 Series: 4 : 3 - 10.4” / 12.1” / 15” / 17” / 19” 16:9 - 15.6” / 21.5”</td>
<td>VIO-200/PC100 Series: 4 : 3 - 12.1” / 15” / 17” / 19” 16:9 - 15.6” / 21.5”</td>
</tr>
<tr>
<td>Touch Type</td>
<td>Resistive 5-wire Touch / Projected Capacitive Touch</td>
<td>Resistive 5-wire Touch / Projected Capacitive Touch</td>
</tr>
<tr>
<td>Universal Expansion Slot</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
## VIO-100/MX100 Series

**VIO-100R/MX100**

- **Touch Type**
  - Resistive
  - 5-wire Touch
- **Input**
  - VGA Input: 1x VGA Input
  - DVI-D Input: 1x DVI-D Input
  - DisplayPort Input: 1x DisplayPort Input
  - USB 2.0 Input: 1x USB 2.0 Input
  - COM Port Input: 1x COM Port Input
  - Audio Input: 1x Audio Input
- **Power**
  - 9-48 VDC, AT/ATX Select, 3-pin Terminal Block
- **Temperature**
  - -10 °C to 60 °C
  - -10 °C to 50 °C (19” Touch Monitor only)
- **LCD Size**
  - 4:3 - 10.4” / 12.1” / 15” / 17” / 19”
  - 16:9 - 15.6” / 21.5”

## VIO-200/MX100 Series

**VIO-200R/MX100**

- **Touch Type**
  - Resistive
  - 5-wire Touch
- **Input**
  - VGA Input: 1x VGA Input
  - DVI-D Input: 1x DVI-D Input
  - DisplayPort Input: 1x DisplayPort Input
  - USB 2.0 Input: 1x USB 2.0 Input
  - COM Port Input: 1x COM Port Input
  - Audio Input: 1x Audio Input
- **Power**
  - 9-48 VDC, AT/ATX Select, 3-pin Terminal Block
- **Temperature**
  - -10 °C to 60 °C
  - -10 °C to 50 °C (19” Touch Monitor only)
- **LCD Size**
  - 4:3 - 12.1” / 15” / 17” / 19”
  - 16:9 - 15.6” / 21.5”

### Touch Types
- **Resistive**
- **Capacitive Touch**
- **Projected**
- **5-wire Touch**

### Input Types
- **VGA Input**
- **DVI-D Input**
- **DisplayPort Input**
- **USB 2.0 Input**
- **COM Port Input**
- **Audio Input**

### Power Requirements
- **9-48 VDC, AT/ATX Select, 3-pin Terminal Block**

### Temperature Ranges
- **-10 °C to 60 °C**
- **-10 °C to 50 °C (19” Touch Monitor only)**
### PC100 SERIES

**PC100**
- PC Module based on Intel® Bay Trail processors

**PC110**
- PC Module based on Intel® Bay Trail processors and with two universal I/O bracket

### PC300 SERIES

**PC300**
- PC Module based on Intel® Broadwell-U processors

**PC311x**
- PC Module based on Intel® Broadwell-U processors with one PCI or PCIe x4 expansion slot

<table>
<thead>
<tr>
<th><strong>CPU Onboard</strong></th>
<th>Intel® Celeron® J1900</th>
<th>Intel® Core™ i5-5350U, i3-5010U, Celeron® 3765U</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Memory</strong></td>
<td>1x 204-pin DDR3L-1066/1333 SO-DIMM, up to 8GB</td>
<td>1x 204-pin DDR3L-1333/1600 SO-DIMM, up to 8GB</td>
</tr>
<tr>
<td><strong>Graphic Output</strong></td>
<td>1x VGA, 1x DisplayPort</td>
<td>1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS</td>
</tr>
<tr>
<td><strong>LAN</strong></td>
<td>2x GbE RJ45 (Support Wake-on-LAN and PXE)</td>
<td>2x GbE RJ45 (Support Wake-on-LAN and PXE)</td>
</tr>
<tr>
<td><strong>USB, Serial, &amp; Digital I/O</strong></td>
<td>1x USB 3.0, 3x USB 2.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O</td>
<td>3x USB 3.0, 1x USB 2.0, 4x RS-232/422/485 (w/ 2x internal), 8x isolated digital I/O</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>1x 2.5” S ATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe), and 1x CFast (shared by 1x mSATA &amp; 1x Mini PCIe)</td>
<td>1x 2.5” SATA HDD Bay with RAID 0, 1, 5 support and 2x mSATA (shared by 2x Mini PCIe)</td>
</tr>
<tr>
<td><strong>Internal Expansion Slot</strong></td>
<td>1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB + SATA)</td>
<td>2x Full-size mini-PCIe</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td>9-48 VDC, AT/ATX Select, 3-pin Terminal Block</td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td>Line-out / Mic-in Phone Jack</td>
<td>Speaker-out / Mic-in Phone Jack</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-40 °C to 70 °C</td>
<td>-40 °C to 60 °C</td>
</tr>
<tr>
<td><strong>Universal Expansion Slot</strong></td>
<td>0 2</td>
<td>0 (VIO-100/PC300) 1</td>
</tr>
<tr>
<td><strong>1x PCIe x4</strong></td>
<td>- -</td>
<td>-</td>
</tr>
<tr>
<td><strong>1x PCI</strong></td>
<td>- -</td>
<td>-</td>
</tr>
</tbody>
</table>

(VIO-100/PC300) 1
## PC400 SERIES
**PC Module** based on Intel® Kabylake-U processors

<table>
<thead>
<tr>
<th>Feature</th>
<th>PC400</th>
<th>PC410</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU Onboard</strong></td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>1x 260-Pin DDR4 1866/2133MHz SODIMM, Max. up to 16GB</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Graphic Output</strong></td>
<td>1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>LAN</strong></td>
<td>2x GbE RJ45 (Support Wake-on-LAN and PXE)</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>USB, Serial, &amp; Digital I/O</strong></td>
<td>4x USB 3.0, up to 6x RS-232/422/485, 16x isolated digital I/O</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>1x 2.5” SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCIe, and 1x CFast (shared by 1x mSATA)</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Internal Expansion Slot</strong></td>
<td>2x Full-size Mini PCIe</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>9-50 VDC, AT/ATX Select, 3-pin Terminal Block</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td>Line-out / Mic-in Phone Jack</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-40°C to 70°C</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td><strong>Universal Expansion Slot</strong></td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>
## VIO-100/200 SERIES

### PC MODULE

<table>
<thead>
<tr>
<th>Model</th>
<th>STANDARD FRAME</th>
<th>THIN FRAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIO-110</td>
<td>VIO-112</td>
<td>VIO-115</td>
</tr>
<tr>
<td>VIO-110-11</td>
<td>VIO-212</td>
<td>VIO-215</td>
</tr>
<tr>
<td>VIO-212-11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| LCD Size    | 10.4” (4:3)   | 12.1” (4:3) | 15” (4:3)  | 15.6” (16:9) |
| Max. Resolution | 800 x 600 (SVGA) | 1024 x 768 (XGA) | 1920 x 1080 (Full HD) |
| Brightness  | 400 (cd/m²)  | 500 (cd/m²) | 350 (cd/m²) | 400 (cd/m²) |
| Contrast Ratio | 700:1        |            |            |            |
| LCD Color   | 16.2M         |            |            | 16.7M       |
| Pixel Pitch (mm) | 0.264 (H) x 0.264 (V) | 0.24 (H) x 0.24 (V) | 0.297 (H) x 0.297 (V) | 0.17925 (H) x 0.17925 (V) |
| 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 70°C |

### Model

<table>
<thead>
<tr>
<th>Model</th>
<th>STANDARD FRAME</th>
<th>THIN FRAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIO-117</td>
<td>VIO-119</td>
<td>VIO-W121</td>
</tr>
<tr>
<td>VIO-119</td>
<td>VIO-217</td>
<td>VIO-219</td>
</tr>
<tr>
<td>VIO-217</td>
<td>VIO-219</td>
<td>VIO-219</td>
</tr>
</tbody>
</table>

| LCD Size    | 17” (4:3)     | 19” (4:3)  | 21.5” (16:9) |
| Max. Resolution | 1280 x 1024 (SXGA) | 1920 x 1080 (Full HD) |
| Brightness  | 350 (cd/m²)  |            | 300 (cd/m²) |
| Contrast Ratio | 800:1        | 1000:1     | 5000:1      |
| LCD Color   | 16.7M         |            |            |
| Pixel Pitch (mm) | 0.264 (H) x 0.264 (V) | 0.294 (H) x 0.294 (V) | 0.248 (H) x 0.248 (V) |
| Viewing Angle (H-V) | 170 / 160 |            | 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 | -10°C to 60°C |
**WIO-W221C**  
21.5” 16:9 Full HD Capacitive Touch All-In-One IP66 Panel PC

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Onboard</td>
<td>Intel® 7th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U</td>
</tr>
<tr>
<td>Memory</td>
<td>8GB DDR4 Wide-temp SODIMM</td>
</tr>
<tr>
<td>Graphic Output</td>
<td>1x Waterproof VGA</td>
</tr>
<tr>
<td>LAN</td>
<td>2x LAN by M12 X-Code 8-pin</td>
</tr>
<tr>
<td>USB &amp; Serial</td>
<td>2x USB 3.0 (Waterproof connector), 1x RS-232/422/485 by M12 D-Code 8-pin</td>
</tr>
<tr>
<td>Storage</td>
<td>1x 256GB Wide-temp mSATA</td>
</tr>
<tr>
<td>Internal Expansion Slot</td>
<td>1x Full-size Mini PCIe</td>
</tr>
<tr>
<td>Power</td>
<td>9-50 VDC , M12 A-code 4-pin</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10 °C to 60 °C</td>
</tr>
<tr>
<td>LCD Size</td>
<td>21.5” (16:9) Full HD</td>
</tr>
<tr>
<td>Touch Type</td>
<td>Projected Capacitive Touch, 5 Points, 7H Surface Hardness</td>
</tr>
</tbody>
</table>

NEW

**WIO SERIES**  
Waterproof Panel PC

**THIN FRAME**