## **b**rewio







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 <a href="Embedded IoT Computers">Embedded IoT Computers</a>, <a href="Rugged Edge Computers">Rugged Edge Computers</a>, and <a href="HMI Displays">HMI Displays</a>.

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

to answer their special needs with speed, agility and precision.

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

- 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:

INNOVATION • Premio provides customers with cutting-edge and friendly-price products with unmatched flexibility and longevity to achieve mutual win-win situation.

COMMITMENT • 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.

COLLABORATION • 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

ACCOUNTABILITY • 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.

AGILITY Premio keeps its promises by providing customers high quality products, competitive price and excellent before-after sales services.

#### **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 welldesigned features, it can easily withstand any kind of environments and conditions.





## US BASED COMPANY WITH WORLDWIDE OPERATIONS

A STORY OF GROWTH & EVOLUTION

1989-2000

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

2000

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

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



#### 2000-2011

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

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

#### 2011-2017

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

- Enterprise Servers and Storage Solutions
- Industrial Embedded Computing Solutions
- Industrial Touch Display Solutions

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

#### Present

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





#### In-Vehicle

Fanless Computer



Broadwell-U

ACO-6000

Skylake & Kabylake-S

ACO-6100

CFL-RS



#### IP65 / IP67 Waterproof

**Fanless** 



WCO-3200

Series

Apollo Lake

WCO-3400

Kabylake-U



#### Mini

Fanless Computer

BCO-1000

Bay Trail



**Machine** 

**Vision** 

Computer

VCO-3100

VCO-3400

Kabylake-U

VCO-6000 Series

Skylake &

Kabylake-S

VCO-6100 Series

CFL-RS

Bay Trail

Series

### Rugged

**Fanless** Computer

#### RCO-1000

Series

Bay Trail

#### RCO-3000

Broadwell-U

#### RCO-3200

Apollo Lake

#### RCO-3400

Series

Kabylake-U

#### RCO-3600

Series

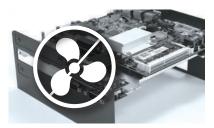
Skylake & Kabylake-S

#### RCO-6000

Skylake & Kabylake-S

#### RCO-6100

Series CFL-R S



#### **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.

#### 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



#### 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)



### **BCO-1000** SERIES



MINI FANLESS EMBEDDED COMPUTER

(intel®)	IoT Solutions Alliance
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4x COM (rear)

#### BCO-1000

Mini Fanless Computer With one Universal With two space-constrained applications

#### BCO-1010

**Expansion Slot** 

#### BCO-1020

Universal **Expansion Slots** 

#### BCO-1030

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









CPU Onboard	Intel <sup>®</sup> Celeron <sup>®</sup> J1900				
Memory	1x 204-pir	n DDR3L-1066/1333N	1Hz SO-DIMM, up to	8GB	
Graphic Output	1x DVI-I (optional	l Display Port: BC0-1	010A, BCO-1020C &	BCO-1030)	
LAN	1x Gb	E RJ45 (Support Wak	(e-on-LAN and PXE)		
Storage			A (shared by 1x Mini ernal 2.5" SATA HDI		
Internal Expansion Slot	2x Fu	ll-size mini-PCIe (1x	shared with mSATA		
Power	9-30 \	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 30 mm 142 x 101 x 41.5 mm 142		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)		BC0-1010A			
2x COM (rear)		BC0-1010B			
4x USB (rear)		BC0-1010U			
DP, 8-bit Isolated DIO, & 2x COM (rear)			BC0-1020C		
4x COM (rear)			BC0-1020D		
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 spaceconstrained applications



With one Universal Expansion Slot



With three Universal Expansion Slots RCO-1030

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









CPU Onboard	Intel <sup>®</sup> Atom <sup>®</sup> E3845, or Celeron <sup>®</sup> J1900					
Memory	1x 204-pin	DDR3L-1066/1333N	1Hz SO-DIMM, up to	8GB		
Graphic Output	1x DVI-I (optional	DisplayPort: RCO-1	010A, RCO-1020C &	RCO-1030)		
LAN	2x Gbl	E RJ45 (Support Wak	(e-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 m	ini-PCle			
Power	9-48 V	'DC, AT/ATX Select, 3	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 37 mm 150 x 105 x 49 mm 150 x 105 x 65 mm 150 x 105 x 85				
Weight	0.69 kg	0.85 ~ 0.88 kg	0.97 ~ 0.98 kg	1.11 kg		
Universal Expansion Slot (front)	0 (RCO-1000)	0	1	2		
Universal Expansion Slot (rear)	0	1 (RCO-1010)	0	0		
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)			RC0-1020C			
4x COM (rear)	RCO-1020D					
DP, 8-bit Isolated DIO, & 4x COM (rear)	RC0-1030					

### RCO-3000 SERIES



ADVANCED INDUSTRIAL EMBEDDED COMPUTER

M12 with PoE option)

#### RCO-3000

Advanced Industrial Computer based on Intel® Broadwell-U processors

#### RCO-3011x

With one PCI or PCIe x4 expansion slot

#### RCO-3022xx

With two PCI or PCIe x4 expansion slot







CPU Onboard	Intel <sup>®</sup> 5 <sup>th</sup> Gen. Core™ i5-5350U, i3-5010U, Celeron <sup>®</sup> 3765U			
Memory	1x 204-pin DDR	3L-1333/1600MHz SO-DII	MM, up to 8GB	
Graphic Output		1x DVI-I, 1x DisplayPort		
LAN	2x GbE RJ4	5 (Support Wake-on-LAN	and PXE)	
USB, Serial, & Digital I/0	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)			
Internal Expansion Slot	2x 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	-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	2.16 ~ 2.54 kg	2.64 ~ 3.09 kg	2.87 ~ 3.29 kg	
Universal Expansion Slot (front)	1 (RCO-3000)	2	2	
Universal Expansion Slot (rear)	0 0		0	
1x PCle x4		RCO-3011E	-	
1x PCI		RC0-3011P	-	
2x PCIe x4			RCO-3022EE	
2x PCI			RC0-3022PP	
4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or	1 1 1			



## RCO-3200 SERIES







M12 with PoE option)

#### RCO-3200

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

#### RCO-3211x

With one PCI or PCIe x4 expansion slot PCIe x4 expansion slot

#### RCO-3222xx

With two PCI or







CPU Onboard	Intel <sup>®</sup> Pentium <sup>®</sup> N4200			
Memory	1x 204-pin DDR3L-1600/1867MHz SO-DIMM, up to 8GB (un-buffered and non-ECC)			
Graphic Output		1x DVI-I, 1x DisplayPort		
LAN	2x GbE RJ4	5 (Support Wake-on-LAN	and PXE)	
USB, Serial, & Digital I/O	2x USB 3.0, 2x USB 2.0, 6x RS-232/422/485 (w/ 4x internal), 16x isolated digital I/O			
Storage	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)			
Internal Expansion Slot	2x Full-size mini-PCIe (1x shared by SATA)			
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			
Weight	1.93 ~ 2.35 kg	2.43 ~ 2.79 kg	2.83 ~ 3.38 kg	
Universal Expansion Slot (front)	0 (RCO-3200) 1		1	
Universal Expansion Slot (rear)	0 0		0	
1x PCle x4		RCO-3211E		
1x PCI		RC0-3211P		
2x PCIe x4			RC0-3222EE	
2x PCI			RC0-3222PP	
4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or	2 1 1			



## RCO-3400 SERIES

HIGH-PERFORMANCE RUGGED EDGE COMPUTER





M12 with PoE option)

#### RCO-3400

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

#### RCO-3411x

With one PCI or PCIe x4 expansion slot

#### RCO-3422xx

With 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 DDR	4 1866/2133MHz SO-DIM	M, up to 16GB	
Graphic Output		1x VGA, 2x DisplayPort		
LAN	2x GbE RJ4	5 (Support Wake-on-LAN	and PXE)	
USB, Serial, & Digital I/O	4x USB 3.0, 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	TBC	TBC	TBC	
1x PCle x4		RCO-3411E		
1x PCI		RCO-3411P		
2x PCle x4			RCO-3422EE	
2x PCI			RC0-3422PP	
4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or	1 1 1			

### RCO-3600 SERIES COMPACT PERFORMANCE INDUSTRIAL COMPUTER





#### RCO-3600

Compact Performance Industrial Computer based on Intel® Skylake & Kabylake-S processors



Support 6<sup>th</sup> & 7<sup>th</sup> Gen Intel<sup>®</sup> Core™ i7 / i5 / i3 / Pentium<sup>®</sup> / Celeron® Desktop Processor (LGA 1151) - 7<sup>th</sup> Gen Intel<sup>®</sup> Core<sup>™</sup> i7-7700T / i5-7500T / i3-7101TE **CPU Support** -  $6^{th}$  Gen Intel<sup>®</sup> Core<sup>TM</sup> i7-6700TE / i5-6500TE / i3-6100TE - Intel<sup>®</sup> Pentium<sup>®</sup> G4400TE / Celeron<sup>®</sup> G3900TE Memory 2x DDR4 1866/2133MHz SODIMM, Max. up to 32GB

Nerrior y	2X DBI(4 1000/2103/M1/2 30DH/M/. Max. up to 320B
Graphic Output	Intel <sup>®</sup> 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

(intel <sup>®</sup> )	IoT Solutions
The state of the s	Alliance

#### RCO-6000

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

#### RCO-6011x

With one PCI or PCIe x16 expansion slot

#### RCO-6022xx

With two PCI or PCIe x8/x16 expansion slot







**CPU** Support

Slot (RJ-45 or M12 with PoE option)

Intel®  $6^{\text{th}}/7^{\text{th}}$  Gen. (Kabylake & Skylake-S) Desktop Processor (Core<sup>TM</sup> i7-7700T/6700TE, Core<sup>TM</sup> i5-7500T/6500TE, Core<sup>TM</sup> 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 RJ	45 (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	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	5.38 ~ 6.40 kg	5.56 ~ 6.64 kg	
Universal Expansion Slot (front)	2 (RCO-6000)	2	2	
Universal Expansion Slot (rear)	0	1	2	
1x PCle x16		RC0-6011E		
1x PCI		RC0-6011P		
2x PCIe x8			RC0-6022EE	
2x PCI			RC0-6022PP	
1x PCle x16 & 1x PCl			RC0-6022PE	
4-Port GbE Expansion Option in Front Universal Expansion	2	2	2	



### RCO-6100 SERIES

#### HIGH-PERFORMANCE INDUSTRIAL COMPUTER

#### RCO-6100

High-Performance Industrial Computer with LGA-1151 socket for  $Intel^{\circ}$  CFL-R S Processor





CPU 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/8100TE,

Pentium® G5400T, or Celeron® G4900T) 2x 260-pin DDR4-2400/2666MHz SO-DIMM, Memory 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) 4x USB 3.2 Gen 2 (10 Gbps), 5x USB 3.2 Gen 1 (5 Gbps), USB, Serial, & Digital I/O 6x RS-232/422/485 (w/ 2x internal), 16x isolated digital I/O 4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support Storage (2x internal; 2x removable & hot-swapplable), 1x mSATA (shared by 1x Mini PCle), 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 -25°C to 70°C (35W CPU) Operating Temperature -25°C to 60°C (65W CPU)

Universal Expansion Slot

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

Dimensions (WxDxH)

Weight

1

240 x 261 x 79 mm

**TBD** 

1 (by mini PCIe interface)

## ACO-3000 SERIES





COMPACT IN-VEHICLE FANLESS COMPUTER



PoE option)

#### ACO-3000

processors

In-Vehicle Compact Fanless Computer based on Intel® Broadwell-U



With one PCI or PCIe x4 expansion slot

#### ACO-3022xx

With two PCI or PCIe x4 expansion slot







CPU Onboard	Intel <sup>®</sup> 5 <sup>th</sup> Gen. Core	e™ i5-5350U, i3-5010U,	Celeron® 3765U	
Memory	1x 204-pin DDR3	3L-1333/1600MHz SO-DIN	MM, up to 8GB	
Graphic Output		1x DVI-I, 1x DisplayPort		
LAN	2x GbE RJ4	5 (Support Wake-on-LAN	and PXE)	
USB, Serial, & Digital I/O	4x RS-232/422/485, 2	2x USB 3.0, 2x USB 2.0, 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 (shared by 2x Mini PCIe)			
Internal Expansion Slot	2x Full-siz	e mini-PCIe (shared with	mSATA)	
Power	9-48 VDC, A	T/ATX Select, 3-pin Termi	nal Block	
Ignition Management	Delay On/Off, Battery Level Monitoring			
Audio	Speaker-out / Mic-in Phone Jack			
Operating Temperature	-40 °C to 70 °C			
Certification	E-Mark, EMC Conformity with EN50155 & EN50121-3-2			
Dimensions (WxDxH)	185 x 197 x 57.4 mm	185 x 197 x 85 mm	185 x 197 x 105 mm	
Weight	2.16 - 2.54 kg	3.36 ~ 3.91 kg	3.56 ~ 4.18 kg	
Universal Expansion Slot (front)	1 (ACO-3000)	2	2	
Universal Expansion Slot (rear)	0	0	0	
1x PCIe x4		ACO-3011E		
1x PCI		ACO-3011P		
2x PCIe x4			ACO-3022EE	
2x PCI			ACO-3022PP	
4-Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with	1 1 1			

### ACO-6000 SERIES

HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER





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**IoT Solutions** 

#### ACO-6000

processors

High-Performance In-Vehicle Fanless Computer LGA-1151 socket for Intel® Kabylake & Skylake-S



With 16 GbE in RJ-45 PoE option.

#### ACO-6011x

With one PCI or or M12 connectors with PCIe x16 expansion slot







CPLI Support

Slot (RJ-45 or M12 with PoE option)

Intel® 6<sup>th</sup>/7<sup>th</sup> Gen. (Kabylake & Skylake-S) Desktop Processor (Core™ i7-7700T/6700TE, Core™ i5-7500T/6500TE,

CPU Support	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 R.	J45 (Support Wake-on-LAN a	and PXE)		
USB, Serial, & Digital I/O	6x USB 3.0, 2x USB 2	.0 (Internal), 5x RS-232/422/ 16x isolated digital I/O	/485 (w/ 3x internal),		
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 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)	2	2		
Universal Expansion Slot (rear)	0	2	1		
1x PCle x16			AC0-6011E		
4-Port GbE Expansion Option in Front Universal Expansion	2	4x Installed (ACO-6010)	2		



## ACO-6100 SERIES

#### HIGH-PERFORMANCE IN-VEHICLE FANLESS COMPUTER

IoT Solutions Alliance	ACO-6100  Superior Fanless System with LGA-1151 socket for Intel® CFL-R S Processor  - coming soon -
CPU Support	8 <sup>th</sup> / 9 <sup>th</sup> Gen. Intel <sup>®</sup> CFL-R S Processor (LGA 1151, 65W/35W TDP) (Core <sup>™</sup> i7-9700E/9700TE/8700T, Core <sup>™</sup> i5-9500E/9500TE/8500T, Core <sup>™</sup> i3-9100E/9100TE/8100TE, Pentium <sup>®</sup> G5400T, or Celeron <sup>®</sup> 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-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	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 (WxDxH)	240 (W) x 261 (D) x 79 (H) mm
Weight	TBD
Universal Expansion Slot	1 (by mini PCle interface)
Port GbE Expansion Option in Front Universal Expansion Slot (RJ-45 or M12 with PoE option)	1



## **VCO-3100** SERIES



#### ENTRY PERFORMANCE MACHINE VISION COMPUTER



VCO-3100 Macine Vision Computer based on Intel® Bay Trail processors

VCO-3111x With one PCI or PCle x4 expansion slot

VCO-3122x With two PCI or PCIe x4 expansion slot VCO-3133P With three PCI expansion slot

VCO-3144P With four PCI expansion slot











CPU Onboard	Intel® Celeron® J1900					
Memory		1x 204-pin DDR3L	-1066/1333MHz SO	-DIMM, up to 8GE	3	
Graphic Output		1x	DVI-I, 1x DisplayPo	ort		
LAN		2x GbE RJ45 (	Support Wake-on-l	_AN and PXE)		
USB, Serial, & Digital I/O	6:		USB 3.0, 3x USB 2. (w/ 4x internal), 16x		′0	
Storage	2x 2.5" SATA HDD Bay, 1x mSATA (shared by 1x Mini PCle & 1x SATA), and 1x CFast (shared by 1x mSATA & 1x SATA)					
Internal Expansion Slot	2x Full-size mini-PCIe (1x shared by SATA)					
Power		9-50 VDC, AT/	ATX Select, 3-pin Te	erminal Block		
Audio	Line-out / Mic-in Phone Jack					
Operating Temperature	-40 °C to 70 °C					
Dimensions (WxDxH)mm	59 x 197 x 185	99 x 197 x 185	119 x 197 x 185 m	139 x 197 x 185	159 x 197 x 185	
Weight	3.28 kg	3.31 ~ 3.37 kg	3.42 ~ 3.45 kg	4.22 kg	4.45 kg	
1x PCle x4		VCO-3111E				
1x PCI	VC0-3111P					
2x PCIe x4	VCO-3122E					
2x PCI			VC0-3122P			
3x PCI				VC0-3133P		
4x PCI	VC0-3144P					



## **VCO-3400** SERIES



#### COMPACT PERFORMANCE MACHINE VISION COMPUTER



VCO-3400 Macine Vision computer based on Intel® Skylake & Kabylake-U

With one PCI or PCIe x4 expansion slot

VCO-3411x

VCO-3422x With two PCI or PCIe x4 expansion slot VCO-3433P With three PCI expansion slot VCO-3444P With four PCI expansion slot











CPU Onboard	Intel® 7 <sup>th</sup> Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U					
Memory		1x 260-pin DDR4 1	1866/2133MHz SO-	-DIMM, up to 16GE	3	
Graphic Output		1>	VGA, 2x DisplayPo	ort		
LAN		2x GbE RJ45 (	Support Wake-on-	LAN and PXE)		
USB, Serial, & Digital I/O			RS-232/422/485 (v 6x isolated digital l			
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 & 1x SATA), and 1x CFast (shared by 1x mSATA & 1x SATA)					
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)mm	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	
Weight	TBC	TBC	TBC	TBC	TBC	
1x PCIe x4 (1 Lane)		VC0-3411E				
1x PCI						
2x PCle x4 (1 Lane)			VCO-3422E			
2x PCI			VC0-3422P			
3x PCI				VC0-3433P		
4x PCI					VC0-3444P	

### VCO-6000 SERIES



#### HIGH-PERFORMANCE MACHINE VISION COMPUTER

(intel)	oT Solutions Alliance
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CPU Onboard

PCIe x8 & 2x PCI

#### VCO-6000

Macine Vision Computer based on Intel® Kabylake & Skylake-S processors

#### VCO-6011x

With one PCI or PCIe expansion slot

#### VCO-6022x

With two PCI or PCIe expansion slot

#### VCO-6033x

With three PCI or PCIe expansion slot

#### VCO-6044x

With four PCI or PCIe expansion slot

#### VCO-6055C

With five PCI or PCIe expansion slot













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)

	Core13-71011E/61001E, Pentium 644001E, of Ceteron 637001E)						
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 aı	nd PXE)		
USB, Serial, & Digital I/O	4x	4x USB 3.0, 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 VI	DC, AT/ATX Selec	ct, 3-pin Termina	al Block		
Audio			Speaker-out / M	lic-in Phone Jacl	<		
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	
1x PCle x16		VCO-6011E					
1x PCI		VCO-6011P					
2x PCIe x8			VCO-6022E				
2x PCI			VCO-6022P				
1x PCIe x16 & 1x PCI			VCO-6022C				
2x PCle x1 & 1x PCle x16				VCO-6033E			
1x PCIe x16 & 2x PCI				VCO-6033C			
3x PCI				VCO-6033P			
2x PCle x4 & 1x PCle x8 & 1x PCl					VCO-6044C		
4x PCI					VCO-6044P		
2x PCIe x4 & 1x						VCO 4055C	

VCO-6055C



## VCO-6100 SERIES

#### HIGH-PERFORMANCE MACHINE VISION COMPUTER

Ċ	IoT Solutions Alliance	VCO-6100  Macine Vision Computer based on Intel® CFL-R S Processor	VCO-6111x With one PCI or PCIe expansion slot	VCO-6122x With two PCI or PCIe expansion slot	VCO-6133x With three PCI or PCIe expansion slot	VCO-6144x With four PCI or PCIe expansion slot	VCO-6155C With five PCI or PCIe expansion slot
				coming	soon -		
	CPU Support	(C	ore™ i7-9700E	:/9700TE/8700 <sup>-</sup>	Γ, Core™ i5-950	151, 65W/35W 1 00E/9500TE/85 IT, or Celeron®	00T,
	Memory	2x 260-pir	n DDR4-2400/26	66MHz SO-DIM	IM, up to 64GB (	Un-buffered and	d Non-ECC)
	Graphic Output			1x DVI-I, 2>	k DisplayPort		
	LAN		2x GbE	RJ45 (Support	Wake-on-LAN a	and PXE)	
	USB, Serial, & Digital I/0		4x R:		Sen 2 (10 Gbps) 16x isolated dig	ital I/O	
	Storage	2x 2.5"			upport (2x remo « Mini PCle), 1x l	vable & hot-swa NVMe M.2	applable),
	Internal Expansion Slot		2x Full-size m	nini-PCIe (1 sha	red by 1x mSAT	A), 1х М.2 E Key	
	Power		9-48 VI	DC, AT/ATX Sele	ct, 3-pin Termir	nal Block	
	Audio			Line-out / Mid	c-in Phone Jack		
	Operating Temperature		-25°C to '	70°C (35W CPU)	); -25°C to 60°C	(65W CPU)	
	Dimensions (WxDxH)			Т	BC		
	Weight			Т	BC		
	1x PCIe x16		VCO-6111E				
	1x PCI		VC0-6111P	1/00 /4005			
	2x PCle x8			VCO-6122E			
	2x PCI  1x PCIe x16 & 1x PCI			VCO-6122P VCO-6122C			
	2x PCle x1 & 1x PCle x16				VCO-6133E		
	1x PCIe x16 & 2x PCI				VCO-6133C		
	3x PCI				VC0-6133P		
	2x PCle x4 & 1x PCle x8 & 1x PCl					VCO-6144C	
	4x PCI					VCO-6144P	
	2x PCle x4 & 1x PCle x8 & 2x PCl						VCO-6155C

# New Experience & Unparalleled Performance

**Premio GPU Computing System** 



- · 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

Robust system design enabling GPU computing in harsh environment





Support up to 8K Resolution & 6 Independent Displays



DVI-I HDMI

Display Port 8K ULTRA HD





IoT Solutions Alliance

**CPU Support** 

(intel)

#### INDUSTRIAL GPU COMPUTER

#### RCO-6020-1050TI

Industrial GPU Computer with LGA-1151 socket for Intel® Kabylake & Skylake-S processors and Q170 PCH, GTX 1050Ti Integrated

#### VCO-6020-1050TI

Industrial GPU Computer LGA-1151 socket for Intel® Kabylake & Skylake-S processors and Q170 PCH, GTX 1050Ti Integrated

#### VCO-6022C-2PWR

Industrial GPU Computer with LGA-1151 socket for Intel® Kabylake & Skylake-S processors and Q170 PCH, 24V Power for GPU





Intel®  $6^{th}/7^{th}$  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 DDR4-1866/2133MHz SO-DIMM, up to 32GB					
Graphic Output	2x DVI-I, 3x Display	1x DVI-I, 2x DisplayPort				
LAN	2x GbE F	RJ45 (Support Wake-on-LAN and	d PXE)			
USB	6x USB 3.0, 2x USB 2.0	4x L	JSB 3.0			
Serial & Digital I/O	4x RS-232/422	2/485 (w/ 2x internal), 16x isolate	ed 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 so 2x mSATA (shared by 2x Mini PCIe), 1x CFast e)				
Internal Expansion Slot	4x Full-size mini-PCIe (shared with 2x mSATA)	3x Full-size mini-PCIe (shared with mSATA)				
9-48 VDC, AT/ATX Select, 3-pin Terminal Block		9-50 VDC, AT/ATX Select, 3-pin Terminal Block	System: 9~50VDC, GPU: 24VDC, AT/ATX Select, 3-pin Terminal Block			
Audio	Sı	peaker-out / Mic-in Phone Jack				
Operating Temperature	-25 °C to 6	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	TBC	7.71 kg	TBC			
Universal Expansion Slot (front)	2					
PCIe x16			1			
PCI			1			



#### VCO-6120-2060S

Industrial GPU Computer with LGA-1151 socket for  $\mathsf{Intel}^{\$}\,\mathsf{CFL}\text{-R}\,\mathsf{S}$  processors and Q370 PCH, RTX 2060 Super Integrated

- coming

8 <sup>th</sup> / 9 <sup>th</sup> Gen. Intel <sup>®</sup> CFL-R S Processor (LGA 1151, 65W/35W TDP) (Core <sup>™</sup> i7-9700E/9700TE/8700T, Core <sup>™</sup> i5-9500E/9500TE/8500T, Core <sup>™</sup> i3-9100E/9100TE/8100TE, Pentium <sup>®</sup> G5400T, or Celeron <sup>®</sup> G4900T)
2x DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)
1x DVI-I, 2x DisplayPort
2x GbE RJ45 (Support Wake-on-LAN and PXE)
4x USB 3.2 Gen 2 (10 Gbps)
4x RS-232/422/485, 16x isolated digital I/O
4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swapplable), 1x mSATA (shared by 1x Mini PCIe), 2x NVMe M.2
2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key
9-48 VDC, GPU: 24VDC, AT/ATX Select, 3-pin Terminal Block
Line-out / Mic-in Phone Jack
-25 °C to 70 °C
TBC
TBC
1 (by mini PCIe interface)

## WCO Series IP65 / IP67 Waterproof System

Ideal for use in harsh, wet & dusty environments

### IP65 Protection



#### Refined 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.





up to 1 m of submersion





### IP67 Protection

Full system IP67 level dustproof & waterproof



Outdoor digital signage





Agriculture



Food and beverage manufacturing





### WCO SERIES IP65/IP67 WATERPROOF COMPUTER



#### WCO-3200

IP65/IP67 Waterproof Computer with Intel® Apollo Lake processor

#### WCO-3400

IP65/IP67 Waterproof Computer with Intel<sup>®</sup> Kabylake-U processor





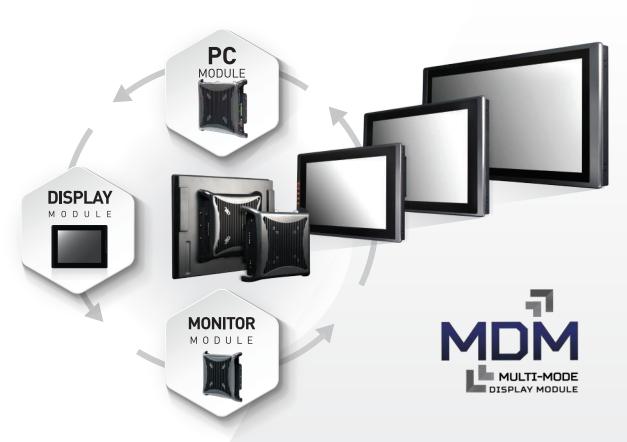


CPU Support	Intel <sup>®</sup> Pentium <sup>®</sup> N4200	Intel <sup>®</sup> 7 <sup>th</sup> Gen. (Kabylake-U) Processor Core <sup>™</sup> i5-7300U, Core <sup>™</sup> i3-7100U		
Memory	1x DDR4-1600/1867MHz SO-DIMM, up to 8GB	1x DDR4-1866/2133MHz SO-DIMM, up to 16GB		
Graphic Output	1x VGA (Waterp	proof connector)		
LAN	2x GbE RJ45 (Support Wake-on-L	AN and PXE) by M12 X-Code 8-pin		
USB	1x USB 3.0 (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, 1x mSATA (shared by Mini PCIe)	1x internal 2.5" SATA HDD Bay with RAID 0, 1 support, 1x mSATA (shared by Mini PCIe)		
Internal Expansion Slot	2x Full-size mini-PCIe			
Power	9-50 VDC, M1	2 A-code 4-pin		
Operating Temperature	-40 °C	to 70 °C		
Dimensions (WxDxH)	231 x 292 x 56.5 mm			
IP65 WCO-3200		WCO-3400		
IP67	WCO-3200-IP67	WCO-3400-IP67		

### INDUSTRIAL TOUCH DISPLAY COMPUTER

## PREMIO OWN PATENT FOR INDUSTRIAL DISPLAY COMPUTER

Premio's Industrial touch display computer is based on modularized design concept which offers widely configuration. More flexible and scalable.





Different System Options
PC Modules

Monitor Modules



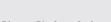


**Different Frame Options** 

Standard Frame

Thin Frame

Modular design provide users with plug and play ease for industrial HMI automation applications design. Just three steps, a system ready for multiapplications



#### Diverse Platform Options

Intel<sup>®</sup> Bay Trail Intel<sup>®</sup> Broadwell-U Intel<sup>®</sup> Kaby Lake-U



PC300 Series

Broadwell-U

PC400 Series

Kabylake-U

MX100 Series

**IP66** Panel PC

WIO-W221C Kabylake-U

### 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

### Display Module

VIO-100 Series Standard Frame

VIO-200 Series

Thin Frame

### Series

Standard Frame

#### VIO-200/MX100 **Series**

Thin Frame



# VIO-100/PC100 SERIES VIO-200/PC100 SERIES



(intel)   IoT Solutions Alliance	VIO-100x/PC100 Industrial Panel PC based on Intel® Bay Trail processors  STANDARD FRAME	VIO-100x/PC110 With two universal I/O bracket	VIO-200x/PC100 Thin Frame Industrial Panel PC based on Intel® Bay Trail processors  THIN FRAME	VIO-200x/PC110 With two universal I/O bracket	
CPU Onboard		Intel® Cele	eron <sup>®</sup> J1900		
Memory	1x 204-pin DDR3L-1066/1333 SO-DIMM, up to 8GB				
Graphic Output	1x VGA, 1x DisplayPort				
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)				
USB, Serial, & Digital I/0	1x USB 3.0, 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 PCle), and 1x CFast (shared by 1x mSATA & 1x Mini PCle)				
Internal Expansion Slot	1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB + SATA) 1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB)				
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block				
Audio	Line-out / Mic-in Phone Jack				
Operating Temperature	-10 °C to 60 °C -10 °C to 70 °C (15.6" Panel PC only) -10 °C to 50 °C (19" Panel PC only)				
LCD Size	<u>VIO-100/PC100 S</u> 4 : 3 - 10.4" / 12. 16:9 - 15.6" / 21.	.1" / 15" / 17" / 19"	<u>VIO-200/PC100 Series</u> 4 : 3 - 12.1" / 15" / 17" 16:9 - 15.6" / 21.5"		
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch		Resistive 5-wire Touch / Projected Capacitive Touch		
Universal Expansion Slot	0	2	0	2	

### **VIO-100/PC300** SERIES VIO-200/PC300 SERIES



	VIO-100/PC300	VIO-100/PC311x	VIO-200/PC300	VIO-200/PC311x
IoT Solutions Alliance	Industrial Panel PC based on Intel® Broadwell-U processors	with one PCI or PCIe x4 expansion slot	Thin Frame Industrial Panel PC based on Intel® Broadwell-U processors	with one PCI or PCIe x4 expansion slot
	STANDARD FRAME		THIN FRAME	
CPU Onboard	Inte	el® Core™ i5-5350U, i	3-5010U, Celeron <sup>®</sup> 376	45U
Memory	1x 204-pin DDR3L-1333/1600 SO-DIMM, up to 8GB			В
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/0	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	e mini-PCle	
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)			
	VIO-100/PC300 S	<u>eries</u>	VIO-200/PC300 Series	<u> </u>
LCD Size	4 : 3 - 10.4" / 12.7 16:9 - 15.6" / 21.5		4 : 3 - 12.1" / 15" / 17" 16:9 - 15.6" / 21.5"	'/19"
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch		Resistive 5-v Projected Cap	
Universal Expansion Slot	0 (VIO-100/PC300)	1	0 (VIO-200/PC300)	1
1x PCle x4		VIO-100/PC311E		VIO-200/PC311E
1x PCI		VIO-100/PC311P		VIO-200/PC311P



# VIO-100/PC400 SERIES VIO-200/PC400 SERIES



	VIO-100x/PC400	VIO-100x/PC410	VIO-200x/PC400	VIO-200x/PC410
	Industrial Panel PC based on Intel <sup>®</sup> Kabylake-U processors	with 2x universal I/O bracket	Thin Frame Industrial Panel PC based on Intel <sup>®</sup> Kabylake-U processors	with 2x universal I/O bracket
IoT Solutions Alliance				
	STANDARD FRAME		THIN FRAME	
CPU Onboard	Intel® 7 <sup>th</sup> Gen	. (Kabylake-U) Proces	sor Core™ i5-7300U, C	ore™ i3-7100U
Memory	1x 260-Pin DDR4 1866/2133MHz SODIMM. 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 3.0, 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 PCle, 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			k
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-10 °C to 60 °C -10 °C to 70 °C (15.6" Panel PC only) -10 °C to 50 °C (19" Panel PC only)			
	VIO-100/PC100	<u>Series</u>	VIO-200/PC100 Series	2
LCD Size	4 : 3 - 10.4" / 12 16:9 - 15.6" / 21	.1" / 15" / 17" / 19" 5"	4 : 3 - 12.1" / 15" / 17" 16:9 - 15.6" / 21.5"	/ 19"
Touch Type	·			wire Touch / pacitive Touch
Universal Expansion Slot	0	2	0	2

### **VIO-100/MX100** SERIES VIO-200/MX100 SERIES



	VIO-100R/MX100	VIO-100C/MX100	VIO-200R/MX100	VIO-200C/MX100
(intel)   IoT Solutions Alliance	STANDARD FRAME	0.00	THIN FRAME	
Touch Type	Resistive 5-wire Touch	Projected Capacitive Touch	Resistive 5-wire Touch	Projected Capacitive Touch
VGA Input	1x VG	A Input	1x VG	A Input
DVI-D Input	1x DVI	-D Input	1x DVI	-D Input
DisplayPort Input	1x Displa	yPort Input	1x Displa	yPort Input
USB 2.0 Input	1x USB	2.0 Input	1x USB	2.0 Input
COM Port Input	1x COM Port Input	-	1x COM Port Input	-
Audio Input	1x Auc	lio Input	1x Aud	lio Input
Power		9-48 VDC, AT/ATX Selec	ct, 3-pin Terminal Block	
Operating Temperature	-10 °C to 60 °C -10 °C to 50 °C (19" Touch Monitor only)		/]	
LCD Size	VIO-100/MX100 Se	eries	VIO-200/MX100 Series	<u> </u>
	4 : 3 - 10.4" / 12.1 16:9 - 15.6" / 21.5'		4 : 3 - 12.1" / 15" / 17" 16:9 - 15.6" / 21.5"	/ 19"

### PC100 SERIES

PC MODULE

### PC300 SERIES

PC MODULE

	PC100	PC110	PC300	PC311x
(intel)   IoT Solutions   Alliance	PC Module based on Intel <sup>®</sup> Bay Trail processors	PC Module based on Intel® Bay Trail processors and with two universal I/O bracket	PC Module based on Intel® Broadwell-U processors	PC Module based on Intel® Broadwell-U processors with one PCI or PCIe x4 expansion slot
CPU Onboard	Intel <sup>®</sup> Ce	leron <sup>®</sup> J1900	Intel® Core™ i5-5350U, i3-5010U, Celeron® 3765U	
Memory		-1066/1333 SO-DIMM, to 8GB	1x 204-pin DDR3L-1333/1600 SO-DIMM, up to 8GB	
Graphic Output	1x VGA, 1x DisplayPort		1x VGA, 1x DisplayPort, 1x Dual Channel 24 bit LVDS	
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)		2x GbE RJ45 (Support Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	1x USB 3.0, 3x USB 2.0, 6x RS-232/422/485 (w/ 2x internal), 16x isolated 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" S ATA HDD Bay, 1x mSATA (shared by 1x Mini PCIe), and 1x CFast (shared by 1x mSATA & 1x Mini PCIe)		RAID 0, 1, 5	HDD Bay with support and d by 2x Mini PCle)
Internal Expansion Slot	1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB + SATA) 1x Full-size Mini PCIe Socket with USIM Socket (PCIe + USB)		2x Full-size	e mini-PCIe
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block		9-48 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack		Speaker-out / Mic-in Phone Jack	
Operating Temperature	-40 °C to 70 °C		-40 °C to 60 °C	
Universal Expansion Slot	0	2	0 (VIO-100/PC300)	1
1x PCle x4	-	-	-	VIO-100/PC311E
1x PCI	-	-	-	VIO-100/PC311P



MX100 SERIES

MONITOR MODULE

PC MODULE

#### PC400

#### PC410

PC Module based on PC Module based on Intel® Kabylake-U processors

Intel® Kabylake-U processors with two universal I/O bracket







CPU Onboard	Intel <sup>®</sup> 7 <sup>th</sup> Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U	
Memory	1x 260-Pin DDR4 1866/2133MHz SODIMM 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	up to 6x RS-	B 3.0, 232/422/485, d digital I/O
Storage	1x mSATA (shared l	with RAID 0, 1 support, by 1x Mini PCIe, and d by 1x mSATA)
Internal Expansion Slot	2x Full-size Mini PCIe	
Power	·	T/ATX Select, ninal Block
Audio	Line-out / Mic-in Phone Jack	
Operating -40°C to 70°C		to 70°C
Universal Expansion Slot	0	2



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 (Resistive Touch Only)
Audio Input	1x Audio Input
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block
Operating Temperature	-10 °C to 60 °C

## VIO-100/200 SERIES



	STANDARD FRAME			
	VIO-110 VIO-110-11	VIO-112	VIO-115	VIO-W115
Model		THIN FRAME		
		VIO-212 VIO-212-11	VIO-215	VIO-W215
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 7	68 (XGA)	1920 x 1080 (Full HD)
Brightness (cd/m2)	400	500	350	400
Contrast Ratio		70	0:1	
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)
Viewing Angle	160 / 130	160 / 160	170 / 160	160 / 140
Internal Speaker	AMP 5V AMP 2W + 2W (VIO-110		AMP 10	0W + 10W
Touch Type	Re	esistive 5-wire Touch / F	Projected Capacitive Tou	ıch
Operating Temperature		-10°C to 60°C		-10°C to 70°C
	STANDARD FRAME			
	VIO-117	VIO-119	VIC	)-W121
Model	THIN FRAME			
	VIO-217	VIO-219	VIC	)-W221
LCD Size	17" (4:3)	19" (	4:3)	21.5" (16:9)
Max. Resolution	1280 x 1024 (SXGA)		19	920 x 1080 (Full HD)
Brightness (cd/m2)	350			300
Contrast Ratio	800:1	100	0:1	5000:1
LCD Color	16.7M			
Pixel Pitch (mm)	0.264 (H) x 0.264 (V	/) 0.294 (H) >	( 0.294 (V) 0	.248 (H) x 0.248 (V)
Viewing Angle		170 / 160		178 / 178
Internal Speaker		AMP 10	W + 10W	
Touch Type	R	esistive 5-wire Touch / F	Projected Capacitive Tou	ıch
Operating Temperature	-10°C to 60°C	-10°C t	o 50°C	-10°C to 60°C



#### WIO-W221C

21.5" 16:9 Full HD Capacitive Touch All-In-One IP66 Panel PC





	THIN FRAME
CPU Onboard	Intel <sup>®</sup> 7 <sup>th</sup> Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U
Memory	8GB DDR4 Wide-temp SODIMM
Graphic Output	1x Waterproof VGA
LAN	2x LAN by M12 X-Code 8-pin
USB & Serial	2x USB 3.0 (Waterproof connector), 1x RS-232/422/485 by M12 D-Code 8-pin
Storage	1x 256GB Wide-temp mSATA
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
Touch Type	Projected Capacitive Touch, 5 Points, 7H Surface Hardness



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