







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 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:

- Al Edge Inference
- Vehicle Fleet Telematics
- Internet of Things (IoT)
- Kiosk & Retail
- Factory Automation
- Security & Surveillance
- Machine Vision
- Medical Inference Analysis

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 BRAND POSITION

Apart from our applicationready 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 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 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.

products, competitive price and excellent before-after sales services.

AGILITY Premio keeps its promises by providing customers high quality

US BASED COMPANY WITH WORLDWIDE OPERATIONS

CALIFORNIA







A STORY OF GROWTH & EVOLUTION

1989-2000

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

2000

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

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

2000-2011

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

5 contribution

FANLESS EMBEDDED SYSTEM 08

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

FANLESS MINI PC

BCO SERIES

IN-VEHICLE

ACO SERIES **WATERPROOF WCO**

IP65 / IP67

RUGGED EDGE

ALEDGE 26

RUGGED

RC0 SERIES

MACHINE VISION

VCO 21

AI EDGE **INFERENCE**

EDGE SERIES



INDUSTRIAL DISPLAY SYSTEMS 30

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



PANEL PC

VIO PC 32

TOUCH

MODULE

VIO 35

SYSTEM MODULE

PC SERIES 36 WIO SERIES 40

WATERPROOF

IP66

VIO 39

DISPLAY

MODULE

IP66/IP69 WASHDOWN

SI0 SIO 41

MOTHERBOARD SYSTEMS

44

Premio industrial boards offers a wide range form factor from Mini-ITX, Micro ATX, 3.5" SBC, COM Express-Mini Size Module, COM Express-Compact Size Module, COM Express-Basic Size Module, and COM Express-Carrier Boards.

CERTIFICATION-READY INDUSTRIAL COMPUTERS

Certification-Ready industrial computers are embedded computing solutions that act as subassembly building blocks or final OEM system configuration in key enterprise and IoT applications.

7 contents



WCO-3400

Kabylake-U

Computer

BCO-1000

Bay Trail

BC0-2000

Whiskey Lake

Kabylake-S

VCO-6100

CFL-RS

RCO-3600

Skylake & Kabylake-S

Kabylake-U

RCO-6000

Skylake & Kabylake-S

RCO-6100

CFL-RS



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

Premio fanless embedded 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)



9 contents

BCO-1000 SERIES

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

intel. Bay Trail	6.5 COMM?	6.6 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	mó öllenni.	n 6 BULINAMIA		
	Basic Fanless System ideal for space-constrained applications	With one Universal Expansion Slot	With two Universal Expansion Slots	With 8-bit Digital I/O, DVI-I/DP dual display output, and 6x COM ports		
Model	BCO-1000	BCO-1010	BCO-1020	BCO-1030		
CPU Onboard		Intel® Cele	ron® J1900			
Memory		1x 204-pin DDR3L-1066/13	33MHz SO-DIMM, up to 8GE	3		
Graphic Output	1x DVI-	I (optional Display Port: BC	0-1010A, BCO-1020C & BC	0-1030)		
LAN		2x GbE RJ45 (Support \	Wake-on-LAN and PXE)			
Storage	1x mSATA (shared by 1x Mini PCle)	1 1v m S / I / I charad by 1v Mini DC lat X. 1v Intarnal 2 b S / I / HIII Ray				
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)		BC0-1010A				
2x COM (rear)		BC0-1010B				
4x USB (rear)		BC0-1010U				
DP, 8-bit Isolated DIO, & 2x COM (rear)			BCO-1020C			
4x COM (rear)			BC0-1020D			
DP, 8-bit Isolated DIO, & 4x COM (rear)				BCO-1030		



BCO-2000 SERIES

- Support 8th Gen. Intel[®] CoreTM i5 & Intel[®] Celeron[®] Processor
- 1x 260-pin DDR4 2400 SO-DIMM. Max. up to 32GB
- 2x Intel® GbE (Support Wake-on-LAN and PXE)
- Dual Independent Display, 1x DP, 1x HDMI (optional)
- 2x Mini PCIe Gen3 with 1x SIM Slot
- 4x USB 3.2 Gen 2 (10Gbps), 4x RS-232/422/485 (w/ 2x internal)
- 1x Internal 2.5" SATA HDD Bay and 1x mSATA
- Watchdog timer, software programmable supports 1-225 sec. system reset
- TPM 2.0 Supported





	Basic Fanless System ideal for space-constrained applications					
Model		BC0-2000				
CPU Onboard		Support 8 th Gen. Intel [®] WL-UE Processor (15W TDP) Intel [®] Core™ i5-8365UE Processor 6M Cache, up to 4.10 GHz Intel [®] Celeron [®] Processor 4305UE 2M Cache, 2.00 GHz				
Memory		1x 260	0-Pin DDR4 2400M	Hz SO-DIMM, up t	o 32GB	
Graphic Output			1x DisplayPort, 1	x HDMI (Optional)		
LAN		2x RJ45 GbE (Support Wake-on-LAN and PXE)				
Storage		1x mSATA (shared by 1x Mini PCIe) & 1x Internal 2.5" SATA HDD Bay				
Internal Expansion Slot		2x Full-size Mini-PCIe (1x shared with mSATA)				
Power		AT/ATX 12V Select, 3-pin Terminal Block				
Audio		Line-out / Mic-in Phone Jack				
Operating Temperature		-20°C to 60°C				
Dimensions (WxDxH)		140 x 192 x 61 mm				
Weight	1.4 kg					
Universal Expansion Slot	2					
Expansion (Option)	2x LAN	2x PoE { Support 1x Universal Slot Only }	2x COM	4x COM	2x USB 2.0 (Support 1x Universal Slot Only)	2x USB 3.0 (Support 1x Universal Slot Only)

10 BCO-1000 Series 11 contents (contents (s)



RCO-1000 SERIES

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







MORE INFO





Bay Trail	- 7 - 7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		3.5	1 1	
	Ultra compact Fanless System ideal for space-constrained applications	With one Universal Expansion Slot	With three Universal Expansion Slots	With 8-bit Digital I/O, DVI-I/DP dual display output, and 6x COM ports	
Model	RCO-1000	RCO-1010	RCO-1020	RCO-1030	
CPU Onboard		Intel [®] Atom [®] E3845	i, or Celeron [®] J1900		
Memory		1x 204-pin DDR3L-1066/133	33MHz SO-DIMM, up to 8GE	3	
Graphic Output	1x DVI-	I (optional DisplayPort: RC0	0-1010A, RCO-1020C & RC0	D-1030)	
LAN		2x GbE RJ45 (Support V	Wake-on-LAN and PXE)		
Storage	1x mSATA (shared by 1x Mini PCle)	1x mSATA (shared b	y 1x Mini PCIe) & 1x Interna	al 2.5" SATA HDD Bay	
nternal Expansion Slot		2x Full-size mini-PCIe			
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block				
Audio	Line-out / Mic-in Phone Jack				
Operating Temperature		-40 °C t	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)	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)		RC0-1010G			
DP, 8-bit Isolated DIO, & 2x COM (rear)			RCO-1020C		
4x COM (rear)			RCO-1020D		
DP, 8-bit Isolated DIO, & 4x COM (rear)				RC0-1030	



RCO-3000 SERIES

- Intel[®] 5th Gen. Core[™] processor i5-5350U, up to 2.9GHz / i3-5010U,
 2.1GHz or Celeron[®] 3765U, 1.9GHz
- Triple Independent Display
- Support up to 6x LAN or 4x PoE by Unique Modular Design
- Multiple Expansion Capability including PCIe, PCI, and Mini PCIe
- Wide Operating Temperature (-40°C to 70°C)
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- Fanless & Cable-less in Design





	Advanced Fanless System based on Intel [®] Broadwell-U processors
Model	RCO-3000
CPU Onboard	Intel [®] 5 th 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)
USB, Serial, & Digital I/O	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
Internal Expansion Slot	2x Full-size Mini-PCle
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
Weight	2.16 ~ 2.54 kg
Universal Expansion Slot (front)	1
Proprietary Module Expansion	Up to 1x Module • DTB-4LAN • DTB-4LAN-PWR • DTB-4LAN-M12 • DTB-4LAN-PWR-M12

RCO-3000 Series 13 contents

RCO-3400 SERIES

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



Proprietary Module Expansion

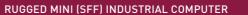




• DTB-4LAN-M12 • DTB-4LAN-PWR-M12



	Advanced Fanless System based on Intel® Kabylake-U processors	With one PCI or PCIe x4 expansion slot	With two PCI or PCIe x4 expansion slot
Model	RCO-3400	RCO-3411x	RCO-3422xx
CPU Onboard	Intel [®] 7 th Gen. (Kab	ylake-U) Processor Core™ i5-7300	0U, Core™ i3-7100U
Memory	1x 260-pir	n DDR4 1866/2133MHz SO-DIMM,	up to 16GB
Graphic Output		1x VGA, 2x DisplayPort	
LAN	2x Gb	E RJ45 (Support Wake-on-LAN an	d PXE)
USB, Serial, & Digital I/O	4x USB 3.0, 2x USB 2.0,	5x RS-232/422/485 (w/ 3x internal	l), 16x isolated digital I/O
Storage	2x 2.5" SATA HDD Bay (1x internal, 1x removable) with RAID 0, 1, 5, 10 support, 1x mSATA (shared by 1x Mini PCIe), and 1x CFast (shared by 1x mSATA)		
Internal Expansion Slot	2x Full-size mini-PCIe		
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio		Line-out / Mic-in Phone Jack	
Operating Temperature		-40 °C to 70 °C	
Dimensions (WxDxH)	185 x 197 x 57.4 mm	185 x 197 x 85 mm	185 x 197 x 105 mm
Weight	2.17 ~ 2.66 kg	2.73 ~ 3.1 kg	2.95 ~ 3.32 kg
1x PCIe x4		RCO-3411E	
1x PCI		RCO-3411P	
2x PCIe x4			RC0-3422EE
2x PCI			RC0-3422PP



RCO-3600 SERIES

- Support 6th/7th Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Intel[®] Q170 chipset
- 2x DDR4 1866/2133MHz SODIMM.
 Max. up to 32GB
- Intel® HD Graphics 530 / 630
- Triple Independent Display

- 2x internal 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), 1x CFast
- 2x full-size Mini PCIe (shared by 2x mSATA) for communication or expansion modules, 2x external SIM socket
- 4x RS-232/422/485 (w/ 2x internal), 6x USB 3.0, 2x USB 2.0
- 9 to 50 VDC Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported





	Advanced Fanless System based on Intel® Skylake & Kaby Lake-S processors
Model	RC0-3600
CPU Support	Support 6 th & 7 th Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151) - 7 th Gen Intel® Core™ i7-7700T / i5-7500T / i3-7101TE - 6 th 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 (internal), 4x RS-232/422/485 (2x internal), 16x isolated digital I/O
Storage	2x internal 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support, 2x mSATA (shared by 2x Mini PCIe), and 1x CFast
Internal Expansion Slot	2x Full-size mini-PCIe
PCle x 16 (8-Lane)	0
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	185 x 197 x 57.4 mm
Weight	2.28 kg

RCO-3600 Series 15 contents

RCO-3700 SERIES

- ISupport 8th/9th Gen Intel[®] CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Intel[®] Q370 Chipset
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe (shared by 1x mSATA), and 2x SIM socket
- 2x 2.5" SATA HDD Bay with RAID 0, 1, 5, 10 support,

1x mSATA (Shared by 1x Mini PCle)

- 1x M.2 (E Key, PCle x1, USB 2.0, 2230)
- 4x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x internal), 5x RS-232/422/485 (2x internal)
- 8x DI + 8x DO with isolation
- 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
- TPM 2.0 Supported







	Superior Fanless Embedded System with LGA 1151 for Intel 8 th /9 th Gen CPU & Q370 PCH	Superior Fanless Embedded System with LGA 1151 for Intel 8 th /9 th Gen CPU & Q370 PCH, 2x PCIe x 16	
Model	RCO-3700	RCO-3722	
CPU Support	(Core™ i7-9700E/9700TE/8700T,	Processor (LGA 1151, 65W/35W TDP) , Core™ i5-9500E/9500TE/8500T, ntium® G5400T, or Celeron® G4900T)	
Memory	Max. up	0/2666MHz SODIMM. to 64GB and Non-ECC)	
Graphic Output	1x DVI-I, 2x	DisplayPort	
LAN		E RJ45 on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x internal), 5x RS-232/422/485 (2x internal), 16x isolated digital I/O		
Storage	2x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (1x internal; 1x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)		
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E K ey		
Power	9-48 VDC, AT/ATX Selec	ct, 3-pin Terminal Block	
Audio	Speak	er-out	
Operating Temperature	-25°C to 60°C (35W CPU)	; -25°C to 50°C (65W CPU)	
Dimensions	192 (W) x 197 (D) x 60.3 (H) mm	192 (W) x 197 (D) x 107.8 (H) mm	
Weight	2.28 kg	3.10 kg	
2x PCIe x 16 (8-Lane)		RC0-3722EE	
PCIe x 16		RCO-3721E	
Proprietary Module Expansion	Up to 1x Module • DTB-D10G • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-PWR-M12		

PERFORMANCE FANLESS INDUSTRIAL COMPUTER

RCO-6000 SERIES

- Support $6^{th}/7^{th}$ Gen. Intel $^{\circ}$ Core TM i7/i5/i3 or Pentium $^{\circ}$ / Celeron $^{\circ}$ Desktop Processor
- Triple Independent Display
- Support up to 10x LAN or 8x PoE by Unique Modular Design
- Multiple Expansion Capability including PCIe, PCI, and Mini PCIe
- Wide Operating Temperature (-25°C to 70°C)
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- Fanless & Cable-less in Design
- TPM 2.0 Supported









	Superior Fanless System with LGA-1151 socket for Intel® Kabylake & Skylake-S processors	With one PCI or PCIe x16 expansion slot	With two PCI or PCIe x8/x16 expansion slot	
Model	RCO-6000	RCO-6011x	RCO-6022xx	
CPU Support	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 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 ar	nd PXE)	
USB, Serial, & Digital I/O	6x USB 3.0, 2x USB 2.0, 4	x RS-232/422/485 (w/ 2x interna	al), 16x isolated digital I/O	
Storage	4x 2.5" SATA HDD Bays with RAID 0, 1, 5, 10 support (2x internal, 2x removable), 2x mSATA (shared by 2x Mini PCIe)			
Internal Expansion Slot	4x Full-size mini-PCIe			
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block			
Audio	Speaker-out / Mic-in Phone Jack			
Operating Temperature		-25 °C to 70 °C		
Dimensions (WxDxH)	240 x 261 x 79 mm	240 x 261 x 107 mm	240 x 261 x 127 mm	
Weight	4.37 ~ 5.21 kg	4.67 ~ 6.40 kg	5.54 ~ 6.64 kg	
Universal Expansion Slot (front)	2 (RCO-6000)	2	2	
Universal Expansion Slot (rear)	0	1	2	
1x PCle x16	RCO-6011E			
1x PCI		RC0-6011P		
2x PCle x8			RCO-6022EE	
2x PCI			RCO-6022PP	
1x PCle x16 & 1x PCl			RCO-6022PE	
Proprietary Module Expansion	Up to 2x Module	DTB-4LAN		

RCO-6000 Series 17 contents 16 RCO-3700 Series

COMPACT IN-VEHICLE FANLESS COMPUTER

RCO-6100 SERIES

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

- 1x NVMe M.2 SSD, 1x M.2 E Key for WiFi
- Wide Operating Temperature (-25°C to 70°C)
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- Fanless & Cable-less in Design
- TPM 2.0 Supported







	Superior Fanless System with LGA-1151 socket for Intel® CFL-R S Processor		
Model	RCO-6100	RCO-6122PE	
CPU Support	8 th / 9 th 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 Di	isplayPort	
LAN	2x GbE RJ45 (Support Wa	ke-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), 2x USB2.0 header (internal), 6x RS-232/422/485 (2x internal), 16x isolated digital I/O		
Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe), 1x NVMe M.2 M Key		
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA), 1x M.2 E Key		
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 70°C (35W CPU) ; -	25°C to 60°C (65W CPU)	
Certification	E-Mark, EN 50155, EN 50	0121-1, EN 50121-3-2	
Dimensions (WxDxH)	240 (W) x 261 (D) x 79 (H) mm	240 (W) x 261 (D) x 127.3 (H) mm	
Weight	5.97 kg	7.73 kg	
Universal Expansion Slot	1 (by mini PCle interface)	3 (by mini PCIe interface)	
PCI & PCI Express		1x PCI, 1x PCIe x16 2x PCIe x8 (Optional) 2x PCI (Optional)	
Proprietary Module Expansion	Up to 1x Module • DTB-D10G • DTB-M2BK • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-PWR-M12		

ACO-3000 SERIES

- Intel® 5^{th} Gen. CoreTM processor i5-5350U, up to 2.9GHz / i3-5010U, 2.1GHz or Celeron® 3765U, 1.9GHz
- Triple Independent Display
- Support up to 6x LAN or 4x PoE by Unique Modular Design
- Multiple Expansion Capability including PCIe, PCI, and Mini PCIe
- Wide Operating Temperature (-40°C to 70°C)
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- Power Ignition Management





	Vehicle Applied Fanless System based on Intel® Broadwell-U processors	
Model	ACO-3000	
CPU Onboard	Intel® 5 th 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)	
USB, Serial, & Digital I/O	4x RS-232/422/485, 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-size mini-PCIe (shared with mSATA)	
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal 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	
Weight	2.16 - 2.54 kg	
Universal Expansion Slot (front)	1	
Proprietary Module Expansion	Up to 1x Module • DTB-4LAN • DTB-4LAN-PWR • DTB-4LAN-M12 • DTB-4LAN-PWR-M12	

MORE INFO

ACO-3000 Series 19 contents (contents)

ACO-6000 SERIES

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

CINESAUS DE

- TPM 2.0 Supported
- Power Ignition Management



Model

Graphic Output

USB, Serial, & Digital I/O

Proprietary Module Expansion







Surveillance Applied Fanless System with LGA-1151 socket for Intel [©] Kabylake & Skylake-S processors

ACO-6000

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

ACO-6010

1x DVI-I, 2x DisplayPort

16x isolated digital I/O

With one PCI or PCIe x16 expansion slot

ACO-6011x

• DTB-4ETH-PWR

• DTB-4ETH-M12

• DTB-4ETH-PWR-M12

	Intel® 6 th /7 th	Gen. (Kabylake & Skylake-S) Desk	top Processor
CPU Support	(Core™ i7-7700T/670	00TE, Core™ i5-7500T/6500TE, Cor	e™ i3-7101TE/6100TE,
	Pe	ntium® G4400TE, or Celeron® G390)OTE)

2x 260-pin DDR4-1866/2133MHz SO-DIMM, up to 32GB Memory

LAN 2x GbE RJ45 (Support Wake-on-LAN and PXE) 6x USB 3.0, 2x USB 2.0 (Internal), 5x RS-232/422/485 (w/ 3x internal),

4x 2.5" SATA HDD Bays with RAID 0, 1, 5, 10 support (2x internal, 2x removable), Storage 2x mSATA (shared by 2x Mini PCle)

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

Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block		
Audio		Speaker-out / Mic-in Phone Jack	K
Operating Temperature		-25 °C to 70 °C	
Certification	E-Mark, E	EMC Conformity with EN50155 & E	N50121-3-2
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			ACO-6011E
1x PCI			ACO-6011P
Proprietary Module Evpansion	Up to 2x Module • DTB-D10G • DTB-4ETH	Up to 4x Module DTB-4ETH DTB-4ETH-PWR	Up to 2x Module DTB-D10G DTB-4ETH

• DTB-4ETH-M12

• DTB-4ETH-PWR-M12

• DTB-4ETH-PWR

• DTB-4ETH-M12

• DTB-4ETH-PWR-M12



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















Skylake-S Kaby Lake-S						
	Macine Vision System based on Intel [®] Kaby Lake & Skylake-S	With one PCI or PCIe expansion slot	With two PCI or PCIe expansion slot	With three PCI or PCIe expansion slot	With four PCI or PCIe expansion slot	With five PCI or PCIe expansion slot
Model	VCO-6000	VCO-6011x	VC0-6022x	VCO-6033x	VCO-6044x	VCO-6055C
CPU Support	(Co	re™ i7-7700T/6700	en. (Kaby Lake & S)TE, Core™ i5-7500 tium® G4400TE, or	T/6500TE, Core™	i3-7101TE/6100TE,	
Memory		2x DDF	R4-1866/2133MHz	SO-DIMM, up to 32	2GB	
Graphic Output			1x DVI-I, 2x D	isplayPort		
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE)					
USB, Serial, & Digital I/O	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 PCle), 1x CFast					
Internal Expansion Slot	3x Full-size Mini-PCIe (Share by 2x mSATA)					
Power	9-50 VDC, AT/ATX Select, 3-pin Terminal Block					
Audio	Speaker-out / Mic-in Phone Jack					
Operating Temperature	-25 °C to 70 °C					
Dimensions (WxDxH)	77 x 256 x 240 mm	117 x 256 x 240 mm	137 x 256 x 240 mm	157 x 256 x 240 mm	177 x 256 x 240 mm	197 x 256 x 240 mn
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 PCle x16 & 1x PCl			VCO-6022C			
2x PCle x1 & 1x PCle x16				VCO-6033E		
1x PCle x16 & 2x PCl				VCO-6033C		
3x PCI				VC0-6033P		
2x PCIe x4 & 1x PCIe x8 & 1x PCI					VCO-6044C	
4x PCI					VC0-6044P	
2x PCle x4 & 1x PCle x8 &						VCO-6055C

VCO-6000 Series 21 contents 20 ACO-6000 Series

2x PCI







- Support 8th / 9th Gen. Intel[®] CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Intel® Q370 chipset

intel.
Coffee Lake R

• 2x DDR4 2400/2666Hz SODIMM. Max. up to 64GB (Un-buffered and Non-ECC)

HIGH-PERFORMANCE MACHINE VISION COMPUTER

- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x External 2.5" SATA HDD bay with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCle), 2x M.2
- Wide Operating Temperature (-25°C to 70°C)
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode
- Unique Expansion Module Design to Support 1 to 5 Expansion Cards
- TPM 2.0 Supported





	With two PCI or PCIe expansion slot	With three PCI or PCIe expansion slot	
Model	VCO-6122x	VCO-6133x	
CPU Support	(Core™ i7-9700E/9700TE/8700T,	Processor (LGA 1151, 65W/35W TDP) , Core™ i5-9500E/9500TE/8500T, ntium® G5400T, or Celeron® G4900T)	
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIMI	M, up to 64GB (Un-buffered and Non-ECC)	
Graphic Output	1x DVI-I, 2x	DisplayPort	
LAN	2x GbE RJ45 (Support V	Nake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2, 4x USB 3.2 Gen 1 (internal), 6x RS-232/422/485 (4x internal), 16x isolated digital I/O		
Storage		ipport (2x removable & hot-swappable), ni PCle), 1x NVMe M.2 M Key	
Internal Expansion Slot	2x Full-size mini-PCIe (1 shan	ed by 1x mSATA], 1x M.2 E Key	
Power	9-48 VDC, AT/ATX Selec	ct, 3-pin Terminal Block	
Audio	Line-out / Mic-	-in Phone Jack	
Operating Temperature	-25°C to 70°C (35W CPU); -25°C to 60°C (65W CPU)		
Dimensions (WxDxH)	137 x 340 x 240 mm	157 x 340 x 240 mm	
Weight	4.21 Kg	4.26 Kg	
2x PCle x8	VCO-6122E		
2x PCI	VCO-6122P		
1x PCle x16 & 1x PCl	VCO-6122C		
2x PCle x1 & 1x PCle x16		VCO-6133E	
1x PCle x16 & 2x PCl		VCO-6133C	
3x PCI		VCO-6133P	

WCO SERIES

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





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•	
	IP65/IP67 Waterproof System with Intel [®] Kaby Lake-U processor
Model	WC0-3400
CPU Support	Intel [®] 7 th Gen. (Kaby Lake-U) Processor Core [™] i5-7300U, Core [™] i3-7100U
Memory	1x DDR4-1866/2133MHz SO-DIMM, up to 16GB
Graphic Output	1x VGA (Waterproof connector)
LAN	2x GbE RJ45 (Support Wake-on-LAN and PXE) by M12 X-Code 8-pin
USB	1x USB 3.0 (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 with RAID 0, 1 support, 1x mSATA (shared by 1x Mini PCI Express)
Internal Expansion Slot	2x Full-size mini-PCIe
Power	9-50 VDC, M12 A-code 4-pin
Operating Temperature	-40 °C to 70 °C
Dimensions (WxDxH)	231 x 292 x 56.5 mm
Weight	4.18KG
IP65	WCO-3400
IP67	WCO-3400-IP67

WCO Series 23 contents 22 VCO-6100 Series



Premio's Industrial GPU Computing System is the ideal solution for Machine Vision, Edge Computing, Traffic Vision, Telemedicine, Intelligent Control, Deep Learning, Artificial Intelligence, Voice Recognition and any application workloads requiring intensive processing parallelism and performance driven analytics for Industry 4.0/IIoT applications.



Expansion Slot (front) PCIe x4 (1-lane)







RCO-6020-1050TI Industrial GPU
Computer With 6 th /7 th Gen Intel [®]
Core™ Processor And Q170 PCH,
GTX 1050 TI Integrated

VCO-6020-1050TI Industrial GPU
Computer With 6th/7th Gen Intel[®]
Core[™] Processor And Q170 PCH,
GTX 1050 TI Integrated

VCO-6033E-2PWR Industrial GPU
Computer With 6th/7th Gen Intel[®] Core™
Processor And Q170 PCH, Supports Up
To RTX 2060 Super GPU

Model	RCO-6020-1050TI	VCO-6020-1050TI
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|--|

	Intel® 6 th /7 th Gen. (Kabylake & Skylake-S) Desktop Processor
CPU Support	[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 Disp	layPort, 1x HDMI	1x DVI-I, 2x DisplayPort
LAN	2:	GbE RJ45 (Support Wake-on-LAN and	d PXE)
USB	6x USB 3.0, 2x USB 2.0	4x	USB 3.0
Serial & Digital	4x RS-232/422/485 (2x internal), 16x isolated digital I/O		l digital I/O

030	0X 03D 3.0, 2X 03D 2.0 4X 0		03B 3.0
Serial & Digital I/O	4x RS-232/422/485 (2x internal), 16x isolated		l 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)	RAID 0, 1,	5" SATA HDD Bay with 5, 10 support, y 2x Mini PCle), 1x CFast
Internal Expansion Slot	4x Full-size mini-PCIe (shared with 2x mSATA)	3x Full-size mini-Po	Cle (shared with mSATA)
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block	9-50 VDC, AT/ATX Select, 3-pin Terminal Block	System: 9~50 VDC, GPU: 24 VDC, AT/ATX Select
Audio	Speaker-out / Mic-in Phone Jack		
Operating Temperature	-25 °C to 60 °C		-25 °C to 70 °C
Dimensions (WxDxH)	240 x 261 x 127 mm	137 x 256 x 240 mm	137 x 256 x 240 mm
Weight	7.76 kg	7.71 kg	8.34 kg
Universal			





MORE INFO



RCO-6120-2060S AI Edge Inference Computer With	VCO-6133E-2PWR AI Edge Inference Computer With
9 th Gen Intel Core Processor And	8 th /9 th Gen Intel [®] Core [™] Processor,
Q370 PCH, RTX 2060 Super Integrated	3x PCIe Expansion, Dual Power Input

	Q370 PCH, RTX 2060 Super Integrated	3x PCIe Expansion, Dual Power Input	
Model	RCO-6120-2060S	VC0-6133E-2PWR	
CPU Support	8 th / 9 th 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 DDR4-2400/2666MHz SO-DIMM, u	p to 64GB (Un-buffered and Non-ECC)	
Graphic Output	1x DVI-I, 1x DVI-D, 1x HDMI, 3x DisplayPort	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support	Wake-on-LAN and PXE)	
USB	4x USB 3.2 Gen 2 (10 Gbps) ; 5x USB 3.2 G	en 1 (5 Gbps) ; 2x USB 2.0 header (internal)	
Serial & Digital I/O	4x RS-232/422/485 (2x internal), 16x isolated digital I/O		
Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swapplable), 1x mSATA (shared by 1x Mini PCIe), 2x M.2		
Internal Expansion Slot	2x Full-size mini-PCIe (1 shared by 1x mSATA)		
Power	9-48 VDC, GPU: 18~34 VDC, AT/ATX Select, 3-pin Terminal Block	9-48 VDC, GPU: 18~34 VDC, AT/ATX Select, 3-pin Terminal Block, 4-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25 °C to 60 °C		
Certification	E-Mark, EN 50155, EN 50121-1, EN 50121-3-2		
Dimensions [WxDxH]	240 x 261 x 79.2 mm	157 x 340 x 240 mm	
Weight	8.1 kg	8.34 kg	
Universal Expansion Slot (front)	1 (by mini PCIe interface)		
PCIe x16	1x PCIe x16 for GPU Card	1x PCIe x16	
PCIe x4 (1-lane)		1 PCIe x4	

24 GPU Series 25 contents

Performance and Storage at the Rugged Edge

Al Edge Inference Computer is among a new generation of edge computers. Featured with the latest technologies, it offers new benchmark performance for mission-critical data . The next generation of edge computers push capabilities of AI and machine learning for real-time intelligence for applications taking advantage of computer visions for industrial automation, surveillance, vehicle telematics, and metrology.







Coffee Lake R			
	Support 8 th / 9 th 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)		
Model	RC0-6141E-4U2C-2060S	RC0-6141E-4U2C-HWR	
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIM	M, up to 64GB (Un-buffered and Non-ECC)	
GPU	RTX 2060S	0	
Graphic Output	1x DVI-I, 1x DVI-D, 1x HDMI, 3x DisplayPort	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support \	Wake-on-LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps), 5x USB 3.2 Gen 1 (5 Gbps), 2x USB2.0 header (internal), 6x RS-232/422/485 (2x internal), 16x isolated digital I/O		
SATA Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)		
NVMe Storage	1x NVMe M.2 M Key, 1x Removable Module with 2.5" 4 Bay U.2 NVMe SSD (7mm) *Patented NVMe drives trays are tooless and hot-swappable	1x NVMe M.2 M Key, 2x Removable 2 Bay NVMe SSD Module with Hardware RAID 0, 1, 5, 6, 10 support (15mm) *Patented NVMe drives trays are tooless and hot-swappable	
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 and 4-pin Terminal Block		
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 60°C (65W / 35W CPU)		
Certification	E-Mark, EN 50155, EN 50121-1, EN 50121-3-2		
Dimensions (WxDxH)	261 x 240 x 148 mm		
Weight	9.9 kg		
Universal expansion slot	1x (By mini PCIe interface)		
PCI Express	1x PCle x4 (x1 Lane)		
Proprietary Module Expansion	Up to 1x Module • DTB-D10G • DTB-M2BK • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-PWR-M12		







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)

Model	RC0-6141E-8U2C-SWR	VCO-6131E-4M2	
Memory	2x 260-pin DDR4-2400/2666MHz SO-DIMM, up to 64GB (Un-buffered and Non-ECC)		
GPU	0	RTX 2060S	
Graphic Output	1x DVI-I, 2x DisplayPort	1x DVI-I, 2x DisplayPort	
LAN	2x GbE RJ45 (Support Wake-on-	LAN and PXE)	
USB, Serial, & Digital I/O	4x USB 3.2 Gen 2 (10 Gbps), 5x USB 3.2 Gen 1 (5 Gbps), 2x USB2.0 header (internal), 6x RS-232/422/485 (2x internal), 16x isolated digital I/O	4x USB 3.2 Gen 2 (10 Gbps); 5x USB 3.2 Gen 1 (5 Gbps) 2x USB 2.0 header (internal), 4x RS-232/422/485 (2x internal), 16x isolated digital I/O	
SATA Storage	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swappable), 1x mSATA (shared by 1x Mini PCIe)	4x 2.5" SATA HDD bay with RAID 0, 1, 5, 10 support (2x internal; 2x removable & hot-swapplable), 1x mSATA (shared by 1x Mini PCIe)	
NVMe Storage	1x NVMe M.2 M Key, 2x Removable 4 Bay NVMe SSD Module with RAID 0, 1, 5, 10 support (7mm) *Patented NVMe drives trays are tooless and hot-swappable	1x NVMe M.2 M Key 4x Bay Hotswappable M.2 NVMe Drive trays [M Key, NVMe PCIe x4=, 2280] *Patented NVMe drives trays are tooless and ho swappable	
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 and 4-pin Terminal Block	9-48 VDC, GPU: 18~34 VDC, AT/ATX Select, 3-pin Terminal Block	
Audio	Line-out / Mic-in Phone Jack		
Operating Temperature	-25°C to 60°C (65W / 35W CPU)		
Certification	E-Mark, EN 50155, EN 50121-1, EN 50121-3-2		
Dimensions	261 x 240 x 168 mm	157 x 340 x 240 mm	
Weight	9.9 kg	9.5 kg	
Universal expansion slot	1x (By mini PCle interface)		
PCI Express	1x PCle x4 (x1 Lane)	1x PCIe x4 (1-lane),1x PCIe x16 (8-lane) for GPU card & 4x M.2 PCIe x2	
Proprietary Module Expansion	Up to 1x Module • DTB-D10G • DTB-M2BK • DTB-4ETH • DTB-4ETH-PWR • DTB-4ETH-M12 • DTB-4ETH-PWR-M12		

Al Edge Inference 27 contents 26 Al Edge Inference

ETHERNET MODULE SERIES

Premio provides ethernet daughterboard modules that integrate easily into Premio embedded and edge computers through standard PCle protocols. These flexible add-in modules provide additional ethernet I/O ports and scalable connectivity for IoT deployments that require ethernet connections in multiple RJ45 and M12 locking connectors. Both RJ45 and M12 locking connector modules can also provide PoE+ (IEEE 802.3at) for data and power through single cable. These add-in daughterboard modules complement our fanless design architecture in order to provide mission-critical reliability and connectivity for a variety of IoT applications. Popular IoT workloads that leverage these add-in ethernet modules include: security and surveillance, kiosks, railway, vehicle telematics, and industrial automation. Please consult our embedded experts to help select the best module for your IoT demands.







DTB-4ETH

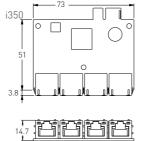
- Intel® Ethernet Controller I350
- 1x PCIe x4 Gold finger (x4 Lane)
- 4x 1GbE LAN, RJ45 Port

DTB-4ETH-PWR

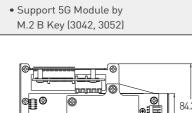
• up to 25.2 watt per port

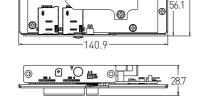
• Complies with IEEE 802.3at

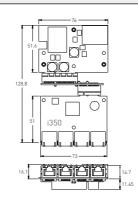
 Support Power over Ethernet by an optional PoE module



	1	
DTB-D10G	DTB-M2BK	
 Intel[®] Ethernet Controller X710-AT2 1x PCIe x1 Gold finger (x4 Lane) 2x 10GbE LAN, RJ45 Port 	 1x PCle x1 Gold finger (x4 Lane) 2x SIM slot 1x SIM switch Support 5G Module by 	







COMPATIBLE LIST	DTB-D10G	DTB-M2BK	DTB-4ETH DTB-4ETH-PWR
RCO-3000			
RCO-3400			
RCO-3700	•		• (DTB-4ETH Only)
ACO-3000			
RCO-6000			
ACO-6000	•		•
RCO-6100	•	•	•



• Support Power over Ethernet by

an optional PoE module

DTB-4ETH-M12



• Intel[®] Ethernet Controller I210

• Support Power over Ethernet by

• 1x PCIe x1 Gold finger

• 4x 1GbE LAN, RJ45 Port

an optional PoE module

DTB-4LAN



• Intel® Ethernet Controller I210-AT

• Support Power over Ethernet by

DTB-4LAN-M12

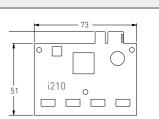
• 1x PCIe x1 Gold finger

• 4x 1GbE LAN, M12 Port

an optional PoE module

ller I350	• Intel® Ethernet Controller I350

- 1x PCIe x4 Gold finger (x4 Lane)
- 4x 1GbE LAN, M12 Port





51	i210 o
18	

DTB-4ETH-PWR-M12			
• up to 25.2 watt per port			
 Complies with IEEE 802.3at 			

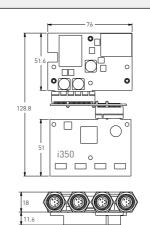
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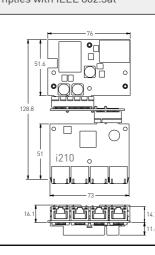
 up to 25.2 watt per port
• Complies with IEEE 802.3at

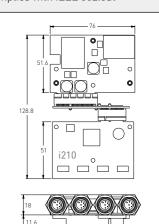
DTB-4LAN-PWR



DTB-4LAN-PWR-M12







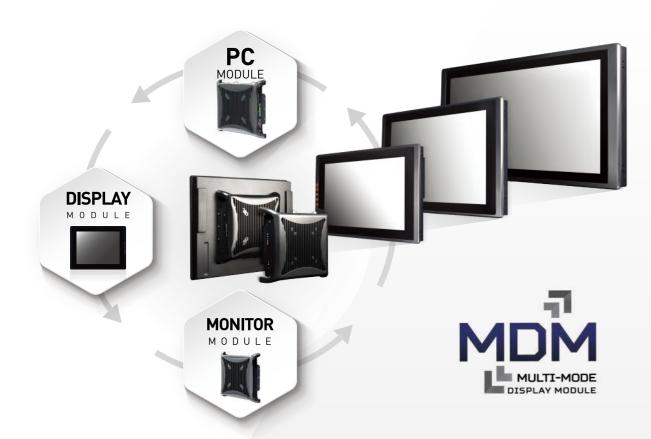
COMPATIBLE LIST	DTB-4ETH-M12 DTB-4ETH-PWR-M12	DTB-4LAN DTB-4LAN-PWR	DTB-4LAN-M12 DTB-4LAN-PWR-M12
RCO-3000		•	•
RCO-3400		•	•
RC0-3700	• (DTB-4ETH-M12 Only)		
ACO-3000		•	•
RCO-6000		•	•
ACO-6000	•		
RC0-6100	•		

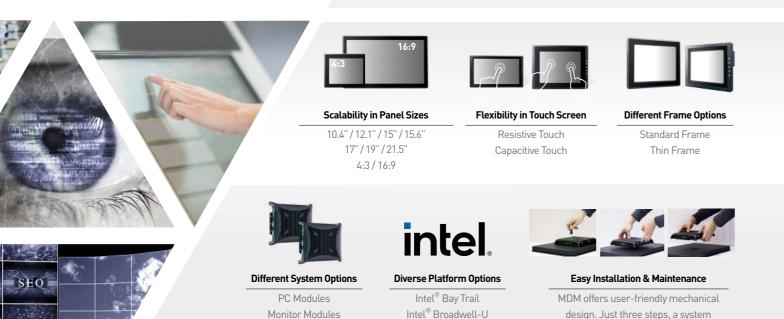
Ethernet Module 29 contents

INDUSTRIAL DISPLAY SYSTEMS

PREMIO OWN PATENT FOR INDUSTRIAL **DISPLAY SYSTEM**

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





Intel® Kaby Lake-U

ready for multiapplications



PC300 Series Broadwell-U

PC100 Series Bay Trail

MX200 Series

MX100 Series

Panel PC

SIO-200 Bay Trail

WIO-W221C Kabylake-U

VIO-200/PC300 Series

Broadwell-U Thin Frame

Thin Frame

VIO-200/PC100 Series Bay Trail

VIO-200 Series

Thin Frame

INDUSTRIAL DISPLAY SYSTEMS 31 contents

INDUSTRIAL PANEL PC

VIO-200/PC100 SERIES

- Intel[®] Celeron[®] J1900 Processor (Quad Core, 2.0GHz)
- 12.1" ~ 21.5" Thin Frame Multi-functional All-in-One Panel PCs
- Projected Capacitive and 5-wire Resistive Touchscreen Available
- Dual Independent Display support by VGA and DisplayPort
- Rich in I/O Features with up to 6x RS-232/422/485
- 2x Full-size Mini PCIe Slot for Communication or Expansion Modules
- 9 to 50 VDC Wide Range Power Input Supporting AT/ATX Mode
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating

VIO-200/PC300 SERIES

- 5th Generation Intel[®] Core i5/i3/Celeron Processor onboard (Broadwell-U)
- 12.1" ~ 21.5" Thin Frame Multi-functional All-in-One Panel PCs
- Projected Capacitive and 5-wire Resistive Touchscreen Available
- Triple Independent Display

- Rich I/O Features including the Support 4x RS-232/422/485,
 3x USB 3.0, 1x USB 2.0, 2x Full-size Mini PCIe,
 2x LAN, 4x DI & 4x DO
- 2x Full-size Mini PCIe Slot for Communication or Expansion Modules
- 9 to 48 VDC Wide Range Power Input Supporting AT/ATX Mode

VIO-200/PC311P

- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating

intel. Bay Trail



	Thin Frame Industrial Panel PC based on Intel® Bay Trail processors	Thin Frame Industrial Panel PC based on Intel® Bay Trail processors and with two universal I/O bracket	
Model	VIO-200/PC100	VIO-200/PC110	
CPU Onboard	Intel [®] Cele	ron [®] J1900	
Memory	1x 204-pin DDR3L-1066/1	333 SO-DIMM, up to 8GB	
Graphic Output	1x VGA, 1x	DisplayPort	
LAN	2x GbE RJ45 (Support V	Vake-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		
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 50 °C (19" Panel PC only)		
LCD Size	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	2	





	Thin Frame Industrial Panel PC based on Intel® Broadwell-U processors	Thin Frame Industrial Panel PC based on Intel® Broadwell-U processors with one PCI or PCIe x4 expansion slot			
Model	VIO-200/PC300	VIO-200/PC311x			
CPU Onboard	Intel® Core™ i5-5350U, i3	3-5010U, Celeron® 3765U			
Memory	1x 204-pin DDR3L-1333/1	1600 SO-DIMM, up to 8GB			
Graphic Output	1x VGA, 1x DisplayPort, 1x	Dual Channel 24 bit LVDS			
LAN	2x GbE RJ45 (Support V	Wake-on-LAN and PXE)			
USB, Serial, & Digital I/O	3x USB 3.0, 1x USB 2.0, 4x RS-232/422/4	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 / M	Speaker-out / Mic-in Phone Jack			
Operating Temperature	-10 °C to 50 °C (1	to 60 °C 9" Panel PC only)			
LCD Size		112 122 1 12 1 11			
Touch Type	Resistive 5-wire Touch / P	rojected Capacitive Touch			
Universal Expansion Slot	0 (VIO-200/PC300)	1			
1x PCle x4	VIO-200/PC311E				

32 VIO 200 / PC300 Series 33 contents (contents (sq. 2014))

1x PCI

VIO-200/PC400 SERIES

- 7th Generation Intel[®] Core i5/i3 Processor onboard (Kabylake-U)
- 12.1" ~ 21.5" Thin Frame Multi-functional All-in-One Panel PCs
- Projected Capacitive and 5-wire Resistive Touchscreen Available
- Triple Independent Display support by VGA, DisplayPort, and LVDS
- Rich in I/O Features with up to 6x RS-232/422/485, 4x USB 3.0, 2x Full-size Mini PCIe, 2x LAN, 8x DI & 8x DO, CFast
- Compatible with All Premio VIO Series Display Module
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating





	Thin Frame Industrial Panel PC based on Intel® Kabylake-U processors	Thin Frame Industrial Panel PC based on Intel [®] Kabylake-U processors with 2x universal I/O bracket			
Model	VIO-200/PC400	VIO-200/PC410			
CPU Onboard	Intel [®] 7 th Gen. (Kabylake-U) Process	Intel® 7 th Gen. (Kabylake-U) Processor Core™ i5-7300U, Core™ i3-7100U			
Memory	1x 260-Pin DDR4 1866/2133M	Hz SODIMM. Max. up to 16GB			
Graphic Output	1x VGA, 1x DisplayPort, 1x	Dual Channel 24 bit LVDS			
LAN	2x GbE RJ45 (Support V	Vake-on-LAN and PXE)			
USB, Serial, & Digital I/O	4x USB 3.0, up to 6x RS-232/4	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 PCIe, and 1x CFast (shared by 1x mSATA)				
Internal Expansion Slot	2x Full-size Mini PCIe				
Power	9-50 VDC, AT/ATX Selec	et, 3-pin Terminal Block			
Audio	Line-out / Mic-	in Phone Jack			
Operating Temperature	-10 °C t -10 °C to 50 °C (1				
LCD Size					
Touch Type	Resistive 5-wire Touch / P	rojected Capacitive Touch			
Universal Expansion Slot	0	0 2			

VIO-200/MX100 or MX200 SERIES

- 12.1" ~ 21.5" Thin Frame Full Range Touch Monitors
- Projected Capacitive and 5-wire Resistive Touchscreen Available
- 9 to 48 VDC Wide Range Power Input
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating



	Thin Frame Industrial Touch Monitor			
Model	VIO-200/MX100	VIO-200/MX200 New		
Touch Type	Resistive / C	apacitive Touch		
VGA Input	1x VGA Input			
DVI-D / HDMI	1x DVI-D Input	1x HDMI Input (optional)		
DisplayPort Input	1x DisplayPort Input			
USB 2.0 Input	1x USB 2.0 Input			
COM Port Input	1x COM Port	Input / Resistive		
Audio Input	1x Au	dio Input		
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block			
Operating Temperature		c to 60 °C " Touch Monitor only)		
LCD Size	4:3 10.4" / 12.1" / 16:9 15.6" / 21.5"	15" / 17" / 19"		

34 VIO 200 / PC400 Series 35 contents (contents (scription))





PC100 SERIES

- Intel® Celeron® J1900 Processor (Quad Core, 2.0GHz)
- Dual Independent Display support by VGA and DisplayPort
- Rich I/O Features including the Support up to 6x RS-232/422/485, 1x USB 3.0, 3x USB 2.0, 2x Full-size
- Mini PCle, 2x LAN, 8x DI & 8x DO
- Power Ignition Management Built-in
- Wide Operating Temperature (-40°C to 70°C)
- 9 to 50 VDC Wide Range Power Input supporting AT/ATX Mode
- Compatible with All Premio VIO Series Display Module
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating











• 5th Generation Intel[®] Core i5/i3/Celeron Processor

• Rich I/O Features including the Support 4x RS-232/422/485,

• Multiple Expansion Capability including PCIe, PCI, Mini PCIe

3x USB 3.0, 1x USB 2.0, 2x Full-size Mini PCIe, 2x LAN,

• Compatible with All Premio VIO Series Display Module

• Triple Independent Display support by VGA,

• Wide Operating Temperature (-40°C to 60°C)

onboard (Broadwell-U)

DisplayPort, and LVDS

• Power Ignition Management

Front Panel IP65 Rating

Aluminum Die-casting Front Frame

4x DI & 4x DO



	PC Module based on Intel® 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
Model	PC100	PC110	PC300	PC311x
CPU Onboard	Intel® Cele	ron [®] J1900	Intel® Core™ i5-5350U, i3-5010U, Celeron® 3765U	
Memory	1x 204-pin DDR3L-1066/	1333 SO-DIMM, up 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	6x RS-232/422/48	3x USB 2.0, 35 (w/ 2x internal), d 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	(shared by 1x I	D Bay, 1x mSATA Mini PCle), and mSATA & 1x Mini PCle)		h RAID 0, 1, 5 support and d by 2x Mini PCIe)
Internal Expansion Slot	USIM Socket (PC 1x Full-size Mini	PCIe Socket with CIe + USB + SATA) PCIe Socket with (PCIe + USB)	2x Full-size	e mini-PCle
Power	9-50 VDC, AT/ATX Selec	ct, 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

PC400 SERIES

INDUSTRIAL TOUCH MONITOR

- 7th Generation Intel[®] Core i5/i3 Processor onboard (Kabylake-U)
- Triple Independent Display support by VGA, DisplayPort, and LVDS
- Rich in I/O Features with up to 6x RS-232/422/485, 4x USB 3.0, 2x Full-size Mini PCIe, 2x LAN, 8x DI & 8x DO, CFast
- Wide Operating Temperature (-40°C to 70°C)
- Compatible with All Premio VIO Series Display Module
- Aluminum Die-casting Front Frame
- Front Panel IP65 Rating





MORE INFO 🚃



Kaby Lake-U				
	PC Module based on Intel [®] Kabylake-U processors	PC Module based on Intel [®] Kabylake-U processors with two universal I/O bracket		
Model	PC400	PC410		
CPU Onboard	Intel® 7 th Gen. (Kabylake-U) Process	or 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	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 PCIe, and 1x CFast (shared by 1x mSATA)			
Internal Expansion Slot	2x Full-siz	e Mini PCle		
Power	9-50 VDC, AT/ATX Selec	ct, 3-pin Terminal Block		
Audio	Line-out / Mic-in Phone Jack			
Operating Temperature	-40°	°C to 70°C		
Universal Expansion Slot	0 2			

PC400 Series 37 contents 36 PC100 / 300 Series





MX100 SERIES MX200 SERIES

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

VIO-100 SERIES

VIO-200 SERIES

Thin Frame

Temperature

The Display Modules VIO-100 and VIO-200 series are compatible with PC modules PC300, PC200, and PC100 series and monitor modules MX100 series for different display sizes and touchscreens.

These modules allow to be used for configuring, upgrading and maintaining your Panel PC or touch monitor.



Standard Frame



	Monitor Module		Model	VIO-110	
Model	MX100	MX200 Comi		LCD Size	10.4" (4:3)
VGA Input	1x VGA Input		Max. Resolution	800 x 600 (SVGA)	
DVI-D / HDMI	1x DVI-D Input (optional)		Brightness (cd/ m2)	400	
Display 1x DisplayPort Input		Port Input		Contrast Ratio	700:1
		•		LCD Color	16.2M
USB 2.0 Input	1x USB 2.0 Input			Pixel Pitch (mm)	0.264 (H) x 0.264 (V)
COM Port Input	1x COM Port Input (Resistive Touch Only)			Viewing Angle (H-V)	160 / 130
Audio Input	1x Audio Input			Internal Speaker	AMP 5W + 5W
Power	9-48 VDC, AT/ATX Select, 3-pin Terminal Block			Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch
Operating Temperature	-10 °C to 60 °C			Operating Temperature	-10°C to 60°C

TilliTTallie						
Model	VIO-212 (H)	VIO-215 (H)	VIO-W215 (H)	VIO-217 (H)	VIO-219 (H)	
LCD Size	12.1" [4:3]	15" (4:3)	15.6" (16:9)	17" (4:3)	19" (4:3)	
Max. Resolution	1024 x 768 (XGA)	1024 x 768 (XGA)	1920 x 1080 (Full HD)		x 1024 (GA)	
Brightness	500	350	400	350	350	
(cd/m2)	1000 nits (Optional)					
Contrast Ratio		700:1		800:1	1000:1	
LCD Color	16.	2M	16.7M		16.7M	
Pixel Pitch (mm)	0.24 (H) x 0.24 (V)	0.297 (H) x 0.297 (V)	0.17925 (H) x 0.17925 (V)	0.264 (H) x 0.264 (V)	0.294 (H) x 0.294 (V)	
Viewing Angle (H-V)	160 / 160	170 / 160	160 / 140	170	/ 160	
Internal Speaker AMP 5W + 5W			AMP 10W + 10W			
Touch Type	Resistive 5-wire Touch / Projected Capacitive Touch				Touch	
Operating Temperature	-10°C to 60°C		-10°C to 70°C	-10°C to 60°C	-10°C to 50°C	

VIO-W221 (H)

21.5" (16:9)

1920 x 1080

(Full HD)

300

5000:1

0.248 (H) x

0.248 (V)

178 / 178

-10°C to 60°C

VIO Series 39 contents 38 MX 100 / 200 Series

WIO-W221C SERIES

- 21.5" TFT FHD 16:9 LCD with Projected Capacitive Touch
- Support 7th Gen. Intel[®] Core™ i5 / i3 Processor
- 1x 260-pin DDR3L SODIMM. Max up to 8GB
- 1x mSATA (shared by 1x Mini PCIe), 2x internal SIM socket
- Single display supported by 1x VGA (waterproof connector)
- 2x LAN by M12 X-Code 8-pin

- 1x RS-232/422/485 by M12 D-Code 8-pin
- 2x USB 3.0 (waterproof connector)
- 9 to 50 VDC wide range power input
- -10°C to 60°C extended operating temperature
- Full system IP66 compliant
- Two 10W internal speakers built-in
- Multi-language OSD built-in



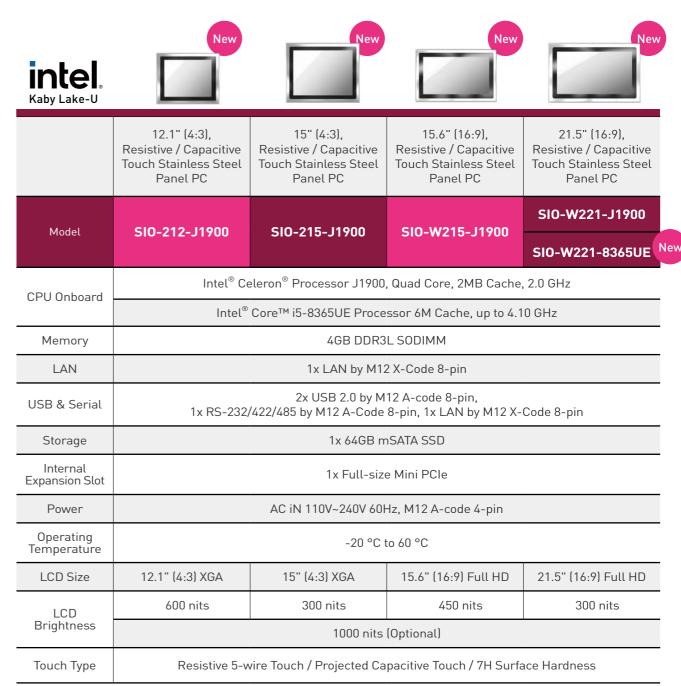


		New
	500 A C C	ē
D.Canacitivo To	uch All Ir	One ID//

	21.5" 16:9 Full HD Capacitive Touch All-In-One IP66 Panel PC		
Model	WIO-W221C		
CPU Onboard	Intel [®] 7 th Gen. (Kaby Lake-U) Processor Core™ i5-7300U, Core™ i3-7100U		
Memory	8GB DDR4 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 128GB mSATA SSD		
Internal Expansion Slot	1x Full-size Mini PCIe		
Power	9-50 VDC, M12 A-code 4-pin		
Operating Temperature	-10 °C to 60 °C		
LCD Size	21.5" (16:9) Full HD		
Brightness (cd/m2)	300 / 1000 (Optional)		
Touch Type	Projected Capacitive Touch, 5 Points, 7H Surface Hardness		



- 12", 15", 15.6", 21.5" TFT FHD 16:9 LCD with resistive 5-wire / projected capacitive touch
- Intel[®] Celeron[®] processor J1900, 2.0 GHz
- 1x 4GB DDR3L SODIMM, 1x 64GB mSATA
- 1x M12 LAN, 2x USB 2.0 by M12 8-pin, 1x M12 COM
- 1x Full-size Mini PCIe for expansion
- Support 110V to 240V AC power input by M12 Power Connector
- -20°C to 55°C operating temperature
- Full system IP66/IP69K with Stainless Steel SUS316 construction
- Touch Function ON/OFF Switch



SIO-200 Series 41 contents 40 WIO-W221C Series

INDUSTRIAL BOARDS

Premio industrial boards offers a wide range form factor from Mini-ITX, Micro ATX, 3.5" SBC, COM Express-Mini Size Module, COM Express-Compact Size Module, COM Express-Basic Size Module, and COM Express-Carrier Boards.

MOTHERBOARDS

PICO ITX SERIES

MOTHERBOARDS

3.5" SBC SERIES







Support 8th Gen. Intel[®] WL-UE Processor (15 TDP) Intel® Celeron® Processor J1900

Intel[®] Atom™ Processor E3845, Celeron®

		(2.0GHz/4C/10W)		Int el® Core™ i7-8665UE, i5-8365UE, i3-8145UE or Intel® Celeron® Processor 4305UE	Processor E3845, Ceteron Processor J1900
	Model	CT-PBT01	Model	CT-DWL01	CT-DBT02
	Memory	1x 204-Pin DDR3L 1066/1333MHz SODIMM	Memory	1x 260-Pin DDR4 2400MHz SODIMM slot. Max. up to 32GB	1 x 204-pin DDR3L SODIMM Msockets Non-ECC/unbuffered Data transfer rates
	BIOS	AMI 64Mbit SPI BIOS		360. Max. up to 9292	up to 1333MT/s Memory size up to 4GB
	Watchdog	Software Programmable Supports 1~255 sec.	BIOS	AMI uEFI 256MB SPI flash	AMI uEFI 8MB SPI Flash
		System Reset	Watchdog	Software Programmable Supports 1~255 sec. System Reset	H/W Reset, 0 – 255 steps Step = 1 sec. or 1 min
	Display Interface	1x HDMI, 1x LVDS	TPM	TPM 2.0 Through Infineon [®] SLB9665TT2.0 or Equivalent	TPM 1.2 supported (Optional)
	Rear IO Internal I/O	1x LVDS & 1x LVDS backlight, 1x RS-232/422/485, 1x RS-232, 2x USB 2.0 1x LVDS,1x LVDS backlight, 1x RS-232/422/485, 1x RS-232/422/485, 1x RS-232,2x USB 2.0, 1x SATA 3.0Gb/s, 1x Front panel audio, 1x 8-bit GPIO (4-in/4-out), 1x Front panel, 1xSMBus	Display Interface	1x DisplayPort, 1x LVDS & 1x HDMI & 1x EDP internal connector (optional)	1 x HDMI, 1 x VGA, 1 x LVDS
			Rear I/O	4x USB 3.2 Gen 2, 2x RJ45 GbE LAN, 1x DP, 1x HDMI	2x RJ45 GbE LAN, 1x HDMI, 1x VGA, 1x RS232/422/485 COM, 1x USB2.0, 1x USB3.0
			Internal I/O	1x LVDS, 1x eDP1.4 (Optional) 4x RS-232/422/485 2x USB 2.0 2x SATA Gen3, 1x Front panel audio, 2x 4-bit DIO	1 x 2-ch 24bit LVDS, 1 x SATA 2.0, 3 x RS-232/422/485, 4 x USB 2.0, 1 x Line-In, Line Out & Mic-In 1 x 8-bit GPIO, 1 x PS/2 keyboard mouse, 1 x microSD card socket, 1 x SIM card socket, 1 x FAN connector
	Power	12V DC Input 1x 2-pin power connector	Power	AT/ ATX 12V DC Input, 4-pin CPU P4 connector	DC +12V input,
	Operating Temperature	-10°C ~ 70°C	Operating Temperature	-40°C ~ 70°C	-20°C ~ 70°C
	Dimension	100mm x 72mm	Dimension	146mm	x 102mm

MOTHERBOARDS

MINI-ITX SERIES

MOTHERBOARDS

MICRO ATX SERIES







LGA 1151 socket supporting 6th Gen Intel[®] Core™ Support 8th/9th Gen Intel[®] CFL-R S Processor LGA 1151 socket supporting 6th Gen Intel®

	Core™ i3/i5/i7 Desktop Processor, Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE		i3/i5/i7 Desktop Processor, Intel® Core™ i7-6700TE / i5-6500TE / i3-6100TE	(LGA 1151, 95W/65W/35W TDP), Intel® Core™ i7-9700E / i5-9500E / i3-9100E or Intel® Pentium® G5400T, G5400
Model	CT-XSL01	Model	CT-MSL01	CT-MCL01
Memory	2x 260-Pin DDR4 1866/2133MHz SODIMM	Memory	4x 288-Pin DDR4 1866/2133MHz DIMM	4x 288-Pin DDR4 2133/2400/2666MHz DIMM
BIOS	AMI uEFI 128MB SPI flash	BIOS	AMI uEFI 128MB SPI flash	AMI uEFI 256MB SPI flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset	Watchdog	Software Programmable Supports 1~255 sec. System Reset	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0 supported (optional)	TPM	TPM 2.0 supported (optional)	TPM 2.0 supported (optional)
Display Interface	1x DVI-D, 1x 2-ch 24-bit LVDS, 1x DisplayPort	Display Interface	1x VGA, 1x DVI-D, 1x DisplayPort	1x VGA, 1x DVI-D, 2x DisplayPort (DP 1.2)
Rear I/O	1x DVI-I, 1x DP, 1x HDMI, 1x RS-232/422/485, 4x USB 3.0, 2x USB 2.0, 2x RJ45, 1x Line-out, 1x Mic-in, 1xPS/2 KB/MS	Rear I/0	1x VGA, 1x DVI-D, 1x DP, 1x HDMI, 2x RS-232/422/485, 4x USB 3.0, 2x RJ45 GbE LAN, 1x Line-in, 1x Line-out, 1x Mic-in	1x VGA, 1x DVI-D, 2x DP, 2x RS-232/422/485, 4x USB 3.2 Gen 2, 2x RJ45, 1x Line-in, 1x Line-out, 1x Mic-in
Internal I/O	1x 2-ch 24-bit LVDS, 4x RS-232,2x USB 3.0, 2x USB 2.0, 4 x SATA 6.0Gb/s, 1x Front panel audio, 1x 8-bit GPIO (4-in/4-out), 1x LPC 1x Front panel, 1x CPU fan 1x System fan	Internal I/O	4x RS-232,2x USB 3.0, 6x USB 2.0,4 x SATA 6.0Gb/s, 1x Front panel audio, 1x 8-bit GPIO (4-in/4-out), 1x PS/2 KB/MS 1x LPC, 1x Front panel 1x CPU fan, 2x System fan	4x RS-232,1x USB 3.2 Gen 1, 7x USB 2.0,6 x SATA 6.0Gb/s, 1x Front panel audio,1x 8-bit DIO (4-in/4-out),1x SPI header, 1x LPC,1x Front panel, 1x CPU fan,2x System fan
Power	ATX power, 2x12-pin and 2x2-pin power connector	Power	ATX power, 2x12-pin and 2x2-pin power connector	
Operating Temperature	0°C ~ 60°C	Operating Temperature	0°C ~ 60°C	0°C ~ 60°C
Dimension	170 mm x 170mm	Dimension	244mm x 244mm	244mm x 244mm

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KCO 2000 SERIES

Certification-ready industrial computers are embedded computing solutions that serve as key building blocks for enterprise and IoT applications that require processing. The KCO Series of industrial computers is a commercial off-the-shelf (COTS) computing solution that provides reliability, regulatory safety, and embedded longevity with Premio's extended lifecycle support. These certification-ready industrial computers are deployable in IoT applications in markets for kiosks, ATMs, security and surveillance, metrology and automation inspection, and mobile medical carts.

- 2U Slim Form Factor (SFF) Chassis Tool-less Mounting Options
- Micro-ATX Motherboard Q370 Chipset
- Support Intel 8th/9th Gen Core Processors
- DDR4 Memory up to 128GB
- 1x PCIe x16 slot (low profile, up to 9" card length)
- x13 USB Ports for IoT devices
- 1x Hot-swappable 2.5" SATA drive tray

- 1x M.2 (M Key); 1x M.2 (E Key)
- Tool-less Washable Dust Filter
- CE, FCC, UL Certified



	Certification-Ready Industrial Computer with LGA-1151 socket for Intel® CFL-R S Processor
Model	KC0-2000
CPU Support	Support 8th/9th Gen Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
Memory	4x 288-Pin DDR4 2133/2400/2666MHz DIMM. Max. up to 128GB
Graphic Output	1x VGA,1xDVI, 2x DP
LAN	GbE1: Intel I219LM (Support Wake-on-LAN and PXE) GbE2: Intel I210-AT (Support Wake-on-LAN and PXE)
USB & Serial	2x RS-232/422/485 + 2x RS-232 2x RS-232 (internal header) 6x USB 3.0 7x USB 2.0
Storage	1x Hot-Swappable 2.5" SATA Drive Bay (support H=7mm) 1x M.2 (M Key, NVMe PCIe x4, 2280) 1x M.2 (E Key, PCIe x2, USB 2.0, 2230)
Internal Expansion Slot	1x PCIe x16 slot (low profile, up to 9" card length)
Power	AT, ATX Internal 250W Flex Power Supply
Audio	Line-out / Mic-in Phone Jack
Operating Temperature	0°C to 35°C
Dimensions (WxDxH)	12.73"(W) x 10.75:(D) x 3.45"(H)
Weight	11 lbs (barebone w/ chassis, mb, and PSU only)
Certifications	CE, FCC, UL Certified

KCO 3000 SERIES

MORE INFO 🚒

- 3U Compact Chassis with Rack Mount Options
- · Micro-ATX Motherboard Q370 Chipset
- Support Intel 8th/9th Gen Core Processors
- DDR4 Memory up to 128GB
- Expansion Slots: 1x PCIe x16 full height, up to 10" card length) ,2x PCIe x4
- x13 USB Ports for IoT devices
- 1x 3.5" SATA HDD drive or 2x 2.5" SSD/HDD
- 1x M.2 (M Key); 1x M.2 (E Key)
- Tool-less Washable Dust Filter
- CE, FCC, UL Certified





	Certification-Ready Industrial Computer with LGA-1151 socket for Intel® CFL-R S Processor
Model	KCO-3000
CPU Support	Support 8th/9th Gen Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
Memory	4x 288-Pin DDR4 2133/2400/2666MHz DIMM. Max. up to 128GB
Graphic Output	1x VGA,1xDVI, 2x DP
LAN	GbE1: Intel I219LM (Support Wake-on-LAN and PXE) GbE2: Intel I210-AT (Support Wake-on-LAN and PXE)
USB & Serial	2x RS-232/422/485 + 2x RS-232 2x RS-232 (internal header) 6x USB 3.0 7x USB 2.0
Storage	1x 3.5" SATA HDD drive or 2x 2.5" SSD/HDD up to 15mm 1x M.2 (M Key, NVMe PCIe x4, 2280) 1x M.2 (E Key, PCIe x2, USB 2.0, 2230)
Internal Expansion Slot	1x PCIe x16 full height, up to 10" card length) 1x PCIe x4, 1x PCIe x4
Power	AT, ATX Internal 300W Flex Power Supply
Audio	Line-out / Mic-in Phone Jack
Operating Temperature	0°C to 45°C
Dimensions (WxDxH)	13.15"(W) x 11.78"(D) x 5.23"(H)
Weight	12.5 lbs (barebone w/ chassis, mb, and PSU only)
Certifications	CE, FCC, UL Certified

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Premio Inc.

918 Radecki Ct., City of Industry, CA 91748 Toll Free: 800.977.3646 sales@premioinc.com

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www.premioinc.com



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