

**INDUSTRIAL  
GRADE ADVANCED  
COMPUTING SOLUTIONS**

# **EMBEDDED SOLUTIONS**

INDUSTRIAL PANEL PC  
EMBEDDED COMPUTING  
INDUSTRIAL DISPLAY  
MARKET READY SOLUTION



# **EMBEDDED** SOLUTIONS



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# Introduction

## About Winmate

Wimate Inc. is a rugged computing and embedded solutions provider for industries operating in some of the most challenging environments. Founded in 1996 in Taipei, Taiwan where its headquarters, research and development facility, and production lines are located, today the company has offices and service centers worldwide.

Wimate develops rugged industrial-grade computing solutions that advance the edge AI system, and Industrial Internet-of-Things (IIoT). Industrial display and panel PC, HMI, embedded systems, IIoT gateways to rugged tablets and handheld devices for industries ranging from transportation and logistics to marine and military, railway, oil and gas, smart grid, healthcare, and field services. Wimate also provides professional services in customizing products and project management create a unique solution for specific customer's needs.

## Industry Solutions

Wimate offers rugged computing solutions for vertical markets, including mobile solutions, embedded applications, industrial systems, vehicle-mounted computers, digital signage and medical solutions. Such huge range of solutions in various sectors indicates that Wimate comes equipped with the know-how and competitive capabilities to outshine the market.

We also deliver pre- and after-sales services across the world at the same strict, high quality level, that is, you can count on us to get your back up always, wherever you are!



**Rugged Computing Solutions Tailored for Industrial Applications**

## Global Reach

Wimate is at the forefront of technological innovation with its best in-class service offerings available around the globe. Service offices in the USA, Canada, Germany, China and Taiwan have made Wimate be able to offer responsive, reliable and quick support on all of our products.





## The Winmate Difference

### Innovation and Ruggedness

Blending innovations and ruggedness, our products are designed to meet the requirements of vertical markets' environmental standards.

### Engineering Intelligence

We are committed to maintaining the highest standards in engineering excellence to ensure our products deliver reliability, durability, and optimized performance.

### Quality Commitment

Quality assurance and entire engineering processes are under go in-house. This is why we invested significantly in our state-of-the-art testing facility and offer global support.

“ **INNOVATIVE  
TECHNOLOGY FOR  
OPERATIONAL  
EXCELLENCE.** ”

### Efficiency

Our team is committed to efficiency and maintaining the shortest possible development cycles. From design to testing the whole development process undergoes in-house to achieve the market advantage in speed and quality.

### Reliability

Reliability, service and support are part of our foundation. Every product undergoes the scrutiny of industrial standards testing to verify electrical, mechanical, thermal, and firmware design performance.

## Customized Solutions

Years of experience allow Winmate to offer customized solutions for different applications. From product design to accessories, our engineering team designs and support the system integration process.

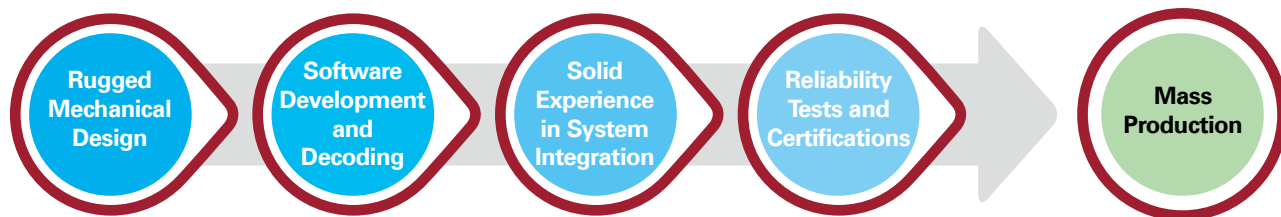
- CUSTOMIZED CONFIGURATION
- CUSTOM OS IMAGE
- CUSTOM BIOS
- ENCLOSURE DESIGN
- PERIPHERALS AND OPTIONS
- CUSTOM-DESIGNED ACCESSORIES



# Introduction

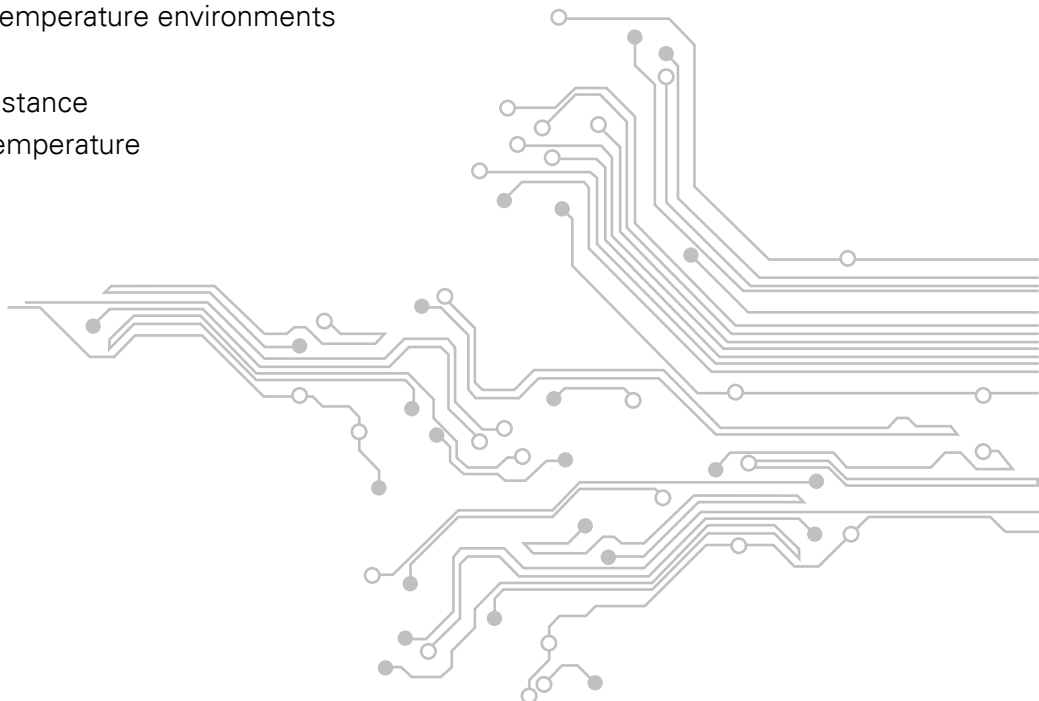
## Technical Know-How

We understand that, for enterprises operating in rugged or potentially hazardous environments, the access to the cutting-edge solutions purpose-built for their applications is imperative. As a result, Winmate locates its resources from project research and design, software development and customization, product verification and validation, to testing all in house in order to gain maximized freedom to research and implement the latest technologies available.



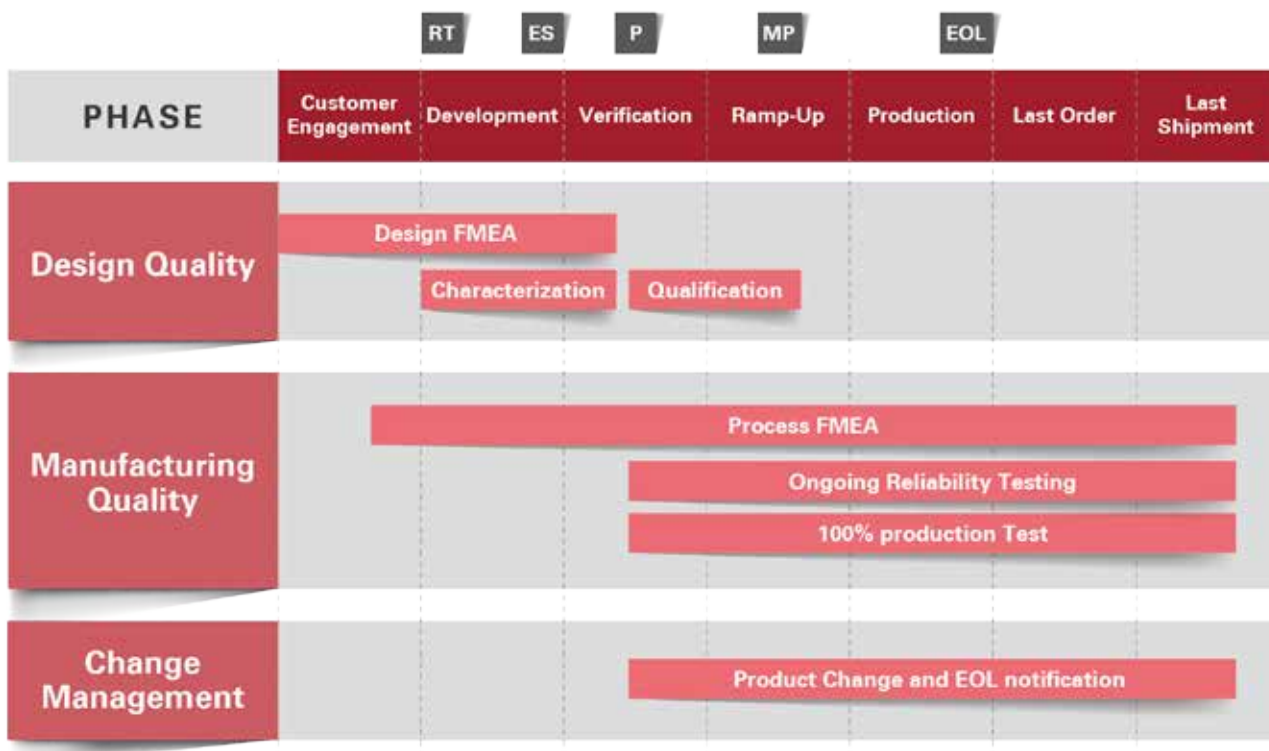
### The latest technologies we deploy for our rugged products:

- Dry and wet optical bonding
- Panel enhancement for sunlight readability
- Anti-reflection (AR) and anti-glare (AG) glass protection coating
- Light sensor
- Hyper dimming
- Electronic potting
- Touch screen integration: projected capacitive, resistive or SAW touch
- Waterproof enclosure
- Military EMI and mesh coating
- Wireless capabilities
- Data capture devices integration
- Defroster for ultra-low temperature environments
- 316 Stainless steel
- Shock and vibration resistance
- Wide-range operation temperature



## Product Development Life Cycle

Winmate has total knowledge and control of the product's life cycle, from its conception and production in our factories to distribution:



## Strategic Partnership

For enterprises operating in difficult or potentially hazardous environments, access to the latest technology, built specifically for these demanding industries, is imperative. The engineering process and in-depth knowledge of electrical, mechanical, thermal and firmware design ensure optimized performance, durability and reliability with every rugged product we create. Our technologies undergo a battery of tests at our in-house, state-of-the-art testing facility to verify this performance.

We have also forged strategic partnerships with leading technology companies in order to provide you with the cutting-edge, industrial-grade communication tools to maximize your operational efficiency, safety, asset tracking and data management. With partners such as Microsoft, Intel, Qualcomm and AWS, we have the advantage of gaining early access to the latest developments, which means we can provide our customers with cutting-edge technology and software.



# Introduction

## Reliability Test Facilities

Winmate provides consulting and testing services to ensure products are in compliance with the latest global industrial standards and regulations. By working closely with the regulatory agencies Winmate guarantees that the product time to market is minimized. The results are documented and provided to regulatory agencies for certification.

In-house testing lab allows Winmate to achieve high standards of product reliability and ruggedness with the shortest possible product development cycle. Rather than outsourcing critical reliability test, Winmate is able to perform vibration, drop, thermal and dry heat, and EMC and EMI tests, as well as radio emission and susceptibility, giving us the market advantage in speed and quality.

Winmate also offers a wide range of customer support services and has implemented an extensive environmental protection policy to meet the standards of the electronics industry. To learn more, visit our website at [www.winmate.com](http://www.winmate.com).

### In-House Testing Lab:



## Quality Assurance

Winmate promotes standardization of material, facilities, and engineering practices to improve industrial safety standards and regulations, while reducing the total cost of ownership and acquisition cycle time. Our materials, tools, facilities, engineering, and testing practices are designed to ensure reliability and durability.

At Winmate we developed and implemented a quality management system based on a process management approach. This allows us to maintain consistency in product service and support, and meet all applicable regulatory requirements, while remaining nimble and flexible enough to evolve with technology and industry need. The quality system complies with the international standard ISO 9001:2015 and the standards which apply to related industries.

### Quality Information Summary

Certification	Registration Date	Expiration Date	Certifying Agency
<b>Quality Management Systems (QMS)</b>			
ISO 9001:2015 Registered	2019/8/22	2022/8/22	SGS
ISO 14001:2015 Registered	2019/8/22	2022/8/22	SGS
<b>Other registrations, certifications and special process capabilities</b>			
IECQ QC 080000: 2017	2019/9/5	2022/9/4	SGS
ISO 13485: 2016	2018/12/19	2021/12/19	SGS
IEC80079-34: 2011	2015/6/20	2021/6/29	CSA

### Product Certification

Tailored for industrial applications, Winmate's products go through serious product testing to comply with international industry standards and regulations. Product certifications verify how components perform under real-world conditions. It is an independent evidence for the product quality, reliability and safety. Our products have proved themselves in numerous projects right around the globe in hazardous locations, marine, transportation, healthcare, military and other industrial environments.



# Introduction

## Environmental Protection & Responsibility

Winmate Inc. acknowledges a responsibility to the environment, and expresses our commitment towards implementing practices which will promote environmental sustainability. The following policy governs the management of the environmental aspects of our company, with specific focus on the conservation of resources and the reduction of waste. This policy relates to how all operations in our company will be continually reviewed and improved, so that we will truly be able to integrate environmental and social considerations into our everyday practices. Winmate will consistently strive to raise awareness in the community, encourage participation and train employees in environmental matters.

### Green Manufacturing

Winmate Inc. assimilates green management into every stage of product design and development and implements continuous improvement projects in the areas of climate change, energy management, water management, waste management and air pollution control. We follow Green Product Design principles and consider the environmental impacts of raw material procurement, manufacturing, transportation and distribution, consumer use, and recycling. Winmate's goal is to facilitate coexistence and mutual prosperity between our business and the environment.

- ISO 14001, Environmental Management System Certification
- ISO 14064, International Standard for GHG Emissions Inventories and Verification
- Pollution Prevention
- Chemicals and Waste Management

- Packaging Optimization
- Transportation Time Minimization
- Carton Recycling

- IECQ/QC 080000 Hazardous Substance Management System
- Compliance with RoHS, REACH and SVHC related substances
- Conflict Minerals Compliance

- Product Safety and Regulatory Compliance, including UL, FCC, BSMI, etc.



- Follow EU Waste
- Electrical and Electronic
- Equipment Directive

## Environmental Protection & Responsibility

### EU RoHS Declaration of Conformity

The RoHS Directive is a CE marking Directive. This means that equipment within its scope must carry a CE marking if it is offered for sale or placed on the market in the EU. The CE marking is applied by the manufacturer (or Authorized Representative, if mandated) on the product.

Winmate Inc. hereby certify that any substances used in homogeneous materials, parts, semi-finished products, manufacturing process, and products meet the regulatory compliance of RoHS Directive.

Besides, our lead-free production line and process, including solder paste, solder bar and process control parameters, has been developed and standardized in our manufacturing system.

### Conflict Free Minerals Policy

As Reported by EICC (Electronic Industry Citizenship Coalition) and GeSI (Global e-Sustainability initiative), that the origin of these minerals has become the Democratic Republic of Congo's Main revenue sources of armed rebel groups, to deal in arms, continued its bloody conflict between government forces, devastated the local civilian population, thus triggering international disputes.

Winmate Inc. as the global citizen, we declare and commit to refuse the application of metals from fighting region; meanwhile, we request Winmate supply chain to obey and guarantee the things below:

#### Our sourcing policy for Conflict Free Minerals:

- Conduct your operation in a way of social and environmental responsibility
- Not use the conflict minerals originated from the Democratic Republic of the Congo (DRC) and its adjoining countries
- Make the same requirements to your upstream suppliers

# Industries

Winmate understands the need for ruggedness and uninterrupted productivity when it comes to operating in challenging environments. We provide application-ready computing solutions for marine and military, oil and gas, warehouse and logistics, factory automation, healthcare and other industrial vertical markets.



## Oil & Gas

ATEX and Class 1 Division 2 (C1D2) certified solutions for collecting data in remote rig and pipeline locations.



## Marine

IEC 60945 compliance and DNV (Det Norske Veritas) certified solutions for maritime applications in a vessel or bridge.



## Military

Rugged military products that comply with MIL-STD-810G environmental and MIL-STD-461F EMC standards.



## Healthcare

Certified for healthcare applications, our computing devices are made for safe operations and collecting sensitive data in a hospital environment.



## Food & Beverage Industry

Waterproof IP69K, IP67 and IP65 panel PC and display meet high hygiene standards, resist moisture and chemical cleaning.



## Factory Automation

Wide range of advanced technologies for factory automation from data collection to operator control and remote device management.



### Warehouse & Logistics

Vehicle mounted computers for inventory management whether in inventory delivery, port logistics or warehousing.



### Field Service

Rugged mobile computers for data collection needs of workshops, field surveys, delivery services.



### Public Safety

Compact and rugged data capture devices for public safety applications.



### Transportation

Track and optimize routes with our vehicle mounted computers or rugged tablets with vehicle docking.



### Vehicle Diagnostics

Rugged technology for your vehicle servicing solution and car repair workshop applications.



### Utilities

Embedded systems and gateways for data collection and transfer in remote locations. Connect everything, control everywhere!



# Product Highlights

Highlights indicate our recommended and most popular products, to help you determine which product to choose from our extensive portfolio.

## Embedded Systems

Fanless Embedded Automation Computer

**IWAI-AA**



p.109

- 8<sup>th</sup> Gen. Intel® Core™ i7/i5/i3

Fanless Embedded Automation Computer

**IWAI-SHA**



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- 8<sup>th</sup> Gen. Intel® Core™ i7/i5/i3

Fanless Embedded Automation Computer

**IWAI-TA**



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- Intel® Celeron® N3350

Modular Embedded Box PC

**IKMH100-AI**



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- Intel® Core™ i5-7200U

IoT Gateway

**EACIL20**



p.118

- Intel® Celeron® N3350

DIN Rail Box PC

**IBDRW100-P**



p.126

- Intel® Celeron® N4200

## Panel PC and HMI

IP69K Stainless Panel PC

**Push Button Series**

10.1" / 15" / 19" / 21.5"



p.17

- Intel® Celeron® N2930

IP69K Stainless with Conduit Pipe

**P Series Panel PC**

15" / 19" / 21.5" / 23.8"



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- Intel® Core™ i5-7200U



# Display

Chassis Display

## PT Series

15"/ 18"/ 32"



p.177

- Standard I/O
- Front IP65

G-WIN Display

## GC Series

19"/ 21.5"/ 23.8"



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- Standard I/O
- Front IP65

IP69K Stainless Display

## P Series

15"/19"/ 21.5"/ 23.8"



p.179

- VESA/Yoke mount, panel mount
- With conduit pipe

IP69K Stainless Display

## Push Button Series

10.1"/ 15"/ 19"/ 21.5"



p.185

- with Push Buttons

4K UHD Healthcare Display

## 12G-SDI Series

27"/ 32"



4K Ultra HD 12G-SDI

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- 12G-SDI in
- 12G-SDI out

Healthcare Display

## Multi-Touch Series

15.6"



p.237

- Chassis

# Panel PC and HMI

Front IP65

## PT Series HMI

15"/ 15.6"/ 32"



p.50

- Intel® Celeron® N2930
- Intel® Core™ i5-7200U

Front IP65

## GC Series Panel PC

7~23.8"



p.85

- Intel® Core™ i5-7200U
- 7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Intel® Celeron® N2930



# INDUSTRIAL PANEL PC

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# Industrial Panel PC

## Overview

As technology evolves and regulatory demands significantly increase, modern factories not only need a track of processes but a visualization of each production important step. Dozen of data collected throughout each shift requires a screen to display production status and a dashboard for better control and process optimization. Optimized processes facilitate reduced total cost of ownership, minimized time-to-market and enhanced quality.

Winmate provide a wide range of panel PC and human-machine interfaces for factory or building automation, machine control, point-of-information kiosks, hospitality, or air traffic control.

### Our industrial panel PC include:

- The latest Android™, Windows® or Linux operating system
- Various housing options: panel mount, open frame, chassis
- Durable design

Simply select the optimum display size for your application, choose processing power and interfaces to design the most suitable solution.





## Stainless Series with Push-Buttons

Winmate develops the solutions using cutting-edge technologies that help overcome different automation challenges you may encounter in Food, Chemical, Pharmaceutical Industries.

### Push-Button Front Panel

Push-buttons bring control and indication directly to the work area, eliminating wasted movement and increasing productivity. In addition, the physical buttons are especially needed for critical tasks like emergency shutdowns. When an emergency situation occurs, we don't want to waste time navigating through HMI screens but a simple and quick way to shut down the process.

### Adjust 3 Touch Modes Easily by Turning the Knob Hand Mode

Thanks to the PCAP technology the series delivers excellent responsive performance by supporting multi-touch and allowing for anyone to operate it easily with fingers.

#### Rain Mode

The Rain Mode is not affected by the presence of water and allows users to continue working in wet environments and inclement weather.

#### Glove Mode

This mode works not only with thin gloves like some inferior devices, but also with heavy work-gloves.



### Waterproof USB Type-A Connector on Front Panel

The device is pre-built with a handy and waterproof USB Type-A connector on the front panel to allow users to plug in peripherals in an easy way.

### Full IP65 Rated SUS316 Stainless Steel Enclosure

The device features a SUS316 Stainless Steel housing with full IP65 compliance to be water and dust proof, meaning it can withstand overall splashing conditions, suitable to be deployed in Food, Pharmaceutical Industries or harsh environments with strict hygiene demands.









## Product Guide-Featured Industrial Panel PC

Our product guide helps you to navigate and find the right product from our excessive product line.

### x86 Panel PC and HMI

			
<b>Stainless Series Panel PC</b>	<b>E Series HMI</b>	<b>M Series HMI</b>	<b>PO Series HMI</b>
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<b>S Series HMI</b>	<b>Kaby Lake Series Panel PC</b>	<b>Bay Trail Series Panel PC</b>	<b>G-WIN Series Panel PC</b>
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### Arm Panel PC and HMI

			
<b>E Series HMI</b>	<b>EL Series HMI</b>	<b>PT Series HMI</b>	<b>S Series HMI</b>
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<b>Arm Series Panel PC</b>	<b>G-WIN Series Panel PC</b>		
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# 10.1"~21.5" x86 Stainless Panel PC Stainless Series with Push Buttons

NEW



“**SPEED UP RESPONSE TIME IN EMERGENCY SITUATIONS.**”

- 10.1~21.5" PCAP touchscreen
- Intel® Celeron® N2930
- Windows 10/8/7, Ubuntu 16.04

SUS316 stainless steel

Waterproof connectors

4 GB DDR3 1600 MHz

64 GB mSATA SSD

USB 2.0, RJ45 for Ethernet, RS232

Flat push buttons (red, blue, green), emergency stop button

Supports VESA mount, yoke mount

IP65 waterproof and dustproof

Operating temperature 0°C to 45°C

## Accessories

### Standard

100~240V AC to DC adapter with power cord	External USB+LAN cable	External COM cable	Waterproof caps
RJ45 female-female converter	VESA screws	Driver CD & Manual	

## Custom configuration



Memory



Wide Power Input



Bluetooth



Wi-Fi

## Application



### Factory Automation

“VANDAL RESISTANT, STYLISH HMI CONTROLS IN HARSH ENVIRONMENTS.”

Winmate's all-new 17" panel PC with push buttons were installed inside machine-control terminals in the factory operating in the food and beverage industry. Push buttons on the HMI terminal provide excellent tactic feedback that is necessary in emergency situations.

# x86 IP69K Stainless Series with Push Buttons

Intel® Celeron® N2930

NEW



NEW



NEW



NEW



Model Name	10.1" (16:9)	15"	19"	21.5" (16:9)
	W10IB3S-SPH1-B	R15IB3S-SPC3-B	R19IB3S-SPM1-B	W22IB3S-SPA3-B
<b>Display</b>				
Resolution	1024 x 600	1024 x 768	1280 x 1024	1920 x 1080
Panel Brightness	450 nits	250 nits	250 nits	250 nits
Contrast Ratio	800:1 (Typ.)	2000:1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
Viewing Angle	-75~80(H);-80~80(V)	-88~88(H);-88~88(V)	-85~85(H);-85~85(V)	-89~89(H);-89~89(V)
Display Color	16.7M	16.2M	16.7M	16.7M
<b>System</b>				
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
Memory	1 x SODIMM, Max 8GB DDR3 1600 MHz, default 4GB	1 x SODIMM, Max 8GB DDR3 1600 MHz, default 4GB	1 x SODIMM, Max 8GB DDR3 1600 MHz, default 4GB	1 x SODIMM, Max 8GB DDR3 1600 MHz, default 4GB
Storage	Default 1 x mSATA SSD 64GB	Default 1 x mSATA SSD 64GB	Default 1 x mSATA SSD 64GB	Default 1 x mSATA SSD 64GB
BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
Audio	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
Expansion	1 x mPCIe slot(for half size Wifi module)	1 x mPCIe slot(for half size Wifi module)	1 x mPCIe slot(for half size Wifi module)	1 x mPCIe slot(for half size Wifi module)
Network	2 x Intel® Ethernet Controller I210-AT	2 x Intel® Ethernet Controller I210-AT	2 x Intel® Ethernet Controller I210-AT	2 x Intel® Ethernet Controller I210-AT
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux Ubuntu 16.04 (Optional)	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux Ubuntu 16.04 (Optional)	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux Ubuntu 16.04 (Optional)	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux Ubuntu 16.04 (Optional)
<b>Connectors</b>				
Push-button	2 x M12 waterproof connector for push-button extension	2 x M12 waterproof connector for push-button extension	2 x M12 waterproof connector for push-button extension	2 x M12 waterproof connector for push-button extension
Ethernet LAN	-	1 x waterproof Giga LAN RJ45 connector	1 x waterproof Giga LAN RJ45 connector	1 x waterproof Giga LAN RJ45 connector
COM	1 x M12 waterproof connector for RS232	1x M12 waterproof connector for RS232	1 x M12 waterproof connector for RS232	1x M12 waterproof connector for RS232
USB	1 x M12 waterproof connector for 1 x USB2.0 & Giga LAN RJ45	1 x M12 waterproof connector for 2 x USB2.0 & 1x USB type-A waterproof connector at front side	1 x M12 waterproof connector for 2 x USB2.0 & 1 x USB type-A waterproof connector at front side	1 x M12 waterproof connector for 2 x USB2.0 & 1 x USB type-A waterproof connector at front side
Power Input	1 x M12 waterproof connector for 12V DC	1 x M12 waterproof connector for 12V DC	1 x M12 waterproof connector for 12V DC	1 x M12 waterproof connector for 12V DC
<b>Mechanical</b>				
Housing	Stainless Housing	Stainless Housing	Stainless Housing	Stainless Housing
Mounting	VESA Mount (75 x 75 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (200 x 100 mm)
<b>Environment</b>				
Operating Temp.	0 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C
Humidity	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
IP Proof	IP65	IP65	IP65	IP65
<b>Certifications</b>				
Safety	CE, FCC	CE, FCC	CE, FCC	CE, FCC

## Custom configuration



Memory



Storage



AR Glass

## Application



### Drug Manufacturing Process

“ENABLES CHEMICAL MANUFACTURING DIGITIZATION.”

Consists of SUS316 stainless steel, the housing is full IP69K-rated water, dust and corrosion-proof, with standing extensive wash downs with corrosion resistance against cleaning agents, especially against close-range high-pressure, high temperature wash downs.

# 15"~23.8" x86 Stainless Panel PC IP69K Stainless P Series with Conduit Pipe

NEW



“**BUILT FOR OPERATIONS IN HARSH ENVIRONMENTS WITH STRICT HYGIENE DEMANDS.**”

- 15"~23.8" PCAP touchscreen
- Intel® Core™ i5-7200U
- Windows 10 / Ubuntu 18.04

---

SUS316 stainless steel

---

Waterproof sealed conduit pipe

---

4GB DDR4 2133

---

64GB B-key M.2 2242

---

USB 3.0

---

RS232

---

RJ45 for Ethernet

---

Supports VESA mount, panel mount and Yoke mount

---

IP69K waterproof and dustproof

---

Operating temperature 0°C to 45°C

## Accessories

### Standard

Waterproof Conduit 1.5m

Elbow for connecting the conduit

AC to DC power adapter with power cord

Open wire cable for phoenix connector

### Optional

Yoke mount stand kit

# x86 IP69K Stainless P Series with Conduit Pipe

Intel® Core™ i5-7200U



Model Name	15"	19"	21.5" (16:9)	23.8" (16:9)
	R15IK3S-SPC369-P	R19IK3S-SPM169-P	W22IK3S-SPA369-P	W24IK3S-SPA269-P
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1280 x 1024	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	250 nits	350 nits	250 nits	250 nits
<b>Contrast Ratio</b>	2000:1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
<b>Viewing Angle</b>	-88~88(H);-88~88(V)	-85~85(H);-80~80(V)	-89~89(H);-89~89(V)	-89~89(H);-89~89(V)
<b>Display Color</b>	16.2M	16.7M	16.7M	16.7M
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>Memory</b>	4GB DDR4 2133 (Optional up to 16GB)	4GB DDR4 2133 (Optional up to 16GB)	4GB DDR4 2133 (Optional up to 16GB)	4GB DDR4 2133 (Optional up to 16GB)
<b>Ethernet Controller</b>	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM
<b>Storage</b>	64GB B-key M.2 2242 (Optional up to 512GB)	64GB B-key M.2 2242 (Optional up to 512GB)	64GB B-key M.2 2242 (Optional up to 512GB)	64GB B-key M.2 2242 (Optional up to 512GB)
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>BIOS</b>	Insyde BIOS	Insyde BIOS	Insyde BIOS	Insyde BIOS
<b>OS</b>	Windows 10 IoT Enterprise (Optional) Ubuntu 18.04 (Optional)	Windows 10 IoT Enterprise (Optional) Ubuntu 18.04 (Optional)	Windows 10 IoT Enterprise (Option) Ubuntu 18.04 (Option)	Windows 10 IoT Enterprise (Optional) Ubuntu 18.04 (Optional)
<b>Connectors</b>				
<b>Serial</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>HDMI</b>	1 x HDMI 1.4 output	1 x HDMI 1.4 output	1 x HDMI 1.4 output	1 x HDMI 1.4 output
<b>Mechanical</b>				
<b>Dimension</b>	356 x 280 x 56mm	445 x 370 x 56mm	531 x 322 x 56mm	600 x 369 x 56mm
<b>Environment</b>				
<b>Operating Temp.</b>	0 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>IP Proof</b>	IP69K	IP69K	IP69K	IP69K
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 10.4"~21.5" x86 Stainless Panel PC

## IP69K Stainless PCAP Chassis

### Custom configuration



Memory



AR Glass



Glove Mode



Mini PCIe  
SSD



Storage



“

**WITHSTANDS HIGH  
PRESSURE WASHDOWNS.  
EASY-TO-CLEAN.**

”

- 10.4"~21.5" PCAP touchscreen
- Intel® Celeron® N2930
- Intel® Core™ i5-7200U
- Windows 10/8/7

---

4GB DDR3L 1600

---

64GB mSATA SSD

---

USB A-Type

---

RS232

---

RJ45 for Ethernet

---

VESA mount, yoke mount

---

SUS316 stainless steel

---

Power input 12V DC, lockable power jack

---

IP69K waterproof and dustproof

---

Operating temperature 0°C to 45°C

### Accessories

#### Standard

---

AC Adapter      Power Cable      Power Converter Cable      RS232 Cable      VESA Screws

#### Optional

---

USB Cable for Touch

### Application



#### Production Line Machine Controller

“FAST PRODUCT  
DEPLOYMENT IN THE  
FACTORY!”

Sealed to IP69K Winmate's  
15" stainless panel PC  
was deployed as a machine  
controller in the biscuit  
production line.



# x86 IP69K Stainless PCAP Chassis

Intel® Core™ i5-7200U



Model Name	15"	19"	21.5" (16:9)
	R15IK3S-SPC369	R19IK3S-SPM169	W22IK3S-SPA369
<b>Display</b>			
<b>Resolution</b>	1024 x 768	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	250 nits	250 nits	250 nits
<b>Contrast Ratio</b>	700 : 1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
<b>Active Area</b>	304.1 x 228.1	376.32 x 301.06	476.64 x 268.11
<b>Viewing Angle</b>	-80~80 (H); -70~70 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.2M	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>System</b>			
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS	Insyde BIOS
<b>Memory</b>	1 x DDR4 2133MHz 4GB (Default), max. 16GB	1 x DDR4 2133MHz 4GB (Default), max. 16GB	1 x DDR4 2133MHz 4GB (Default), max. 16GB
<b>Storage</b>	64GB M.2 B Key SATA III SSD (Options up to 256GB)	64GB M.2 B Key SATA III SSD (Options up to 256GB)	64GB M.2 B Key SATA III SSD (Options up to 256GB)
<b>Ethernet Controller</b>	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>			
<b>Serial Interface</b>	1 x RS232	1 x RS232	1 x RS232
<b>LAN</b>	1 x LAN	1 x LAN	1 x LAN
<b>USB</b>	2 x USB	2 x USB	2 x USB
<b>Power</b>	1 x Locable Power Jack	1 x Locable Power Jack	1 x Locable Power Jack
<b>Mechanical</b>			
<b>Dimensions</b>	378 x 301 x 56.4 mm	467.4 x 392 x 56.6 mm	541 x 337 x 53 mm
<b>Operating Temp.</b>	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>IP Proof</b>	Full IP69K, air venting valve	Full IP69K, air venting valve	Full IP69K, air venting valve
<b>Mounting</b>	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 200 mm)
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	12V DC
<b>Power Consumption</b>	52W (Typ.)	56W (Typ.)	66W (Typ.)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# x86 IP69K Stainless PCAP Chassis

Intel® Celeron® N2930



Model Name	10.4"	15"	19"	21.5" (16:9)
	R10IB3S-SPT269	R15IB3S-SPC3	R19IB3S-SPM1	W22IB3S-SPA3
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1024 x 768	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	350 nits	250 nits	250 nits	250 nits
<b>Contrast Ratio</b>	1000 : 1 (Typ.)	700 : 1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
<b>Active Area</b>	304.1 x 228.1	304.1 x 228.1	376.32 x 301.06	476.64 x 268.11
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-88~88(H); -88~88(V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.2M	16.2M	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
<b>Memory</b>	1 x SODIMM, DDR3L 1600 (Default 4GB)	1 x SODIMM, DDR3L 1600 (Default 4GB)	1 x SODIMM, DDR3L 1600 (Default 4GB)	1 x SODIMM, DDR3L 1600 (Default 4GB)
<b>Storage</b>	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB)	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB)	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB)	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB)
<b>Ethernet Controller</b>	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN
<b>OS</b>	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>Serial Interface</b>	1 x RS232	1 x RS232	1 x RS232	1 x RS232
<b>LAN</b>	1 x LAN	1 x LAN,	1 x LAN	1 x LAN
<b>USB</b>	2 x USB	2 x USB	2 x USB	2 x USB
<b>Power</b>	1 x Lockable Power Jack	1 x Lockable Power Jack	1 x Lockable Power Jack	1 x Lockable Power Jack
<b>Mechanical</b>				
<b>Dimension</b>	289 x 246 x 49.9 mm	378 x 301 x 56.4 mm	467.4 x 392 x 56.6 mm	541 x 337 x 53 mm
<b>Operating Temp.</b>	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>IP Proof</b>	Full IP69K, air venting valve	Full IP69K, air venting valve	Full IP69K, air venting valve	Full IP69K, air venting valve
<b>Mounting</b>	VESA Mount (75 x 75 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 200 mm)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	33W (Typ.)	38W (Typ.)	45W (Typ.)	56W (Typ.)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

## 10.4"~19" x86 Stainless Panel PC

# IP67 Resistive Chassis



“ **SCRATCH RESISTANT TOUCH SCREEN.** ”

- 10.4"~19" resistive touchscreen
- Intel® Celeron® N2930
- Windows 10/8/7

---

4GB DDR3L 1600

---

64GB mini PCIe SSD

---

USB Type-A

---

RS232

---

RJ45 for Ethernet

---

SUS316 stainless steel

---

VESA mount, yoke mount

---

Power input 12V DC, lockable power jack

---

IP67 waterproof and dustproof

---

Operating temperature 0°C to 45°C

---

## Accessories

### Standard

AC Adapter    Power Cable    RS232 Cable    Ethernet Cable    USB Cable    VESA Screws

## Custom configuration



Memory



2.5" HDD



PCAP  
Touchscreen

## Application



### Self-Order Kiosk

“SPEED UP ORDERS AND INCREASE CUSTOMER SATISFACTION.”

Sealed to IP67, Winmate's 19" panel PC now accept orders in a french fast food chain. After busy days, the operator uses water to clean the surface to meet the requirements of food safety authorities.

# x86 IP67 Resistive Chassis

Intel® Celeron® N2930



Model Name	10.4" TFT	15"	19"
	R10IB3S-67T2ST	R15IB3S-67C3ST	R19IB3S-67A1ST
<b>Display</b>			
<b>Resolution</b>	1024 x 768	1280 x 768	1280 x 1024
<b>Panel Brightness</b>	350 nits	250 nits	400 nits
<b>Contrast Ratio</b>	1000 : 1 (Typ.)	700 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Active Area</b>	210.4 x 157.8	304.1 x 228.1	376.32 x 301.056
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-88~88 (H); -88~88(V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.2M	16.2M	16.7M
<b>Touch</b>	5 Wire Resistive touchscreen, AR Glass (Optional)	5 Wire Resistive touchscreen, AR Glass (Optional)	5 Wire Resistive touchscreen, AR Glass (Optional)
<b>System</b>			
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS
<b>Memory</b>	1 x SODIMM, DDR3L 1600 (Default 4GB) max. 8GB	1 x SODIMM, DDR3L 1600 (Default 4GB) max. 8GB	1 x SODIMM, DDR3L 1600 (Default 4GB) max. 8GB
<b>Storage</b>	Mini PCIe SATA II SSD (Default 64GB) max. 512GB	Mini PCIe SATA II SSD (Default 64GB) max. 512GB	Mini PCIe SATA II SSD (Default 64GB) max. 512GB
<b>Ethernet Controller</b>	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>			
<b>Serial Interface</b>	1 x RS232	1 x RS232	1 x RS232
<b>LAN</b>	1 x LAN	1 x LAN	1 x LAN
<b>USB</b>	2 x USB	2 x USB	2 x USB
<b>Power</b>	1 x Lockable Power Jack	1 x Lockable Power Jack	1 x Lockable Power Jack
<b>Mechanical</b>			
<b>Dimensions</b>	311 x 257 x 46.4 mm	381.8 x 310 x 56.4 mm	457.4 x 370 x 61.9 mm
<b>Operating Temp.</b>	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>Net Weight</b>	7.1 kg	7.3kg	10.2kg
<b>IP Rating</b>	Full IP67	Full IP67	Full IP67
<b>Mounting</b>	VESA Mount (75 x 75 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	12V DC
<b>Power Consumption</b>	33W (Typ.)	38W (Typ.)	45W (Typ.)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

10.4"~21.5" x86 Stainless Panel PC

# IP65 Stainless PCAP Chassis



“ **STAINLESS RUST PROOF HOUSING.** ”

- 10.4"~21.5" PCAP touchscreen
- Intel® Celeron® N2930
- Intel® Core™ i5-7200U
- Windows 10/8/7

---

4GB DDR3L 1600

---

64GB mini PCIe SSD

---

USB Type-A

---

RS232

---

RJ45 for Ethernet

---

SUS316 stainless steel

---

VESA mount, yoke mount

---

Power input 12V DC, lockable power jack

---

IP65 waterproof and dustproof

---

Operating temperature 0°C to 45°C

---

## Accessories

### Standard

AC Adapter    Power Cable    RS232 Cable    Ethernet Cable    USB Cable    VESA Screws

## Custom configuration



Memory



PCAP  
Touchscreen



AR Glass



Glove Mode

## Application



### Automatic Sorting Line

“MAKES SORTING FASTER  
AND MORE ACCURATE.”

New fully automated parcel sorting station now has a waterproof IP65-rated panel PC that helps operator to visualize the status and package distribution within the sorting station.



# x86 IP65 Stainless PCAP Chassis

Intel® Core™ i5-7200U



Model Name	15"	17"	19"	21.5" (16:9)
	R15IK3S-SPC3	R17IK3S-SPM1	R19IK3S-SPM1	W22IK3S-SPA3
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1280 x 1024	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	250 nits	350 nits	250 nits	250 nits
<b>Contrast Ratio</b>	700 : 1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
<b>Active Area</b>	304.1 x 228.1	337.92 x 270.34	376.32 x 301.06	476.64 x 268.11
<b>Viewing Angle</b>	-88~88 (H); -88~88(V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.2M	16.7M	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS	Insyde BIOS	Insyde BIOS
<b>Memory</b>	1 x DDR4 2133MHz 4GB (Default), max. 16GB	1 x DDR4 2133MHz 4GB (Default), max. 16GB	1 x DDR4 2133MHz 4GB (Default), max. 16GB	1 x DDR4 2133MHz 4GB (Default), max. 16GB
<b>Storage</b>	2.5" HDD/M.2 SSD (Default 64GB) max. 512GB	2.5" HDD/M.2 SSD (Default 64GB) max. 512GB	2.5" HDD/M.2 SSD (Default 64GB) max. 512GB	2.5" HDD/M.2 SSD (Default 64GB) max. 512GB
<b>Ethernet Controller</b>	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>				
<b>Serial Interface</b>	1 x RS232	1 x RS232	1 x RS232	1 x RS232
<b>LAN</b>	1 x LAN	1 x LAN	1 x LAN	1 x LAN
<b>USB</b>	2 x USB	2 x USB	2 x USB	2 x USB
<b>Power</b>	1 x Lockable Power Jack	1 x Lockable Power Jack	1 x Lockable Power Jack	1 x Lockable Power Jack
<b>Mechanical</b>				
<b>Dimensions</b>	378 x 301 x 56.4 mm	412 x 344 x 61.3 mm	467.4 x 392 x 56.6 mm	541 x 337 x 53 mm
<b>Operating Temp.</b>	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>IP Rating</b>	Full IP65	Full IP65	Full IP65	Full IP65
<b>Mounting</b>	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 200 mm)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	52W (Typ.)	56W (Typ.)	56W (Typ.)	66W (Typ.)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 IP65 Stainless PCAP Chassis

Intel® Celeron® N2930



Model Name	10.4"	15"	17"	19"	21.5" (16:9)
	R10IB3S-SPC3	R15IB3S-SPC3	R17IB3S-SPM1	R19IB3S-SPM1	W22IB3S-SPA3
<b>Display</b>					
Resolution	1024 x 768	1024 x 768	1280 x 1024	1280 x 1024	1920 x 1080
Panel Brightness	350 nits	250 nits	350 nits	250 nits	250 nits
Contrast Ratio	1000 : 1 (Typ.)	700 : 1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
Active Area	304.1 x 228.1	304.1 x 228.1	337.92 x 270.34	376.32 x 301.06	476.64 x 268.11
Viewing Angle	-88~88 (H); -88~88 (V)	-88~88(H); -88~88(V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
Display Color	16.2M	16.2M	16.7M	16.7M	16.7M
Touch	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>System</b>					
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
Memory	1 x SODIMM, DDR3L 1600 (Default 4GB) max. 8GB	1 x SODIMM, DDR3L 1600 (Default 4GB) max. 8GB	1 x SODIMM, DDR3L 1600 (Default 4GB) max. 8GB	1 x SODIMM, DDR3L 1600 (Default 4GB) max. 8GB	1 x SODIMM, DDR3L 1600 (Default 4GB) max. 8GB
Storage	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB) max. 512GB	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB) max. 512GB	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB) max. 512GB	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB) max. 512GB	2.5" HDD/Mini PCIe SATA II SSD (Default 64GB) max. 512GB
Ethernet Controller	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>					
Serial Interface	1 x RS232	1 x RS232	1 x RS232	1 x RS232	1 x RS232
LAN	1 x LAN	1 x LAN	1 x LAN	1 x LAN	1 x LAN
USB	2 x USB	2 x USB	2 x USB	2 x USB	2 x USB
Power	1 x Lockable Power Jack	1 x Lockable Power Jack	1 x Lockable Power Jack	1 x Lockable Power Jack	1 x Lockable Power Jack
<b>Mechanical</b>					
Dimensions	289 x 246 x 49.9 mm	378 x 301 x 56.4 mm	412 x 344 x 61.3 mm	467.4 x 392 x 56.6 mm	541 x 337 x 53 mm
Operating Temp.	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
Humidity	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
IP Proof	Full IP65	Full IP65	Full IP65	Full IP65	Full IP65
Mounting	VESA Mount (75 x 75 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 200 mm)
<b>Power</b>					
Power Input	12V DC	12V DC	12V DC	12V DC	12V DC
Power Consumption	33W (Typ.)	38W (Typ.)	43W (Typ.)	45W (Typ.)	56W (Typ.)
<b>Certifications</b>					
Safety	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 IP65 Stainless Chassis

Intel® Celeron® N2930



Model Name	15"	15"	17"	19"	21.5" (16:9)
	R15IB3S-65A1FTP	R15IB3S-65C3	R17IB3S-65M1	R19IB3S-65M1	W22IB3S-65A3
<b>Display</b>					
<b>Resolution</b>	1024 x 768	1024 x 768	1280 x 1024	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	500 nits	250 nits	350 nits	250 nits	250 nits
<b>Contrast Ratio</b>	2500:1 (Typ.)	700 : 1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	304.1 x 228.1	304.1 x 228.1	337.9 x 270.4	376.3 x 301.1	476.7 x 268.1
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-70~70(H); -65~60(V)	-85~85(H); -80~80(V)	-85~85(H); -80~80(V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.2M	16.2M	16.7M	16.7M	16.7M
<b>Touch</b>	Projected Capacitive	5 Wires Resistive touchscreen or AR Glass	5 Wires Resistive touchscreen or AR Glass	5 Wires Resistive touchscreen or AR Glass	5 Wires Resistive touchscreen or AR Glass
<b>System</b>					
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
<b>Memory</b>	1x SO-DIMM DDR3L 1066/1333 MHz (Default 4GB, max. 8GB)	1 x SODIMM, DDR3L 1600 (Default 4GB, max. 8GB)	1 x SO-DIMM, DDR3L 1600 (Default 4GB, max. 8GB)	1 x SO-DIMM, DDR3L 1600 (Default 4GB, max. 8GB)	1 x SO-DIMM, DDR3L 1600 (Default 4GB, max. 8GB)
<b>Storage</b>	2.5" HDD/SSD (Default 64GB) max. 512GB	2.5" HDD/ Mini PCIe SSD (Default 64GB) max. 512GB	2.5" HDD/Mini PCIe SSD (Default 64GB) max. 512GB	2.5" HDD/Mini PCIe SSD (Default 64GB) max. 512GB	2.5" HDD/ Mini PCIe SSD (Default 64GB) max. 512GB
<b>Ethernet Controller</b>	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000
<b>Audio</b>	Realtek HD Audio Codec	Built in HD Audio Codec	Built in HD Audio Codec	Built in HD Audio Codec	Built in HD Audio Codec
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>					
<b>Serial Interface</b>	1 x RS232 (Optional RS422/RS485)	4 x RS232 (3 x RS232 internal)	4 x RS232 (3 x RS232 internal)	4 x RS232 (3 x RS232 internal)	4 x RS232 (3 x RS232 internal)
<b>USB</b>	2 x USB Type-A Receptacle	6 x USB2.0 (4 x USB internal)	6 x USB2.0 (4 x USB internal)	6 x USB2.0 (4 x USB internal)	6 x USB2.0 (4 x USB internal)
<b>Mechanical</b>					
<b>Dimensions</b>	396 x 310 x 49 mm	388 x 311 x 61 mm	416 x 350 x 61 mm	460 x 385 x 63 mm	550 x 340 x 65 mm
<b>Operating Temp.</b>	-20°C to 60°C	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>IP Rating</b>	Full IP65	Full IP65	Full IP65	Full IP65	Full IP65
<b>Mounting</b>	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 200 mm)
<b>Power</b>					
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	25W (Typ.) (Max.backlight & high CPU load)	38W (Typ.) (Max.backlight & high CPU load)	43W (Typ.) (Max.backlight & high CPU load)	45W (Typ.) (Max.backlight & high CPU load)	56W (Typ.) (Max.backlight & high CPU load)
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC,	CE, FCC	CE, FCC	CE, FCC

# x86 IP65 Stainless Chassis

Intel® Core™ i5-7200U



Model Name	15"	17"	19"	21.5" (16:9)
	R15IK3S-65C3	R17IK3S-65M1	R19IK3S-65M1	W22IK3S-65A3
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1280 x 1024	1280 x 1024	1920 x 1080
<b>Brightness</b>	250 nits	350 nits	250 nits	250 nits
<b>Contrast Ratio</b>	700:1(Typ.)	1000:1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	304.1 x 228.1	337.92 x 270.34	376.32 x 301.06	476.64 x 268.11
<b>Viewing Angle</b>	-80~80 (H); -70~70 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.2M	16.7M	16.7M	16.7M
<b>Touch</b>	5 Wires Resistive touchscreen or AR Glass	5 Wires Resistive touchscreen or AR Glass	5 Wires Resistive touchscreen or AR Glass	5 Wires Resistive touchscreen or AR Glass
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS	Insyde BIOS	Insyde BIOS
<b>Memory</b>	DDR4-2133 SO-DIMM (Max 16GB)	DDR4-2133 SO-DIMM (Max 16GB)	DDR4-2133 SO-DIMM (Max 16GB)	DDR4-2133 SO-DIMM (Max 16GB)
<b>Storage</b>	64GB M.2 B Key SATA III (Options up to 512GB)	64GB M.2 B Key SATA III (Options up to 512GB)	64GB M.2 B Key SATA III (Options up to 512GB)	64GB M.2 B Key SATA III (Options up to 512GB)
<b>Ethernet Controller</b>	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>				
<b>Serial Interface</b>	1 x RS232	1 x RS232	1 x RS232	1 x RS232
<b>USB</b>	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0
<b>Mechanical</b>				
<b>Dimensions</b>	384 x 311 x 61 mm	416 x 350 x 61 mm	460 x 385 x 63 mm	550 x 340 x 65 mm
<b>Operating Temp.</b>	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>IP Rating</b>	Full IP65	Full IP65	Full IP65	Full IP65
<b>Mounting</b>	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 200 mm)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	52W (Typ.), max backlight & high CPU load	56W (Typ.), max backlight & high CPU load	56W (Typ.), max backlight & high CPU load	66W (Typ.), max backlight & high CPU load
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC,	CE, FCC

# 7"~15.6" x86 HMI E Series

## Custom configuration



Memory



## Application



### Fruit Sorting and Packaging

"FAST SPEED AND STABLE PERFORMANCE."

The multi-touch panel PC offered advanced performance, an intuitive user interface. Being connected to the PLC through an Ethernet cable the operator panel ensures faster and more reliable operations.

“ ELEGANT DESIGN. ”

- 7"~15.6" PCAP touchscreen
- Intel® Celeron® N2930
- Windows 10/8/7

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Fanless cooling system

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64GB mSATA SSD

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USB 3.0, USB 2.0

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RS232/422/485, two RJ45 for Ethernet, HDMI 1.4a

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Panel mount, VESA mount

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Front IP65

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Operating temperature 0°C to 50°C

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## Accessories

### Standard

Mounting Clips and Screws

2pin Terminal Block

AC Adapter

Power Cord

Driver CD



# x86 E Series HMI

Intel® Celeron® N2930



Model Name	7" (16:10)	10.1" (16:10)	15.1"	15.6" (16:9)
	W07IB3S-EHT1	W10IB3S-EHH2	R15IB3S-EHC3	W15IB3S-EHA2
<b>Display</b>				
Resolution	1024 x 600	1280 x 800	1024 x 768	1366 x 768
Panel Brightness	320 nits	350 nits	300 nits	400 nits
Contrast Ratio	1000 : 1 (Typ.)	800 : 1 (Typ.)	700:1 (Typ.)	500 : 1 (Typ.)
Viewing Angle	-70~75 (H); -75~75 (V)	-85~85 (H); -85~85 (V)	-80~80 (H); -80~80 (V)	-85~85 (H); -85~85 (V)
Display Color	16.7M	16.7M	16.7M	16.7M
Touch	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>				
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
Memory	2GB DDR3L 1600 SO-DIMM (Optional 4GB)	2GB DDR3L 1600 SO-DIMM (Optional 4GB)	2GB DDR3L 1600 SO-DIMM (Optional 4GB)	2GB DDR3L 1600 SO-DIMM (Optional 4GB)
Storage	64GB mSATA SSD	64GB mSATA SSD	64GB mSATA SSD	64GB mSATA SSD
Ethernet Controller	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE PoE	Intel® I210-AT GbE
OS	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System
Security	Trusted platform module (TPM 1.2)	Trusted platform module (TPM 1.2)	Trusted platform module (TPM 1.2)	Trusted platform module (TPM 1.2)
Utility	Watchdog SDK	Watchdog SDK	Watchdog SDK	Watchdog SDK
<b>Connectors</b>				
Power	1 x DC Jack	1 x DC Jack	1 x DC Jack	1 x DC Jack
Serial Interface	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
USB	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0
Ethernet	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
HDMI port	1 x HDMI1.4a	1 x HDMI1.4a	1 x HDMI 1.4a	1 x HDMI1.4a
<b>Power</b>				
Power Input	12V DC	12V DC	12V DC	12V DC
Power Consumption	17 W (Typ.)	19 W (Typ.)	23 W (Typ.)	23 W (Typ.)
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>				
Dimension	184.94 x 127.7 x 44.9 mm	267.42 x 182.14 x 57.6 mm	276.7 x 352.5 x 56.3 mm	421 x 260.6 x 65.5 mm
Mounting	VESA Mount (75 x 75 mm), Panel Mount with 4 Mounting Clips	Panel Mount with 8 Mounting Clips	Panel Mount with 10 Mounting Clips	Panel Mount with 10 Mounting Clips
Cooling System	Fanless design	Fanless design	Fanless design	Fanless design
<b>Environment</b>				
Operating Temp.	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
IP Rating	Front-IP65, Rear-IP22	Front-IP65, Rear-IP22	Front-IP65, Rear-IP22	Front-IP65, Rear-IP22
<b>Certifications</b>				
Safety	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 7"~15.6" Arm HMI E Series

## Custom configuration



PoE



## Application



## Energy Efficiency Systems

"EASE OF USE,  
DURABILITY AND  
ACCURATE CONTROLS."

Lower operational costs with HMI operator panels installed inside intelligent building to control energy consumption.

“ EASY TO INSTALL.  
ERGONOMIC. COMPACT. ”

- 7"~15.6" PCAP touchscreen
- Arm Cortex-A9
- Android 6.0, Ubuntu 16.04, Linux Kernel 4.1.15, QT 5.5

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Fanless cooling system

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1GB LPDDR3, 16GB eMMC, Micro SD Card Slot

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USB 2.0, USB OTG, micro USB for debug

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RS232/422/485, RJ45 LAN Support PoE, CANBus, micro HDMI

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Panel mount, VESA mount

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Front IP65

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Operating temperature 0°C to 50°C

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For less I/O demanding applications

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## Accessories

### Standard

Mounting Clips and Screws

2pin Terminal Block

AC Adapter

Power Cord

Driver CD

# Arm E Series HMI

Arm Cortex-A9



Model Name	7" (17:10)	10.1" (16:10)	15.1	15.6" (16:9)
	W07FA3S-EHT1	W10FA3S-EHH2	R15FA3S-EHC3	W15FA3S-EHA4
<b>Display</b>				
<b>Resolution</b>	1024 x 600	1280 x 800	1024 x 768	1920 x 1080
<b>Panel Brightness</b>	320 nits	350 nits	300 nits	300 nits
<b>Contrast Ratio</b>	1000 : 1 (Typ.)	800 : 1 (Typ.)	700 : 1 (Typ.)	800 : 1 (Typ.)
<b>Viewing Angle</b>	-70~75 (H); -75~75 (V)	-85~85 (H); -85~85 (V)	-80~80 (H); -80~80 (V)	-85~85 (H); -85~85 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>				
<b>Processor</b>	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>Memory</b>	1GB LPDDR3	1GB LPDDR3	1GB LPDDR3	1GB LPDDR3
<b>Storage</b>	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
<b>OS</b>	Android 6.0 (Default) Linux Kernel 4.1.15, QT 5.5 Browser (Optional) Linux Ubuntu 16.04/18.04 (Optional)	Android 6.0 (Default) Linux Kernel 4.1.15, QT 5.5 Browser (Optional) Linux Ubuntu 16.04/18.04 (Optional)	Android 6.0 (Default) Linux Kernel 4.1.15, QT 5.5 Browser (Optional) Linux Ubuntu 16.04/18.04 (Optional)	Android 6.0 (Default) Linux Kernel 4.1.15, QT 5.5 Browser (Optional) Linux Ubuntu 16.04/18.04 (Optional)
<b>Connectors</b>				
<b>Power</b>	1 x 2pin terminal block	1 x 2pin terminal block	1 x 2pin terminal block	1 x 2pin terminal block
<b>Ethernet</b>	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	1 x USB 2.0 1 x USB OTG	1 x USB 2.0 1 x USB OTG	1 x USB 2.0 1 x USB OTG	1 x USB 2.0 1 x USB OTG
<b>Memory Card</b>	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
<b>CAN BUS</b>	1 x CANBUS	1 x CANBUS	1 x CANBUS	1 x CANBUS
<b>HDMI</b>	1 x Micro HDMI	1 x Micro HDMI	1 x Micro HDMI	1 x Micro HDMI
<b>Debug</b>	1 x Mini USB to Debug	1 x Mini USB to Debug	1 x Mini USB to Debug	1 x Mini USB to Debug
<b>Power</b>				
<b>Power Input</b>	9~24V DC	12V DC	12V DC	12V DC
<b>Power over Ethernet</b>	Support PoE (Optional), requires IEEE 802.3at 25W power input	Support PoE (Optional), requires IEEE 802.3at 25W power input	Support PoE (Optional), requires IEEE 802.3at 25W power input	Support PoE (Optional), requires IEEE 802.3at 25W power input
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>				
<b>Dimension</b>	184.94 x 127.7 x 44.9 mm	267.42 x 182.14 x 57.6 mm	276.7 x 352.5 x 56.3 mm	421 x 260.6 x 65.5 mm
<b>Mounting</b>	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Environment</b>				
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>IP Rating</b>	Front-IP65 Rear-IP22	Front-IP65 Rear-IP22	Front-IP65 Rear-IP22	Front-IP65 Rear-IP22
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

4.3"~15.6" Arm HMI

# EL Series



## Application



### Utilities Control

"JUST THE RIGTH SIZE FOR OUR APPLICATION."

The ultra-compact HMI with 4.3" Multi-Touch screen makes this solution to be the right fit for machine control and data visualization in the factory floor.

“ **PANEL MOUNT.  
FITS IN CONFINED SPACES.** ”

- 4.3"~15.6" PCAP touchscreen
- Arm Cortex-A9
- Android 6.0, Ubuntu 16.04

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Fanless cooling system

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1GB LPDDR3, 8GB eMMC

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USB 2.0, USB OTG

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RS485, RJ45 for Ethernet

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Panel mount, VESA mount

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Front IP65

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Operating temperature -20°C to 50°C

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## Accessories

### Standard

VESA Plate	VESA Mounting Screws	AC Adapter	Power Cord	Driver CD
VESA Desk Stand	VESA Wall Mount Bracket			

# Arm EL Series HMI

Arm Cortex-A9



Model Name	4.3" (16:9)	5" (16:9)	7" (16:9)	10.1" (16:10)	15.6" (16:9)
	W04FA3S-ELT1	W05FA3S-ELT1	W07FA3S-ELT1	W10FA3S-ELH2	W15FA3S-ELA4
<b>Display</b>					
<b>Resolution</b>	480 x 272	1024 x 600	1024 x 600	1280 x 800	1920 x 1080
<b>Panel Brightness</b>	400 nits	300 nits	320 nits	350 nits	300 nits
<b>Contrast Ratio</b>	1000 : 1 (Typ.)	400 : 1 (Typ.)	1000 : 1 (Typ.)	800 : 1 (Typ.)	800 : 1 (Typ.)
<b>Viewing Angle</b>	-75~50 (H); -75~75 (V)	-75~50 (H); -75~75 (V)	-70~75 (H); -75~75 (V)	-85~85 (H); -85~85 (V)	-85~85 (H); -85~85 (V)
<b>Display Color</b>	16.7M	256k	16.7M	16.7M	262k
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>					
<b>Processor</b>	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>Memory</b>	1GB LPDDR3	1GB LPDDR3	1GB LPDDR3	1GB LPDDR3	1GB LPDDR3
<b>Storage</b>	Onboard 8GB eMMC (Default)	Onboard 8GB eMMC (Default)	Onboard 8GB eMMC (Default)	Onboard 8GB eMMC (Default)	Onboard 8GB eMMC (Default)
<b>OS</b>	Android 6.0 (Default) Ubuntu 16.04/18.04 (Optional)	Android 6.0 (Default) Ubuntu 16.04/18.04 (Optional)	Android 6.0 (Default) Ubuntu 16.04/18.04 (Optional)	Android 6.0 (Default) Ubuntu 16.04/18.04 (Optional)	Android 6.0 (Default) Ubuntu 16.04/18.04 (Optional)
<b>Connectors</b>					
<b>DC-Input</b>	Terminal Block 3pin	Terminal Block 3pin	Terminal Block 3pin	Terminal Block 3pin	Terminal Block 3pin
<b>USB Port</b>	1 x USB 2.0 1 x USB OTG	1 x USB 2.0 1 x USB OTG	1 x USB 2.0 1 x USB OTG	1 x USB 2.0 1 x USB OTG	1 x USB 2.0 1 x USB OTG
<b>Ethernet</b>	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000
<b>COM Port</b>	1 x RS485	1 x RS485	1 x RS485	1 x RS485	1 x RS485
<b>Power</b>					
<b>Power Input</b>	12~24V DC with isolation	12~24V DC with isolation	12~24V DC with isolation	12~24V DC with isolation	12~24V DC with isolation
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>					
<b>Dimension</b>	121 x 82 x 49 mm	158 x 116 x 51 mm	185 x 128 x 46 mm	267 x 182 x 47 mm	444 x 285 x 27.5 mm
<b>Mounting</b>	Panel Mount with 4 Mounting Clips	Panel Mount with 6 Mounting Clips	Panel Mount with 7 Mounting Clips	Panel Mount with 7 Mounting Clips	Panel Mount with 10 Mounting Clips
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design	Fanless design
<b>Environment</b>					
<b>Operating Temp.</b>	-20°C to +50°C	0°C to +50°C	-20°C to +50°C	-20°C to +50°C	0°C to +50°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65	Front IP65	Front IP65
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC



# 10.4"~21.5" x86 HMI M Series

## Custom configuration

Up to  
**16 GB**

Memory

Up to  
**512 GB**

Storage

Up to  
**256 GB**

2nd Storage



## Application



### Outdoor Checkpoint

"BRIGHT SUNLIGHT  
READABLE DISPLAY"

Total solution for access control with customized enclosure for track drivers to enter the territory without times losses even in extreme weather conditions and temperature changes.

“ **MODULAR DESIGN.  
INCREASED FLEXIBILITY.** ”

- 10.4"~21.5" PCAP touchscreen
- Intel® Celeron® N2930
- Intel Atom® E3845
- Intel® Core™ i5-7200U
- Windows 10/8/7

---

Fanless cooling system

---

One PCIe x4 expansion slot

---

Two 2.5" SSD bay slots

---

Touchscreen supports glove mode

---

Four USB 3.0

---

HDMI, RS232, RS232/422/485, RJ45 for Ethernet

---

Wide range power input 12-24V DC

---

Wall mount, VESA mount

---

Front IP65

---

Operating temperature 0°C to 50°C

---

## Accessories

### Standard

Mounting Clips

Mounting Screws

AC Adapter

Power Cord

Driver CD

# x86 M Series HMI

Intel® Core™ i5-7200U



Model Name	12"	15"	17"
	R12IKWS-MHM2	R15IKWS-MHC3	R17IKWS-MHM1
<b>Display</b>			
<b>Resolution</b>	1024 x 768	1024 x 768	1280 x 1024
<b>Panel Brightness</b>	500 nits	250 nits	350 nits
<b>Contrast Ratio</b>	700 : 1 (Typ.)	2000 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Active Area</b>	245.76 x 184.32	304.1 x 228.1	337.9 x 270.3
<b>Viewing Angle</b>	-80~80 (H); -70~70 (V)	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>	16.2M	16.2M	16.2M
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>Chipset</b>	Intel® HD graphics 620	Intel® HD graphics 620	Intel® HD graphics 620
<b>Memory</b>	SODIMM DDR4-2133 4GB, option up to 16GB (2 slots)	SODIMM DDR4-2133 4GB, option up to 16GB (2 slots)	SODIMM DDR4-2133 4GB, option up to 16GB (2 slots)
<b>Ethernet Controller</b>	1000 Base-Tx Gigabit Ethernet Compatible	1000 Base-Tx Gigabit Ethernet Compatible	1000 Base-Tx Gigabit Ethernet Compatible
<b>BIOS</b>	Insyde BIOS	Insyde BIOS	Insyde BIOS
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Expansion Slot</b>	1 x PCIe x4	1 x PCIe x4	1 x PCIe x4
<b>Storage</b>	Main Storage: default 2.5" 64GB SSD (Optional larger SSD), Second Storage (Optional): internal M.2 64~256GB SSD	Main Storage: default 2.5" 64GB SSD (Optional larger SSD), Second Storage (Optional): internal M.2 64~256GB SSD	Main Storage: default 2.5" 64GB SSD (Optional larger SSD), Second Storage (Optional): internal M.2 64~256GB SSD
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>			
<b>Power</b>	1 x Terminal Block 3pin	1 x Terminal Block 3pin	1 x Terminal Block 3pin
<b>Ethernet</b>	2 x Gigabit LAN	2 x Gigabit LAN	2 x Gigabit LAN
<b>Serial Interface</b>	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>	4 x USB3.0	4 x USB3.0	4 x USB3.0
<b>HDMI</b>	1 x HDMI Output	1 x HDMI Output	1 x HDMI Output
<b>VGA</b>	1 x D-Sub15 (VGA) Output	1 x D-Sub15 (VGA) Output	1 x D-Sub15 (VGA) Output
<b>Audio</b>	Line-out, Line-in	Line-out, Line-in	Line-out, Line-in
<b>User Controls</b>			
<b>Control Buttons</b>	1 x Reset, 1 x Power	1 x Reset, 1 x Power	1 x Reset, 1 x Power
<b>LED Indicators</b>	2 x 2.5" SSD Indicators	2 x 2.5" SSD Indicators	2 x 2.5" SSD Indicators
<b>Power</b>			
<b>Power Input</b>	12V DC with protection Fuse	12V DC with protection Fuse	12V DC with protection Fuse
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimension</b>	322 x 256 x 91 mm	367 x 291 x 80 mm	398.16 x 3350.54 x 94.6 mm
<b>Mounting</b>	Wall Mount, VESA Mount (100 x 100 mm)	Wall Mount, VESA Mount (100 x 100 mm)	Wall Mount, VESA Mount (100 x 100 mm)
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Storage Temp.</b>	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C
<b>Humidity</b>	30%-95% (Non-condensing, RH)	30%-95% (Non-condensing, RH)	30%-95% (Non-condensing, RH)
<b>IP Rating</b>	Front-IP65, Rear-IP20	Front-IP65, Rear-IP20	Front-IP65, Rear-IP20
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# x86 M Series HMI

Intel® Core™ i5-7200U



Model Name	19"	21.5" (16:9)
	R19IHWS-MHA1	W22IHWS-MHA3
<b>Display</b>		
Resolution	1280 x 1024	1920 x 1080
Panel Brightness	400 nits	250 nits
Contrast Ratio	1000 : 1 (Typ.)	3000 : 1 (Typ.)
Active Area	376.32 x 301.06	476.64 x 268.11
Viewing Angle	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
Display Color	16.7M	16.7M
Touch	Projected Capacitive	Projected Capacitive
<b>System</b>		
Processor	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
Chipset	Intel® HD graphics 620	Intel® HD graphics 620
Memory	SODIMM DDR4-2133 4GB, option up to 16GB (2 slots)	SODIMM DDR4-2133 4GB, option up to 16GB (2 slots)
Ethernet Controller	1000 Base-Tx Gigabit Ethernet Compatible	1000 Base-Tx Gigabit Ethernet Compatible
BIOS	Insyde BIOS	Insyde BIOS
Audio	Realtek HD Audio Codec	Realtek HD Audio Codec
Expansion Slot	1 x PCIe x4	1 x PCIe x4
Storage	Main Storage: default 2.5" 64GB SSD (Optional larger SSD), Second Storage (Optional): internal M.2 64~256GB SSD	Main Storage: default 2.5" 64GB SSD (Optional larger SSD), Second Storage (Optional): internal M.2 64~256GB SSD
OS	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>		
Power	1 x Terminal Block 3pin	1 x Terminal Block 3pin
Ethernet	2 x Gigabit LAN	2 x Gigabit LAN
Serial Interface	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
USB	4 x USB3.0	4 x USB3.0
HDMI	1 x HDMI Output	1 x HDMI Output
VGA	1 x D-Sub15 (VGA) Output	1 x D-Sub15 (VGA) Output
Audio	Line-out, Line-in	Line-out, Line-in
<b>User Controls</b>		
Control Buttons	1 x Reset, 1 x Power	1 x Reset, 1 x Power
LED Indicators	2 x 2.5" SSD Indicators	2 x 2.5" SSD Indicators
<b>Power</b>		
Power Input	12~24V DC with protection Fuse	12~24V DC with protection Fuse
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>		
Dimension	445.72 x 370.46 x 94.6 mm	530.5 x 322 x 94.2 mm
Mounting	Wall Mount, VESA Mount (100 x 100 mm)	Wall Mount, VESA Mount (100 x 100 mm)
Cooling System	Fanless	Fanless
<b>Environment</b>		
Operating Temp.	0°C to +50°C	0°C to +50°C
Storage Temp.	-10°C to +60°C	-10°C to +60°C
Humidity	30%-95% (Non-condensing, RH)	30%-95% (Non-condensing, RH)
IP Rating	Front-IP65, Rear-IP20	Front-IP65, Rear-IP20
<b>Certifications</b>		
Safety	CE, FCC	CE, FCC

# x86 M Series HMI

Intel® Celeron® N2930  
Intel Atom® E3845



Model Name	10.4"	12.1"	15"
	R10IBWS-MHT2	R12IBWS-MHM2	R15IBWS-MHC3
<b>Display</b>			
Resolution	1024 x 768	1024 x 768	1024 x 768
Panel Brightness	350 nits	500 nits	250 nits
Contrast Ratio	1000 : 1 (Typ.)	700 : 1 (Typ.)	700 : 1 (Typ.)
Active Area	201.4 x 157.8	245.76 x 184.32	304.1 x 228.1
Viewing angle	-88~88 (H) ; -88~88 (V)	-80~80 (H) ; -70~70 (V)	-88~88 (H) ; -88~88 (V)
Display Color	16.2M	16.2M	16.2M
Touch	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel Atom® E3845 (2M Cache, 1.91 GHz)	Intel Atom® E3845 (2M Cache, 1.91 GHz)
Memory	SODIMM DDR3L-1600 4GB, option up to 8GB (2 slots)	SODIMM DDR3L-1600 4GB, option up to 8GB (2 slots)	SODIMM DDR3L-1600 4GB, option up to 8GB (2 slots)
Ethernet Controller	Dual Intel® 2210AT GbE LAN	1000 Base-Tx Gigabit Ethernet Compatible	1000 Base-Tx Gigabit Ethernet Compatible
BIOS	AMI BIOS	AMI BIOS	AMI BIOS
Audio	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
Storage	Built-in 64GB mSATA SSD (Up to 512GB)	Main Storage : Default 2.5" 64GB SSD, optional for bigger capacity Second Storage (Optional): Internal mSATA 64GB~256GB SSD	Main Storage : Default 2.5" 64GB SSD, optional up to 128GB Second Storage (Optional): internal mSATA 64~256GB SSD
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>			
Power	1 x Terminal Block 3pin	1 x Terminal Block 3pin	1 x Terminal Block 3pin
Ethernet	2 x Gigabite LAN	2 x Gigabite LAN	2 x Gigabite LAN
Serial Interface	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
USB	1 x USB2.0, 1 x USB3.0	4 x USB2.0	4 x USB2.0
HDMI	1 x HDMI Output	1 x HDMI Output	1 x HDMI Output
VGA	-	1 x D-Sub15 (VGA) Output	1 x D-Sub15 (VGA) Output
Audio	-	Line-out, Line-in	Line-out, Line-in
<b>User Controls</b>			
Control Buttons	1 x Reset, 1 x Power	1 x Reset, 1 x Power	1 x Reset, 1 x Power
LED Indicators	1 x storage Indicator	1 x 2.5" SSD Indicator	1 x 2.5" SSD Indicator
<b>Power</b>			
Power Input	12~24V DC with protection Fuse	12~24V DC with protection Fuse	12~24V DC with protection Fuse
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
Dimension	269.5 x 226 x 65.3 mm	301.2 x 231.7 x 68.8 mm	367 x 291 x 80 mm
Mounting	Wall Mount, VESA Mount (75 x 75 mm)	Wall Mount, VESA Mount (100 x 100 mm)	Wall Mount, VESA Mount (100 x 100 mm)
Cooling System	Fanless	Fanless	Fanless
<b>Environment</b>			
Operating Temp.	0°C to +50°C	0°C to +50°C	0°C to +50°C
Storage Temp.	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C
Humidity	30%-95% (Non-condensing, RH)	30%-95% (Non-condensing, RH)	30%-95% (Non-condensing, RH)
IP Rating	Front-IP65, Rear-IP22	Front-IP65, Rear-IP22	Front-IP65, Rear-IP22
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC

# x86 M Series HMI

Intel Atom® E3845



Model Name	17"	19"	21.5" (16:9)
	R17IBWS-MHM1	R19IBWS-MHA1	W22IBWS-MHA3
<b>Display</b>			
<b>Resolution</b>	1280 x 1024	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	350 nits	400 nits	250 nits
<b>Contrast Ratio</b>	1000 : 1 (Typ.)	1000 : 1 (Typ.)	3000 : 1 (Typ.)
<b>Active Area</b>	337.9 x 270.3	376.32 x 301.06	476.64 x 268.11
<b>Viewing angle</b>	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.2M	16.7M	16.7M
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
<b>Processor</b>	Intel Atom® E3845 (2M Cache, 1.91 GHz)	Intel Atom® E3845 (2M Cache, 1.91 GHz)	Intel Atom® E3845 (2M Cache, 1.91 GHz)
<b>Memory</b>	SODIMM DDR3L-1600 4GB, option up to 8GB (2 slots)	SODIMM DDR3L-1600 4GB, option up to 8GB (2 slots)	SODIMM DDR3L-1600 4GB, option up to 8GB (2 slots)
<b>Ethernet Controller</b>	1000 Base-Tx Gigabit Ethernet Compatible	1000 Base-Tx Gigabit Ethernet Compatible	1000 Base-Tx Gigabit Ethernet Compatible
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>	Main : default 2.5" 64GB SSD, optional up to 128GB/Second Storage (Optional): internal mSATA 64~256GB SSD	Main : default 2.5" 64GB SSD, optional up to 128GB/Second Storage (Optional): internal mSATA 64~256GB SSD	Main : default 2.5" 64GB SSD, optional up to 128GB/Second Storage (Optional): internal mSATA 64~256GB SSD
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>			
<b>Power</b>	1 x Terminal Block 3pin	1 x Terminal Block 3pin	1 x Terminal Block 3pin
<b>Ethernet</b>	2 x Gigabite LAN	2 x Gigabite LAN	2 x Gigabite LAN
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	4 x USB2.0	4 x USB2.0	4 x USB2.0
<b>HDMI</b>	1 x HDMI Output	1 x HDMI Output	1 x HDMI Output
<b>VGA</b>	1 x D-Sub15 (VGA) Output	1 x D-Sub15 (VGA) Output	1 x D-Sub15 (VGA) Output
<b>Audio</b>	Line-out, Line-in	Line-out, Line-in	Line-out, Line-in
<b>User Controls</b>			
<b>Control Buttons</b>	1 x Reset, 1 x Power	1 x Reset, 1 x Power	1 x Reset, 1 x Power
<b>LED Indicators</b>	1 x 2.5" SSD Indicator	1 x 2.5" SSD Indicator	1 x 2.5" SSD Indicator
<b>Power</b>			
<b>Power Input</b>	12~24V DC with protection Fuse	12~24V DC with protection Fuse	12~24V DC with protection Fuse
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimension</b>	398.16 x 330.54 x 79.6 mm	445.72 x 370.46 x 79.6 mm	530.5 x 322 x 45.2 mm
<b>Mounting</b>	Wall Mount, VESA Mount (100 x 100 mm)	Wall Mount, VESA Mount (100 x 100 mm)	Wall Mount, VESA Mount (100 x 100 mm)
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Storage Temp.</b>	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C
<b>Humidity</b>	30%-95% at +40°C (Non-condensing, RH)	30%-95% at +40°C (Non-condensing, RH)	30%-95% at +40°C (Non-condensing, RH)
<b>IP Rating</b>	Front-IP65, Rear-IP20	Front-IP65, Rear-IP20	Front-IP65, Rear-IP20
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC



# 7" ~23.8" x86 HMI PO Series



“ **OPEN FRAME.  
BEST FOR KIOSK  
APPLICATIONS.** ”

- 7" ~23.8" PCAP touchscreen
- 7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Intel® Celeron® N2930
- Windows 10/8/7

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Fanless cooling system

---

64GB mSATA SSD

---

2 x Mini PCIe (for Wi-Fi and 3G module)

---

USB 3.0, USB 2.0

---

RS232/422/485, two RJ45 for Ethernet, HDMI 1.4

---

Open frame

---

Operating temperature 0°C to 50°C

---

## Accessories

### Standard

---

AC Adapter

Power Cord

Driver CD

## Custom configuration

Up to  
**32 GB**

Memory

Up to  
**512 GB**

Storage

## Application



### Self-Service Payment Kiosk

“THE SYSTEM MEETS  
EMV BANKING SECURITY  
STANDARD.”

Installed a self-service  
payment kiosk Winmate's 15"  
open frame HMI and data  
reader components brings  
automation to gas stations.

# x86 PO Series HMI

7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



Model Name	15"	15.6" (16:9)	17"
	R15IK7T-POC3	W15IK7T-POA4	R17IK7T-POM1
<b>Display</b>			
<b>Resolution</b>	1024 x 768	1920 x 1080	1280 x 1024
<b>Panel Brightness</b>	300 nits	300 nits	350 nits
<b>Contrast Ratio</b>	2000 : 1 (Typ.)	800 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-85~85 (H);-85~85 (V)	-85~85 (H); -80~80 (V)
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
<b>Processor</b>	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)
<b>Chipset</b>	Intel® H170	Intel® H170	Intel® H170
<b>Memory</b>	1 x SO-DIMM DDR4 2400 MHz default 4GB (Max 32GB)	1 x SO-DIMM DDR4 2400 MHz default 4GB (Max 32GB)	1 x SO-DIMM DDR4 2400 MHz default 4GB (Max 32GB)
<b>Storage</b>	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (default)
<b>Ethernet Controller</b>	Intel® Ethernet Controller I211-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® Ethernet Controller I211-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® Ethernet Controller I211-AT + Intel® Gigabit Ethernet PHY I219-LM
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>			
<b>Serial</b>	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
<b>Power Input</b>	1 x DC-in Power Jack (+12V)	1 x DC-in Power Jack (+12V)	1 x DC-in Power Jack (+12V)
<b>USB Port</b>	4 x USB 3.0	4 x USB 3.0	4 x USB 3.0
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>HDMI</b>	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
<b>DP</b>	1 x DP 1.2	1 x DP 1.2	1 x DP 1.2
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	12V DC
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimension</b>	350 x 292 x 48 mm	392 x 268 x 65 mm	407 x 338 x 69 mm
<b>Mounting</b>	Open Frame	Open Frame	Open Frame
<b>Cooling System</b>	Fanless	Fanless	Fanless
<b>Environment</b>			
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# x86 PO Series HMI

7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



Model Name	19"	21.5" (16:9)	23.8" (16:9)
	R19IK7T-POM1	W22IK7T-POA3	W24IK7T-POA2
<b>Display</b>			
Resolution	1280 x 1024	1920 x 1080	1920 x 1080
Panel Brightness	250 nits	250 nits	250 nits
Contrast Ratio	1000 : 1 (Typ.)	3000 : 1 (Typ.)	3000 : 1 (Typ.)
Viewing Angle	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
Touch	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
Processor	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)
Chipset	Intel® H170	Intel® H170	Intel® H170
Memory	1 x SO-DIMM DDR4 2400 MHz default 4GB (Max 32GB)	1 x SO-DIMM DDR4 2400 MHz default 4GB (Max 32GB)	1 x SO-DIMM DDR4 2400 MHz default 4GB (Max 32GB)
Storage	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (default)
Ethernet Controller	Intel® Ethernet Controller I211-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® Ethernet Controller I211-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® Ethernet Controller I211-AT + Intel® Gigabit Ethernet PHY I219-LM
OS	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>			
Serial	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
Power Input	1 x DC-in Power Jack (+12V)	1 x DC-in Power Jack (+12V)	1 x DC-in Power Jack (+12V)
USB Port	4 x USB 3.0	4 x USB 3.0	4 x USB 3.0
Ethernet	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
HDMI	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
DP	1 x DP 1.2	1 x DP 1.2	1 x DP 1.2
<b>Power</b>			
Power Input	12V DC	12V DC	12V DC
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
Dimension	457 x 382 x 62 mm	525 x 316 x 63 mm	615 x 385 x 66 mm
Mounting	Open Frame	Open Frame	Open Frame
Cooling System	Fanless	Fanless	Fanless
<b>Environment</b>			
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
Operating Temp.	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC

# x86 PO Series HMI

Intel® Celeron® N2930



Model Name	7" (16:9)	10.1" (16:10)	15"	15.6" (16:9)
	W071B3S-POT1	W101B3S-POA1	R151B7T-POC3	W151B7T-POA4
<b>Display</b>				
<b>Resolution</b>	1024 x 600	1920 x 1200	1024 x 768	1920 x 1080
<b>Panel Brightness</b>	320 nits	700 nits	300 nits	300 nits
<b>Contrast Ratio</b>	500 : 1 (Typ.)	800 : 1 (Typ.)	2000 : 1 (Typ.)	800 : 1 (Typ.)
<b>Viewing Angle</b>	-75~75 (H); -75~70 (V)	-89~89 (H); -89~89 (V)	-88~88(H);-88~88(V)	-85~85(H);-85~85(V)
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	4GB DDR3L 1600/1333 SODIMM, max. 8GB	4GB DDR3L 1600/1333 SODIMM, max. 8GB	4GB DDR3L 1600/1333 SODIMM, max. 8GB	4GB DDR3L 1600/1333 SODIMM, max. 8GB
<b>Storage</b>	64GB mSATA SSD (Up to 512GB)	64GB mSATA SSD (Up to 512GB)	64GB mSATA SSD (Up to 512GB)	64GB mSATA SSD (Up to 512GB)
<b>Ethernet Controller</b>	Dual Intel® I210AT GbE	Dual Intel® I210AT GbE	Dual Intel® I210AT GbE	Dual Intel® I210AT GbE
<b>OS</b>	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>Serial</b>	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
<b>Power Input</b>	1 x DC-in Power Jack	1 x DC-in Power Jack	1 x DC-in Power Jack	1 x DC-in Power Jack
<b>USB Port</b>	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>HDMI</b>	1 x HDMI	1 x HDMI	-	-
<b>VGA</b>	-	-	1 x VGA (female)	1 x VGA (female)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>				
<b>Dimension</b>	208 x 126 x 46 mm	250 x 187 x 48 mm	360 x 272 x 72 mm	392 x 268 x 74 mm
<b>Mounting</b>	Open Frame Mount	Open Frame Mount	Open Frame Mount	Open Frame Mount
<b>Cooling System</b>	Fanless	Fanless	Fanless	Fanless
<b>Environment</b>				
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 PO Series HMI

Intel® Celeron® N2930



Model Name	17"	19"	21.5" (16:9)	23.8" (16:9)
	R17IB7T-POM1	R19IB7T-POM1	W22IB7T-POA3	W24IB7T-POA2
<b>Display</b>				
<b>Resolution</b>	1280 x 1024	1280 x 1024	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	350 nits	250 nits	250 nits	250 nits
<b>Contrast Ratio</b>	1000 : 1 (Typ.)	1000 : 1 (Typ.)	3000 : 1 (Typ.)	3000 : 1 (Typ.)
<b>Viewing Angle</b>	-85~85(H);-80~80(V)	-85~85(H);-80~80(V)	-89~89(H);-89~89(V)	-89~89(H);-89~89(V)
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	4GB DDR3L 1600/1333 SODIMM, max. 8GB	4GB DDR3L 1600/1333 SODIMM, max. 8GB	4GB DDR3L 1600/1333 SODIMM, max. 8GB	4GB DDR3L 1600/1333 SODIMM, max. 8GB
<b>Storage</b>	64GB mSATA SSD (Up to 512GB)	64GB mSATA SSD (Up to 512GB)	64GB mSATA SSD (Up to 512GB)	64GB mSATA SSD (Up to 512GB)
<b>Ethernet Controller</b>	Dual Intel® I210AT GbE	Dual Intel® I210AT GbE	Dual Intel® I210AT GbE	Dual Intel® I210AT GbE
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>Serial</b>	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
<b>Power Input</b>	1 x DC-in Power Jack	1 x DC-in Power Jack	1 x DC-in Power Jack	1 x DC-in Power Jack
<b>USB Port</b>	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 1 x USB 2.0
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>HDMI</b>	-	-	-	-
<b>VGA</b>	1 x VGA (female)	1 x VGA (female)	1 x VGA (female)	1 x VGA (female)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>				
<b>Dimension</b>	407 x 338 x 78 mm	457 x 382 x 71 mm	525 x 316 x 72 mm	615 x 385 x 75 mm
<b>Mounting</b>	Open Frame Mount	Open Frame Mount	Open Frame Mount	Open Frame Mount
<b>Cooling System</b>	Fanless	Fanless	Fanless	Fanless
<b>Environment</b>				
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC



# 10.4"~21.5" x86 HMI PP Series

## Custom configuration

Up to  
**16 GB**

Memory

Up to  
**512 GB**

Storage



## Application



### Operator Control & Monitoring

"VIVID GRAPHICS AND USER-FRIENDLY CONTROLS."

Accurate machine control and monitoring with vivid images depicted on a 21.5" screen with crystal clear resolution for more complex graphics inside smart factory.

“ **HIGH COMPUTING PERFORMANCE. PANEL MOUNT.** ”

- 10.4"~21.5" PCAP touchscreen
- Intel® Core™ i5-7200U
- Intel® Celeron® N2930
- Windows 10/8/7

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Fanless cooling system

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Panel Brightness adjustment knob

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Two USB 3.0

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RS232, RS232/422/485, two RJ45 for Ethernet, HDMI 1.4

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Panel mount, VESA mount

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Front IP65

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Operating temperature 0°C to 50°C

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## Accessories

### Standard

AC Adapter

Power Cord

Driver CD

# x86 PP Series HMI

Intel® Celeron® N2930



Model Name	10.4"	15"	15.6" (16:9)	19"	21.5" (16:9)
	R10IB3S-PPT2	R15IB7T-PPC3	W15IB7T-PPA4	R19IB7T-PPM1	W22IB7T-PPA3
<b>Display</b>					
Resolution	1024 x 768	1024 x 768	1920 x 1080	1280 x 1024	1920 x 1080
Panel Brightness	350 nits	300 nits	300 nits	250 nits	250 nits
Contrast Ratio	1000 : 1 (Typ.)	2000 : 1 (Typ.)	800 : 1 (Typ.)	1000 : 1 (Typ.)	3000 : 1 (Typ.)
Viewing Angle	-88~88 (H); -88~88 (V)	-88~88 (H); -88~88 (V)	-85~85 (H); -85~85 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
Display Color	16.2M	16.2M	16.9M	16.7M	16.9M
Touch	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>					
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
Memory	SODIMM DDR3L 1600/1333, max. 8GB	SODIMM DDR3L 1600/1333, max. 8GB	SODIMM DDR3L 1600/1333, max. 8GB	SODIMM DDR3L 1600/1333, max. 8GB	SODIMM DDR3L 1600/1333, max. 8GB
Ethernet Controller	Intel I210-AT GbE LAN x 2	Intel I210-AT GbE LAN x 2	Intel I210-AT GbE LAN x 2	Intel I210-AT GbE LAN x 2	Intel I210-AT GbE LAN x 2
Audio	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
Storage	mSATA SSD 64GB, Up to 512GB	mSATA SSD 64GB, Up to 512GB	mSATA SSD 64GB, Up to 512GB	mSATA SSD 64GB, Up to 512GB	mSATA SSD 64GB, Up to 512GB
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>					
Back Panel I/O Port	1 x DC-in Power Jack 1 x USB 3.0, 1 x USB 2.0 2 x RJ45 10/100/1000 1 x RS232, 1 x RS232/422/485 (Default RS232) 1 x HDMI	1 x DC-in Power Jack 1 x USB 3.0, 3 x USB 2.0 2 x RJ45 10/100/1000 2 x RS232, 1 x RS232/422/485 (Default RS232) 2 x PS/2 1 x VGA (Female) Line-out, Line-in, Mic in	1 x DC-in Power Jack 1 x USB 3.0, 3 x USB 2.0 2 x RJ45 10/100/1000 2 x RS232, 1 x RS232/422/485 (Default RS232) 2 x PS/2 1 x VGA (Female) Line-out, Line-in, Mic in	1 x DC-in Power Jack 1 x USB 3.0, 3 x USB 2.0 2 x RJ45 10/100/1000 2x RS232, 1 x RS232/422/485 (Default RS232) 2 x PS/2 1 x VGA (Female) Line-out, Line-in, Mic in	1 x DC-in Power Jack 1 x USB 3.0, 3 x USB 2.0 2 x RJ45 10/100/1000 2 x RS232, 1 x RS232/422/485 (Default RS232) 2 x PS/2 1 x VGA (Female) Line-out, Line-in, Mic in
<b>Power</b>					
Power Input	12V DC	12V DC	12V DC	12V DC	12V DC
Power Consumption	35W	38W	58W	60W	60W
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>					
Dimension	284 x 252 x 55 mm	420 x 320 x 77 mm	415 x 275 x 79 mm	474 x 384 x 86.5 mm	550 x 360 x 80 mm
<b>Environment</b>					
Temperature	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>					
Safety	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 PP Series HMI

Intel® Core™ i5-7200U



Model Name	10.4"	15"	15.6" (16:9)	19"	21.5" (16:9)
	R10IK3S-PPT2	R15IK3S-PPC3	W15IK3S-PPA4	R19IK3S-PPM1	W22IK3S-PPA3
<b>Display</b>					
<b>Resolution</b>	1024 x 768	1024 x 768	1920 x 1080	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	350 nits	300 nits	300 nits	250 nits	250 nits
<b>Contrast Ratio</b>	1000 : 1 (Typ.)	2000 : 1 (Typ.)	800 : 1 (Typ.)	1000 : 1 (Typ.)	3000 : 1 (Typ.)
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-88~88 (H); -88~88 (V)	-85~85 (H); -85~85 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.2M	16.2M	16.9M	16.7M	16.9M
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>					
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>Memory</b>	4GB DDR4 2133 SO-DIMM Max 16GB	4GB DDR4 2133 SO-DIMM Max 16GB	4GB DDR4 2133 SO-DIMM Max 16GB	4GB DDR4 2133 SO-DIMM Max 16GB	4GB DDR4 2133 SO-DIMM Max 16GB
<b>Ethernet Controller</b>	Intel® I211-AT + Intel Gigabit Ethernet PHY I219-LM	Intel® I211-AT + Intel Gigabit Ethernet PHY I219-LM	Intel® I211-AT + Intel Gigabit Ethernet PHY I219-LM	Intel® I211-AT + Intel Gigabit Ethernet PHY I219-LM	Intel® I211-AT + Intel Gigabit Ethernet PHY I219-LM
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>	64GB M.2 SSD, Up to 512GB	64GB M.2 SSD, Up to 512GB	64GB M.2 SSD, Up to 512GB	64GB M.2 SSD, Up to 512GB	64GB M.2 SSD, Up to 512GB
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>					
<b>Back Side</b>	1 x RS232 (Optional 422/485) 1 x RS232 2 x USB 3.0 2 x RJ45 10/100/1000 1 x HDMI	1 x RS232 (Optional 422/485) 1 x RS232 2 x USB 3.0 2 x RJ45 10/100/1000 1 x HDMI	1 x RS232 (Optional 422/485) 1 x RS232 2 x USB 3.0 2 x RJ45 10/100/1000 1 x HDMI	1 x RS232 (Optional 422/485) 1 x RS232 2 x USB 3.0 2 x RJ45 10/100/1000 1 x HDMI	1 x RS232 (Optional 422/485) 1 x RS232 2 x USB 3.0 2 x RJ45 10/100/1000 1 x HDMI
<b>Power</b>					
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	80W	80W	80W	80W	80W
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>					
<b>Dimension</b>	284 x 255 x 69 mm	420 x 320 x 67 mm	415 x 275 x 69 mm	474 x 384 x 77 mm	550 x 360 x 70 mm
<b>Environment</b>					
<b>Temperature</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 15"~32" x86 HMI PT Series



“ **STANDALONE.  
FOR YOUR POINT-OF-SALE  
APPLICATION.** ”

- 15"~32" PCAP touchscreen
- Intel® Core™ i5-7200U
- Intel® Celeron® N2930
- Windows 10/8/7

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Fanless cooling system

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RS232/422/485

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RJ45 for Ethernet

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Chassis mount, VESA mount, standalone

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Front IP65 waterproof and dustproof

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Operating temperature 0°C to 50°C

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## Accessories

### Standard

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AC Adapter

Power Cord

Driver CD

## Custom configuration



AR Glass



PoE

## Application



### Retail Point-of-Sales Display

“DURABLE, VERSATILE  
AND EASY TO USE.”

User-friendly interface of chassis HMI now serves as countertop cash register in the retail shop.

# x86 PT Series HMI

Intel® Celeron® N2930  
Intel® Core™ i5-7200U



NEW



Model Name	15"	15.6" (16:9)	32" (16:9)
	R15IB3S-PTC3	W15IB3S-PTA3	W32IK3S-PTA2
<b>Display</b>			
Resolution	1024 x 768	1920 x 1080	1920 x 1080
Panel Brightness	300 nits	300 nits	400 nits
Contrast Ratio	700 : 1 (Typ.)	800 : 1 (Typ.)	4000 : 1 (Typ.)
Viewing Angle	-80~80 (H) ; -80~80 (V)	-85~85 (H) ; -85~85 (V)	-89~89 (H);-89~89 (V)
Display Color	16.2M	16.2M	16.7M
Touch	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>System</b>			
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz) Intel® Core™ i7-7500U (4M Cache, up to 3.50 GHz), optional
Memory	2GB DDR3L-1600 SODIMM (max 8GB)	2GB DDR3L-1600 SODIMM (max 8GB)	4GB DDR4-2133 SO-DIMM (Max 16GB)
Ethernet Controller	Dual Intel® I210-AT GbE	Dual Intel® I210-AT GbE	Dual Intel® I211AT GbE
Storage	64GB M.2 SSD	64GB M.2 SSD	64GB M.2 B Key SATA III (Options up to 512GB)
Security Support	TPM 1.2	TPM 1.2	TPM 1.2
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>			
COM Port	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
DC-Input	1 x DC-in Power Jack	1 x DC-in Power Jack	1 x DC-in Power Jack
Ethernet	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 (Optional PoE function)	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 (Optional PoE function)	2 x RJ45 10/100/1000
USB Port	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	2 x USB 3.0
Speaker	2 x 1 Watt Speaker	2 x 1 Watt Speaker	2 x 5 Watt Speaker
HDMI	-	-	1 x HDMI 1.4a
<b>Power</b>			
Power Consumption	21 W	21 W	53 W
Power Input	12V DC	12V DC	12V DC (Optional 9~36V DC)
Power over Ethernet (PoE)	Support PoE (Optional), requires IEEE 802.3at 25W power input	Support PoE (Optional), requires IEEE 802.3at 25W power input	-
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
Dimension	352.5 x 276.7 x 45 mm	388 x 233 x 40 mm	799 x 5027 x 63.7 mm
Mounting	VESA Mount (100 x 100, 75 x 75 mm)	VESA Mount (100 x 100, 75 x 75 mm)	VESA Mount (100 x 100, 75 x 75 mm)
Cooling System	Fanless	Fanless	Fanless
<b>Environment</b>			
IP Rating	Front IP65	Front IP65	Front IP65
Operating Temp.	0°C to +40°C	0°C to +40°C	0°C to +50°C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC



# 15"~15.6 Arm HMI PT Series



“ **A HIGH PERFORMANCE HMI IN  
A SLIM, SLEEK DESIGN.** ”

- 15"~15.6" PCAP touchscreen
- Arm Cortex-A9
- Arm Cortex-A72 + Arm Cortex-A53
- Android

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Fanless cooling system

---

RS232/422/485

---

RJ45 for Ethernet

---

Chassis mount, VESA mount, standalone

---

Front IP65 waterproof and dustproof

---

Operating temperature 0°C to 50°C

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## Accessories

### Standard

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AC Adapter

Power Cord

Driver CD

## Custom configuration



AR Glass



PoE

## Application



### Interactive POS/Kiosk

“SUITS YOUR SMART  
RETAIL NEEDS ON  
ANDROID PLATFORMS.”

PT Series HMI with a  
user-friendly touch experience  
serves as the  
self-service kiosk in the retail  
shop.

# Arm PT Series HMI

Arm Cortex-A9



Model Name	15"	15.6" (16:9)
	R15FA3S-PTC3	W15FA3S-PTA3
<b>Display</b>		
Resolution	1024 x 768	1920 x 1080
Panel Brightness	300 nits	300 nits
Contrast Ratio	700 : 1 (Typ.)	700 : 1 (Typ.)
Viewing Angle	-80~80 (H) ; -80~80 (V)	-85~85 (H) ; -85~85 (V)
Display Color	16.2M	16.2M
Touch	Projected Capacitive	Projected Capacitive
<b>System</b>		
Processor	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
Memory	1GB LPDDR3	1GB LPDDR3
Storage	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
OS	Android 6.0 (Default) Linux Kernel 4.1.15, QT 5.5 Browser (Optional) Ubuntu 16.04 (Optional)	Android 6.0 (Default) Linux Kernel 4.1.15, QT 5.5 Browser (Optional) Ubuntu 16.04 (Optional)
<b>Connectors</b>		
COM Port	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
DC-Input	1 x DC Input Phoenix type Terminal Block	1 x DC Input Phoenix type Terminal Block
Ethernet	1 x RJ45 10/100/1000 (Optional PoE function)	1 x RJ45 10/100/1000 (Optional PoE function)
Speaker	2 x 1 Watt Speaker	2 x 1 Watt Speaker
USB Port	1 x USB 2.0 1 x USB OTG 1 x Mini USB	1 x USB 2.0 1 x USB OTG, 1 x Mini USB
SD Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
CANBus	1 x CANBus (DB9)	1 x CANBus (DB9)
<b>Power</b>		
Power Consumption	13 W	13 W
Power Input	12V DC	12V DC
Power over Ethernet (PoE)	Support PoE (Optional), requires IEEE 802.3at 25W power input	Support PoE (Optional), requires IEEE 802.3at 25W power input
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>		
Dimension	352.5 x 276.7 x 45 mm	388 x 233 x 40 mm
Mounting	VESA Mount (100 x 100, 75 x 75 mm)	VESA Mount (100 x 100, 75 x 75 mm)
Cooling System	Fanless	Fanless
<b>Environment</b>		
IP Rating	Front IP65	Front IP65
Operating Temp.	0°C to +40°C	0°C to +40°C
Humidity	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Certifications</b>		
Safety	CE, FCC	CE, FCC

# Arm PT Series HMI

Arm Cortex-A72 + Arm Cortex-A53



Model Name	15"	15.6" (16:9)
	R15RK3S-PTC3	W15RK3S-PTA3
<b>Display</b>		
Resolution	1024 x 768	1920 x 1080
Panel Brightness	300 nits	300 nits
Contrast Ratio	700 : 1 (Typ.)	800 : 1 (Typ.)
Viewing Angle	-80~80 (H) ; -80~80 (V)	-85~85 (H) ; -85~85 (V)
Display Color	16.2M	262K
Touch	Projected Capacitive	Projected Capacitive
<b>System</b>		
Processor	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)
Memory	2GB LPDDR3	2GB LPDDR3
Storage	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
OS	Android 7.1 (default)	Android 7.1 (default)
<b>Connectors</b>		
COM Port	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
DC-Input	1 x DC Input Phoenix type Terminal Block	1 x DC Input Phoenix type Terminal Block
Ethernet	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function
Speaker	2 x 1 Watt Speaker	2 x 1 Watt Speaker
USB Port	1 x USB 3.0, 1 x USB 2.0, 1 x USB OTG	1 x USB 3.0, 1 x USB 2.0, 1 x USB OTG
SD Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
<b>Power</b>		
Power Consumption	13 W	13 W
Power Input	12V DC	12V DC
Power over Ethernet (PoE)	Support PoE (Optional), requires IEEE 802.3at 25W power input	Support PoE (Optional), requires IEEE 802.3at 25W power input
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>		
Dimension	352.5 x 276.7 x 45.45 mm	388 x 233 x 40 mm
Mounting	VESA Mount (100 x 100, 75 x 75 mm)	VESA Mount (100 x 100, 75 x 75 mm)
Cooling System	Fanless	Fanless
<b>Environment</b>		
IP Rating	Front IP65	Front IP65
Operating Temp.	0°C to +40°C	0°C to +40°C
Humidity	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Certifications</b>		
Safety	CE, FCC	CE, FCC

# 7"~15" x86 HMI S Series

## Custom configuration



Memory



Status Light Bar



2MP Webcam



HR RFID Reader



## Application



### Machine Controller

"EASY TO MAINTAIN & COST EFFECTIVE."

Installed in a packaging zone of a food processing manufacturer S-Series operator panel brings automation to packaging line.

“ SMART SOLUTION FOR AUTIMATED PACKAGING. ”

- 7"~15" PCAP touchscreen
- Intel® Celeron® N2930
- Windows 10/8/7

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Fanless cooling system

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64GB M.2 SSD

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Power over Ethernet (PoE)

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USB 3.0, USB 2.0

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RS232/422/485, RJ45 for Ethernet

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1W Speaker

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Panel mount, VESA mount, standalone

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Front IP65

---

Operating temperature 0°C to 50°C

## Accessories

### Standard

VESA Plate

VESA Screws

AC Adapter

Power Cord

Driver CD

VESA Desk Stand

VESA Wall Mount Bracket

# x86 S Series HMI

Intel® Celeron® N2930



NEW



Model Name	7" (16:9)	7" (16:9)	10.1" (16:10)
	W07IB3S-PCO1-PoE	W07IB3S-PCO1AC-PoE	W10IB3S-PCH2LB
<b>Display</b>			
Resolution	1024 x 600	1024 x 600	1280 x 800
Panel Brightness	1000 nits	1000 nits	350 nits
Contrast Ratio	700 : 1 (Typ.)	700 : 1 (Typ.)	800 : 1 (Typ.)
Active Area	153.6 x 90.0	153.6 x 90.0	216.96 x 135.6
Viewing Angle	-75~75 (H); -75~70 (V)	-75~75 (H); -75~70 (V)	-85~85 (H); -85~85 (V)
Display Color	16.7M	16.7M	16.7M
Touch	Projected Capacitive	Projected Capacitive	Projective Capacitive
<b>System</b>			
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
Memory	1 x SODIMM DDR3L 1600 MHz (Default 2GB, Max 8GB)	1 x SODIMM DDR3L 1600 MHz (Default 2GB, Max 8GB)	2GB DDR3L 1600 SODIMM (Optional 8GB)
Ethernet Controller	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN
BIOS	AMI BIOS	AMI BIOS	AMI BIOS
Storage	64GB M.2 SSD	64GB M.2 SSD	64GB M.2 SSD
OS	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>			
Power	1 x 3pin Terminal Block (Phoenix Type)	1 x 3pin Terminal Block (Phoenix Type)	1 x 3pin Terminal Block (Phoenix Type)
Ethernet	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 LAN Support PoE function
Serial Interface	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
USB	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0
Audio	1 x 1 Watt speaker	1 x 1 Watt speaker	1 x 1 Watt Speaker
<b>User Controls</b>			
LED Light Bar	-	1 x LED Light Bar	Built-in All-Around RGB LED Light Bar
<b>Environment</b>			
Operating Temp.	0°C to +50°C	0°C to +50°C	0°C to +50°C
Storage Temp.	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
IP Rating	Front-IP65, Full-IP22	Front-IP65, Full-IP22	Front-IP65, Full-IP22
<b>Power</b>			
Power Input	12V DC	12V DC	12V DC
Power Consumption	19W	19W	19W
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
Dimension	189.4 x 145.4 x 37.7 mm	189.4 x 145.4 x 37.7 mm	263.28 x 171 x 35.7 mm
Mounting	VESA Mount (75 x 75 mm), Panel Mount, Front Side Wall Mount	VESA Mount (75 x 75 mm), Panel Mount, Front Side Wall Mount	VESA Mount (75 x 75 mm), Panel Mount, Front Side Wall Mount
Cooling System	Fanless design	Fanless design	Fanless design
<b>Data Capture</b>			
RFID Reader	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)
Camera	2MP Front Camera (Optional)	2MP Front Camera (Optional)	NA
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC



# x86 S Series HMI

Intel® Celeron® N2930



Model Name	10.1" (16:10)	10.1" (16:10)	15"
	W10IB3S-PCH2AC-PoE	W10IB3S-PCH2-PoE	R15IB3S-PCC3-PoE
<b>Display</b>			
<b>Resolution</b>	1280 x 800	1280 x 800	1024 x 768
<b>Panel Brightness</b>	350 nits	350 nits	250 nits
<b>Contrast Ratio</b>	800 : 1 (Typ.)	800 : 1 (Typ.)	700 : 1 (Typ.)
<b>Active Area</b>	216.96 x 135.6	216.96 x 135.6	304.1 x 228.1
<b>Viewing Angle</b>	-85~85 (H); -85~85 (V)	-85~85 (H); -85~85 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.7M	16.7M	16.2M
<b>Touch</b>	Projective Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	1 x SODIMM DDR3L 1600 MHz (default 2GB, max. 8GB)	1 x SODIMM DDR3L 1600 MHz (default 2GB, max. 8GB)	1 x SODIMM DDR3L 1600 MHz (default 2GB, max. 8GB)
<b>Ethernet Controller</b>	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS
<b>Storage</b>	64GB M.2 SSD	64GB M.2 SSD	64GB M.2 SSD
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>			
<b>Power</b>	1 x 3pin Terminal Block (Phoenix Type)	1 x 3pin Terminal Block (Phoenix Type)	1 x 3pin Terminal Block (Phoenix Type)
<b>Ethernet</b>	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 LAN Support PoE function
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0
<b>Audio</b>	1 x 1 Watt Speaker	1 x 1 Watt Speaker	2 x 2W Speaker
<b>User Controls</b>			
<b>LED Light Bar</b>	1 x LED Light Bar	-	-
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	-10°C to +50°C
<b>Storage Temp.</b>	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>IP Rating</b>	Front-IP65, Full-IP22	Front-IP65, Full-IP22	Front-IP65, Full-IP22
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	12V DC
<b>Power Consumption</b>	19W	19W	23W
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimension</b>	263.28 x 171 x 35.7 mm	263.28 x 171 x 35.7 mm	363.4 x 277.8 x 44.5 mm
<b>Mounting</b>	VESA Mount (75 x 75 mm)	VESA Mount (75 x 75 mm)	VESA Mount (75 x 75 mm)
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Data Capture</b>			
<b>RFID Reader</b>	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)
<b>Camera</b>	2MP Front Camera (Optional)	2MP Front Camera (Optional)	2MP Front Camera (Optional)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# 5"~15" Arm HMI S Series



“ **KNOW-HOW IN POE AND TOUCH TECHNOLOGY.** ”

- 5"~15" PCAP touchscreen
- Arm Cortex-A9
- Android 6.0, Ubuntu 16.04, Yocto project 2.0 (QT5.5 Wayland)

---

Fanless cooling system

---

16GB eMMC, Micro SD Card Slot

---

Power over Ethernet (PoE)

---

USB 2.0, USB OTG

---

RS232/422/485, RJ45 LAN Support PoE, CANBus

---

1W Speaker

---

Panel mount, VESA mount

---

Front IP65

---

Operating temperature 0°C to 50°C

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## Accessories

### Standard

VESA Plate	VESA Screws	AC Adapter	Power Cord	Driver CD
VESA Desk Stand	VESA Wall Mount Bracket			

## Custom configuration



Memory



Status Light Bar



2MP Webcam



HR RFID Reader

## Application



### Meeting Room Booking System

“OPTIMIZE MEETING ROOM UTILIZATION.”

Installed at the entrance of the meeting room, 10.4" S-Series HMI with HF RFID reader helps to control the access to the meeting room, book schedule and check status from afar.

# Arm S Series HMI

Arm Cortex-A9



Model Name	7" (16:9)	7" (16:9)	10.1" (16:10)
	W07FA3S-PCO1AC-POE	W07FA3S-PCO1-POE	W10FA3S-PCH2LB
<b>Display</b>			
<b>Resolution</b>	1024 x 600	1024 x 600	1280 x 800
<b>Panel Brightness</b>	1000 nits	1000 nits	350 nits
<b>Contrast Ratio</b>	700 : 1 (Typ.)	700 : 1 (Typ.)	800:1 (Typ.)
<b>Active Area</b>	153.6 x 90.0	153.6 x 90.0	216.96 x 135.6
<b>Viewing Angle</b>	-75~75 (H); -75~70 (V)	-75~75 (H); -75~70 (V)	85~85(H);-85~85(V)
<b>Display Color</b>	16.7M	16.7M	16.7M
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
<b>Processor</b>	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>Memory</b>	1GB LPDDR3 (Optional 2GB LPDDR3)	1GB LPDDR3 (Optional 2GB LPDDR3)	1GB LPDDR3 (Optional 2GB)
<b>Storage</b>	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
<b>OS</b>	Android 6.0 (Default) Ubuntu 16.04 Linux Kernel 4.1.15, QT 5.5	Android 6.0 (Default) Ubuntu 16.04 Linux Kernel 4.1.15, QT 5.5	Android 6.0 (Default) Ubuntu 16.04 Linux Kernel 4.1.15, QT 5.5
<b>Connectors</b>			
<b>Power</b>	1 x Phoenix type Power Jack	1 x Phoenix type Power Jack	1 x Phoenix type Power Jack
<b>Ethernet</b>	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	1 x USB 2.0, 1 x USB OTG	1 x USB 2.0, 1 x USB OTG	1 x USB 2.0, 1 x USB OTG
<b>SD Card</b>	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
<b>Audio</b>	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker
<b>CANBus</b>	1 x CANBus	1 x CANBus	1 x CANBus
<b>LED Light Bar</b>	1 x Built-in RGB LED light bar	-	All-around RGB LED status light bar
<b>Power</b>			
<b>Power Input</b>	9~24V DC	9~24V DC	12V DC
<b>Power Consumption</b>	10W	10 W	12 W
<b>Power over Ethernet</b>	IEEE 802.3at for up to 25 Watt	IEEE 802.3at for up to 25 Watt	IEEE 802.3at for up to 25 Watt
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimension</b>	189.4 x 145.4 x 36.1 mm	189.4 x 145.4 x 36.1 mm	263.28 x 171 x 35.7 mm
<b>Mounting</b>	VESA Mount (75 x 75 mm)	VESA Mount (75 x 75 mm)	VESA Mount (75 x 75 mm), Panel Mount, Front Side Wall Mount
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>IP Rating</b>	Front-IP65, Full-IP22	Front-IP65, Full-IP22	Front -IP65, Full-IP22
<b>Options</b>			
<b>RFID/NFC Reader</b>	HF RFID Reader 13.56MHz (Optional)	HF RFID Reader 13.56MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)
<b>Camera</b>	2MP front camera (Optional)	2MP front camera (Optional)	NA
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# Arm S Series HMI

Arm Cortex-A9



Model Name	10.1" (16:10)	10.1" (16:10)	15"
	W10FA3S-PCH2AC-PoE	W10FA3S-PCH2-POE	R15FA3S-PCC3-PoE
<b>Display</b>			
Resolution	1280 x 800	1280 x 800	1024 x 768
Panel Brightness	350 nits	350 nits	250 nits
Contrast Ratio	800 : 1 (Typ.)	800 : 1 (Typ.)	700 : 1 (Typ.)
Active Area	216.96 x 125.6	216.96 x 135.6	304.1 x 228.1
Viewing Angle	-85~85 (H); -85~85 (V)	-85~85 (H); -85~85 (V)	-80~80 (H); -70~70 (V)
Display Color	16.7M	16.7M	16.7M
Touch	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
Processor	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
Memory	1GB LPDDR3 (Optional 2GB LPDDR3)	1GB LPDDR3 (Optional 2GB LPDDR3)	1GB LPDDR3 (Optional 2GB LPDDR3)
Storage	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
OS	Android 6.0 (Default) Ubuntu 16.04 Linux Kernel 4.1.15, QT 5.5	Android 6.0 (Default) Ubuntu 16.04 Linux Kernel 4.1.15, QT 5.5	Android 6.0 (Default) Ubuntu 16.04 Linux Kernel 4.1.15, QT 5.5
<b>Connectors</b>			
Power	1 x Phoenix type Terminal Block	1 x Phoenix type Terminal Block	1 x Phoenix type Terminal Block
Ethernet	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function
Serial Interface	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
USB	1 x USB 2.0, 1 x USB OTG	1 x USB 2.0, 1 x USB OTG	1 x USB 2.0, 1 x USB OTG
SD Card	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
Audio	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker
CANBus	1 x CANBus	1 x CANBus	1 x CANBus
LED Light Bar	1 x Built-in RGB LED light bar	-	-
<b>Power</b>			
Power Input	12V DC	12V DC	12V DC
Power Consumption	12W	12W	19W
Power over Ethernet	IEEE 802.3at for up to 25 Watt	IEEE 802.3at for up to 25 Watt	IEEE 802.3at for up to 25 Watt
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
Dimension	263.28 x 171 x 35.7 mm	263.28 x 171 x 35.7 mm	363.40 x 277.86 x 44.50 mm
Mounting	VESA Mount (75 x 75 mm)	VESA Mount (75 x 75 mm)	VESA Mount (100 x 100 mm)
Cooling System	Fanless design	Fanless design	Fanless design
<b>Environment</b>			
Operating Temp.	0°C to +50°C	0°C to +50°C	0°C to +50°C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
IP Rating	Front-IP65, Full-IP22	Front-IP65, Full-IP22	Front-IP65, Full-IP22
<b>Options</b>			
RFID/NFC Reader	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)
Camera	2MP front camera (Optional)	2MP front camera (Optional)	2MP front camera (Optional)
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC

# Arm S Series HMI

Arm Cortex-A72 + Arm Cortex-A53



Model Name	7" (16:9)	7" (16:9)	10.1" (16:10)
	W07RK3S-PCO1AC-PoE	W07RK3S-PCO1-POE	W10RK3S-PCH2LB
<b>Display</b>			
Resolution	1024 x 600	1024 x 600	1280 x 800
Panel Brightness	1000 nits	1000 nits	350 nits
Contrast Ratio	700 : 1 (Typ.)	700 : 1 (Typ.)	800 : 1 (Typ.)
Active Area	153.6 x 90.0	153.6 x 90.0	216.96 x 135.6
Viewing Angle	-75~75 (H); -75~70 (V)	-75~75 (H); -75~70 (V)	-85~85(H);-85~85(V)
Display Color	16.7M	16.7M	16.7M
Touch	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
Processor	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)
Memory	2GB LPDDR3L 1600 (Optional 4GB LPDDR3L 1600)	2GB LPDDR3L 1600 (Optional 4GB LPDDR3L 1600)	2GB LPDDR3L 1600 (Optional 4GB LPDDR3L)
Storage	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
OS	Android 7.1 (Default) / Debian 9.0	Android 7.1 (Default) / Debian 9.0	Android 7.1 (Default) / Debian 9.0
<b>Connectors</b>			
Power	1 x Phoenix type Terminal Block	1 x Phoenix type Terminal Block	1 x Phoenix type Terminal Block
Ethernet	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function
Serial Interface	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
USB	2 x USB 3.0, 1 x USB OTG	2 x USB 3.0, 1 x USB OTG	2 x USB 3.0, 1 x USB OTG
HDMI	1 x Micro HDMI	1 x Micro HDMI	1 x Micro HDMI
SD Card	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
Audio	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker
LED Light Bar	1 x Built-in RGB LED light bar	-	Built-in All-Around RGB LED Status Light Bar
<b>Power</b>			
Power Input	12V DC	12V DC	12V DC
Power Consumption	12W	12W	12W
Power over Ethernet	IEEE 802.3at for up to 25 Watt	IEEE 802.3at for up to 25 Watt	IEEE 802.3at for up to 25 Watt
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
Dimension	189.4 x 145.4 x 36.1 mm	189.4 x 145.4 x 36.1 mm	263.28 x 171 x 35.7 mm
Mounting	VESA Mount (75 x 75 mm), Panel Mount, Front Side Wall Mount	VESA Mount (75 x 75 mm), Panel Mount, Front Side Wall Mount	VESA Mount (75 x 75 mm), Panel Mount, Front Side Wall Mount
Cooling System	Fanless design	Fanless design	Fanless design
<b>Environment</b>			
Operating Temp.	0°C to +50°C	0°C to +50°C	0°C to +50°C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
IP Rating	Front-IP65, Full-IP22	Front-IP65, Full-IP22	Front-IP65, Full-IP22
<b>Options</b>			
RFID/NFC Reader	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)
Camera	2MP front camera (Optional)	2MP front camera (Optional)	-
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC



# Arm S Series HMI

Arm Cortex-A72 + Arm Cortex-A53



Model Name	10.1" (16:10)	10.1" (16:10)	15"
	W10RK3S-PCH2AC-PoE	W10RK3S-PCH2-POE	R15RK3S-PCC3-PoE
<b>Display</b>			
Resolution	1280 x 800	1280 x 800	1024 x 768
Panel Brightness	350 nits	350 nits	250 nits
Contrast Ratio	800 : 1 (Typ.)	800 : 1 (Typ.)	700 : 1 (Typ.)
Active Area	220.416 x 129.15	220.416 x 129.15	304.1 x 228.1
Viewing Angle	-85~85 (H); -85~85 (V)	-85~85 (H); -85~85 (V)	-88~88 (H); -88~88 (V)
Display Color	16.7M	16.7M	16.7M
Touch	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>System</b>			
Processor	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)
Memory	2GB LPDDR3L 1600 (Optional 4GB LPDDR3L 1600)	2GB LPDDR3L 1600 (Optional 4GB LPDDR3L 1600)	2GB LPDDR3L 1600 (Optional 4GB LPDDR3L 1600)
Storage	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
OS	Android 7.1 (Default) Debian 9.0	Android 7.1 (Default) Debian 9.0	Android 7.1 (Default) Debian 9.0
<b>Connectors</b>			
Power	1 x Phoenix type Terminal Block	1 x Phoenix type Terminal Block	1 x Phoenix type Terminal Block
Ethernet	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function
Serial Interface	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
USB	2 x USB 3.0, 1 x USB OTG	2 x USB 3.0, 1 x USB OTG	2 x USB 3.0, 1 x USB OTG
HDMI	1 x Micro HDMI	1 x Micro HDMI	1 x Micro HDMI
SD Card	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
Audio	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker
LED Light Bar	1 x Built-in RGB LED light bar	-	-
<b>Power</b>			
Power Input	12V DC	12V DC	12V DC
Power Consumption	12W	12W	19W
Power over Ethernet	IEEE 802.3at for up to 25 Watt	IEEE 802.3at for up to 25 Watt	IEEE 802.3at for up to 25 Watt
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
Dimension	263.28 x 171 x 35.7 mm	263.28 x 171 x 35.7 mm	363.40 x 277.86 x 44.50 mm
Mounting	VESA Mount (75 x 75 mm)	VESA Mount (75 x 75 mm)	VESA Mount (100 x 100 mm)
Cooling System	Fanless design	Fanless design	Fanless design
<b>Environment</b>			
Operating Temp.	0°C to +50°C	0°C to +50°C	0°C to +50°C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
IP Rating	Front-IP65, Full-IP22	Front-IP65, Full-IP22	Front-IP65, Full-IP22
<b>Options</b>			
RFID/NFC Reader	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)	HF RFID Reader 13.56 MHz (Optional)
Camera	2MP front camera (Optional)	2MP front camera (Optional)	2MP front camera (Optional)
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC

## 15"~24" x86 Panel PC

# Kaby Lake Series

### Custom configuration



Memory



Storage



High Panel  
Brightness



AR Glass



Housing



Wide Power



### Application



#### Forklift Operator Terminal

"FLEXIBLE FOR CUSTOMIZATION!"

Winmate's 6 and 10.1" open frame panel PC with anti-vibration design and lockable connectors for forklift solution.

## “ VARIOUS MOUNTING SOLUTIONS. ”

- 15"~24" screen with resistive touchscreen
- 7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Windows 10

---

Fanless cooling system

---

Intel® H170 chipset

---

2.5" HDD500GB

---

Two M.2 (1 for Wi-Fi, 1 for SSD), PCIe x16

---

Four USB 3.0

---

Two RS232/422/485, two RJ45 for Ethernet, HDMI 1.4, DP 1.2

---

Lockable power connector

---

Open frame, panel mount, chassis, PCAP chassis, front IP65

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Operating temperature 0°C to 50°C

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### Accessories

#### Standard

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AC Adapter

Power Cord

Driver CD

# x86 Kaby Lake Panel PC

7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



		15"	17"	18.5" (16:9)	19"
<b>Model Name</b>	<b>Open Frame</b>	<b>R15IK7T-OFC3</b>	<b>R17IK7T-OFM1</b>	<b>W18IK7T-OFA2</b>	<b>R19IK7T-OFA1</b>
	<b>Panel Mount</b>	<b>R15IK7T-PMC3</b>	<b>R17IK7T-PMM1</b>	<b>W18IK7T-PMA2</b>	<b>R19IK7T-PMA1</b>
	<b>IP65</b>	<b>R15IK7T-IPC3</b>	<b>R17IK7T-IPM1</b>	<b>W18IK7T-IPA2</b>	<b>R19IK7T-IPA1</b>
	<b>Chassis</b>	<b>R15IK7T-CHC3</b>	<b>R17IK7T-CHM1</b>	<b>W18IK7T-CHA2</b>	<b>R19IK7T-CHA1</b>
<b>Display</b>					
<b>Resolution</b>		1024 x 768	1280 x 1024	1366 x 768	1280 x 1024
<b>Panel Brightness</b>		300 nits	350 nits	250 nits	400 nits
<b>Contrast Ratio</b>		2000 : 1 (Typ.)	1000 : 1 (Typ.)	1000 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Viewing Angle</b>		-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>		16.2M	16.2M	16.7M	16.7M
<b>Touch</b>		5-Wire Resistive touchscreen (Default) AR Glass (Optional)	5-Wire Resistive touchscreen (Default) AR Glass (Optional)	5-Wire Resistive touchscreen (Default) AR Glass (Optional)	5-Wire Resistive touchscreen (Default) AR Glass (Optional)
<b>System</b>					
<b>Processor</b>		Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)
<b>Chipset</b>		Intel® H170	Intel® H170	Intel® H170	Intel® H170
<b>Memory</b>		1 x SODIMM, Max. 32GB DDR4 2400 MHz, default 4GB	1 x SODIMM, Max 32GB DDR4 2400 MHz, default 4GB	1 x SODIMM, Max 32GB DDR4 2400 MHz, default 4GB	1 x SODIMM, Max 32GB DDR4 2400 MHz, default 4GB
<b>Ethernet Controller</b>		Intel® I211-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® 11-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® I211-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® I211-AT + Intel® Gigabit Ethernet PHY I219-LM
<b>Audio</b>		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>		1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (Default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (Default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (Default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (Default)
<b>Expansion Slots</b>		2 x M.2 (1 for WiFi, 1 for SSD), 1 x PCIe x16	2 x M.2 (1 for WiFi, 1 for SSD), 1 x PCIe x16	2 x M.2 (1 for WiFi, 1 for SSD), 1 x PCIe x16	2 x M.2 (1 for WiFi, 1 for SSD), 1 x PCIe x16
<b>Security Support</b>		TPM 2.0	TPM 2.0	TPM 2.0	TPM 2.0
<b>OS</b>		Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>					
<b>USB</b>		4 x USB 3.0	4 x USB 3.0	4 x USB 3.0	4 x USB 3.0
<b>COM Port</b>		1 x RS232 2 x RS232/422/485 (Default RS232)	1 x RS232 2 x RS232/422/485 (Default RS232)	1 x RS232 2 x RS232/422/485 (Default RS232)	1 x RS232 2 x RS232/422/485 (Default RS232)
<b>Ethernet</b>		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>HDMI Port</b>		1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
<b>Display Port</b>		1 x DP 1.2	1 x DP 1.2	1 x DP 1.2	1 x DP 1.2
<b>Audio</b>		Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
<b>DVD Optional</b>		Optional	Optional	Optional	Optional
<b>User Controls</b>					
<b>Control Buttons</b>		Clear CMOS	Clear CMOS	Clear CMOS	Clear CMOS
<b>LED Indicators</b>		Power, HDD	Power, HDD	Power, HDD	Power, HDD
<b>Power</b>					
<b>Power Input</b>		12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>		58W	93W	88W	85W
<b>Power Adapter</b>		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Environment</b>					
<b>Operating Temp.</b>		0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Humidity</b>		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>					
<b>Safety</b>		CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 Kaby Lake Panel PC

7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



		21.5" (16:9)	23.8" (16:9)	32"
Model Name	Open Frame	W22IK7T-OFA3	W24IK7T-OFA2	
	Panel Mount	W22IK7T-PMA3	W24IK7T-PMA2	
	IP65	W22IK7T-IPA3	W24IK7T-IPA2	
	Chassis	W22IK7T-CHA3	W24IK7T-CHA2	W32IK7T-PCA3
<b>Display</b>				
Resolution		1920 x 1080	1920 x 1080	1920 x 1080
Panel Brightness		250 nits	250 nits	400 nits
Contrast Ratio		3000 : 1 (Typ.)	3000 : 1 (Typ.)	3000 : 1 (Typ.)
Viewing Angle		-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
Display Color		16.7M	16.7M	16.7M
Touch		5-Wire Resistive touchscreen (Default), AR Glass (Optional)	5-Wire Resistive touchscreen (Default), AR Glass (Optional)	Projective capacitive
<b>System</b>				
Processor		Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)
Chipset		Intel® H170	Intel® H170	Intel® H170
Memory		1 x SODIMM, Max 32GB DDR4 2400 MHz, default 4GB	1 x SODIMM, max. 32GB DDR4 2133 MHz, default 4GB	1 x SODIMM, max. 32GB DDR4 2133 MHz, default 4GB
Ethernet Controller		Intel® 211-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® 211-AT + Intel® Gigabit Ethernet PHY I219-LM	Intel® I211-AT + Intel® Gigabit Ethernet PHY I219-LM
Audio		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
Storage		1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (Default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (Default)	1 x M.2 SSD, Max 512GB 1 x 2.5" 500GB HDD (Default)
Expansion Slots		2 x M.2 (1 for WiFi, 1 for SSD), 1 x PCIe x16	2 x M.2 (1 for WiFi, 1 for SSD), 1 x PCIe x16	2 x M.2 (1 for WiFi, 1 for SSD), 1 x PCIe x16
Security Support		TPM 2.0	TPM 2.0	TPM 2.0
OS		Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>				
USB		4 x USB 3.0	4 x USB 3.0	4 x USB 3.0
COM Port		1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
Ethernet		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
HDMI Port		1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
Display Port		1 x DP 1.2	1 x DP 1.2	1 x DP 1.2
Audio		Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
DVD Optional		Yes (Optional)	Yes (Optional)	Yes (Optional)
<b>User Controls</b>				
Control Buttons		Clear CMOS	Clear CMOS	Clear CMOS
LED Indicators		Power, HDD	Power, HDD	Power, HDD
<b>Power</b>				
Power Input		12V DC	12V DC	12V DC
Power Consumption		60W	93W	100W
Power Adapter		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Environment</b>				
Operating Temp.		0°C to 50°C	0°C to 50°C	0°C to 50°C
Humidity		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>				
Safety		CE, FCC	CE, FCC	CE, FCC

# 15"~21.5" x86 Panel PC Haswell Series



“**EFFICIENT SOLUTION.**”

- 15"~21.5" screen
- Intel® Core™ i5-4200M
- Windows 10

---

Thermal solution with fan

---

Intel® QM87 chipset

---

Two mini PCIe (1 for Wi-Fi, 1 for SSD), PCIe x16

---

Four USB 3.0

---

Two RS232, RS232/422/485, two RJ45 for Ethernet, VGA, two PS/2

---

Lockable power connector

---

Open frame, panel mount, chassis, front IP65

---

Operating temperature 0°C to 50°C

## Accessories

### Standard

---

AC Adapter

Power Cord

Driver CD

## Custom configuration



Memory



Storage



High Panel  
Brightness



AR Glass



Housing

## Application



### Military Simulation

“FAST AND EFFICIENT  
CUSTOMIZATION  
SERVICE.”

With several custom modifications Winmate's 8.4" front IP65 panel PC now helps military personnel to get familiar with command tasks and simulate real field environment.



# x86 Haswell Panel PC

Intel® Core™ i5-4200M



		15"	15.6" (16:9)	17"
<b>Model Name</b>	<b>Open Frame</b>	<b>R15IH7T-OFC3</b>	<b>W15IH7T-OFA2</b>	<b>R17IH7T-OFM1</b>
	<b>Panel Mount</b>	<b>R15IH7T-PMC3</b>	<b>W15IH7T-PMA2</b>	<b>R17IH7T-PMM1</b>
	<b>IP65</b>	<b>R15IH7T-IPC3</b>	<b>W15IH7T-IPA2</b>	<b>R17IH7T-IPM1</b>
	<b>Chassis</b>	<b>R15IH7T-CHC3</b>	<b>W15IH7T-CHA2</b>	<b>R17IH7T-CHM1</b>
<b>Display</b>				
<b>Resolution</b>		1024 x 768	1366 x 768	1280 x 1024
<b>Panel Brightness</b>		300 nits	400 nits	350 nits
<b>Contrast Ratio</b>		2000 : 1 (Typ.)	500 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Viewing Angle</b>		-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>		16.2M	16.7M	16.2M
<b>Touch</b>		Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>System</b>				
<b>Processor</b>		Intel® Core™ i5-4200M (3M Cache, up to 3.30 GHz)	Intel® Core™ i5-4200M (3M Cache, up to 3.30 GHz)	Intel® Core™ i5-4200M (3M Cache, up to 3.30 GHz)
<b>Chipset</b>		Intel® QM87	Intel® QM87	Intel® QM87
<b>Memory</b>		1 x DDR3L SO-DIMM, max.8GB	1 x DDR3L SO-DIMM, max.8GB	1 x DDR3L SO-DIMM, max.8GB
<b>Ethernet Controller</b>		Intel® I211-AT + Intel® Gigabit Ethernet PHY I218-LM	Intel® I211-AT + Intel® Gigabit Ethernet PHY I218-LM	Intel® I211-AT + Intel® Gigabit Ethernet PHY I218-LM
<b>BIOS</b>		AMI BIOS	AMI BIOS	AMI BIOS
<b>Audio</b>		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>		2.5" SSD , 2.5" HDD, mSATA SSD	2.5" SSD, 2.5" HDD, mSATA SSD	2.5" SSD, 2.5" HDD, mSATA SSD
<b>OS</b>		Windows 10 IoT Enterprise Linux	Windows 10 IoT Enterprise Linux	Windows 10 IoT Enterprise Linux
<b>Connectors</b>				
<b>Power</b>		Lockable DC In Power Jack	Lockable DC In Power Jack	Lockable DC In Power Jack
<b>Ethernet</b>		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>		2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>		4 x USB 3.0	4 x USB 3.0	4 x USB 3.0
<b>VGA</b>		1 x VGA	1 x VGA	1 x VGA
<b>Audio</b>		Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
<b>Keyboard/Mouse</b>		2 x PS/2	2 x PS/2	2 x PS/2
<b>DVD</b>		Yes (Optional)	Yes (Optional)	Yes (Optional)
<b>Power</b>				
<b>Power Input</b>		12V DC	12V DC	12V DC
<b>Power Adapter</b>		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Environment</b>				
<b>Operating Temp.</b>		0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Humidity</b>		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>				
<b>Safety</b>		CE, FCC	CE, FCC	CE, FCC

# x86 Haswell Panel PC

Intel® Core™ i5-4200M



		19"	21.5" (16:9)
Model Name	Open Frame	R19IH7T-OFA1	W22IH7T-OFA3
	Panel Mount	R19IH7T-PMA1	W22IH7T-PMA3
	IP65	R19IH7T-IPA1	W22IH7T-IPA3
	Chassis	R19IH7T-CHA1	W22IH7T-CHA3
<b>Display</b>			
Resolution	1280 x 1024	1920 x 1080	
Panel Brightness	400 nits	250 nits	
Contrast Ratio	1000 : 1 (Typ.)	1000 : 1 (Typ.)	
Viewing Angle	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	
Display Color	16.7M	16.7M	
Touch	Resistive touchscreen	Resistive touchscreen	
<b>System</b>			
Processor	Intel® Core™ i5-4200M (3M Cache, up to 3.30 GHz)	Intel® Core™ i5-4200M (3M Cache, up to 3.30 GHz)	
Chipset	Intel® QM87	Intel® QM87	
Memory	1 x DDR3L SO-DIMM, max.8GB	1 x DDR3L SO-DIMM, max.8GB	
Ethernet Controller	Intel® 211-AT + Intel® Gigabit Ethernet PHY I218-LM	Intel® I211-AT + Intel® Gigabit Ethernet PHY I218-LM	
BIOS	AMI BIOS	AMI BIOS	
Audio	Realtek HD Audio Codec	Realtek HD Audio Codec	
Storage	2.5" SSD/2.5" HDD/mSATA SSD	2.5" SSD/2.5" HDD/mSATA SSD	
OS	Windows 10 IoT Enterprise Linux	Windows 10 IoT Enterprise Linux	
<b>Connectors</b>			
Power	Lockable DC In Power Jack	Lockable DC In Power Jack	
Ethernet	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	
Serial Interface	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	
USB	4 x USB 3.0	4 x USB 3.0	
VGA	1 x VGA	1 x VGA	
Audio	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	
Keyboard/Mouse	2 x PS/2	2 x PS/2	
DVD	Yes (Optional)	Yes (Optional)	
<b>Power</b>			
Power Input	12V DC	12V DC	
Power Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	
<b>Environment</b>			
Operating Temp.	0°C to +50°C	0°C to +50°C	
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	

# 8.4"~21.5" x86 Fanless Panel PC Bay Trail Series

## Custom configuration



Memory



Storage



PCAP  
Touchscreen



AR Glass



Housing



## Application



### Logistics Hub Information Terminal

"WINMATE - FAST  
AND EFFICIENT  
CUSTOMIZATION  
SERVICE."

Winmate's 17" chassis panel  
PC and flexibility allow user to  
customize their own.

“ **INDUSTRIAL DESIGN.  
POWER EFFICIENT CPU.** ”

- 8.4"~21.5" screen
- Intel® Celeron® N2930
- Windows 10/8/7

---

Fanless cooling system

---

USB 3.0, USB 2.0

---

RS232, RS232/422/485, two RJ45 for Ethernet, HDMI 1.4

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Open frame, panel mount, chassis, front IP65

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Operating temperature 0°C to 50°C

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## Accessories

### Standard

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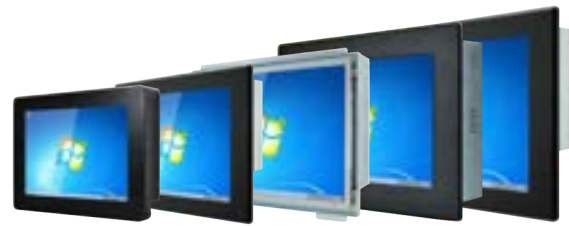
AC Adapter

Power Cord

Driver CD

# x86 Fanless Panel PC

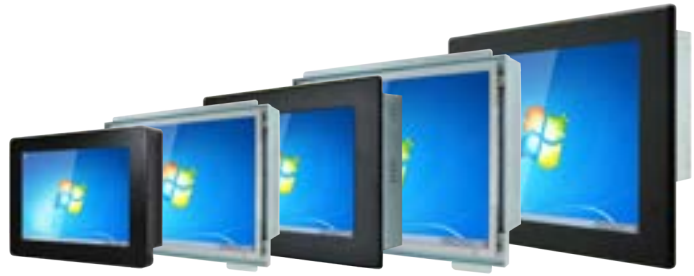
Intel® Celeron® N2930



		6.5"	7" (16:9)	8.4"	10.1" (16:9)	10.4"
<b>Model Name</b>	<b>Open Frame</b>	R06IB3S-OFA1	W07IB3S-OFT1	R08IB3S-OFU1	W10IB3S-OFH1	R10IB3S-OFT2
	<b>Panel Mount</b>	R06IB3S-CHA1	W07IB3S-PMT1	R08IB3S-PMU1	W10IB3S-PMH1	R10IB3S-PMT2
	<b>IP65</b>	R06IB3S-IPA1	W07IB3S-IPT1	R08IB3S-IPU1	W10IB3S-IPH1	R10IB3S-IPT2
	<b>Chassis</b>	R06IB3S-PMA1	W07IB3S-CHT1	R08IB3S-CHU1	W10IB3S-CHH1	R10IB3S-CHT2
<b>Display</b>						
<b>Resolution</b>		640 x 480	1024 x 600	800 x 600	1024 x 600	1024 x 768
<b>Panel Brightness</b>		700 nits	320 nits	600 nits	450 nits	350 nits
<b>Contrast Ratio</b>		600 : 1 (Typ.)	500: 1 (Typ.)	600: 1 (Typ.)	800: 1 (Typ.)	1000:1 (Typ.)
<b>Viewing Angle</b>		-80~80 (H); -70~70 (V)	-75~75 (H); -75~70 (V)	-75~75 (H); -60~70 (V)	-75~80 (H); -80~80 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>		16.2M	16.7M	16.2M	16.7M	16.2M
<b>Touch</b>		Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>System</b>						
<b>Processor</b>		Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>		SO-DIMM, max. 8GB DDR3L 1600	SO-DIMM, max. 8GB DDR3L 1600	SO-DIMM, max. 8GB DDR3L	SO-DIMM, max. 8GB DDR3L	SO-DIMM, max. 8GB DDR3L
<b>Ethernet Controller</b>		Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE
<b>BIOS</b>		AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
<b>Audio</b>		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>		2.5" HDD/mSATA	2.5" HDD/mSATA	2.5" HDD/mSATA	2.5" HDD/mSATA	2.5" HDD/mSATA
<b>OS</b>		Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux
<b>Connectors</b>						
<b>Ethernet</b>		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>		1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>		1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0
<b>HDMI</b>		1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI
<b>Power</b>						
<b>Power Input</b>		12V DC	12V DC	12V DC	12V DC	12V DC
<b>Power Adapter</b>		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Environment</b>						
<b>Operating Temp.</b>		0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Humidity</b>		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>						
<b>Safety</b>		CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 Fanless Panel PC

Intel® Celeron® N2930

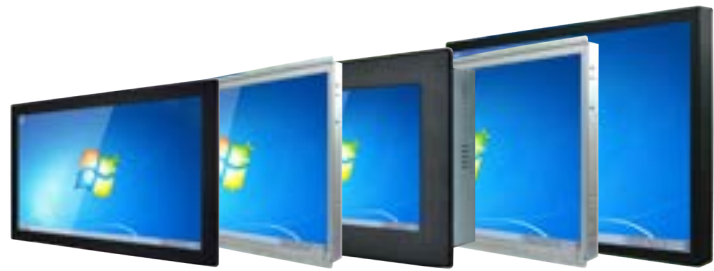


		10.4"	12.1"	15"	15.6" (16:9)	17"
<b>Model Name</b>	Open Frame	R10IB3S-OFP1	R12IB3S-OFM2	R15IB7T-OFM3	W15IB7T-OFA2	R17IB7T-OFM1
	Panel Mount	R10IB3S-PMP1	R12IB3S-PMM2	R15IB7T-PMC3	W15IB7T-PMA2	R17IB7T-PMM1
	IP65	R10IB3S-IPP1	R12IB3S-IPM2	R15IB7T-IPC3	W15IB7T-IPA2	R17IB7T-IPM1
	Chassis	R10IB3S-CHP1	R12IB3S-IPM2	R15IB7T-IPC3	W15IB7T-IPA2	R17IB7T-IPM1
<b>Display</b>						
<b>Resolution</b>		800 x 600	1024 x 768	1024 x 768	1366 x 768	1280 x 1024
<b>Panel Brightness</b>		600 nits	500 nits	300 nits	400 nits	350 nits
<b>Contrast Ratio</b>		400 : 1 (Typ.)	700 : 1 (Typ.)	2000 : 1 (Typ.)	500 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Viewing Angle</b>		-70~70 (H); -70~60 (V)	-80~80 (H); -70~70 (V)	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>		16.2M	16.2M	16.2M	16.7M	16.2M
<b>Touch</b>		Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>System</b>						
<b>Processor</b>		Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>		SO-DIMM DDR3L 1600, max. 8GB	SO-DIMM, max. 8GB DDR3L	SO-DIMM DDR3L 1600, max. 8GB	SO-DIMM DDR3L 1600, max. 8GB	SO-DIMM DDR3L 1600, max. 8GB
<b>Ethernet Controller</b>		Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE
<b>BIOS</b>		AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
<b>Audio</b>		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>		2.5" HDD/mSATA	2.5" HDD/mSATA	2.5" HDD/mSATA	2.5" HDD/mSATA	2.5" HDD/mSATA
<b>OS</b>		Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux
<b>Connectors</b>						
<b>Ethernet</b>		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>		2 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>		1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0
<b>HDMI</b>		1 x HDMI	1 x HDMI	-	-	-
<b>VGA</b>		-	-	1 x VGA	1 x VGA	1 x VGA
<b>Audio</b>		-	-	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
<b>Keyboard/Mouse</b>		-	-	2 x PS/2	2 x PS/2	2 x PS/2
<b>Power</b>						
<b>Power Input</b>		12V DC	12V DC	12V DC	12V DC	12V DC
<b>Power Adapter</b>		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Environment</b>						
<b>Operating Temp.</b>		0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Humidity</b>		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>						
<b>Safety</b>		CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC



# x86 Fanless Panel PC

Intel® Celeron® N2930



		18.5" (16:9)	19"	19"	21.5" (16:9)	23.8" (16:9)
<b>Model Name</b>	Open Frame	W181B7T-OFA2	R191B7T-OFM1	R191B7T-OFA1	W221B7T-OFA3	W241B7T-OFA2
	Panel Mount	W181B7T-PMA2	R191B7T-PM11	R191B7T-PMA1	W221B7T-PMA3	W241B7T-PMA2
	IP65	W181B7T-IPA2	R191B7T-IPM1	R191B7T-IPA1	W221B7T-IPA3	W241B7T-IPA2
	Chassis	W181B7T-CHA2	R191B7T-CHM1	R191B7T-CHA1	W221B7T-CHA3	W241B7T-CHA2
<b>Display</b>						
<b>Resolution</b>		1366 x 768	1280 x 1024	1280 x 1024	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>		250 nits	250 nits	400 nits	250 nits	250 nits
<b>Contrast Ratio</b>		1000 : 1 (Typ.)	1000 : 1 (Typ.)	1000 : 1 (Typ.)	3000 : 1 (Typ.)	3000 : 1 (Typ.)
<b>Viewing Angle</b>		-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>		16.7M	16.7M	16.7M	16.7M	16.7M
<b>Touch</b>		Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>System</b>						
<b>Processor</b>		Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>		SO-DIMM DDR3L 1600, max. 8GB	SO-DIMM DDR3L 1600, max. 8GB	SO-DIMM DDR3L 1600, max. 8GB	SO-DIMM DDR3L 1600, max. 8GB	SO-DIMM DDR3L 1600, max. 8GB
<b>Ethernet Controller</b>		Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE
<b>BIOS</b>		AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
<b>Audio</b>		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>		2.5" HDD, mSATA SSD	2.5" HDD, mSATA SSD	2.5" HDD, mSATA SSD	2.5" HDD, mSATA SSD	2.5" HDD, mSATA SSD
<b>OS</b>		Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System / Linux
<b>Connectors</b>						
<b>Ethernet</b>		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>		1 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>		1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0
<b>VGA</b>		1 x VGA	1 x VGA	1 x VGA	1 x VGA	1 x VGA
<b>Audio</b>		Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
<b>Keyboard/Mouse</b>		2 x PS/2	2 x PS/2	2 x PS/2	2 x PS/2	2 x PS/2
<b>Power</b>						
<b>Power Input</b>		12V DC	12V DC	12V DC	12V DC	12V DC
<b>Power Adapter</b>		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Environment</b>						
<b>Operating Temp.</b>		0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Humidity</b>		10% to 95% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>						
<b>Safety</b>		CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

## 10.4"~23.8" x86 Panel PC

# Ivy Bridge Series

### Custom configuration



Memory



Storage



Housing



AR Glass



PCAP  
Touchscreen



### Application



#### Payment Machine

"NEW SOLUTION  
THROUGH  
COLLABORATION."

Self-service solution evolves through collaboration with Winmate, 12" open frame panel PC with touchscreen now serves as a payment terminal.

“**DURABLE AND RELIABLE.**”

- 10.4"~23.8" screen
- 3<sup>rd</sup> Gen. Intel® Core™ i5
- Windows 10

---

Thermal solution with fan

---

Intel® HM76 chipset

---

Two mini PCIe (1 for Wi-Fi, 1 for SSD), PCIe x16, PCIe x4

---

Four USB 3.0

---

Two RS232, RS232/422/485, two RJ45 for Ethernet, VGA, two PS/2

---

Lockable power connector

---

Open frame, panel mount, chassis, front IP65

---

operating temperature 0°C to 50°C

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### Accessories

#### Standard

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AC Adapter

Power Cord

Driver CD

# x86 Ivy Bridge Panel PC

3<sup>rd</sup> Gen. Intel® Core™ i5



		10.4"	12.1"	12.1"
Model Name	Open Frame	R10IV7T-OFT2	R12IV7T-OFL1	R12IV7T-OFM2
	Panel Mount	R10IV7T-PMT2	R12IV7T-PML1	R12IV7T-PM2
	IP65	R10IV7T-IPT2	R12IV7T-IPL1	R12IV7T-IPM2
	Chassis	R10IV7T-CHT2	R12IV7T-CHL1	R12IV7T-CHM2
<b>Display</b>				
Resolution		1024 x 768	800 x 600	1024 x 768
Panel Brightness		350 nits	450 nits	500 nits
Contrast Ratio		1000 : 1 (Typ.)	700 : 1 (Typ.)	700 : 1 (Typ.)
Viewing Angle		-88~88 (H); -88~88 (V)	-80~80 (H); -75~65 (V)	-80~80 (H); -70~70 (V)
Display Color		16.2M	16.2M	16.2M
Touch		Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>System</b>				
Processor		Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)
Chipset		Intel® HM76	Intel® HM76	Intel® HM76
Memory		1 x DDR3L 1333/1600MHz SO-DIMM, max. 8GB	1 x DDR3L 1333/1600MHz SO-DIMM, max. 8GB	1 x DDR3L 1333/1600MHz SO-DIMM, max. 8GB
Ethernet Controller		Dual Broadcom BCM57780 PCIe GbE	Dual Broadcom BCM57780 PCIe GbE	Dual Broadcom BCM57780 PCIe GbE
BIOS		AMI BIOS	AMI BIOS	AMI BIOS
I/O Chipset		Winbond W83628UHG	Winbond W83628UHG	Winbond W83628UHG
Audio		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
Storage		2.5" HDD / 2.5" SSD/mSATA SSD	2.5" HDD / 2.5" SSD/mSATA SSD	2.5" HDD / 2.5" SSD/mSATA SSD
OS		Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Linux
<b>Connectors</b>				
Ethernet		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
Serial Interface		2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
USB		4 x USB3.0	4 x USB 3.0	4 x USB3.0
VGA		1 x VGA	1 x VGA	1 x VGA
Audio		Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
Keyboard/Mouse		2 x PS/2	2 x PS/2	2 x PS/2
Other		1 x VR knob	1 x VR knob	1 x VR knob
<b>Power</b>				
Power Input		12V DC	12V DC	12V DC
Power Adaptor		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Environment</b>				
Operating Temp.		0°C to +50°C	0°C to +50°C	0°C to +50°C
Humidity		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>				
Safety		CE, FCC	CE, FCC	CE, FCC

# x86 Ivy Bridge Panel PC

3<sup>rd</sup> Gen. Intel® Core™ i5



		15"	17"	19"
<b>Model Name</b>	<b>Open Frame</b>	<b>R15IV7T-OFC3</b>	<b>R17IV7T-OFM1</b>	<b>R19IV7T-OFM1</b>
	<b>Panel Mount</b>	<b>R15IV7T-PMC3</b>	<b>R17IV7T-PMM1</b>	<b>R19IV7T-PMM1</b>
	<b>IP65</b>	<b>R15IV7T-IPC3</b>	<b>R17IV7T-IPM1</b>	<b>R19IV7T-IPM1</b>
	<b>Chassis</b>	<b>R15IV7T-CHC3</b>	<b>R17IV7T-CHM1</b>	<b>R19IV7T-CHM1</b>
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1280 x 1024	1280 x 1024	
<b>Panel Brightness</b>	300 nits	350 nits	250 nits	
<b>Contrast Ratio</b>	2000:1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)	
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	
<b>Display Color</b>	16.2M	16.2M	16.7M	
<b>Touch</b>	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	
<b>Chipset</b>	Intel® HM76	Intel® HM76	Intel® HM76	
<b>Memory</b>	1 x DDR3L 1600MHz SO-DIMM, max. 8GB	1 x DDR3L 1600MHz SO-DIMM, max. 8GB	1 x DDR3L 1600MHz SO-DIMM, max. 8GB	
<b>Ethernet Controller</b>	Dual Broadcom BCM57780 PCIe GbE	Dual Broadcom BCM57780 PCIe GbE	Dual Broadcom BCM57780 PCIe GbE	
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS	
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	
<b>Storage</b>	2.5" HDD/2.5" SSD/mSATA SSD	2.5" HDD/2.5" SSD/mSATA SSD	2.5" HDD/2.5" SSD/mSATA SSD	
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Linux	
<b>Connectors</b>				
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	
<b>Serial Interface</b>	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	
<b>USB</b>	4 x USB3.0	4 x USB3.0	4 x USB3.0	
<b>VGA</b>	1 x VGA	1 x VGA	1 x VGA	
<b>Audio</b>	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	
<b>Keyboard/Mouse</b>	2 x PS/2	2 x PS/2	2 x PS/2	
<b>VR Knob</b>	1 x VR knob	1 x VR knob	1 x VR knob	
<b>DVD</b>	Yes (Optional)	Yes (Optional)	Yes (Optional)	
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	
<b>Power Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	
<b>Environment</b>				
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C	
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	

# x86 Ivy Bridge Panel PC

3<sup>rd</sup> Gen. Intel® Core™ i5



		19"	21.5" (16:9)	24" (16:9)
Model Name	Open Frame	R19IV7T-OFA1	W22IV7T-OFA3	W24IV7T-OFA2
	Panel Mount	R19IV7T-PMA1	W22IV7T-PMA3	
	IP65	R19IV7T-IPA1	W22IV7T-IPA3	W24IV7T-IPA2
	Chassis	R19IV7T-CHA1	W22IV7T-CHA3	
<b>Display</b>				
Resolution		1280 x 1024	1920 x 1080	1920 x 1080
Panel Brightness		400 nits	250 nits	250 nits
Contrast Ratio		1000 : 1 (Typ.)	3000 : 1 (Typ.)	3000 : 1 (Typ.)
Viewing Angle		-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
Display Color		16.7M	16.7M	16.7M
Touch		Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>System</b>				
Processor		Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)
Chipset		Intel® HM76	Intel® HM76	Intel® HM76
Memory		1 x DDR3L 1600MHz SO-DIMM, max. 8GB	1 x DDR3L 1600MHz SO-DIMM, max. 8GB	1 x DDR3L 1600MHz SO-DIMM, max. 8GB
Ethernet Controller		Dual Broadcom BCM57780 PCIe GbE	Dual Broadcom BCM57780 PCIe GbE	Dual Broadcom BCM57780 PCIe GbE
BIOS		AMI BIOS	AMI BIOS	AMI BIOS
Audio		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
Storage		2.5" HDD/2.5" SSD/mSATA SSD	2.5" HDD/2.5" SSD/mSATA SSD	2.5" HDD/2.5" SSD/mSATA SSD
OS		Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 / Linux	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 / Linux
<b>Connectors</b>				
Ethernet		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
Serial Interface		2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
USB		4 x USB3.0	4 x USB3.0	4 x USB3.0
VGA		1 x VGA	1 x VGA	1 x VGA
Audio		Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
Keyboard/Mouse		2 x PS/2	2 x PS/2	2 x PS/2
VR Knob		1 x VR knob	1 x VR knob	1 x VR knob
DVD		Yes (Optional)	Yes (Optional)	Yes (Optional)
<b>Power</b>				
Power Input		12V DC	12V DC	12V DC
Power Adapter		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Environment</b>				
Operating Temp.		0°C to +50°C	0°C to +50°C	0°C to +50°C
Humidity		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>				
Safety		CE, FCC	CE, FCC	CE, FCC



# 5.7"~19" Arm Panel PC

## Arm Series

### Custom configuration



Memory



CPU



PoE



Housing



### Application



#### Machine Controller

"LINUX OS FOR DEMANDING CUSTOM APPLICATIONS."

When the application requires a unique software solution, HMI with open Linux system is the choice of developers.

“ **CUSTOM OS IMAGE.** ”

- 5.7"~19" screen with resistive touchscreen
- Arm Cortex-A9
- Android 6.0
- Linux 4.1.15, QT 5.5
- Ubuntu 16.04

---

Fanless cooling system

---

16GB eMMC, micro SD card slot

---

USB 2.0, USB OTG

---

RS232/422/485, RJ45 for Ethernet, CANBus, micro HDMI

---

Lockable power connector

---

Open frame, front IP65

---

Operating temperature 0°C to 50°C

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### Accessories

#### Standard

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AC Adapter

Power Cord

Driver CD

# Arm Panel PC

Arm Cortex-A9



		5.7"	7" (16:9)	10.1" (16:9)
Model Name	IP65	R05FA3S-IPD1HM(HB)	W07FA3S-IPA3HM	W10FA3S-IPH1HM
	Open Frame	R05FA3S-OFD1HM(HB)	W07FA3S-OFA3HM	W10FA3S-OFH1HM
<b>Display</b>				
<b>Resolution</b>		640 x 480	1024 x 600	1024 x 600
<b>Panel Brightness</b>		900 nits	250 nits	200 nits
<b>Contrast Ratio</b>		300 : 1 (Typ.)	700 : 1 (Typ.)	500 : 1 (Typ.)
<b>Active Area</b>		115.2 x 86.4	153.6 x 90.0	220.4 x 129.1
<b>Viewing Angle</b>		-70~70 (H); -40~60 (V)	-75~75 (H); -75~70 (V)	-70~70 (H); -50~60 (V)
<b>Display Color</b>		262K	262K	262K
<b>Touch</b>		Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>System</b>				
<b>Processor</b>		Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>Storage</b>		Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
<b>Memory</b>		1GB LPDDR3 (Optional 2GB)	1GB LPDDR3 (Optional 2GB)	1GB LPDDR3 (Optional 2GB)
<b>OS</b>		Android 6.0 Ubuntu 16.04 / 18.04 Linux 4.1.15 (QT 5.5)	Android 6.0 Ubuntu 16.04 / 18.04 Linux 4.1.15 (QT 5.5)	Android 6.0 Ubuntu 16.04 / 18.04 Linux 4.1.15 (QT 5.5)
<b>Connectors</b>				
<b>Serial Interface</b>		1 x RS232 (Optional 422/485)	1 x RS232 (Optional 422/485)	1 x RS232 (Optional 422/485)
<b>USB</b>		1 x USB 2.0	1 x USB 2.0	1 x USB 2.0
<b>SD Card Slot</b>		1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
<b>HDMI</b>		1 x Micro HDMI	1 x Micro HDMI	1 x Micro HDMI
<b>Micro USB</b>		1 x USB OTG	1 x USB OTG	1 x USB OTG
<b>Power</b>		Phoenix type 1 x 2pin Terminal Block	Phoenix type 1 x 2pin Terminal Block	Phoenix type 1 x 2pin Terminal Block
<b>Ethernet</b>		1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function
<b>Power</b>				
<b>Power Input</b>		12V DC	12V DC	12V DC
<b>Power Consumption</b>		15W	15W	16W
<b>Power over Ethernet (PoE)</b>		PoE require IEEE 802.3at 25W	PoE require IEEE 802.3at 25W	PoE require IEEE 802.3at 25W
<b>Mechanical</b>				
<b>Dimension</b>		160 x 129.6 x 54 mm	218 x 164.6 x 60.8 mm	286 x 182 x 49.5 mm
<b>Cooling System</b>		Fanless	Fanless	Fanless
<b>Environment</b>				
<b>Operating Temp.</b>		-0°C to +50°C	-0°C to +50°C	-0°C to +50°C
<b>Humidity</b>		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>IP Rating</b>		Front IP65	Front IP65	Front IP65
<b>Certifications</b>				
<b>Safety</b>		CE, FCC	CE, FCC	CE, FCC

# Arm Panel PC

Arm Cortex-A9



		15"	19"
Model Name	IP65	R15FA3S-IPC3HM	R19FA3S-IPM1HM
	Open Frame	R15FA3S-OFC3HM	R19FA3S-OFM1HM
<b>Display</b>			
<b>Resolution</b>		1024 x 768	1280 x 1024
<b>Panel Brightness</b>		250 nits	250 nits
<b>Contrast Ratio</b>		700 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Active Area</b>		304.1 x 228.1	376.3 x 301.0
<b>Viewing Angle</b>		-80~80 (H); -70~70 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>		1 6.2M	16.7M
<b>Touch</b>		Resistive touchscreen	Resistive touchscreen
<b>System</b>			
<b>Processor</b>		Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>Storage</b>		Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
<b>Memory</b>		1GB LPDDR3 (Optional 2GB)	1GB LPDDR3 (Optional 2GB)
<b>OS</b>		Android 6.0 Ubuntu 16.04 / 18.04 Linux 4.1.15 (QT 5.5)	Android 6.0 Ubuntu 16.04 / 18.04 Linux 4.1.15 (QT 5.5)
<b>Connectors</b>			
<b>Serial Interface</b>		1 x RS232 (Optional 422/485)	1 x RS232 (Optional 422/485)
<b>USB</b>		1 x USB 2.0	1 x USB 2.0
<b>SD Card Slot</b>		1 x Micro SD Card Slot	1 x Micro SD Card Slot
<b>HDMI</b>		1 x Micro HDMI	1 x Micro HDMI
<b>Micro USB</b>		1 x USB OTG	1 x USB OTG
<b>Power</b>		1 x 2pin Terminal Block	1 x 2pin Terminal Block
<b>Ethernet</b>		1 x RJ45 10/100/1000	1 x RJ45 10/100/1000
<b>Power</b>			
<b>Power Input</b>		12V DC	12V DC
<b>Power Consumption</b>		18W	20W
<b>Power over Ethernet (PoE)</b>		12V DC PoE require IEEE 802.3at 25W	12V DC PoE require IEEE 802.3at 25W
<b>Power Adapter AC</b>		AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimension</b>		400 x 320 x 59 mm	474 x 383.9 x 71.4 mm
<b>Cooling System</b>		Fanless	Fanless
<b>Environment</b>			
<b>Operating Temp.</b>		0°C to +50°C	0°C to +50°C
<b>Humidity</b>		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>IP Rating</b>		Front IP65	Front IP65
<b>Certifications</b>			
<b>Safety</b>		CE, FCC	CE, FCC

# 15"~21.5" x86 Application-Ready Panel PC

## PCI Slot Series



“ CONNECTION TO CUSTOM PERIPHERALS WITH PCI SLOT. ”

- 15"~21.5" screen with resistive touchscreen
- Intel® Core™ i5
- Windows 10

---

Thermal solution with fan

---

Intel® HM76 chipset

---

Expansion slot PCI

---

Four USB 3.0

---

Two RS232, RS232/422/485, Two RJ45 for Ethernet, VGA, Two RS/2

---

Lockable power connector

---

Open frame, panel mount

---

Operating temperature 0°C to 50°C

---

### Accessories

#### Standard

---

AC Adapter

Power Cord

Driver CD

### Custom configuration



Memory



Storage



Housing



PCIe



AR Glass



PCAP  
Touchscreen

### Application



#### Assembly Line

“BRING EFFICIENCY TO PRODUCTION.”

Panel PC with PCI slot allow provide an uncomplicated connection to a number of custom peripherals on the factory floor.

# x86 PCI Slot Application-Ready Panel PC

3<sup>rd</sup> Gen. Intel® Core™ i5



		15"	17"	19"	21.5" (16:9)
Model Name	Panel Mount	R15IV7T-PMC3PS	R17IV7T-PMM1PS	R19IV7T-PMM1PS	W22IV7T-PMA3PS
	Open Frame	R15IV7T-OFC3PS	R17IV7T-OFM1PS	R19IV7T-OFM1PS	W22IV7T-OFA3PS
<b>Display</b>					
<b>Resolution</b>		1024 x 768	1280 x 1024	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>		300 nits	350 nits	250 nits	250 nits
<b>Contrast Ratio</b>		2000 : 1 (Typ.)	1000 : 1 (Typ.)	1000 : 1 (Typ.)	3000 : 1 (Typ.)
<b>Viewing Angle</b>		-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>		16.2M	16.2M	16.7M	16.7M
<b>System</b>					
<b>Processor</b>		Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)
<b>Chipset</b>		Intel® HM76	Intel® HM76	Intel® HM76	Intel® HM76
<b>Memory</b>		1 x DDR3L SO-DIMM, max.8GB	1 x DDR3L SO-DIMM, max.8GB	1 x DDR3L SO-DIMM, max.8GB	1 x DDR3L SO-DIMM, max.8GB
<b>Ethernet Controller</b>		Dual Broadcom BCM57780 GbE	Dual Broadcom BCM57780 GbE	Dual Broadcom BCM57780 GbE	Dual Broadcom BCM57780 GbE
<b>Storage</b>		2.5" HDD or mSATA SSD	2.5" HDD or mSATA SSD	2.5" HDD or mSATA SSD	2.5" HDD or mSATA SSD
<b>Audio</b>		Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>BIOS</b>		AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
<b>OS</b>		Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7
<b>Connectors</b>					
<b>Audio</b>		Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
<b>Serial</b>		2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
<b>VGA</b>		1 x VGA	1 x VGA	1 x VGA	1 x VGA
<b>USB</b>		4 x USB3.0	4 x USB3.0	4 x USB3.0	4 x USB3.0
<b>LAN</b>		2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Keyboard/Mouse</b>		2 x PS/2	2 x PS/2	2 x PS/2	2 x PS/2
<b>Environment</b>					
<b>Operating Temp.</b>		0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Humidity</b>		10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>					
<b>Safety</b>		CE, FCC	CE, FCC	CE, FCC	CE, FCC



# 15"~19" x86 Application-Ready Panel PC

## Rack Mount Series



“ **DESIGNED FOR RACK MOUNT CABINETS.** ”

- 15"~19" screen
- Intel® Core™ i5
- Intel® Celeron® N2930
- Windows 10
- Linux

---

Thermal solution with fan

---

Intel® HM76 chipset

---

Panel Brightness adjustment knob

---

Four USB 3.0

---

Two RS232, RS232/422/485, Two RJ45 for Ethernet, VGA, Two PS/2

---

Rack mount

---

Operating temperature 0°C to 50°C

---

### Accessories

#### Standard

---

AC Adapter

Power Cord

Driver CD

### Custom configuration



Memory



Storage



DVD



PCAP  
Touchscreen



AR Glass

### Application



#### Server Room

“LARGE SCREEN TO MONITOR AND CONTROL SERVER CABINET.”

19" rack mount panel PC in a rack mount housing fits in to a server cabinets.

# x86 Rack Mount Application-Ready Panel PC

3<sup>rd</sup> Gen. Intel® Core™ i5



Model Name	15"	17"	19"
	R15IV7T-RKC3	R17IV7T-RKM1	R19IV7T-RKM1
<b>Display</b>			
<b>Resolution</b>	1024 x 768	1280 x 1024	1280 x 1024
<b>Panel Brightness</b>	300 nits	350 nits	250 nits
<b>Contrast Ratio</b>	2000 : 1 (Typ.)	1000 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>	16.2M	16.2M	16.7M
<b>Touch</b>	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>System</b>			
<b>Processor</b>	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)
<b>Chipset</b>	Intel® HM76	Intel® HM76	Intel® HM76
<b>Memory</b>	1 x DDR3L 1333/1600MHz SO-DIMM, max.8GB	1 x DDR3L 1333/1600MHz SO-DIMM, max.8GB	1 x DDR3L 1333/1600MHz SO-DIMM, max.8GB
<b>Ethernet Controller</b>	Dual Broadcom BCM57780 GbE	Dual Broadcom BCM57780 GbE	Dual Broadcom BCM57780 GbE
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>	2.5" HDD/mSATA	2.5" HDD/mSATA	2.5" HDD/mSATA
<b>OS</b>	Windows 10 IoT Enterprise Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 / Linux	Windows 10 IoT Enterprise Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 / Linux	Windows 10 IoT Enterprise Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 / Linux
<b>Connectors</b>			
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>	4 x USB 3.0	4 x USB 3.0	4 x USB 3.0
<b>VGA</b>	1 x VGA (Female)	1 x VGA (Female)	1 x VGA (Female)
<b>Audio</b>	Line-out, Line-in, Mic-in	Line-out, Line-in, Mic-in	Line-out, Line-in, Mic-in
<b>Keyboard/Mouse</b>	2 x PS/2	2 x PS/2	2 x PS/2
<b>DVD</b>	Optional	Optional	Optional
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	12V DC
<b>Power Adaptor</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimension</b>	482 x 310 x 75.8 mm	482.6 x 399 x 92 mm	482 x 399 x 90 mm
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to +50°C	0°C to +50°C	0°C to +50°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# x86 Rack Mount Application-Ready Panel PC

Intel® Celeron® N2930



Model Name	15"	17"	19"
	R15IB7T-RKC3	R17IB7T-RKM1	R19IB7T-RKM1
<b>Display</b>			
Resolution	1024 x 768	1280 x 1024	1280 x 1024
Panel Brightness	300 nits	350 nits	250 nits
Contrast Ratio	2000 : 1 (Typ.)	1000 : 1 (Typ.)	1000 : 1 (Typ.)
Viewing Angle	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)
Display Color	16.2M	16.2M	16.7M
Touch	5 Wire Resistive touchscreen (Optional)	5 Wire Resistive touchscreen (Optional)	5 Wire Resistive touchscreen (Optional)
<b>System</b>			
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
Memory	SODIMM DDR3L 1600/1333, max. 8GB	SODIMM DDR3L 1600/1333, max. 8GB	SODIMM DDR3L 1600/1333, max. 8GB
Ethernet Controller	Intel I210-AT GbE LAN	Intel I210-AT GbE LAN	Intel I210-AT GbE LAN
Audio	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
SATA	2 x SATA	2 x SATA	2 x SATA
Storage	2.5" HDD/2.5" SSD/mSATA	2.5" HDD/2.5" SSD/mSATA	2.5" HDD/2.5" SSD/mSATA
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
Other	2 x Mini PCIe (1 for WiFi, 1 for 3G Module)	2 x Mini PCIe (1 for WiFi, 1 for 3G Module)	2 x Mini PCIe (1 for WiFi, 1 for 3G Module)
<b>Connectors</b>			
Ethernet	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
Serial Interface	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
USB	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 3 x USB 2.0
VGA	1 x VGA (Female)	1 x VGA (Female)	1 x VGA (Female)
Audio	Line-out, Line-in, Mic-in	Line-out, Line-in, Mic-in	Line-out, Line-in, Mic-in
Keyboard/Mouse	2 x PS/2	2 x PS/2	2 x PS/2
DVD	Optional	Optional	Optional
<b>Power</b>			
Power Input	12V DC	12V DC	12V DC
Power Adaptor	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Mechanical</b>			
Dimension	482 x 310 x 75.8 mm	482.6 x 399 x 92 mm	482 x 399 x 90 mm
<b>Environment</b>			
Operating Temp.	0°C to 50°C	0°C to 50°C	0°C to 50°C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC

# 7" ~23.8" x86 G-WIN Panel PC

## G-WIN GC Series

NEW



### Custom configuration



Wide Power

### Application



#### Soybeans Harvester

"ULTIMATE IMAGES.  
COMPACT FORM-  
FACTOR."

Winmate 7" GC Series Display combines with customer's box computer helps to monitor field status and show optimal harvesting route to the farmer.

“SEMI-RUGGED SOLUTION.”

- 7" ~23.8" PCAP touchscreen
- 7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Intel® Core™ i5-7200U
- Intel® Celeron® N2930
- Windows 10/8/7

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True flat, easy-to-clean front surface with edge-to-edge design

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Fanless cooling system

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Ultra low power consumption

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Panel mount, VESA mount, standalone

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Front IP65 waterproof and dustproof

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### Accessories

RS232 Cable

VGA Cable

USB Cable

Power Cable

Driver CD

# x86 G-WIN GC Series Panel PC

Intel® Core™ i5-7200U



Model Name	12.1"	15"	19"
	R12IK3S-GCM2	R15IK3S-GCC3	R19IK3S-GCM1
<b>Display</b>			
Resolution	1024 x 768	1024 x 768	1280 x 1024
Panel Brightness	500 nits (Optional 1000 nits)	250 nits (Optional 1000 nits)	250 nits
Contrast Ratio	1000:1 (Typ.)	700:1 (Typ.)	1000 : 1 (typ.)
Viewing Angle	-80~80 (H); -70~70 (V)	-88~88 (H); -88~88 (V)	-85~85(H);-80~80(V)
Display Color	16.2M	16.2M	16.7M
<b>System</b>			
Processor	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
Memory	2GB DDR4-2133 SODIMM	2GB DDR4-2133 SODIMM	4GB DDR4-2133 (Max to 16GB)
Storage	64GB M.2 SSD (up to 256GB)	64GB M.2 SSD (up to 256GB)	64GB M.2 SSD (up to 256GB)
OS	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>			
USB Port	2 x USB3.0	2 x USB3.0	2 x USB3.0
Ethernet	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
COM Port	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485(Default RS232)
HDMI	1 x HDMI 1.4a	1 x HDMI 1.4a	1 x HDMI 1.4a
<b>Audio</b>			
Speaker	1 x 2 Watt Speaker	1 x 2 Watt Speaker	-
<b>Mechanical</b>			
Dimensions	296.2 x 226.7 x 45.5 mm	254.2 x 198 x 36.4 mm	444 x 368 x 51 mm
Cooling System	Fanless design	Fanless design	Fanless design
Mounting	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (100 x 100 mm)
Operating Temp.	-15°C to 55°C	-15°C to 55°C	0°C to 55°C
Humidity	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Power</b>			
Power Input	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC



# x86 G-WIN GC Series Panel PC

Intel® Core™ i5-7200U  
7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



Model Name	21.5" (16:9)	21.5" (16:9)	23.8" (16:9)	23.8" (16:9)
	W22IK3S-GCA3	W22IK7T-GCA3	W24IK3S-GCA2	W24IK7T-GCA2
<b>Display</b>				
<b>Resolution</b>	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	250 nits	250 nits	250 nits	250 nits
<b>Contrast Ratio</b>	3000 : 1 (Typ.)	1000 : 1 (Typ.)	3000 : 1 (Typ.)	1000 : 1 (Typ.)
<b>Viewing Angle</b>	-89~89 (H);-89~89 (V)	-89~89 (H);-89~89 (V)	-89~89 (H);-89~89 (V)	-89~89 (H);-89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)
<b>Memory</b>	4GB DDR4-2133 (Max to 16GB)	1 x SO-DIMM, Max 16Gb DDR4 2400 MHz (default 4G)	4GB DDR4-2133 (Max to 16GB)	1 x SO-DIMM, Max 16Gb DDR4 2400 MHz (default 4G)
<b>Storage</b>	64GB M.2 SSD (up to 256GB)	1 x M.2 SSD, Max 256GB 1 x 2.5" 500GB HDD (default)	64GB M.2 SSD (up to 256GB)	1 x M.2 SSD, Max 256GB 1 x 2.5" 500GB HDD (default)
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>				
<b>USB Port</b>	2 x USB3.0	4 x USB 3.0	2 x USB3.0	4 x USB 3.0
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>COM Port</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
<b>HDMI</b>	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
<b>Mechanical</b>				
<b>Dimensions</b>	529 x 320.4 x 50 mm	529 x 322 x 71 mm	587 x 356 x 55 mm	587 x 356 x 75 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	VESA Mount (100 x 100 mm), Panel Mount	VESA Mount (75 x 75, 100 x 100mm), Panel Mount	VESA Mount (100 x 100mm), Panel Mount	VESA Mount (100 x 100mm), Panel Mount
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Power</b>				
<b>Power Input</b>	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 G-WIN GC Series Panel PC

Intel® Celeron® N2930



Model Name	7" (16:9)	10.1" (16:9)	10.4"	12.1"	15"
	W07IB3S-GCO1	W10IB3S-GCH1	R10IB3S-GCT2	R12IB3S-GCM2	R15IB3S-GCC3
<b>Display</b>					
<b>Resolution</b>	1024 x 600	1024 x 600	1024 x 768	1024 x 768	1024 x 768
<b>Panel Brightness</b>	1000 nits	450 nits (Optional 800 nits)	350 nits (Optional 1000 nits)	500 nits (Optional 1000 nits)	250 nits (Optional 1000 nits)
<b>Contrast Ratio</b>	700:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)	700:1 (Typ.)	2000:1 (Typ.)
<b>Active Area</b>	153.6 x 90.0	222.72 x 125.28	210.4 x 157.8	245.76 x 184.32	304.1 x 228.1
<b>Viewing Angle</b>	-75~75(H); -75~70 (V)	-75~80 (H); -80~80 (V)	-88~88 (H); -88~88 (V)	-80~80 (H); -70~70 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.2M	16.7M	16.2M	16.2M	16.2M
<b>System</b>					
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	2GB DDR3L-1600 SODIMM max 8GB	2GB DDR3L-1600 SODIMM max 8GB	2GB DDR3L-1600 SODIMM max 8GB	2GB DDR3L-1600 SODIMM max 8GB	2GB DDR3L-1600 SODIMM max 8GB
<b>Storage</b>	64GB mSATA SSD	64GB mSATA SSD	64GB mSATA SSD	64GB mSATA SSD	64GB mSATA SSD
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>					
<b>USB Port</b>	1 x USB3.0, 1 x USB2.0	1 x USB3.0, 1 x USB2.0	1 x USB3.0, 1 x USB2.0	1 x USB3.0, 1 x USB2.0	1 x USB3.0, 1 x USB2.0
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>COM Port</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>HDMI</b>	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI
<b>Speaker</b>	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 2 Watt Speaker	1 x 2 Watt Speaker
<b>Mechanical</b>					
<b>Dimensions</b>	189.4 x 145.4 x 39.8 mm	263.28 x 172 x 40.2 mm	252.4 x 198 x 36.4 mm	296.2 x 226.7 x 45.5 mm	363.4 x 227.8 x 44.5 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	VESA Mount (75 x 75mm), Panel Mount	VESA Mount (75 x 75mm), Panel Mount	VESA Mount (100 x 100 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75mm), Panel Mount
<b>Power</b>					
<b>Power Input</b>	12V DC	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 G-WIN GC Series Panel PC

Intel® Celeron® N2930



Model Name	19"	19"	21.5" (16:9)	21.5" (16:9)
	R19IB3S-GCM1	R19IB7T-GCM1	W22IB3S-GCA3	W22IB7T-GCA3
<b>Display</b>				
<b>Resolution</b>	1280 x 1024	1280 x 1024	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	250 nits	250 nits	250 nits	250 nits
<b>Contrast Ratio</b>	1000 : 1 (Typ.)	1000 : 1 (Typ.)	3000 : 1 (Typ.)	3000 : 1 (Typ.)
<b>Viewing Angle</b>	-85~85 (H);-80~80 (V)	-85~85 (H);-80~80 (V)	-89~89 (H);-89~89 (V)	-89~89 (H);-89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	4GB DDR3L-1600 GHz max 8GB	SO-DIMM DDR3L 1600, max. 8GB	4GB DDR3L-1600 GHz max 8GB	SO-DIMM DDR3L 1600, max. 8GB
<b>Storage</b>	64GB M.2 SSD	mSATA SSD 64GB (Default)	64GB M.2 SSD	mSATA SSD 64GB (Default)
<b>OS</b>	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>USB Port</b>	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 3 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 3 x USB 2.0
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>COM Port</b>	1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
<b>HDMI</b>	1 x HDMI (HDMI 1.4)	-	1 x HDMI (HDMI 1.4)	-
<b>VGA</b>	-	1 x VGA (female)	-	1 x VGA (female)
<b>Audio</b>	-	Line-out, Line-in, Mic-in	-	Line-out, Line-in, Mic-in
<b>Mechanical</b>				
<b>Dimensions</b>	444 x 368 x 51 mm	444 x 368 x 71 mm	529 x 320.4 x 50 mm	529 x 320.4 x 71 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	VESA Mount (100 x 100 mm)	VESA Mount (75 x75, 100 x 100 mm)	VESA Mount (100 x 100mm), Panel Mount	VESA Mount (75 x75, 100 x 100 mm)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# x86 G-WIN GC Series Panel PC

Intel® Celeron® N2930



Model Name	23.8" (16:9)	23.8" (16:9)
	W24IB3S-GCA2	W24IB7T-GCA2
<b>Display</b>		
Resolution	1920 x 1080	1920 x 1080
Panel Brightness	250 nits	250 nits
Contrast Ratio	3000 : 1 (Typ.)	3000 : 1 (Typ.)
Viewing Angle	-89~89 (H);-89~89 (V)	-89~89 (H);-89~89 (V)
Display Color	16.7M	16.7M
<b>System</b>		
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
Memory	4GB DDR3L-1600 GHz max 8GB	SODIMM DDR3L 1600, max. 8GB
Storage	64GB M.2 SSD	mSATA SSD 64GB (Default)
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>		
USB Port	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 3 x USB 2.0
Ethernet	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
COM Port	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
HDMI	1 x HDMI (HDMI 1.4)	1 x HDMI (HDMI 1.4)
<b>Mechanical</b>		
Dimensions	587 x 356 x 55 mm	587 x 356 x 55 mm
Cooling System	Fanless design	Fanless design
Mounting	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)
Operating Temp.	0 °C to 50 °C	0 °C to 50 °C
Humidity	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Power</b>		
Power Input	12V DC	12V DC
<b>Certifications</b>		
Safety	CE, FCC	CE, FCC

# 7~15" Arm G-WIN Panel PC

## G-WIN GC Series

NEW



### Custom configuration



Wide Power

### Application



### **Harvesting Equipment**

"HIGH PERFORMANCE  
IN A COMPACT FORM  
FACTOR."

The GC series comes with brilliant true-flat screens for superior readability and high computing performance for helping the driver to monitor field status and show optimal harvesting route.

“**ELEGANT, YET TOUGH.**”

- 7~15" PCAP touchscreen
- Arm Cortex-A9
- Arm Cortex-A72 + Arm Cortex-A53
- Android 6.0

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True flat, easy-to-clean front surface with edge-to-edge design

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Fanless cooling system

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Ultra low power consumption

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Front IP65 waterproof and dustproof

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### **Accessories**

RS232 Cable

VGA Cable

USB Cable

Power Cable

Driver CD



# Arm G-WIN GC Series Panel PC

Arm Cortex-A9



Model Name	7" (16:9)	10.1" (16:9)	10.4"	12.1"	15"
	W07FA3S-GCO1	W10FA3S-GCH1	R10FA3S-GCT2	R12FA3S-GCM2	R15FA3S-GCC3
<b>Display</b>					
<b>Resolution</b>	1024 x 600	1024 x 600	1024 x 768	1024 x 768	1024 x 768
<b>Panel Brightness</b>	1000 nits	450 nits (Optional 800 nits)	350 nits (Optional 1000 nits)	500 nits (Optional 1000 nits)	250 nits (Optional 1000 nits)
<b>Contrast Ratio</b>	700:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)	700:1 (Typ.)	2000:1 (Typ.)
<b>Active Area</b>	153.6x 90.0	222.72x 125.28	210.4 x 157.8	245.76 x 184.32	210.4 x 157.8
<b>Viewing Angle</b>	-75~75 (H); -75~70 (V)	-75~80 (H); -80~80 (V)	-88~88 (H); -88~88 (V)	-80~80 (H); -70~70 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.7M	16.7M	16.2M	16.2M	16.2M
<b>System</b>					
<b>Processor</b>	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>Memory</b>	1GB LPDDR3 Optional 2GB	1GB LPDDR3 Optional 2GB	1GB LPDDR3 Optional 2GB	1GB LPDDR3 Optional 2GB	1GB LPDDR3 Optional 2GB
<b>Storage</b>	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
<b>OS</b>	Android 6.0	Android 6.0	Android 6.0	Android 6.0	Android 6.0
<b>Connectors</b>					
<b>USB Port</b>	1 x USB2.0, 1 x USB OTG, 1 x Console (For Linux)	1 x USB2.0, 1 x USB OTG, 1 x Console (For Linux)	1 x USB2.0, 1 x USB OTG, 1 x Console (For Linux)	1 x USB2.0, 1 x USB OTG, 1 x Console (For Linux)	1 x USB2.0, 1 x USB OTG, 1 x Console (For Linux)
<b>Ethernet</b>	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000
<b>COM Port</b>	2 x RS232/422/485 (Default RS232)	2 x RS232/422/485 (Default RS232)	2 x RS232/422/485 (Default RS232)	2 x RS232/422/485 (Default RS232)	2 x RS232/422/485 (Default RS232)
<b>SD Slot</b>	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
<b>Speaker</b>	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 2 Watt Speaker	1 x 2 Watt Speaker
<b>Mechanical</b>					
<b>Dimensions</b>	189.4 x 145.4 x 39.8 mm	263.48 x 172 x 40.2 mm	252.4 x 198 x 36.4 mm	296.2 x 226.7 x 45.5 mm	363.4 x 277.8 x 44.5 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount
<b>Power</b>					
<b>Power Input</b>	9~24V DC	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# Arm G-WIN GC Series Panel PC

Arm Cortex-A72 + Arm Cortex-A53



Model Name	7" (16:9)	7" (16:9)	10.1" (16:9)	10.4"
	W07RK3S-GCT1	W07RK3S-GCO1	W10RK3S-GCH1	R10RK3S-GCT2
<b>Display</b>				
<b>Resolution</b>	1024 x 600	1024 x 600	1024 x 600	1024 x 768
<b>Panel Brightness</b>	320 nits	1000 nits	450 nits	300 nits
<b>Contrast Ratio</b>	500:1 (Typ.)	700:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)
<b>Viewing Angle</b>	-75~75 (H); -75~70 (V)	-75~75 (H); -75~70 (V)	-75~80 (H); -80~80 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.2M
<b>System</b>				
<b>Processor</b>	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)
<b>Memory</b>	2GB LPDDR3	2GB LPDDR3	2GB LPDDR3	2GB LPDDR3
<b>Storage</b>	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
<b>OS</b>	Android 7.1 (Default)	Android 7.1 (Default)	Android 7.1 (Default)	Android 7.1 (Default)
<b>Connectors</b>				
<b>USB Port</b>	1 x USB 3.0, 1 x USB 2.0, 1 x USB OTG	1 x USB 3.0, 1 x USB 2.0, 1 x USB OTG	1 x USB 3.0, 1 x USB 2.0, 1 x USB OTG	1 x USB 3.0, 1 x USB 2.0, 1 x USB OTG
<b>Ethernet</b>	1 x RJ45 10/100/1000 LAN Support PoE functio	1 x RJ45 10/100/1000 LAN Support PoE functio	1 x RJ45 10/100/1000 LAN Support PoE functio	1 x RJ45 10/100/1000 LAN Support PoE functio
<b>COM Port</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>SD Slot</b>	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
<b>Speaker</b>	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker
<b>HDMI</b>	1 x Micro HDMI	1 x Micro HDMI	1 x Micro HDMI	1 x Micro HDMI
<b>Mechanical</b>				
<b>Dimensions</b>	189.4 x 145.4 x 39.8 mm	189.4 x 145.4 x 39.8 mm	263.28 x 172 x 40.2 mm	252.4 x 198 x 36.4 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount
<b>Power</b>				
<b>Power Input</b>	9~24V DC	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# Arm G-WIN GC Series Panel PC

Arm Cortex-A72 + Arm Cortex-A53



Model Name	12.1"	15"
	R12RK3S-GCM2	R15RK3S-GCC3
<b>Display</b>		
<b>Resolution</b>	1024 x 768	1024 x 768
<b>Panel Brightness</b>	500 nits	1000 nits
<b>Contrast Ratio</b>	700:1 (Typ.)	2000:1 (Typ.)
<b>Viewing Angle</b>	-80~80 (H);-70~70 (V)	-88~88 (H);-88~88 (V)
<b>Display Color</b>	16.2M	16.2M
<b>System</b>		
<b>Processor</b>	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)
<b>Memory</b>	2GB LPDDR3	2GB LPDDR3
<b>Storage</b>	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
<b>OS</b>	Android 7.1 (default)	Android 7.1 (default)
<b>Connectors</b>		
<b>USB Port</b>	1 x USB 3.0, 1 x USB 2.0, 1 x USB OTG	1 x USB 3.0, 1 x USB 2.0, 1 x USB OTG
<b>Ethernet</b>	1 x RJ45 10/100/1000 LAN Support PoE functio	1 x RJ45 10/100/1000 LAN Support PoE functio
<b>COM Port</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>SD Slot</b>	1 x Micro SD Card Slot	1 x Micro SD Card Slot
<b>Speaker</b>	1 x 1 Watt Speaker	1 x 1 Watt Speaker
<b>HDMI</b>	1 x Micro HDMI	1 x Micro HDMI
<b>Mechanical</b>		
<b>Dimensions</b>	296.2 x 226.7 x 45.5 mm	363.4 x 277.8 x 44.5 mm
<b>Cooling System</b>	Fanless design	Fanless design
<b>Mounting</b>	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount
<b>Power</b>		
<b>Power Input</b>	12V DC (Optional 9~36V DC)	12V DC (Optional 9~36V DC)
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# 10.1"~15" x86 G-WIN Panel PC

## G-WIN GS Series

### Custom configuration



Wide Power



### Application



#### **Wood Harvester**

"FOR DEMANDING LOGGING CONDITIONS."

Winmate 10.4" GS Series Panel PC was installed inside a wood harvester. G-WIN panel PC designed for demanding conditions survives both water drops and temperature changes.

**“ TOUGH. RUGGED. HEAVY DUTY. ”**

- 10.1"~15" PCAP touchscreen
- Intel® Celeron® N2930
- Windows 10/8/7

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M12 waterproof connectors

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Tested MIL-STD 810-G, MIL-STD 461-F

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Mounting solution for vehicle applications

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Power ignition control

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Full IP65 waterproof and dust proof

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Wide operating temperature

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### **Accessories**

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RS232 Cable

VGA Cable

USB Cable

Power Cable

Driver CD

# x86 G-WIN GS Series Panel PC

Intel® Celeron® N2930



Model Name	10.1" (16:9)	10.4"	12.1"	15"
	W10IB3S-GSH1	R10IB3S-GST2	R12IB3S-GSM2	R15IB3S-GSC3
<b>Display</b>				
<b>Resolution</b>	1024 x 600	1024 x 768	1024 x 768	1024 x 768
<b>Panel Brightness</b>	450 nits (Optional 800 nits)	350 nits (Optional 1000 nits)	500 nits (optional 1000 nits)	250 nits (optional 1000 nits)
<b>Contrast Ratio</b>	800:1 (Typ.)	1000:1 (Typ.)	700:1 (Typ.)	2000:1 (Typ.)
<b>Active Area</b>	222.72x 125.28	210.4 x 157.8	245.16 x 184.32	304.1 x 228.1
<b>Viewing Angle</b>	-75~80 (H); -80~80 (V)	-88~88 (H); -88~88 (V)	-80~80 (H); -70~70 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.7M	16.2M	16.2M	16.2M
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	2GB DDR3L 1600 SODIMM (Max. 8GB)	2GB DDR3L 1600 SODIMM (Max. 8GB)	2GB DDR3L 1600 SODIMM (Max. 8GB)	2GB DDR3L 1600 SODIMM (Max. 8GB)
<b>Storage</b>	64GB mSATA SSD max. 512GB	64GB mSATA SSD max. 512GB	64GB mSATA SSD max. 512GB	mSATA SSD 64GB max. 512GB
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>USB</b>	1 x USB 2.0 (M12 Type)	1 x USB 2.0 (M12 Type)	1 x USB 2.0 (M12 Type)	1 x USB 2.0 (M12 Type)
<b>Ethernet</b>	1 x 10/100/1000 LAN (M12 Type)	1 x 10/100/1000 LAN (M12 Type)	1 x 10/100/1000 LAN (M12 Type)	1 x 10/100/1000 LAN (M12 Type)
<b>COM</b>	1 x RS232 (M12 Type) (Optional 422/485)	1 x RS232 (M12 Type) (Optional 422/485)	1 x RS232 (M12 Type) (Optional 422/485)	1 x RS232 (M12 Type) (Optional 422/485)
<b>Power</b>	1 x Power Jack (M12 Type)	1 x Power Jack (M12 Type)	1 x Power Jack (M12 Type)	1 x Power Jack (M12 Type)
<b>Audio</b>				
<b>Speaker</b>	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker
<b>Mechanical</b>				
<b>Dimensions</b>	263.28 x 172 x 35.7 mm	252.4 x 198 x 43 mm	296.2 x 226.7 x 45.5 mm	363.40 x 277.81 x 45.2 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount
<b>Operating Temp.</b>	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Power</b>				
<b>Power Input</b>	9~36V DC (M12 type)	9~36V DC (M12 type)	9~36V DC (M12 type)	9~36V DC (M12 type)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC



# Arm G-WIN Panel PC

## G-WIN GS Series

### Custom configuration



Wide Power



### Application



#### Straw Collector

“INTERACTIVE AND SMART TERMINAL FOR HEAVY-DUTY VEHICLE USE”

Tailored for those who are in demand of excellent in-vehicle computing systems operated in rugged environments that experience shock and vibration.

“ **SATISFY YOUR HEAVY-DUTY NEEDS.** ”

- 7"~15" PCAP touchscreen
- Arm Cortex-A9
- Android

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M12 waterproof connectors

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Tested MIL-STD-810G, MIL-STD-461F

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Mounting solution for vehicle applications

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Power ignition control

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Full IP65 waterproof and dust proof

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Wide operating temperature

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### Accessories

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RS232 Cable

VGA Cable

USB Cable

Power Cable

Driver CD

# Arm G-WIN GS Series Panel PC

Arm Cortex-A9



Model Name	7" (16:9)	10.1" (16:9)	10.4"	12.1"	15"
	W07FA3S-GSO1	W10FA3S-GSH1	R10FA3S-GST2	R12FA3S-GSM2	R15FA3S-GSC3
<b>Display</b>					
Resolution	1024 x 600	1024 x 600	1024 x 768	1024 x 768	1024 x 768
Panel Brightness	1000 nits	450 nits (Optional 800 nits)	350 nits (Optional 1000 nits)	500 nits (Optional 1000 nits)	250 nits (Optional 1000 nits)
Contrast Ratio	700:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)	700:1 (Typ.)	2000:1 (Typ.)
Active Area	153.6 x 90.0	222.72 x 125.28	210.4 x 157.8	245.16 x 184.32	304.1 x 228.1
Viewing Angle	-75~75 (H); -75~70 (V)	-75~80 (H); -80~80 (V)	-88~88 (H); -88~88 (V)	-80~80 (H); -70~70 (V)	-88~88 (H); -88~88 (V)
Display Color	16.7M	16.7M	16.2M	16.2M	16.2M
<b>System</b>					
Processor	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
Memory	1GB LPDDR3 (Optional 2GB)	1GB LPDDR3 (Optional 2GB)	1GB LPDDR3 (Optional 2GB)	1GB LPDDR3 (Optional 2GB)	1GB LPDDR3 (Optional 2GB)
Storage	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
OS	Android 6.0 (Default) Ubuntu 16.04 (Optional)	Android 6.0 (Default) Ubuntu 16.04 (Optional)	Android 6.0 (Default) Ubuntu 16.04 (Optional)	Android 6.0 (Default) Ubuntu 16.04 (Optional)	Android 6.0 (Default) Ubuntu 16.04 (Optional)
<b>Connectors</b>					
USB	1 X USB 2.0 (M12 Type) 1 x USB OTG (On side)	1 x USB 2.0 (M12 Type) 1 x USB OTG (On side)	1 x USB2.0, 1 x USB OTG, 1 x Console (For Linux)	1 x USB 2.0 (M12 Type) 1 x USB OTG (On side)	1 x USB 2.0 (M12 Type) 1 x USB OTG (On Bottom)
Ethernet	1 x 10/100/1000 LAN (M12 type)	1 x 10/100/1000 LAN (M12 Type)	1 x 10/100/1000 Mbps (LAN)	1 x 10/100/1000 LAN (M12 Type)	1 x 10/100/1000 LAN (M12 Type)
COM	1 x RS232 (M12 type) (Optional 422/485)	1 x RS232 (M12 Type) (Optional 422/485)	1 x RS232 (M12 Type) (Optional 422/485)	1 x RS232 (M12 Type) (Optional 422/485)	1 x RS232 (M12 Type) (Optional 422/485)
SD Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
Power	1 x Power Jack (M12 Type)	1 x Power Jack (M12 Type)	1 x Power Jack (M12 Type)	1 x Power Jack (M12 Type)	1 x Power Jack (M12 Type)
<b>Audio</b>					
Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker
<b>Mechanical</b>					
Dimensions	189.4 x 145.4 x 39.8 mm	263.28 x 171 x 35.7 mm	252.4 x 198 x 43 mm	296.2 x 226.7 x 45.5 mm	363.4 x 277.8 x 45.2 mm
Cooling System	Fanless design	Fanless design	Fanless design	Fanless design	Fanless design
Mounting	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (75 x 75 mm), Panel Mount	VESA Mount (100 x 100 mm), Panel Mount
Operating Temp	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
Humidity	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Power</b>					
Power Input	9~24V DC (M12 type)	12V DC (M12 type)	12V DC (M12 type)	12V DC (M12 type)	12V DC (M12 type)
<b>Certifications</b>					
Safety	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 8.4"~19" x86 G-WIN Panel PC

## G-WIN VM Series

### Custom configuration



Wide Power



### Application



#### **Firefighter Truck**

"DURABLE IN-VEHICLE  
COMPUTER."

Winmate 15" panel  
PC was installed inside a  
firefighter truck for navigation  
purposes.

**“ TOUGH. RUGGED.  
HEAVY DUTY. ”**

- 8.4"~19" screen
- Intel® Core™ i5-7200U
- Intel® Celeron® N2930
- Windows 10/8/7

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Tested MIL-STD-810G, MIL-STD-461F

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Compliance with EN50155

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Mounting solution for vehicle applications

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Power ignition control

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Wide operating temperature

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### **Accessories**

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RS232 Cable

VGA Cable

USB Cable

Power Cable

Driver CD

# x86 G-WIN VM Series Panel PC

Intel® Core™ i5-7200U



Model Name	10.4"	15"
	R10IK3S-VMT2	R15IK3S-VMC3(HB)
<b>Display</b>		
<b>Resolution</b>	1024 x 768	1024 x 768
<b>Brightness</b>	350 nits	300 nits (Optional 1000 nits High Brightness)
<b>Contrast Ratio</b>	1000 :1 (Typ.)	2000:1 (Typ.)
<b>Active Area</b>	201.4 x 157.8	304.128 x 228.096
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.2M	16.2M
<b>System</b>		
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS
<b>Memory</b>	1 x DDR4 2133 MHz SO-DIMM (Default 4GB, max. 16GB)	1 x DDR4 2133 MHz SO-DIMM (Default 4GB, max. 16GB)
<b>Storage</b>	M.2 SSD (Default 64GB, max.512GB)	M.2 SSD (Default 64GB, max.512GB)
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>		
<b>Serial Interface</b>	1 x RS232, 1 x RS232/422/485 (Default RS232)	1 x RS232, 1 x RS232 (Optional) 1 x RS232/422/485 (Default RS232)
<b>USB</b>	2 x USB 3.0	2 x USB 3.0
<b>LAN</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Power</b>	1 x DC-in Jack (Phoenix type)	1 x Terminal Block
<b>HDMI</b>	1 x HDMI	1 x HDMI
<b>CANBus</b>	-	1 x CANBus (Optional)
<b>Digital I/O</b>	-	1 x Digital I/O (Optional)
<b>Antenna</b>	WLAN antenna SMA in top (Optional)	WLAN antenna SMA in top (Optional)
<b>Power</b>		
<b>Power Input</b>	9~36V DC (Phoenix type) with Isolation Optional 6~60V DC, with Ignition On/Off delay	9~36V DC (Phoenix type) with Isolation Optional 6~60V DC, with Ignition On/Off delay
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# x86 G-WIN VM Series Panel PC

Intel® Celeron® N2930



Model Name	8.4"	10.4"	10.4"	10.4"
	R08IB3S-VMU1	R10IB3S-VMP1	R10IB3S-VMP3	R10IB3S-VMT2
<b>Display</b>				
<b>Resolution</b>	800 x 600	800 x 600	640 x 480	1024 x 768
<b>Brightness</b>	600 nits	600 nits	400 nits	350 nits
<b>Contrast Ratio</b>	600:1 (Typ.)	400:1 (Typ.)	700:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	170.4 x 127.8	211.2 x 158.4	211.2 x 158.4	201.4 x 157.8
<b>Viewing Angle</b>	-75~75 (H); -70~60 (V)	-70~70 (H); -70~60 (V)	-80~80 (H); -60~80 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	262K	16.2M	16.2M	16.2M
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
<b>Memory</b>	1 x DDR3L 1600 MHz SO-DIMM max. 8GB	1 x DDR3L 1600 MHz SO-DIMM max. 8GB	1 x DDR3L 1600 MHz SO-DIMM max. 8GB	1 x DDR3L 1600 MHz SO-DIMM max. 8GB
<b>Ethernet</b>	Intel® I210-AT GbE LAN	Intel® I210-AT GbE LAN	Intel® I210-AT GbE LAN	Intel® I210-AT GbE LAN
<b>Storage</b>	mSATA SSD default 64G max. 512GB	mSATA SSD default 64G max. 512GB	mSATA SSD default 64G max. 512GB	mSATA SSD default 64G max. 512GB
<b>Expansion Slot</b>	1 x Mini PCIe slot (For wireless module) 1 x Mini PCIe slot (For SATA SSD)	1 x Mini PCIe slot (For wireless module) 1 x Mini PCIe slot (For SATA SSD)	1 x Mini PCIe slot (For wireless module) 1 x Mini PCIe slot (For SATA SSD)	1 x Mini PCIe slot (For wireless module) 1 x Mini PCIe slot (For SATA SSD)
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>Serial Interface</b>	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0
<b>LAN</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Power</b>	1 x DC-in Jack (Phoenix type)	1 x DC-in Jack (Phoenix type)	1 x DC-in Jack (Phoenix type)	1 x DC-in Jack (Phoenix type)
<b>HDMI</b>	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI
<b>Antenna</b>	1 x WLAN antenna SMA on top (Optional)	1 x WLAN antenna SMA on top (Optional)	1 x WLAN antenna SMA on top (Optional)	1 x WLAN antenna SMA on top (Optional)
<b>Power</b>				
<b>Power Input</b>	9~36V DC (Phoenix type) Optional 6~60V DC, with Ignition On/Off delay	9~36V DC (Phoenix type) Optional 6~60V DC, with Ignition On/Off delay	9~36V DC (Phoenix type) Optional 6~60V DC, with Ignition On/Off delay	9~36V DC (Phoenix type) Optional 6~60V DC, with Ignition On/Off delay
<b>AC Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC



# x86 G-WIN VM Series Panel PC

Intel® Celeron® N2930



Model Name	12.1" (16:10)	15"
	W12IB3S-VMM9	R15IB3S-VMC3(HB)
<b>Display</b>		
Resolution	1280 x 800	1024 x 768
Brightness	400 nits	300 nits (Optional 1000 nits High Brightness)
Contrast Ratio	1000:1 (Typ.)	2000:1 (Typ.)
Active Area	261.12 x 163.2	304.1 x 228.1
Viewing Angle	-88~88 (H); -88~88 (V)	-88~88 (H); -88~88 (V)
Display Color	262K	16.2M
<b>System</b>		
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
BIOS	AMI BIOS	AMI BIOS
Memory	1 x DDR3L 1600 MHz SO-DIMM Max. 8GB	1 x DDR3L 1600 MHz SO-DIMM Max. 8GB
Storage	mSATA SSD default 64GB (Max. 512GB)	mSATA SSD default 64GB (Max. 512GB)
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>		
Serial Interface	1 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232, 1 x RS232 (Optional), 1 x RS232/422/485 (Default RS232)
USB	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0
LAN	2 x RJ45 (10/100/1000 Mbps)	2 x RJ45 (10/100/1000 Mbps)
Power	1 x Terminal Block	1 x Terminal Block
HDMI	1 x HDMI	1 x HDMI
CANBus	-	1 x CANBus (Optional)
Digital I/O	-	1 x Digital I/O (Optional)
Antenna	1 x WLAN or 4G Antenna in top (Optional)	1 x WLAN or 4G Antenna in top (Optional)
<b>Power</b>		
Power Input	9~36V DC (Phoenix type) Optional 6~60V DC, with Ignition On/Off delay	9~36V DC (Phoenix type) Optional 6~60V DC, with Ignition On/Off delay
AC Adapter	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Certifications</b>		
Safety	CE, FCC	CE, FCC

# 15"/19" x86 G-WIN Panel PC

## G-WIN IP67 Series

### Custom configuration



High  
Brightness



Wide Power



### Application



#### Mining Crane Automation

"WITHSTAND EXTREME  
COLD TEMPERATURES."

Winmate 19" panel  
PC R19IB3S-67FTP with high  
brightness screen and heater  
was installed inside a  
mining crane for monitoring  
precise pick-up and drop-off  
location.

## “ WATER AND DUST PROOF.

”

- 15"/19" screen
- Intel® Core™ i5-7200U
- Windows 10

---

Tested MIL-STD-810G, MIL-STD-461F

---

Magnesium alloy housing with anti-corrosion

---

Mounting solution for vehicle applications

---

Power ignition control

---

IP67 waterproof and dustproof

---

Wide operating temperature

---

### Accessories

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RS232 Cable

VGA Cable

USB Cable

Power Cable

Driver CD

# x86 G-WIN IP67 Series Panel PC

Intel® Core™ i5-7200U



Model Name	15" (IP67)	19" (IP67)	15" (IP67)	19" (IP67)
	R15IK3S-67C3(HB)	R19IK3S-67FTP(HB)	R15IB3S-67C3(HB)	R19IB3S-67FTP(HB)
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1280 x 1024	1024 x 768	1280 x 1024
<b>Panel Brightness</b>	300 nits (Optional 1000 nits High Brightness)	400 nits (Optional 1000 nits High Brightness)	300 nits (Optional 1000 nits High Brightness)	400 nits (Optional 1000 nits High Brightness)
<b>Contrast Ratio</b>	2000:1 (Typ.)	1000 : 1 (Typ.)	2000:1 (Typ.)	1000 : 1 (Typ.)
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>	16.2M	16.7M	16.2M	16.7M
<b>Touch</b>	5 Wire Resistive touchscreen	PCAP touchscreen	5 Wire Resistive touchscreen	PCAP touchscreen
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>Memory</b>	1 x DDR4 2133 MHz SO-DIMM, 4GB default, max. 16GB	1 x DDR4 2133 MHz SO-DIMM, 4GB default, max. 16GB	1 x DDR3L 1600 MHz SO-DIMM (Default 4GB, max. 8GB)	1 x DDR3L 1600 MHz SO-DIMM (Default 4GB, max. 8GB)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS	AMI BIOS	AMI BIOS
<b>Storage</b>	M.2 SATA III SSD, default 64GB, max. 512GB	M.2 SATA III SSD 64GB default, max. 512GB	mSATA SSD default 64GB (Max. 512GB)	mSATA SSD default 64GB (Max. 512GB)
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>USB</b>	2 x USB 2.0 (Waterproof, IP67 grade)	1 x IP67 USB A Type connector with cover	2 x USB 2.0 (waterproof, IP67 grade)	1 x IP67 USB A Type connector with cover
<b>LAN</b>	1 x RJ45 10/100/1000 (Waterproof, IP67 grade)	1 x RJ45 10/100/1000 (Waterproof, IP67 grade)	1 x RJ45 10/100/1000 (Waterproof, IP67 grade)	1 x RJ45 10/100/1000 (Waterproof, IP67 grade)
<b>Power</b>	1 x DC-in (Waterproof, IP67 grade)	1 x DC-in (Waterproof, IP67 grade)	1 x DC-in (Waterproof, IP67 grade)	1 x DC-in (Waterproof, IP67 grade)
<b>Serial Interface</b>	1 x RS232 (Waterproof, IP67 grade)	1x RS232 (Waterproof, IP67 grade)	1 x RS232 (Waterproof, IP67 grade)	1x RS232 (Waterproof, IP67 grade)
<b>Mechanical</b>				
<b>Dimensions</b>	398 x 308 x 58 mm	474 x 410 x 143.5 mm	398 x 308 x 58 mm	474 x 410 x 143.5 mm
<b>Operating Temp.</b>	-10°C to 55°C	-10°C to 60°C (Optional built-in Intelligent Heater to avoid moisture)	-10°C to 55°C	-10°C to 60°C (Optional built-in Intelligent Heater to avoid moisture)
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Power</b>				
<b>Power Input</b>	9~36V DC with Isolation Optional 6~60V DC, with Ignition On/Off delay	9~36V DC with Isolation	9~36V DC with Isolation Optional 6~60V DC, with Ignition On/Off delay	9~36V DC with Isolation
<b>AC Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC, UL508, UL60950-1, CSA C22.2 No. 60950-1-07, EN60950-1, IEC60950-1	CE, FCC Class B, MIL-STD-810F/G	UL60950-1, CSA C22.2 No. 60950-1-07, EN60950-1, IEC60950-1, MIL-STD-810G Method 516.6, CE, FCC, UL508



# EMBEDDED COMPUTING

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# AI Edge Computing

## Overview

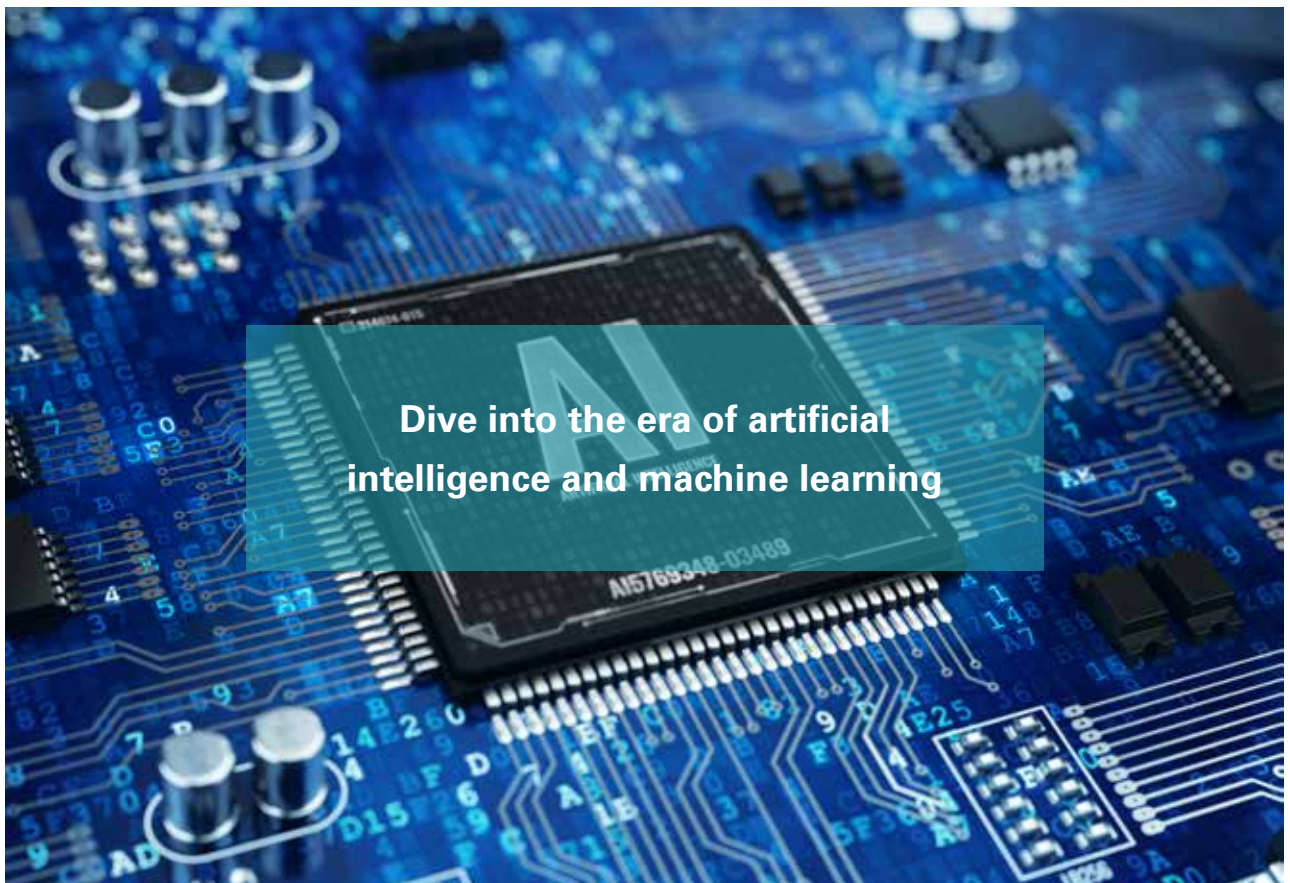
Winmate provides a full range of embedded platforms for you to build unique solutions for Industrial embedded systems. Our embedded computing solutions are designed to give developers the freedom to build fast and convenient solutions for industrial applications such as factory automation, machine control, transportation, IoT gateways and edge computing.

### Our embedded computing solutions include:

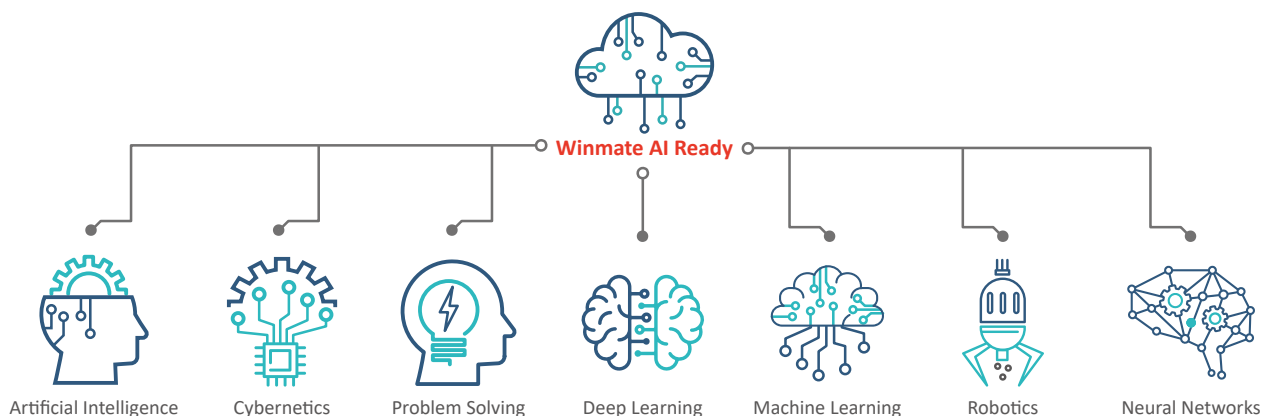
- AI-ready embedded hardware, IoT gateways, embedded box PCs, industrial servers and Single Board Computers
- The latest Android™, Windows® and Linux operating system
- Board development and production purpose-built for your needs

## Technology

**AI-ready solution-** Winmate IWAI series is AI hardware ready system ideal for deep learning inference computing to help users gain faster, deeper insights into their business. Containing 8th Gen. Intel® Processor and Intel® Movidius Video Processing Unit (VPU), the IWAI series are AI ready solutions that meet the high computation and low-latency requirements of deep learning on edge devices. With the Intel® OpenVINO™ toolkit, the series can help deploy your solutions faster than ever in factory automation, transportation, surveillance scenarios and more.



## Technology



The OpenVINO™ toolkit quickly deploys applications and solutions that emulate human vision. Based on Convolutional Neural Networks (CNN), the toolkit extends computer vision (CV) workloads across Intel® hardware, maximizing performance. The OpenVINO™ toolkit includes the Deep Learning Deployment Toolkit (DLDT).





The OpenVINO™ toolkit:

1. Enables CNN-based deep learning inference on the edge.
2. Speeds time-to-market via an easy-to-use library of computer vision functions and pre-optimized kernels.
3. Includes optimized calls for computer vision standards, including OpenCV\*, OpenCL™, and OpenVX\*.





## Product Guide- Featured Embedded Computing Device

Our product guide helps you to navigate and find the right product from our excessive product line.

### AI Edge Embedded Computing

Fanless Embedded Automation Computer	Fanless Embedded Surveillance Computer	Fanless Embedded In-Vehicle Computer	Modular Embedded Box PC
			
<b>IWAI-AA</b> p.109	<b>IWAI-SHA</b> p.111	<b>IWAI-TA</b> p.113	<b>IKMH100-AI</b> p.115

### Edge Embedded Computing

IoT Gateway	EAC Pro Box PC	Standard Box PC	Embedded Computing
			
<b>EAC Mini</b> p.117	<b>EAC Pro Box PC</b> p.119	<b>Standard Box PC</b> p.131	<b>2U Rack Server</b> p.136

# Fanless Embedded Automation Computer

## IWAI-AA

NEW



### Custom configuration



Expansion Slot



Up to  
512 GB

Storage



Wi-Fi



Movidius  
VPU

### Application



### Predictive Maintenance System

“ BRIDGING THE GAP BETWEEN IT AND OT ”

Most predictive maintenance systems rely on machine learning to form late predictions. The advantages are numerous and can significantly reduce costs while eliminating the need for planned downtime in many cases.

## “ ARTIFICIAL INTELLIGENCE - THE DRIVING FORCE OF INDUSTRY 4.0 ”

- CE, FCC
- 8<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Intel® Movidius VPU Card
- Windows 10 IoT Enterprise / Linux

---

Fanless cooling system

---

Wi-Fi, WWAN

---

USB 3.0

---

COM Port

---

HDMI

---

4 x PoE (PSE) sharing 60W

---

Wide range DC 9~36V power input with Isolation and Ignition

---

Support 4 in/ 4 out DI/DO Isolated

---

### Accessories

#### Standard

Male Terminal Block(5 pin) for DIO

Driver CD

Open Wire for Power

Wifi Antenna

Male Terminal Block(5 pin) for Power

# Fanless Embedded Automation Computer

8<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



Model Name	IWAI-AA
<b>System</b>	
<b>Processor</b>	Intel® Core™ i7-8665UE (8M Cache, up to 4.40 GHz) Intel® Core™ i5-8265U (6M Cache, up to 3.90 GHz)(Default) Intel® Core™ i3-8145UE (4M Cache, up to 3.90 GHz)
<b>BIOS</b>	Insyde H20 BIOS
<b>Memory</b>	260 pin DDR4-2400 Non-ECC/ECC SO-DIMM RAM(up to 32 GB)
<b>Graphic Interface</b>	Graphic resolution:HDMI Mode: 4096x2160@30/24Hz
<b>Audio</b>	Realtek HD Audio Codec
<b>TPM</b>	TPM2.0
<b>GPS</b>	NEO M8N
<b>OVP/OC</b>	Support
<b>Ethernet Controller</b>	PHY I219LM, 1000 Base-Tx Gigabit Ethernet Compatible
<b>POE Ethernet</b>	4 ports, sharing 60W of power budget for every four PoE (PSE) ports
<b>Expansion Slot</b>	PCIE by 4 (Default AI Core XM VPU x 4) (Optional VPU x 1, VPU x 2)
<b>Storage</b>	Internal M.2 SSD (Up to 512GB) x1, Removable 2.5" SATA HDD (1TB) or 2.5" SSD (Optional)
<b>Power</b>	
<b>Power Input</b>	DC 9-36 In with Isolation and Ignition
<b>Connectors</b>	
<b>Front Side I/O</b>	1 x Power Button with LED 1 x RJ45 10/100/1000 1 x Software LED 1 x headset jack(Line Out & Mic in) 1 x HDMI output 4 x USB 3.0 (Front*4) 4 x PoE (PSE) sharing 60W 2 x 5 pin two layer terminal block for 8-bit DIDO(4xDI, 4xDO) 1 x 5pin terminal block for DC input 2 x D-Sub9 with RS232/422/485 (Optional)
<b>Rear Side</b>	SMA connectors for WLAN, WWAN (Optional) 1 x Micro SIM Card Slot (Optional) 1 x Removable 2.5" HDD/ 2.5" SSD (Optional)
<b>Mechanical</b>	
<b>Dimensions</b>	85 x 215 x 192 mm
<b>Environment</b>	
<b>Operating Temp.</b>	-20°C to 70°C
<b>Humidity</b>	10% to 95% RH@40°C (Non-condensing, RH)
<b>Storage Temperature</b>	-20°C to 70°C
<b>Vibration</b>	MIL-STD-810G Method 516.6 Procedure I
<b>Shock</b>	MIL-STD-810G Method 516.6 Procedure I
<b>Wireless Communication</b>	
<b>WLAN</b>	Intel AC9260 802.11 a/b/g/n/ac (Optional)
<b>Bluetooth</b>	5.0 (Optional)
<b>Certifications</b>	
<b>Certification</b>	CE, FCC

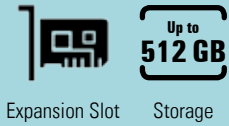
# Fanless Embedded Surveillance Computer

# IWAI-SHA

NEW



## Custom configuration



Expansion Slot

Up to  
512 GB

Storage



Wi-Fi



Movidius  
VPU

## Application



### Smart Surveillance

“MORE INTELLIGENT,  
MORE SECURE”

Surveillance is not simply video keeping track of people’s movements. It’s a lot more than that – it’s about tracking, trends and transitions and using artificial intelligence (AI) to make smart, informed decisions.

“ AI-based security solutions ”

- CE, FCC
- 8<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Intel® Movidius VPU Card
- Windows 10 IoT Enterprise / Linux

---

Fanless cooling system

---

Wi-Fi

---

USB 3.0

---

COM Port

---

Compatible with Edge AI module: Intel Movidius VPU Card

---

4 x PoE (PSE) sharing 60W

---

Wide range DC 9~36V power input with Isolation and Ignition

---

Support 4 in/ 4 out DI/DO Isolated

---

## Accessories

### Standard

Male Terminal Block(5 pin) for DIO	Driver CD	Open Wire for Power	Wifi Antenna
Male Terminal Block(5 pin) for Power	Wifi Antenna	WWAN Antenna	



# Fanless Embedded Surveillance Computer

8<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



Model Name	IWAI-SHA
<b>System</b>	
<b>Processor</b>	Intel® Core™ i7-8665UE (8M Cache, up to 4.40 GHz) Intel® Core™ i5-8265U (6M Cache, up to 3.90 GHz) (Default) Intel® Core™ i3-8145UE (4M Cache, up to 3.90 GHz)
<b>BIOS</b>	Insyde H20 BIOS
<b>Memory</b>	260 pin DDR4-2400 Non-ECC/ECC SO-DIMM RAM(up to 32 GB)
<b>Graphic Interface</b>	Graphic resolution:HDMI Mode: 4096x2160@30/24Hz
<b>Audio</b>	Realtek HD Audio Codec
<b>TPM</b>	TPM2.0
<b>GPS</b>	NEO M8N
<b>OVP/OCP</b>	Support
<b>Ethernet Controller</b>	PHY I219LM, 1000 Base-Tx Gigabit Ethernet Compatible
<b>POE Ethernet</b>	4 ports, sharing 60W of power budget for every four PoE (PSE) ports
<b>Expansion Slot</b>	PCIE by 4 (Default AI Core XM VPU x 4) (Optional VPU x 1, VPU x 2)
<b>Storage</b>	Internal M.2 SSD (Up to 512GB) x1, Removable 2.5" SATA HDD (1TB) or 2.5" SSD (Optional)
<b>Power</b>	
<b>Power Input</b>	DC 9-36 In with Isolation and Ignition
<b>Connectors</b>	
<b>Front Side I/O</b>	1 x Power Button with LED 1 x RJ45 10/100/1000 1 x Software LED 1 x headset jack(Line Out & Mic in) 1 x HDMI output 4 x USB 3.0 (Front*4) 4 x PoE (PSE) sharing 60W 2 x 5 pin two layer terminal block for 8-bit DIDO(4xDI, 4xDO) 1 x 5pin terminal block for DC input 2 x RS232/422/485 (Default RS232)
<b>Rear Side</b>	SMA connectors for WLAN, WWAN (Optional) 1 x Micro SIM Card Slot (Optional) 1 x Removable 2.5" HDD/ 2.5" SSD (Optional)
<b>Mechanical</b>	
<b>Dimensions</b>	85 x 215 x 192 mm
<b>Environment</b>	
<b>Operating Temp.</b>	-20°C to 70°C
<b>Humidity</b>	10% to 95% RH@40°C (Non-condensing, RH)
<b>Storage Temperature</b>	-20°C to 70°C
<b>Wireless Communication</b>	
<b>WLAN</b>	Intel AC9260 802.11 a/b/g/n/ac (Optional)
<b>Bluetooth</b>	5.0 (Optional)
<b>Certifications</b>	
<b>Certification</b>	CE, FCC

# Fanless Embedded In-Vehicle Computer

## IWAI-TA

NEW



### Custom configuration

4G

4G LTE



Expansion Slot

Up to  
512 GB

Removable  
Storage



GPS



Wi-Fi



Movidius  
VPU

### Application



### Traffic Management System

“COMPATIBLE WITH UPCOMING TECHNOLOGIES”

Assures safe and fluent traffic conditions for all travelers, manage traffic and incidents in line with legal regulations and contractual obligations, and reduce and eliminate congestions and increase safety on the roads.

## “ SMART TRANSPORTATION REDEFINED ”

- E-Mark, CE, FCC
- 8<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Intel® Movidius VPU Card
- Windows 10 IoT Enterprise / Linux

Fanless cooling system

Wi-Fi, GPS, GLONASS, WWAN

USB 3.0

CAN Bus, COM Port

HDMI

4 x PoE (PSE) sharing 60W

Wide range DC 9~36V power input with Isolation and Ignition

Support 4 in/ 4 out DI/DO Isolated

### Accessories

#### Standard

Male Terminal Block(5 pin) for DIO

Driver CD

Open Wire for Power

GPS Antenna

Male Terminal Block(5 pin) for Power

# Fanless Embedded In-Vehicle Computer

8<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



Model Name	IWAI-TA
<b>System</b>	
<b>Processor</b>	Intel® Core™ i7-8665UE (8M Cache, up to 4.40 GHz) Intel® Core™ i5-8265U (6M Cache, up to 3.90 GHz)(Default) Intel® Core™ i3-8145UE (4M Cache, up to 3.90 GHz)
<b>BIOS</b>	Insyde H20 BIOS
<b>Memory</b>	260 pin DDR4-2400 Non-ECC/ECC SO-DIMM RAM(up to 32 GB)
<b>Graphic Interface</b>	Graphic resolution:HDMI Mode: 4096x2160@30/24Hz
<b>Audio</b>	Realtek HD Audio Codec
<b>TPM</b>	TPM2.0
<b>GPS</b>	NEO M8N
<b>OVP/OCP</b>	Support
<b>Ethernet Controller</b>	PHY I219LM, 1000 Base-Tx Gigabit Ethernet Compatible
<b>POE Ethernet</b>	4 ports, sharing 60W of power budget for every four PoE (PSE) ports
<b>Expansion Slot</b>	PCIE by 4 (Default AI Core XM VPU x 4) (Optional VPU x 1, VPU x 2)
<b>Storage</b>	Internal M.2 SSD (Up to 512GB) x1, Removable 2.5" SATA HDD (1TB) or 2.5" SSD (Optional)
<b>Power</b>	
<b>Power Input</b>	DC 9-36 In with Isolation and Ignition
<b>Connectors</b>	
<b>Front Side I/O</b>	1 x Power Button with LED 1 x RJ45 10/100/1000 1 x Software LED 1 x headset jack(Line Out & Mic in) 1 x HDMI output 4 x USB 3.0 (Front*4) 4 x PoE (PSE) sharing 60W 2 x 5 pin two layer terminal block for 8-bit DIDO(4xDI, 4xDO) 1 x 5pin terminal block for DC input 2 x D-Sub9 with RS232/422/485 (Optional) 1 x D-Sub9 with CAN BUS (Optional)
<b>Rear Side</b>	SMA connectors for WLAN, WWAN & GPS (Optional) 1 x Micro SIM Card Slot (Optional) 1 x Removable 2.5" HDD/ 2.5" SSD (Optional)
<b>Mechanical</b>	
<b>Dimensions</b>	85 x 215 x 192 mm
<b>Environment</b>	
<b>Operating Temp.</b>	-20°C to 70°C
<b>Humidity</b>	10% to 95% RH@40°C (Non-condensing, RH)
<b>Storage Temperature</b>	-20°C to 70°C
<b>Vibration</b>	MIL-STD-810G Method 516.6 Procedure I
<b>Shock</b>	MIL-STD-810G Method 516.6 Procedure I
<b>Wireless Communication</b>	
<b>WLAN</b>	Intel AC9260 802.11 a/b/g/n/ac (Optional)
<b>Bluetooth</b>	5.0 (Optional)
<b>GPS</b>	GPS, GLONASS
<b>WWAN</b>	4G/LTE (Optional)
<b>Certifications</b>	
<b>Certification</b>	CE, FCC, E-Mark

# Modular Embedded Box PC

## IKMH100-AI

NEW

### Custom configuration

Up to  
**16 GB**

Memory

Up to  
**512 GB**

Storage



DI/DO

Up to  
**512 GB**

Optional 2nd  
Storage



Optional Front  
Display



Movidius  
VPU



### Application



#### Production Line Control

“ENABLING AN EFFICIENT,  
SMOOTH OPERATION.”

By preempting a failure with a machine learning algorithm, systems can continue to function without unnecessary interruptions.

“ **FIT AI INTO  
MANUFACTURING** ”

- Intel® Core™ i5-7200U
- Intel® Movidius X VPU Card
- Windows 10/Linux

---

Modular design

---

HDMI output

---

Four USB 3.0

---

Two RJ45 for Ethernet

---

PCIe x 4, DI/DO x 8 (4 in/4 out)

---

Desktop, wall mount

---

Operating temperature -10°C to 50°C

---

### Accessories

#### Standard

Male Terminal Block(5 pin) for DIO

Driver CD

Open Wire for Power

GPS Antenna

Male Terminal Block(5 pin) for Power

# Fanless Embedded In-Vehicle Computer

Intel® Core™ i5-7200U



Model Name	IKMH100-AI
<b>System</b>	
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	Insyde BIOS
<b>Memory</b>	DDR4-2133 SO-DIMM (Max 16GB)
<b>Ethernet</b>	1000 Base-Tx Gigabit Ethernet Compatible
<b>Audio</b>	Realtek ALC283 HD Audio Codec
<b>USB</b>	4 x USB 3.0
<b>Serial Port</b>	1 x RS232/422/485 (Default RS232)
<b>Expansion Slot</b>	1 x PCIe4
<b>Main Storage</b>	2.5" 64GB SSD (Optional up to 512GB)
<b>Second Storage (Optional)</b>	mSATA 64GB (Options up to 512GB)
<b>Module</b>	2 x Intel Movidius X VPU (Up to 4 VPU)
<b>OS</b>	Windows 10 IoT Enterprise, Linux
<b>Power</b>	
<b>Power Input</b>	9~29V DC with protection Fuse
<b>Power Adapter</b>	110~240AC to 12V DC out 80W power Adapter
<b>Connectors</b>	
<b>I/O Connectors</b>	1 x 9-24V Isolation DC in (Terminal Block 3pin) 2 x RJ45 10/100/1000 4 x USB3.0 1 x HDMI Output 1 x D-Sub15 (VGA) Output 1 x RS232/422/485 (Default RS232) 1 x Audio in Jack 1 x Audio out Jack 1 x Reset key 1 x Power Button 1 x 2.5" SSD indicators 8 x Isolation DIDO, In/4 Out (Optional)
<b>Mechanical</b>	
<b>Dimensions</b>	276 x 207 x 60 mm
<b>Mouting</b>	Desktop/Wall Mount (Optional Panel Mount with Front Display)
<b>Construction</b>	Aluminum housing
<b>Environment</b>	
<b>Operating Temp.</b>	-10°C to 60°C
<b>Humidity</b>	30%-95% at 40 (Non-condensing, RH)
<b>Storage Temperature</b>	-20°C to 70°C
<b>Vibration</b>	MIL-STD-810G Method 516.6 Procedure I
<b>Shock</b>	MIL-STD-810G Method 516.6 Procedure I
<b>Certifications</b>	
<b>Certification</b>	CE, FCC



# IoT Gateway

## EAC Mini

### Custom configuration



Memory



Storage

4G

4G LTE



mSATA  
Expansion



WiFi



Mounting  
Options



“ **CONNECT EVERYTHING,  
CONTROL EVERYWHERE.** ”

- Compact design
- Intel® Celeron® N3350
- Arm Cortex-A9
- Windows 10, Android, Linux 4.1.15 (QT 5.5), Ubuntu

---

Fanless cooling system

---

Expansion module for additional interfaces

---

Compact size

---

HDMI

---

USB 2.0, USB 3.0 or USB Type-C

---

Two RJ45 for Ethernet

---

Desk, wall, VESA, DIN-Rail

---

IP30 or IP67-rated water and dustproof

---

### Accessories

#### Standard

Terminal Block 2 pin to 2.5Ø  
Female Adapter Cable

Driver CD

Quick Start Guide

Mounting Kits

### Application



#### Renewable Energy Power Converter

“THE RIGHT AMOUNT OF  
I/O AND CONNECTIVITY”

Dual Layer EAC Mini IoT  
Gateway was used as the  
main system for an energy  
converter.

# EAC Mini IoT Gateway

Intel® Celeron® N3350  
Arm® Cortex® -A9



Model Name	EACIL20	EACFA20	EACIL21	EACIL67
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N3350 (2M Cache, up to 2.4 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Intel® Celeron® N3350 (2M Cache, up to 2.4 GHz)	Intel® Celeron® N3350 (2M Cache, up to 2.4 GHz)
<b>BIOS</b>	Insyde BIOS	-	Insyde UEFI	Insyde UEFI
<b>Graphic Interface</b>	Intel® HD Graphics	-	Intel® HD Graphics	Intel® HD Graphics
<b>Expansion Slot</b>	mPCIe:1 x Full-size mPCIe slot USB Wafer:2 x USB Wafer	mPCIe:1 x Full-size mPCIe slot USB Wafer:2 x USB Wafer	mPCIe:1 x Full-size mPCIe slot	mPCIe:1 x Full-size mPCIe slot
<b>Watchdog Timer</b>	Programmable 256 levels, timer interval 1 to 255 sec.	-	Programmable 256 levels, timer interval 1 to 255 sec.	Programmable 256 levels, timer interval 1 to 255 sec.
<b>Storage</b>	eMMC: Onboard 32GB (Default) mSATA: up to 1TGB (Option)	eMMC: Onboard 16GB (Default)	eMMC: Onboard 64GB (Default), mSATA: up to 1TGB (Option)	eMMC: Onboard 64GB (Default), mSATA: up to 1TGB (Option)
<b>OS</b>	Windows® 10 IoT Enterprise/ Linux 4.1.15 (QT 5.5)/Ubuntu	Android 6.0/ Linux 4.1.15 (QT 5.5)/Ubuntu	Windows® 10 IoT Enterprise/Linux 4.1.15 (QT 5.5)/Ubuntu	Windows® 10 IoT Enterprise/Linux 4.1.15 (QT 5.5)/Ubuntu
<b>Expansion Module</b>	<ul style="list-style-type: none"> <li>EACWSLT-222 WWAN Expansion Board (Single SIM Slot)</li> <li>EACWSLT-231 3-port RS232/422/485 w/ isolation</li> <li>EACWSLT-232 16-Channel Digital I/O w/ isolation</li> <li>EACWSLT-233 2-port CANBUS w/ isolation</li> <li>EACWLST-234 3 -port USB 2.0</li> <li>EACWLST-235 2-port RS232/422/485 w/ isolation</li> <li>EACWLST-236 2-port Giga-LAN</li> <li>EACWLST-237 WWAN Expansion Board (Dual SIM Slot)</li> </ul>	<ul style="list-style-type: none"> <li>EACWSLT-222 WWAN Expansion Board (Single SIM Slot)</li> <li>EACWSLT-231 3-port RS232/422/485 w/ isolation</li> <li>EACWSLT-232 16-Channel Digital I/O w/ isolation</li> <li>EACWSLT-233 2-port CANBUS w/ isolation</li> <li>EACWLST-234 3-port USB 2.0</li> <li>EACWLST-235 2-port RS232/422/485 w/ isolation</li> </ul>	-	-
<b>Power</b>				
<b>Power Input</b>	9~36V DC	9~36V DC	9~36V DC	9~36V DC
<b>Grounding Protection</b>	Chassis Grounding	Chassis Grounding	Chassis Grounding	-
<b>Connectors</b>				
<b>USB</b>	2 x USB3.0	2 x USB2.0	2 x USB 2.0	1 x USB2.0
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Video</b>	1 x HDMI, 1920 x 1080@60 Hz	1 x HDMI, 1920 x 1080@60 Hz	USB Type-C (Alt Mode)	USB Type-C (Alt Mode)
<b>User Controls</b>				
<b>LED Indicator</b>	1 x Power	1 x Power	1 x Power	1 x Power
<b>Buttons</b>	1 x Power Button, 1 x Reset Button	1 x Power Button, 1 x Reset Button	1 x Power Button, 1 x Reset Button	-
<b>Mechanical</b>				
<b>Dimensions</b>	100 x 70 x 31mm (One layer), 100 x 70 x 61mm (Double layer)	100 x 70 x 31mm (One layer), 100 x 70 x 61mm (Double layer)	100 x 115 x 31 mm (One layer)	100 x 115 x 31 mm (One layer)
<b>Housing</b>	Metal	Metal	Metal	Metal
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Net Weight</b>	0.4 kg (One layer), 0.5 kg (Double layer)	0.4 kg (One layer), 0.5 kg (Double layer)	0.8 kg	1 kg
<b>Mounting</b>	Desk Mount (Default), Wall Mount (Default), VESA Mount (Optional), DIN-Rail Mount (Optional)	Desk Mount (Default), Wall Mount (Default), VESA Mount (Optional), DIN-Rail Mount (Optional)	Desk Mount (Default), Wall Mounting (Default), VESA Mount (Optional)	Desk Mount (Default), Wall Mount (Default), VESA Mount (Optional)
<b>Environment</b>				
<b>Operating Temp.</b>	0°C to 55°C	0°C to 55°C	0°C to 55°C	-20°C to 60°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Vibration</b>	Operating, IEC 60068-2-64	Operating, IEC 60068-2-64	Operating, IEC 60068-2-64	Operating, IEC 60068-2-64
<b>Shock</b>	Operating, IEC 60068-2-27	Operating, IEC 60068-2-27	Operating, IEC 60068-2-27	Operating, IEC 60068-2-27
<b>IP Rating</b>	IP30	IP30	IP30	IP67
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC
<b>IoT</b>	Microsoft Azure IoT AWS IoT Greengrass	Microsoft Azure IoT AWS IoT Greengrass	-	-

# Embedded Computing

# EAC Pro Box PC

## Custom configuration

Up to  
**4 GB**

Memory

Up to  
**1 TB**

Storage



## Application



### Factory Control Room

“POWERFUL CENTRAL CONTROL COMPUTER”

The rich I/O capacity and powerful computing of the EAC Pro allows it to act as the central computer for a factory control center.

“ **ABUNDANT I/O CONNECTIVITY** ”

- Flexibility, rich I/O capacity and multi-expansion
- Intel® Xeon® E3-1268L V5, 7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Windows 10 IoT Enterprise

---

Fanless cooling system

---

64GB mSATA SSD

---

USB 3.0, USB 2.0

---

RS232/422/485, two RJ45 for Ethernet, HDMI 1.4a

---

HD 4K resolution

---

4U height design

---

Panel mount, VESA mount

---

Front IP65 waterproof and dustproof

---

Operating temperature 0°C to 50°C

## Accessories

### Standard

Mounting Clips and Screws

2 pin Terminal Block

AC Adapter

Power Cord

Driver CD

# EAC Pro Box PC

Intel® Xeon® E3-1268L V5  
7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



Model Name	EAC PRO - IK90
<b>System</b>	
<b>Processor</b>	Intel® Xeon® E3-1268L V5 (8M Cache, 2.4 GHz up to 3.40 GHz) Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)
<b>BIOS</b>	Insyde BIOS
<b>Chipset</b>	Intel® C236 PCH
<b>Memory</b>	2 x DDR4 2133/2400 MHz with ECC, UP to 32GB or 2 x DDR4 2133/2400 MHz without ECC, UP to 32GB
<b>Expansion Slot</b>	SKU 1: 1 PCIe x 16, 1 PCIe x 4, 1 PCI SKU 2: 2 PCIe x 8, 1 PCIe x 4, 1 PCI Window: Expansion I/O module
<b>Ethernet Controller</b>	2 x Intel® I210 and 1 x I219 PHY, Intel® iAMT 11.0, Wake On LAN
<b>Watchdog Timer</b>	Supported
<b>Mechanical</b>	
<b>Dimensions</b>	195 x 177 x 225 mm
<b>Net Weight</b>	5.54 kg
<b>Mounting</b>	Panel Mount, Table Mount, Rack Mount
<b>Audio Specification</b>	
<b>Audio Codec</b>	Realtek Audio Codec
<b>Audio Connectors</b>	Line Out, Mic in (3.5mm Jack)
<b>Environment</b>	
<b>Operating Temp.</b>	0° to 40°C (32° to 104°F) (With HDD), 0° to 50°C (32° to 122°F) (With SSD/CFast), -15° to 55°C (-5° to 131°F) (w/Industrial SSD)
<b>Vibration</b>	IEC60068-2-64
<b>Shock</b>	EC60068-2-278
<b>Storage Temp.</b>	-20°C to 60°C (-4°F to 140°F)
<b>Power Management</b>	
<b>Power Input</b>	9V~36V DC-in (4-pin Terminal Block) or Din 4P DC Jack External 12V /200W AC Adaptor for External PCI express cards (Option) Max : 220W (Either one)
<b>Power Consumption</b>	Max : 50W (Without external I/O and PCI/PCIe Cards)
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%
<b>Video Output</b>	
<b>VGA</b>	1 x VGA, 1080P at 60 Hz D-Sub 15pin
<b>DP</b>	2 x Display Ports 1.2, up to 4096 x 2304@60Hz, female connector with lock
<b>Active Three Display</b>	VGA + DP + DP
<b>Connectors</b>	
<b>USB</b>	6 x USB3.0, USB 2.0 (1A/5W)
<b>Serial Port</b>	2 x COM ports (RS232/422/485) w/Isolation D-Sub 9, switch by SW (RS232/422/485)
<b>Ethernet</b>	3 x RJ45 10/100/1000
<b>Digital Input</b>	8ch dry contact DI0~DI7, 1.5kV Isolation Logic 1 : Open ; Logic 0 : close to GND
<b>Digital Output</b>	8ch DO0~DO7, 1.5kV Isolation 20mA max/channel by internal com 12V or 5V
<b>Physical Button &amp; Indicators</b>	
<b>LED Indicator</b>	4 x HDD, 1 x Wifi/3G (LTE)
<b>Button</b>	1 x Power Button w/LED, 1 x Clean CMOS Button, 1 x Reset Button
<b>Certifications</b>	
<b>Safety</b>	CE, FCC

# Embedded Computing

# M Series Box PC

## Custom configuration



Memory



Storage



DI/DO



Optional 2nd Storage



Optional Front Display



## Application



### Assembly Line Controller

“EFFICIENT AND SMOOTH OPERATION.”

The M-Series Box PC with the optional Front modular Display was used as an assembly line controller for a plastic bottle production facility.

“**MODULAR DESIGN.**”

- Intel Atom® E3845
- Intel® Core™ i5-7200U
- Windows 10

---

Fanless cooling system

---

Modular design

---

HDMI output

---

Four USB 3.0

---

Two RJ45 for Ethernet

---

PCIe x 4, DI/DO x 8 (4 in/4 out)

---

Desktop, wall mount

---

Front IP65 waterproof and dustproof

---

Operating temperature 0°C to 50°C

---

## Accessories

### Standard

---

2 pin Terminal Block

AC Adapter

Power Cord

Driver CD



# M Series Box PC

Intel Atom® E3845 Processor

Intel® Core™ i5-7200U Processor



Model Name	IBMH100	IKMH100
<b>System</b>		
<b>Processor</b>	Intel Atom® E3845 (2M Cache, 1.91 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	AMI BIOS	Insyde BIOS
<b>Memory</b>	SODIMM DDR3L-1600 4GB (Optional up to 8GB with 2 slots)	SODIMM DDR4-2133 4GB, (Optional up to 32GB with 2 slots)
<b>Storage</b>	Main Storage : Default 2.5" 64GB SSD Second Storage (Optional) : mSATA SSD, up to 512GB	Main Storage : Default 2.5" 64GB SSD Second Storage (Optional) : mSATA SSD, up to 512GB
<b>Expansion Slot</b>	N/A	1 x PCIe x4
<b>Ethernet Controller</b>	1000 Base-Tx Gigabit Ethernet Compatible	1000 Base-Tx Gigabit Ethernet Compatible
<b>Audio Codec</b>	Realtek Audio Codec	Realtek Audio Codec
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>		
<b>Power</b>	1 x Terminal Block 3pin	1 x Terminal Block 3pin
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)(isolation)
<b>USB</b>	4 x USB 2.0	4 x USB 3.0
<b>HDMI</b>	1 x HDMI Output	1 x HDMI Output
<b>VGA</b>	1 x D-Sub15 (VGA) Output	1 x D-Sub15 (VGA) Output
<b>Audio</b>	1 x Audio In Jack 1 x Audio Out Jack	1 x Audio In Jack 1 x Audio Out Jack
<b>Control Buttons</b>	1 x Reset Key 1 x Power Button	1 x Reset Key 1 x Power Button
<b>LED Indicators</b>	1 x 2.5" SSD Indicator	1 x 2.5" SSD Indicator
<b>Power</b>		
<b>Power Input</b>	12~24V DC with protection fuse	9~29V DC with protection fuse
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Mechanical</b>		
<b>Dimensions</b>	276.18 x 228.8 x 45.20 mm	274.66 x 206.8 x 60.2 mm
<b>Mounting</b>	Desktop, Wall Mount, Panel Mount with front display (Optional)	Desktop, Wall Mount, Panel Mount with front display (Optional)
<b>Color</b>	Black	Black
<b>Construction</b>	Aluminum	Aluminum
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	30% to 95% at 40°C (Non-condensing, RH)	30% to 95% at 40°C (Non-condensing, RH)
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# Embedded Computing

# EAC Box PC

## Custom configuration



Memory



Storage



NMEA 0183



DI/DO



## Application



### Ship Bridge Embedded System

“WITHSTANDS ALL THAT THE SEAS GIVE.”

The Marine EAC Box PC was used as the embedded system for the bridge on a ship. Withstands all the roughness at sea while controlling the ship's systems.

“ **MARINE CERTIFIED.  
FOR HEAVY DUTY APPLICATIONS** ”

- Marine certified IEC 60945, DNV
- Intel® Core™ i5-7200U
- Intel Atom® D2550
- Windows 10

---

Fanless cooling system

---

Four USB 3.0

---

RS232/422/485, two RJ45 for Ethernet

---

HDMI, VGA

---

Shock, vibration resistant

---

Aluminum housing

---

VESA mount, wall mount, Desktop

---

## Accessories

### Standard

---

AC Adapter

Power Cord

Driver CD

# EAC Box PC

Intel® Core™ i5-7200U  
Intel Atom® D2550



Model Name	I330EAC-IKW	I330EAC-IK3	I330EAC-ID3
<b>System</b>			
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel Atom® D2550 (1M Cache, 1.86 GHz)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS	AMI BIOS
<b>Chipset</b>	Intel® SoC Integrated	Intel® SoC Integrated	Intel® NM10
<b>Memory</b>	1 x SODIMM DDR4L-2133 4GB (Max up to 16GB)	1 x SODIMM DDR4L-2133 4GB (Max up to 16GB)	1 x SODIMM, Max 4GB DDR3L 1600 (2GB Default)
<b>Storage</b>	1 x mSATA SSD 64GB (Default) 2 x 2.5" Removable SSD/HDD	1 x 64GB M.2 B Key SATA III (Options up to 512GB)	1 x mSATA SSD 32G (Default) 1 x 2.5" SATA HDD (Optional)
<b>Ethernet Controller</b>	1000 Base-Tx Gigabit Ethernet Compatible	Intel® I211 + I219LM Gigabit-LAN PHY	1000 Base-Tx Gigabit Ethernet Compatible
<b>Connectors</b>			
<b>Power</b>	1 x 3 pin Terminal Block	1 x 3 pin Terminal Block	1 x 3 pin Terminal Block
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232) 3 x RS422/485 (isolation)	1 x RS232/422/485 (Default RS232) 3 x RS422/485 (isolation)
<b>USB</b>	4 x USB 3.0	2 x USB 3.0	2 x USB
<b>GPIO</b>	8 x Isolated DI/DO, 4 In/4out (Optional)	8 Channel GPIO by Phoenix type Terminal Block 5V/12mA	1 x GPIO 8 in/out by Phoenix type Terminal Block
<b>NMEA 0183 Port</b>	8 x NMEA 0183 (Optional)	-	-
<b>Display output</b>	1 x HDMI 1 x VGA 1 x DVI	1 x HDMI 1 x VGA	1 x VGA
<b>Audio</b>	1 x Audio in Jack 1 x Audio out Jack	1 x Audio in Jack 1 x Audio out Jack 1 x Mic in	1 x Mic in, Line out Line in Jack
<b>User Interfaces</b>	1 x Power Button 1 x Reset Button	1 x Power Button 1 x Reset Button	1 x Power Button 1 x Reset Button
<b>Power</b>			
<b>Power Input</b>	24V DC In with 1.5KV DC Isolation Resistance (9~36V DC Input Acceptable)	24V DC In with 1.5KV DC Isolation Resistance (9~36V DC Input Acceptable)	24V DC In with 1.5KV DC Isolation Resistance (9~36V DC Input Acceptable)
<b>Power Consumption</b>	50 W (Typ.)	45 W (Typ.)	40 W (Typ.)
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimensions</b>	316.44 x 206.8 x 62.1 mm	296 x 169 x 66 mm	296 x 169 x 66 mm
<b>Mounting</b>	VESA Mount (100 x 100 mm), Wall Mount, Desktop	VESA Mount (100 x 100 mm), Wall Mount, Desktop	VESA Mount (100 x 100 mm), Wall Mount, Desktop
<b>Color</b>	Black	Silver	Silver
<b>Housing</b>	Aluminum	Aluminum	Aluminum
<b>Environment</b>			
<b>Operating Temp.</b>	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	0.7g@DNVGL CG-0339 (Class A)	0.7g@DNVGL CG-0339 (Class A)	0.7g@DNVGL CG-0339 (Class A)
<b>Shock</b>	15G, 11ms	15G, 11ms	15G, 11ms
<b>Certifications</b>			
<b>Marine</b>	IEC 60945 4 <sup>th</sup> Edition (Test Report Available)	-	IEC60945, DNV GL-CG-0339, IACS-E10
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# Embedded Computing

# DIN Rail Box PC

## Custom configuration

Up to  
**8 GB**

Memory

Up to  
**512 GB**

Storage

Up to  
**215 GB**

2nd Storage



WiFi

**4G**

4G LTE



“ **COMPACT.  
POWERFUL.  
VERSATILE.** ”

- DIN Rail mounting for industrial automation
- Intel® Celeron® N2930
- Intel® Pentium® N4200
- Windows 10/8/7

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Fanless cooling system

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64GB mSATA /M.2 SSD

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One USB 3.0, three USB 2.0

---

RS232/422/485, VGA

---

Four RJ45 for Ethernet

---

20 Pin DI/DO

---

9~36V DC power input with isolation

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Operating temperature -20°C to 60°C

## Accessories

### Standard

Open Wire Power Cable	10 pin Terminal Block female connector for DI/DO	3 Pin Terminal Block to 2.5 female adapter	Power Cord	Driver CD
Cable Holder Clip	DIN Rail Mounting Clip			

## Application



### Factory Automation

“STABLE PERFORMANCE IN A COMPACT RUGGED DESIGN.”

This DIN Rail Box PC was integrated as the system controller for a beverage production line.

# DIN Rail Box PC

Intel® Celeron® N2930  
Intel® Pentium® N4200



NEW



Model Name	IBDRW100	IBDRW100-P
<b>System</b>		
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)
<b>Chipset</b>	Bay Trail SoC	Intel® SoC Integrated
<b>Memory</b>	1 x DDR3L 1333MHz SO-DIMM (Default 4GB, up to 8GB)	1 x DDR3L 1333MHz SO-DIMM (Default 4GB, up to 8GB)
<b>Storage</b>	Main Storage : Default : 64GB mSATA SSD, up to 512GB Optional Second Storage : 2.5" SSD 64GB to 512GB	Main Storage : Default : 64GB M.2 SSD, up to 512GB Optional Second Storage : 2.5" SSD 64GB to 512GB
<b>Ethernet Controller</b>	Intel® I210-AT GbE LAN	Intel® I210-AT Gigabit-LAN Controller
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise
<b>Connectors</b>		
<b>Power</b>	1 x 3 Pin Terminal Block	1 x 3pin Terminal Block
<b>Ethernet</b>	4 x RJ45 10/100/1000 (LAN3 disabled if WLAN Module is added)	4 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232) 1 x RS422 (Default RS485)(isolation)	1 x RS232/422/485 (Default RS232) 1 x RS422/485 (isolation)
<b>USB</b>	1 x USB3.0, 3 x USB2.0	3 x USB 3.0, 1 x USB 2.0
<b>VGA</b>	1 x VGA	1 x VGA
<b>DI/DO</b>	1 x 20 pins terminal block DI/DO (9in/9out)	1 x 20 pins terminal block DI/DO (9in / 9out)
<b>Audio</b>	1 x Line Out, Line In, Mic In	1 x Line Out, Line In, Mic In
<b>Power</b>		
<b>Power Input</b>	9~36V DC with isolation	9~36V DC with isolation
<b>Power Consumption</b>	25W	25W
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Mechanical</b>		
<b>Dimensions</b>	139 x 65 x 152 mm	139 x 65 x 152 mm
<b>Mounting</b>	DIN Rail	DIN Rail
<b>Color</b>	Dark Silver	Dark Silver
<b>Housing</b>	Aluminum	Aluminum
<b>Cooling System</b>	Fanless design	Fanless design
<b>Environment</b>		
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C
<b>Storage Temp.</b>	-40°C to 80°C	-40°C to 80°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz / 1Grms/3 Axis
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration
<b>Certifications</b>		
<b>Safety</b>	CE, FCC, AWS, IoT Greengrass	CE, FCC
<b>HazLoc</b>	-	-



# Embedded Computing Arm Series

## Custom configuration



Memory



PoE



Micro SD



DI/DO



RS232



CPU



## Application



### Ticketing Machine Kiosk

“LOW POWER CONSUMPTION ARM SOLUTION.”

A public transportation operator needed an Arm-based solution for their automatic ticketing kiosks. The fanless Arm Box PC with RS232 and DI/DO ports was provided as a low power solution.

“**ARM BASED PC SOLUTION.**”

- Aluminum housing
- Arm Cortex-A9
- Arm Cortex-A72 + Arm Cortex-A53
- Android 6.0/ Linux 4.1.15 (QT 5.5)/ Ubuntu 16.04

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Fanless cooling system

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16GB eMMC

---

USB 2.0, USB OTG

---

RS232/422/485, RJ45 for Ethernet

---

Micro SD/SDHC card slot

---

Aluminum profile with fin housing

---

Desktop, wall mounting

---

Operating temperature -20°C to 60°C

## Accessories

### Standard

2 pin Terminal Block

AC Adapter

Power Cord

Driver CD

# Arm Series

Arm Cortex-A9

Arm Cortex-A72 + Arm Cortex-A53



NEW



Model Name	FA30SB3-210	RK30SBS-100
<b>System</b>		
<b>Processor</b>	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)
<b>Memory</b>	eMMC 16GB 1GB LPDDR3 (Max 2GB)	eMMC 16GB 2GB LPDDR3 (Max 4GB)
<b>Serial</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (COM1), HW select
<b>USB</b>	1 x USB 2.0	2 x USB 3.0 1 x USB 2.0 OTG 1 x RS232/422/485 (Default RS232)
<b>Expansion Slot</b>	Micro SD/SDHC card slot	MicroSD/SDHC card slot
<b>OS</b>	Android 6.0 Ubuntu 16.04	Android 7.1 Debian 9.0
<b>Connectors</b>		
<b>Front Side Connectors</b>	1 x RS232/422/485 (Default RS232) 1 x USB 2.0 1 x RJ45 10/100/1000 LAN Support PoE function 1 x Micro SD/SDHC Card Slot 1 x CANBus 1 x USB OTG 1 x Micro HDMI	1 x RJ45 LAN 1 x RJ45 10/100/1000 LAN Support PoE function 2 x USB 3.0 1 x USB 2.0 OTG 1 x RS232/422/485 (Default RS232) 1 x 12V DC Terminal Block
<b>Mechanical</b>		
<b>Dimensions</b>	224 x 47 x 127 mm	224 x 47 x 127 mm
<b>Color</b>	Gray	Gray
<b>Construction</b>	Aluminum profile with fin housing	Aluminum profile with fin housing
<b>Power</b>		
<b>Power Input</b>	9~24V DC	12V DC Terminal Block/PoE 48V DC
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Environment</b>		
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 95% @30°C (Non-condensing, RH)
<b>Mounting</b>	Desktop, Wall Mount	Desktop, Wall Mount
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# Embedded Computing Fanless Series

## Custom configuration



Memory



WiFi

4G

3G/4G LTE



DI/DO



DVI



## Application



### Assembly Line Machine Controller

“STABLE INDUSTRIAL  
COMPUTING IN A SEALED  
BOX”

This fanless Box PC was used as part of an industrial assembly line that needed a solution that was low maintenance and reliable as the assembly line needed constant uptime.

“ **WITHSTANDS HARSH  
ENVIRONMENTS. FANLESS.** ”

- Intel® Celeron® N2930
- Windows 10/8/7

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Fanless cooling system

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2.5" HDD, Mini PCIe SSD

---

USB 3.0, five USB 2.0

---

Two RS232, one RS232/422/485 (Default RS232)

---

Two RJ45 for Ethernet

---

DVI, VGA, HDMI

---

Desktop, wall mount

---

Operating temperature 0°C to 50°C

---

## Accessories

### Standard

Wall Mount Kit

Driver CD

# Fanless Box PC

Intel® Celeron® N2930



<b>Model Name</b>	<b>IB70SB7-101</b>
<b>System</b>	
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	Dual DDR3L 1600 MHz SO-DIMM Slot, Max. 8GB
<b>Expansion Slot</b>	2 x Mini PCIe (1 for WiFi, 1 for WWAN Module)
<b>Ethernet Controller</b>	1000 Base-Tx Gigabit Ethernet Compatible
<b>Audio Codec</b>	Realtek Audio Codec
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>	
<b>Power</b>	1 x Power Jack
<b>Ethernet</b>	2 x RJ45 10/100/1000
<b>Serial Interface</b>	2 x RS232
	1 x RS232/422/485 (Default RS232)
	1 x RS232 (Optional)
<b>USB</b>	1 x USB 3.0, 3 x USB 2.0, 2 x USB 2.0
<b>VGA</b>	1 x VGA
<b>DVI</b>	1 x DVI (Optional)
<b>HDMI</b>	1 x HDMI (Optional)
<b>Keyboard/Mouse</b>	2 x PS/2
<b>Audio</b>	
<b>Audio</b>	1 x Mic In/Line In/Line Out
<b>User Controls</b>	
<b>LED Indicator</b>	1 x Power/HDD LED
<b>Control Buttons</b>	1 x Power Reset Button
	1 x Power on Button
<b>Power</b>	
<b>Power Input</b>	12V DC
<b>Power Consumption</b>	40 W (Typ.)
<b>Power Adapter</b>	AC 110V~240V, Universal, ±10%
<b>Mechanical</b>	
<b>Dimensions</b>	298 x 192 x 60 mm
<b>Mounting</b>	Desktop, Wall Mount
<b>Color</b>	Silver
<b>Construction</b>	Aluminum
<b>Environment</b>	
<b>Operating Temp.</b>	0°C to 50°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)
<b>Certifications</b>	
<b>Safety</b>	CE, FCC

# Embedded Computing Standard Box PC

## Custom configuration



Memory



Storage



WiFi



## Application



### Control Room Server PC

“FAST SPEED AND STABLE  
PERFORMANCE.”

The box PC was configured to  
be a control room embedded  
computer as a server PC.

“ **VERSATILE COMPUTING  
FOR ANY NEEDS.** ”

- Thermal solution with system fan
- 7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Windows 10

---

M.2 SSD, Mini PCIe SSD, 2.5" HDD

---

Intel® chipset

---

Four USB 3.0, two USB 2.0

---

RS232, two RJ45 for Ethernet

---

HDMI 1.4, DP 1.2

---

Desktop, wall mount

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Operating temperature 0°C to 50°C

---

## Accessories

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AC Adapter

Power Cord

Driver CD



# Standard Box PC

7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3

4<sup>th</sup> Gen. Intel® Core™ i5

3<sup>rd</sup> Gen. Intel® Core™ i5



Model Name	IK70SB7-111	IH70SB7-111	IV70SB7-111
<b>System</b>			
<b>Processor</b>	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i5-4200M (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)
<b>BIOS</b>	Insyde BIOS	AMI BIOS	AMI BIOS
<b>Chipset</b>	Intel® H170	Intel® 8 series (QM87)	Intel® 7 series (HM76)
<b>Memory</b>	1 x SODIMM, Max 32GB DDR4 2400 MHz, default 4GB	1 x SODIMM, Max 8GB DDR3L 1600 MHz	1 x SODIMM, Max 8GB DDR3L 1600 MHz
<b>Storage</b>	2 x SATA III	2 x SATA III	1 x SATA III, 1 x SATA II
<b>SSD Interface</b>	1 x M.2 SSD slot (B Key), Max 512GB	1 x mSATA SSD slot Max 512GB	1 x mSATA SSD slot
<b>Expansion Slot</b>	1 x M.2 slot for Wi-Fi (E key)	2 x Mini PCIe (1 for WiFi, 1 for 3G Module), 1 x Mini PCIe Slot (for mSATA SSD), 1 x PCIe (x16)	2 x Mini PCIe (1 for WiFi, 1 for 3G Module), 1 x Mini PCIe Slot (for mSATA SSD), 1 x PCIe (x4) 1 x PCIe (x16)
<b>Ethernet Controller</b>	Intel® I211IT Gigabit + I219LM Gigabit-LAN PHY	Intel® I210IT Gigabit + I218LM Gigabit-LAN PHY	Dual Broadcom BCM57780 GbE
<b>Audio</b>	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec
<b>Connectors</b>			
<b>Power</b>	1 x Power Jack (Lockable)	1 x Power Jack (Lockable)	1 x Power Jack (Lockable)
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232) 1 x RS232	3 x RS232 (Optional) 1 x RS232/422/485 (Default RS232)	3 x RS232 (Optional) 1 x RS232/422/485 (Default RS232)
<b>USB</b>	4 x USB 3.0	4 x USB 3.0, 2 x USB 2.0	4 x USB 3.0, 2 x USB 2.0
<b>VGA</b>	-	1 x VGA (male)	1 x VGA (male)
<b>DVI</b>	-	1 x DVI (Optional)	1 x DVI (Optional)
<b>HDMI</b>	1 x HDMI 1.4a	-	-
<b>DP 1.2</b>	1 x DP 1.2	-	-
<b>Keyboard/Mouse</b>	-	2 x PS/2	2 x PS/2
<b>User Controls</b>			
<b>LED Indicators</b>	1 x Power/HDD LED	1 x Power/HDD LED	1 x Power/HDD LED
<b>Control Buttons</b>	1 x Power Reset Button 1 x Power on Button	1 x Power Reset Button 1 x Power on Button	1 x Power Reset Button 1 x Power on Button
<b>Audio</b>			
<b>Audio</b>	1 x Line out, Mic in	1 x Line in, Line out, Mic in	1 x Line in, Line out, Mic in
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	12V DC
<b>Power Consumption</b>	80W (Typ.)	80W (Typ.)	80W (Typ.)
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Mechanical</b>			
<b>Dimensions</b>	301 x 192 x 58 mm	298 x 192 x 60 mm	298 x 192 x 60 mm
<b>Mounting</b>	Desktop, Wall Mount	Desktop, Wall Mount	Desktop, Wall Mount
<b>Color</b>	Silver	Silver	Silver
<b>Housing</b>	Aluminum	Aluminum	Aluminum
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# Standard Box PC

Intel® Pentium® N4200  
9<sup>th</sup> Gen. Intel® Core™ i7/i5/i3



Model Name	IP70	IF70
<b>System</b>		
<b>Processor</b>	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)	Intel® Core™ i7-9700TE (12M Cache, up to 3.80 GHz) Intel® Core™ i5-9500TE (9M Cache, up to 3.60 GHz) Intel® Core™ i3-9100TE (6M Cache, up to 3.20 GHz)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS
<b>Chipset</b>	Intel® SoC Integrated	Intel® H310
<b>Memory</b>	2 x SO-DIMM socket DDR3L-1866, Max. 8GB	2 x SO-DIMM socket DDR4-2666, max 64GB
<b>Storage</b>		
<b>SSD Interface</b>	Default 1 x 2.5" HDD 500GB 1 x M.2 2242 B-key SSD slot 2 x SATA III, up to 512GB (SATA2 support is only available when M.2 SATA is not in use.)	Default 1 x 2.5" HDD 500GB 1 x M.2 2242 B-key SSD slot 2 x SATA III support RAID 0,1
<b>Expansion Slot</b>	1 x M.2 2242 B-key Slot (for SSD) 1 x M.2 2232 E-Key Slot (for half size Wifi module) 1 x PCIe Gen2 (x1) slot (Optional)	1 x M.2 2242 B-key Slot (for SSD) 1 x M.2 2232 E-Key Slot (for half size Wifi module) 1 x mini PCIe(PCle x 1 + USB2.0) 1 x PCIe Gen3 (x16) slot (Optional)
<b>Ethernet Controller</b>	Intel® I210-AT Gigabit-LAN Controller	Intel® I210-IT Gigabit-LAN Controller
<b>Audio</b>	Realtek Audio Codec	Realtek Audio Codec
<b>Connectors</b>		
<b>Power</b>	1 x 12V DC, Din4 pin connector	1 x 12V DC, Din4 pin connector
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232) 1 x RS232	1 x RS232/422/485 (Default RS232) 1 x RS232
<b>USB</b>	4 x USB 3.0	4 x USB 3.0
<b>VGA</b>	1 x VGA	1 x VGA
<b>DVI</b>	N/A	N/A
<b>HDMI</b>	1 x HDMI 1.4b	1 x HDMI 1.4b
<b>DP 1.2</b>	1 x DP 1.2	1 x DP 1.2
<b>Keyboard/Mouse</b>	N/A	N/A
<b>User Controls</b>		
<b>LED Indicators</b>	1 x LED Indicator for power 1 x LED Indicator for storage	1 x LED Indicator for power 1 x LED Indicator for storage
<b>Control Buttons</b>	1 x Power Button 1 x Reset Button	1 x Power Button 1 x Reset Button
<b>Audio</b>		
<b>Audio</b>	1 x Audio Jack (Mic-in, Line-out)	1 x Audio Jack (Mic-in, Line-out)
<b>Power</b>		
<b>Power Input</b>	12V DC input	12V DC input
<b>Power Consumption</b>	12W (Typ.)	50W (Typ.)
<b>Power Adapter</b>	100~240V AC to DC Adapter	100~240V AC to DC Adapter
<b>Mechanical</b>		
<b>Dimensions</b>	264 x 192 x 57 mm (W/O Deskmout Bracket) 298 x 192 x 57 mm (W/I Deskmout Bracket)	283.2 x 192 x 58.6 mm (W/O Deskmout Bracket) 301.2 x 192 x 58.6 mm (W/I Deskmout Bracket)
<b>Mounting</b>	Desk Mount	Desk Mount
<b>Color</b>	Silver	Silver
<b>Housing</b>	Alumium	Alumium
<b>Environment</b>		
<b>Operating Temp.</b>	0~50°C	0~50°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# Embedded Computing

# Full IP65 Box PC



“ **WATERPROOF FOR HARSH ENVIRONMENTS.** ”

- Full IP65 enclosure
- Intel® Core™ i5-7200U
- Intel® Core™ i7-3517UE
- Windows 10

---

Intel® chipset

---

Three USB 2.0

---

RS232

---

Two RJ45 for Ethernet

---

VGA

---

9~36V DC power input with isolation

---

Vibration, shock resistance

---

Desktop, wall mount

---

Operating temperature 0°C to 50°C

## Accessories

### Standard

Mounting Clips and Screws	Power Cable with Adapter	DC Power Cable	Serial Cable	USB Cable
VGA Cable	LAN Cable	Driver CD		

## Custom configuration



Memory



Storage



Expansion Slot



1 x Optional

RS232



Wide Temp.  
-20~60°C

## Application



### Beverage Bottling Plant

“ABLE TO WITHSTAND ANY ENVIRONMENTS.”

The Full IP65 Box PC was configured to be a machine controller in a beverage bottling line. The operator wanted to ensure constant uptime, and required waterproof interface for protection against spills.

# Full IP65 Box PC

Intel® Core™ i5-7200U

Intel® Core™ i7-3517UE



Model Name	F65EAC-1K32	F65EAC-1V32
<b>System</b>		
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i7-3517UE (4M Cache, up to 2.80 GHz)
<b>BIOS</b>	Insyde BIOS	AMI BIOS
<b>Watchdog Timer</b>		
<b>Chipset</b>	Intel® SoC Integrated	Intel® Express Chipset HM76
<b>Memory</b>	DDR4-2133 SO-DIMM (Max. 16GB)	SO-DIMM DDR3 1600 (Max. 8GB)
<b>Expansion Slot</b>		
<b>Ethernet</b>	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® 82579-LM GbE PHY + Intel® WG82574L GbE LAN
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise Windows Embedded 8.1 Industry Pro Windows Embedded Standard 7 Windows 7 Pro for Embedded System
<b>Connectors</b>		
<b>USB</b>	1 x USB 2.0 Type-A Female	1 x USB 2.0 Type-A Female
<b>Audio</b>	1 x Line in/Line out (Optional)	1 x Line in/Line out (Optional)
<b>Power</b>	1 x Power Input (9~36V DC)	1 x Power Input (9~36V DC)
<b>Ethernet</b>	2 x LAN	2 x LAN
<b>Serial Interface</b>	1 x RS232 1 x RS232/422/485 (Default RS232)(Optional)	1 x RS232 1 x RS232/422/485 (Default RS232) (Optional)
<b>USB</b>	2 x USB2.0	2 x USB2.0
<b>Video putout</b>	1 x VGA 1 x HDMI (Optional)	1 x VGA 1 x DVI (Optional)
<b>Other</b>	1 x Micro SD Card Slot (Optional) 1 x SIM card socket (Optional) 1 x 8 Channels GPIO/CAN Bus (Optional)	1 x Micro SD Card Slot (Optional) 1 x SIM card socket (Optional) 1 x 8 Channels GPIO/CAN Bus (Optional)
<b>User Controls</b>		
<b>Control Buttons</b>	1 x Power Button	1 x Power Button
<b>Power</b>		
<b>Power Input</b>	9~36V DC with isolation	9~36V DC with isolation
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Mechanical</b>		
<b>Dimensions</b>	260.4 x 168 x 50 mm	260.4 x 168 x 50 mm
<b>Mounting</b>	Wall Mount, Desktop	Wall Mount, Desktop
<b>Color</b>	Silver	Silver
<b>Housing</b>	Aluminum	Aluminum
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 50°C (Default), -20°C to 60°C (Optional)	0°C to 50°C (Default), -20°C to 60°C (Optional)
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz/1Grms/3 Axis
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# Embedded Computing 2U Rack Server



“**SERVER ROOM  
COMPUTING.**”

- Intel® Core™ i7-7700T
- Fanless, custom cooling system
- Windows 10

---

Supports Intel® Active Management Technology II

---

Two 2.5" SSD/HDD, m.2 SSD

---

Four USB 3.0, two USB 2.0, three serial ports, two RJ45

---

HDMI 1.4, display port

---

Rack mount

---

IEC 61850-3, IEC60068-2-64, IEC 60068-2-2, CE, FCC compliant

---

Electroplated steel housing

---

Operating temperature -10°C to 60°C

---

## Accessories

### Standard

1 x 3 Pin Acrylic protect connector

AC Adapter

Power Cord

Driver CD

## Custom configuration



Memory



Storage



PCI Slot



GPS Antenna

## Application



### Electrical Substation Server Room

“FAST SPEED AND STABLE  
PERFORMANCE.”

The Rack PC was placed in the substation server room for a smart grid network. Allowed for data to be collected and transmitted on smart grid information.

# 2U Rack Server

Intel® Core™ i7-7700T



Model Name	IK7T-RK2U
<b>System</b>	
<b>Processor</b>	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz)
<b>BIOS</b>	Insyde BIOS
<b>Chipset</b>	Intel® C236
<b>Memory</b>	Support Two 204-pin DDR4-2400 SO-DIMM RAM Up to 64GB
<b>Storage</b>	Max. 4 x 2.5" SATAIII HDD (Up to 1TB), Max. 4 x 2.5" SATAIII SSD (Up to 512GB) 1 x M.2 Key B SSD 128GB (Up to 512GB)
<b>Watchdog Timer</b>	10 level
<b>Ethernet Controller</b>	Intel® I211IT Gigabit + I219LM Gigabit-LAN PHY
<b>OS</b>	Windows 10 IoT Enterprise
<b>Connectors</b>	
<b>Power</b>	1 x 3 Pin Acrylic Protected Connector
<b>Ethernet</b>	2 x RJ45 10/100/1000
<b>Serial Interface</b>	2 x R-232 1 x RS232/422/485 (Default RS232)
<b>USB</b>	4 x USB 3.0, 2 x USB 2.0
<b>Audio</b>	1 x Mic in, Line out
<b>GPS Antenna</b>	Optional
<b>PCI Slot</b>	2 x PCI Slot (Optional)
<b>HDD Slot</b>	1 x Dual HDD Slot
<b>User Control</b>	
<b>Control Buttons</b>	1 x Power On/Off 1 x Reset Button
<b>Power</b>	
<b>Power Input</b>	110~240V DC/AC Input with ±20% range
<b>Mechanical</b>	
<b>Dimensions</b>	482.6 x 88 x 356 mm
<b>Mounting</b>	19" rack with 2U height
<b>Color</b>	Black
<b>Cooling System</b>	Fanless design
<b>Housing</b>	Electroplated steel
<b>Environment</b>	
<b>Operating Temp.</b>	-10°C to 60°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)
<b>Certifications</b>	
<b>Safety</b>	IEC 61850-3, IEC60068-2-64, IEC 60068-2-2, CE, FCC



## Embedded Computing

# 3.5" Form Factor SBC



“ **SMALL, EFFICIENT,  
POWERFUL** ”

- Fully integrated small-sized single board computer
- Intel® Core™ i5-7200U
- Intel® Celeron® N2930
- Intel® Core™ i7-3517UE
- Intel® Pentium® N4200
- Windows 10

---

3.5" Form Factor (146 mm x 102 mm)

---

Fanless cooling system

---

SATA III

---

Up to three RS232

---

USB 3.0, USB 2.0

---

Two RJ45 for Ethernet, VGA, HDMI

---

Operating temperature -20°C to 60°C

---

## Accessories

### Standard

---

User Manual

Driver CD

## Custom configuration



Memory



Storage



Expansion Slot

## Application



## Embedded Industrial Automation

“SMALL BUT POWERFUL  
AND EFFICIENT”

The 3.5" Embedded boards are suited for fanless applications where the computing device will be embedded in a range of challenging scenarios.

# 3.5" SBC

Intel® Core™ i5-7200U  
 Intel® Celeron® N2930  
 Intel® Core™ i75-3517UE  
 Intel® Pentium® N4200



Model Name	IK32	IB32	IV32	IP32S
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Core™ i7-3517UE (4M Cache, up to 2.80 GHz)	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)
<b>BIOS</b>	Insyde BIOS	AMI BIOS	AMI BIOS	Insyde BIOS
<b>Chipset</b>	Intel® SoC Integrated	Intel® SoC Integrated	Intel® Express Chipset HM76	Intel® SoC Integrated
<b>Memory</b>	260 pin DDR4-2133, Non-ECC SO-DIMM RAM (max to 16GB)	1 x SODIMM DDR3L 1600, max. 8GB	1 x SODIMM DDR3L 1600, max. 8GB	1 x SODIMM DDR3L 1600/1866 MHz, Max. 8GB
<b>Expansion Slot</b>	1 x M.2 E Key for Wifi 1 x M.2 B Key for SATAIII SSD	1 x Mini PCIe for Wifi 1 x Mini PCIe for SATA SSD	1 x Mini PCIe for Wifi 1 x Mini PCIe for SATA SSD	1 x M.2 E Key for Wifi 1 x M.2 B Key for SATAIII SSD
<b>Ethernet Controller</b>	Integrated Intel® I210 I219 GbE LAN	Integrated Intel® I210 GbE LAN	Integrated Intel® 82579-LM + WG82574L	Integrated Intel® I210 GbE LAN
<b>Audio Codec</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>SATA</b>	2 x SATA III	1 x SATA II	1 x SATA II, 1 x SATA III	1 x SATA III
<b>Connectors</b>				
<b>Power</b>	1 x Power Jack	1 x Power Jack	1 x Power Jack	1 x Power Jack
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	1 x RJ45 10/100/1000 1 x RJ45 10/100/1000 LAN Support PoE function
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	2 x USB 3.0	1 x USB3.0, 1 x USB2.0	2 x USB3.0	2 x USB3.0
<b>HDMI</b>	1 x HDMI	1 x HDMI	1 x HDMI	1 x Micro HDMI
<b>DVI</b>	N/A	N/A	1 x DVI or HDMI	N/A
<b>LVDS</b>	1 x LVDS	1 x LVDS	1 x LVDS	1 x LVDS
<b>Digital I/O</b>	1 x Digital I/O	1 x Digital I/O	1 x Digital I/O	1 x Digital I/O
<b>VGA</b>	1 x VGA	1 x VGA	1 x VGA	1 x VGA
<b>Audio</b>				
<b>Audio</b>	1 x Audio (Mic in/Line in/Line out)	1 x Audio (Mic in/Line in/Line out)	1 x Audio (Mic in/Line in/Line out)	1 x Audio (Line-in/Line-out/analog Mic in/digital Mic in)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Mechanical</b>				
<b>Dimensions</b>	146 x 102 mm	146 x 102 mm	146 x 102 mm	146 x 102 mm
<b>Environment</b>				
<b>Operating Temp.</b>	-10°C to 50°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C
<b>Storage Temp.</b>	-20°C to 60°C	-30°C to 70°C	-30°C to 70°C	-30°C to 70°C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# Embedded Computing Mini-ITX SBC

NEW



“ **POWERFUL COMPUTING.** ”

- Fully integrated Mini-ITX single board computer
- Intel® Celeron® N2930
- Intel® Pentium® N4200
- 7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- 9<sup>th</sup> Gen. Intel® Core™ i7/i5/i3
- Windows 10

---

Mini-ITX form factor (170mm x 170mm)

---

Intel® chipset and integrated HD graphics

---

SATA III, COM, USB 3.0, USB 2.0

---

Two RJ45 for Ethernet, video input, RS232/422/485

---

Digital I/O

---

Expansion slot capabilities

---

12V DC power input

---

Operating temperature -20°C to 60°C

## Accessories

### Standard

User Manual

Driver CD

## Custom configuration

Up to  
**16 GB**

Memory

Up to  
**512 GB**

Storage



Expansion Slot

## Application



## Industrial Automation

“POWERFUL INTEL  
CORE PROCESSING IN A  
COMPACT EMBEDDED  
BOARD”

The Mini-ITX embedded boards are perfectly suited for powerful industrial automation applications with multiple interface.

# Mini-ITX SBC

Intel® Celeron® N2930  
 7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3  
 4<sup>th</sup> Gen. Intel® Core™ i5  
 3<sup>rd</sup> Gen. Intel® Core™ i5



Model Name	IB70	IK70	IH70	IV70
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Core™ i7-7700T (8M Cache, 2.9 GHz up to 3.80 GHz) Intel® Core™ i5-7500T (6M Cache, 2.7GHz up to 3.30 GHz) Intel® Core™ i3-7100T (4M Cache, 3.34 GHz)	Intel® Core™ i5-4200M (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-3230M (3M Cache, up to 3.20 GHz)
<b>BIOS</b>	AMI BIOS	Insyde BIOS	AMI BIOS	AMI BIOS
<b>Chipset</b>	Intel® SoC Integrated	Intel® H170	Intel® QM87	Intel® HM76
<b>Memory</b>	2 x SODIMM DDR3L 1600, max. 8GB	1 x SODIMM DDR4 2400 max. 32GB	2 x SODIMM DDR3L 1600 max 16GB	2 x SODIMM DDR3L 1600 max 16GB
<b>Expansion Slot</b>	<ul style="list-style-type: none"> <li>· 2 x Mini PCIe (1 for WiFi, 1 for 3G Module)</li> <li>· 1 x Mini PCIe Slot (for mSATA SSD)</li> </ul>	<ul style="list-style-type: none"> <li>· 1 x M.2 Slot (for SSD)</li> <li>· 1 x M.2 Slot (for half size Wifi)</li> </ul>	<ul style="list-style-type: none"> <li>· 2 x Mini PCIe (1 for WiFi, 1 for 3G Module)</li> <li>· 1 x Mini PCIe Slot (for mSATA SSD)</li> <li>· 1 x PCIe (x4) or 1 x PCIe (x16)</li> </ul>	<ul style="list-style-type: none"> <li>· 2 x Mini PCIe (1 for WiFi, 1 for 3G Module)</li> <li>· 1 x Mini PCIe Slot (for mSATA SSD)</li> <li>· 1 x PCIe (x4) or 1 x PCIe (x16)</li> </ul>
<b>Ethernet Controller</b>	Intel® I210IT	Intel® I211IT + I219LM	Intel® I210IT Gigabit-LAN Controller+ I218LM Gigabit-LAN PHY	Broadcom BCM57780
<b>Audio</b>	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec
<b>SATA</b>	1 x SATA II	2 x SATA III	2 x SATA III	1 x SATA III, 1 x SATA II
<b>Connectors</b>				
<b>Power</b>	1 x Power Jack	1 x Power Jack	1 x Power Jack	1 x Power Jack
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	2 x RS232 1 x RS232/422/485 (Default RS232)	4 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
<b>USB</b>	1 x USB 3.0 3 x USB 2.0	4 x USB 3.0	4 x USB 3.0	4 x USB 3.0
<b>Display output</b>	1 x VGA	1 x HDMI, 1 x DP	1 x VGA	1 x VGA
<b>Keyboard/Mouse</b>	2 x PS/2	-	2 x PS/2	2 x PS/2
<b>Audio</b>	1 x Audio Jack (Mic in/Line in/Line Out) (Optional)	1 x Audio Jack (Mic in/Line in/Line Out)	1 x Audio Jack (Mic in/Line in/Line Out) (Optional)	1 x Audio Jack (Mic in/Line in/Line Out) (Optional)
<b>HDMI</b>	1 x HDMI by FFC connector	1 x HDMI	1 x DVI or HDMI	1 x DVI or HDMI
<b>DVI</b>	1 x DVI by FFC connector	N/A	1 x DVI or HDMI	1 x DVI or HDMI
<b>LVDS</b>	1 x LVDS	1 x LVDS	1 x LVDS	1 x LVDS
<b>Other</b>	1 x eDP, 1 x LPT 1 x Digital I/O	1 x eDP 1 x Digital I/O 1 x Clear CMOS + Reset Button	1 x eDP, 1 x LPT 1 x Digital I/O	1 x Digital I/O
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Mechanical</b>				
<b>Dimensions</b>	170 x 170 mm	170 x 170 mm	170 x 170 mm	170 x 170 mm
<b>Environment</b>				
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C
<b>Storage Temp.</b>	-30°C to 70°C	-30°C to 70°C	-30°C to 70°C	-30°C to 70°C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# Mini-ITX SBC

Intel® Pentium® N4200  
9<sup>th</sup> Gen. Intel® Core™ i7/i5/i3

NEW



NEW



Model Name	IP70	IF70
<b>System</b>		
<b>Processor</b>	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)	Intel® Core™ i7-9700TE (12M Cache, up to 3.80 GHz) Intel® Core™ i5-9500TE (9M Cache, up to 3.60 GHz) Intel® Core™ i3-9100TE (6M Cache, up to 3.20 GHz)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS
<b>Chipset</b>	Intel® SoC Integrated	Intel® H310
<b>Memory</b>	2 x SODIMM DDR3L-1866, max. 8GB	2 x SODIMM DDR4-2666, max 64GB
<b>Expansion Slot</b>		
<b>Ethernet Controller</b>	Intel® I210-IT Gigabit-LAN Controller	Intel® I210-IT Gigabit-LAN Controller
<b>Audio</b>	Realtek Audio Codec	Realtek Audio Codec
<b>SATA</b>	2 x SATA III (SATA2 support is only available when M.2 SATA is not in use.)	2 x SATA III
<b>Connectors</b>		
<b>Power</b>	1 x (12V) Power Input Din 4pin connector	1 x (12V) Power Input Din 4pin connector
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>USB</b>	4 x USB 3.0	4 x USB 3.0
<b>Display output</b>	1 x DP 1.2	1 x DP 1.2
<b>Audio</b>	1 x Audio Jack (Mic-in, Line-out)	1 x Audio Jack (Mic-in, Line-out)
<b>HDMI</b>	1 x HDMI 1.4	1 x HDMI 1.4
<b>LVDS</b>	LVDS wafer	LVDS wafer
<b>Other</b>	1 x eDP 1 x Digital I/O 1 x Clear CMOS + Reset Button	1 x eDP 1 x Digital I/O 1 x Clear CMOS + Reset Button
<b>Power</b>		
<b>Power Input</b>	12V DC	12V DC
<b>Mechanical</b>		
<b>Dimensions</b>	170 x 170 mm	170 x 170 mm
<b>Environment</b>		
<b>Operating Temp.</b>	-20°C ~ 60°C	-20°C ~ 60°C
<b>Storage Temp.</b>	-40°C ~ 70°C	-40°C ~ 70°C
<b>Humidity</b>	10% ~ 95% (Non-condensing, RH)	10% ~ 95% (Non-condensing, RH)
<b>Certifications</b>		
<b>Safety</b>	CE, FCC,	CE, FCC

# Embedded Computing

# Arm Series SBC

## Custom configuration



Memory



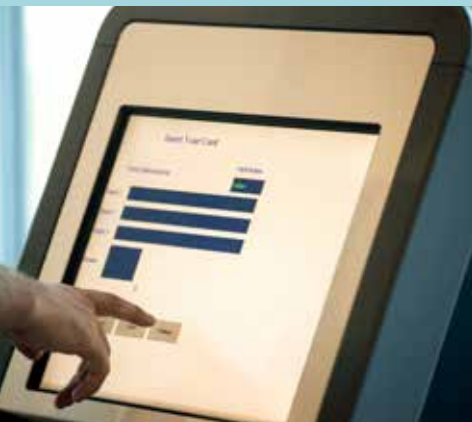
Micro SD Card Slot



PoE



## Application



### Self-Service Kiosks

“EASY INTEGRATION”

An interactive Kiosk manufacturer was looking for an Android based solution for their smart kiosks. Winmate provided Arm Box PC with Android 6.0 with multiple interface.

“ **ENDLESS SOFTWARE DEVELOPMENT POSSIBILITIES.** ”

- Fully integrated small-sized Arm SBC
- Arm Cortex-A9
- Arm Cortex-A72 + Arm Cortex-A53
- Android/Ubuntu/Linux 4.1.15 (QT 5.5)

---

3.5" form factor

---

Onboard 16GB eMMC/mSATA

---

USB 3.0, USB OTG

---

RJ45 for Ethernet

---

Micro HDMI

---

RS232/422/485, CANBus

---

9~24V DC power input

---

Operating temperature -20°C to 60°C

---

## Accessories

### Standard

---

User Manual

Driver CD



# Arm Series SBC

Arm Cortex-A9

Arm Cortex-A72 + Arm Cortex-A53

MS-01 SoM (SDA660 designed by USI)



NEW



Q2, 2020

Model Name	FA30	RK30	QM30
<b>System</b>			
<b>Processor</b>	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A72 (up to 2.0 GHz) + Arm Cortex-A53 (up to 1.5 GHz)	MS-01 SoM (SDA660 designed by USI)
<b>Memory</b>	1GB DDR3	LPDDR3 2GB	3GB LPDDR4 (Optional 4GB)
<b>Expansion Slot</b>	Micro SD/SDHC card slot	Micro SD/SDHC card slot	Micro SD/SDHC card slot
<b>Ethernet Controller</b>	IEEE 802.3/802.3u 10/100 Base-T	IEEE 802.3/802.3u 10/100 Base-T	IEEE 802.3/502.3u10/100 Base-T
<b>OS</b>	Android 6.0 (Default) Linux Ubuntu 16.04 (Optional) Linux 4.1.15 QT 5.5 (Optional)	Android 7.1 Debian 9	Android 9.0
<b>Storage</b>	Onboard 16GB eMMC	Onboard 16GB eMMC	32GB MLC (Optional 64GB)
<b>Connectors</b>			
<b>Power</b>	1 x Terminal Block 2-pin (DC In)	1 x Terminal Block 3-pin (DC In)	1 x Terminal Block 3-pin (CD In)
<b>Ethernet</b>	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function	1 x RJ45 10/100/1000 LAN Support PoE function
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	1 x USB 2.0 1 x Mini USB for Debug 1 x USB OTG 4 x USB by 2 pin-header (4 pin)	2 x USB 3.0 1 x USB 2.0 OTG	2 x USB 2.0 1 x USB Type-C
<b>HDMI</b>	1 x Micro HDMI	1 x Micro HDMI	-
<b>Micro SD Card Slot</b>	1 x Micro SD/ SDHC card slot	1 x Micro SD/ SDHC card slot	1 x Micro SD Card Slot
<b>CANBus</b>	1 x CANBus	-	-
<b>I2C Touch</b>	1 x I2C Touch by pin-header	1 x Touch Connector/1x6-pin (CN7 for 7") 1 x Touch Connector/1x6-pin (CN8 for 10.1")	1 x USB Touch by pin header
<b>LVDS</b>	1 x LVDS by pin-header	1 x LVDS Connector (CON4 for 10.1" 1920 x 1200) 1 x LVDS Connector (CON3 for 7") 1x LVDS Connector (LVDS1 for 10.1" and 15")	1 x LVDS Connectors
<b>Digital I/O</b>	1 x Digital I/O with 3.3V (6-pin GPIO)	1 x Digital I/O/2x7-pin (DI/DO1)	1 x Digital I/O/2x7-pin
<b>Power</b>			
<b>Power Input</b>	9~24V DC	12V DC Terminal Block/ PoE 48V DC in	12V DC Terminal Block
<b>Mechanical</b>			
<b>Dimensions</b>	146 x 91.6 mm	146 x 102 mm	-
<b>Environment</b>			
<b>Operating Tempe.</b>	-20°C to 60°C	-20° to 60°C	-20 to 60
<b>Storage Temp.</b>	-40°C to 70°C	-40° to 70°C	-40 to 70
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 95% @30°C (Non-condensing, RH)	10% to 95% @30C (Non-condensing, RH)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC



	
<b>LINE A</b>	<b>LINE B</b>
	
	
 	 
<b>START</b> <b>STOP</b>	<b>START</b> <b>STOP</b>

# INDUSTRIAL DISPLAY

## Standard Industrial Display

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# Standard Industrial Display

## Overview

Winmate designs, develops and manufactures display systems for industrial applications, including factory automation, marine, military, oil and gas, healthcare and other vertical markets. Our rich experience in LCD technology allows delivering a wide range of digital displays, including bar-type, stainless, or special sizes to meet the requirements of the industrial applications.

### Winmate's industrial display solutions include:

- Various housing options: chassis, open frame, panel mount, rack mount, front IP65
- Touch capabilities: resistive, projected capacitive or SAW touch screen
- Touch and panel optical bonding



## Product Overview

Winmate industrial displays also provide several kinds of mounting solutions for your unique application and environment, such as chassis, panel mount, open frame, rear mount, rack mount, bar-type and others.



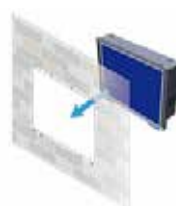
## Various Mounting Options



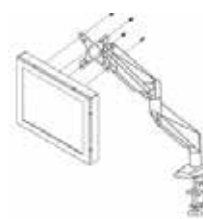
Panel Mount



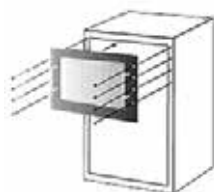
Front IP65



Open Frame



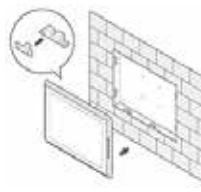
VESA Mount



Rack Mount



Pole Mount



Front Size Wall Mount

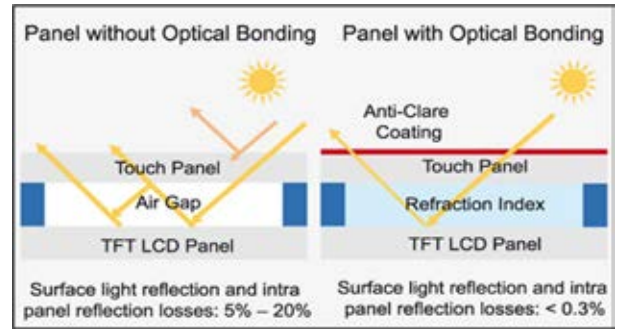


Dash/Yoke Mount

## Technology

### In-house Direct Optical Bonding

Winmate has in-house facilities for direct optical bonding. The advantages of optical bonding is minimizing the reflection from inner-surface of the glass, improved ruggedness, condensation prevention and increased anti-shock and vibration capabilities.

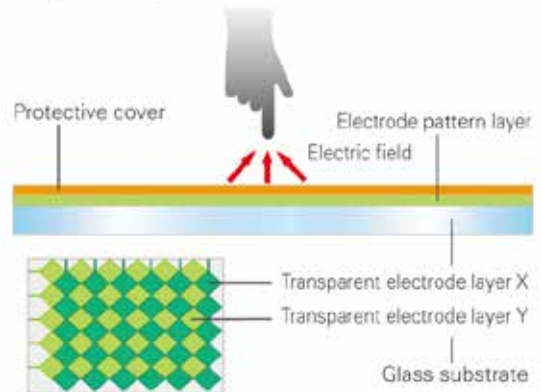


### Ultimate Touch Experience

#### Projected Capacitive Multi-Touch

A projected capacitive is composed of a sheet of glass with embedded transparent electrode films and an IC chip, which creates a three dimensional electrostatic field. When a finger comes into contact with the screen, the ratios of the electrical currents change and the display is able to detect the touch points. In addition to bare fingers, PCAP touch screen supports working with gloves.

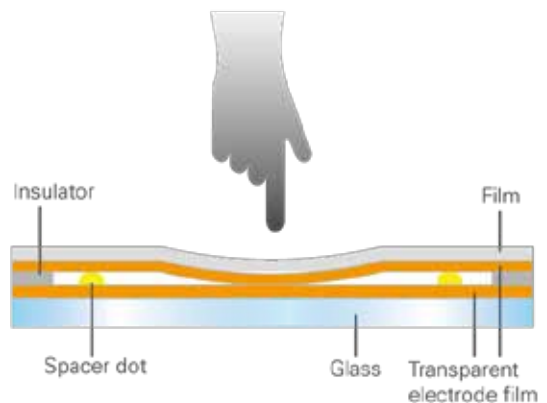
#### Projected Capacitive



#### Resistive Touch

A resistive touchscreen is a touch-sensitive display composed of two flexible sheets coated with a resistive material and separated by an air gap or microdots. Resistive touchscreens typically have high resolution, providing accurate touch control. Because the touchscreen responds to pressure on its surface, contact can be made with a finger or any other pointing device.

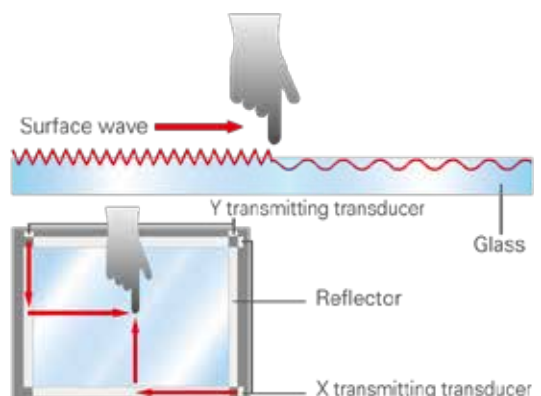
#### Resistive Touch



#### Surface Acoustic Wave (SAW) Touch

Flat-screen SecureTouch products are made of extra-tough glass substrates that resist vandalism. These touchscreens incorporate the solid-glass and coating-free construction of Elo's proven IntelliTouch® products. SAW monitors offer easy use and high visibility.









#### Surface Acoustic Wave (SAW)





## Product Guide – Standard Industrial Display

Our product guide helps you to navigate and find the right product from our excessive product line.

<p><b>Panel Mount Display</b></p>	<p><b>Open Frame Display</b></p>
	
<p>5.7"~32" p.151</p>	<p>5.7"~55" p.153</p>
<p><b>Chassis Display</b></p>	<p><b>Rear Mount Display</b></p>
	
<p>6.5"~55" p.155</p>	<p>8.4"~24" p.157</p>
<p><b>Front IP65</b></p>	<p><b>Rack Mount</b></p>
	
<p>5.7"~27" p.159</p>	<p>15"~20.1" p.161</p>
<p><b>Multi-Touch Series Display</b></p>	<p><b>LCD Kit</b></p>
	
<p>7"~43" p.163</p>	<p>5.7"~32" p.167</p>

# 5.7"~32" Industrial Display Panel Mount

## Custom configuration



Audio and  
Speaker



Resistive  
Touchscreen



SAW  
Touchscreen



DVI-D



S-Video



Composite



## Application



### Machine Control

"VISUALIZE VALUABLE  
INFORMATION."

Control panel on manufacture  
of pharmaceutical and  
chemical industry.

“ **RELIABLE DESIGN FOR  
FACTORY FLOOR.** ”

- 5.7"~32" screen
- Panel mount, VESA mount

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VGA, HDMI video input

---

Touch interface USB or RS232

---

OSD control 5 keys

---

VESA mount

---

Operating temperature 0°C to 50°C

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## Accessories

Power Cord

AC Adapter

Touch Drive CD

VGA Cable 1.8m

HDMI Cable 2m

# Industrial Display

## Panel Mount Display



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
5.7"	R05T100-PMD1(HB)	115.2 x 86.4	640 x 480	300:1 (Typ.)	900 nits	-70~70 (H); -40~60 (V)	No	12V DC	15 W (Typ.)	*
6.5"	R06L200-PMA1	132.48 x 99.36	640 x 480	600:1 (Typ.)	700 nits	-80~80 (H); -70~70 (V)	No	12V DC	15 W (Typ.)	*
8.4"	R08L200-PMU1	170.4 x 127.8	800 x 600	600:1 (Typ.)	600 nits	-75~75 (H); -60~70 (V)	Yes	12V DC	15 W (Typ.)	*
10.1" (16:10)	W10L100-PMH1	222.72 x 125.28	1024 x 600	800:1 (Typ.)	450 nits	-80~80 (H); -80~75 (V)	Yes	12V DC	10 W (Typ.)	*
10.4"	R10L600-PMP1	211.2 x 158.4	800 x 600	400:1 (Typ.)	600 nits	-70~70 (H); -70~60 (V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L100-PMT2	210.4 x 157.8	1024 x 768	1200:1 (Typ.)	350 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L100-PMP3	211.2x158.4	640 x 480	700:1 (Typ.)	450 nits	-80~80 (H); -60~80 (V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12L600-PMM2	245.76 x 184.32	1024 x 768	700:1 (Typ.)	500 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	20 W (Typ.)	*
12.1"	R12T600-PML1	246.0 x 184.5	800 x 600	700:1 (Typ.)	450 nits	-80~80 (H); -75~65 (V)	Yes	12V DC	16 W (Typ.)	*
15"	R15L100-PMA1	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	550 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L600-PMC3	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15 W (Typ.)	*
17"	S17L500-PMM1	337.92 x 270.336	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	36 W (Typ.)	*
19"	R19L300-PMM2	376.3 x 301.1	1280 x 1024	1300:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	54 W (Typ.)	*
19"	R19L300-PMM1	376.3 x 301.1	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27 W (Typ.)	*
20.1"	R20L100-PMA2	408.0 x 306.0	1600 x 1200	1400:1 (Typ.)	330 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	60 W (Typ.)	*
21.5" (16:9)	W22L100-PMA3	476.64 x 268.11	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
22" (16:10)	W22L100-PMM1	473.76 x 296.1	1680 x 1050	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	25 W (Typ.)	*
23.8" (16:9)	W24L100-PMA2	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
24" (16:10)	W24L100-PMS1	518.41 x 324.0	1920 x 1200	1000:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
32" (16:9)	W32L300-PMA3	698.4 x 392.85	1920 x 1080	3000:1 (Typ.)	400 nits	-89~89 (H); -89~89 (V)	Yes	24V DC	75 W (Typ.)	*

# 5.7" ~55" Industrial Display

## Open Frame

### Custom configuration



Audio and Speaker



Resistive Touchscreen



SAW Touchscreen



DVI-D



S-Video



Composite



“

**SLEEK & SLIM OPEN FRONT FRAME.**

”

### Application



#### Vending Machine

“SPEEDS UP PASSENGER TRAFFIC.”

Winmate open frame display with touch screen is a part of a railway ticket vending machine.

- 5.7" ~55" screen
- Rear mount, VESA mount
- Optional touch or glass

---

VGA, HDMI video input

---

Touch interface USB or RS232

---

OSD control 5 keys

---

VESA mount

---

Operating temperature 0°C to 50°C

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### Accessories

Power Cord

AC Adapter

Touch Drive CD

VGA Cable 1.8m

HDMI Cable 2m

# Industrial Display

## Open Frame Display



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
5.7"	R05T100-OFD1(HB)	115.2 x 86.4	640 x 480	300:1 (Typ.)	900 nits	-70~70 (H); -40~60 (V)	No	12V DC	15 W (Typ.)	*
6.5"	R06L200-OFA1	132.48 x 99.36	640 x 480	600:1 (Typ.)	700 nits	-80~80 (H); -70~70 (V)	No	12V DC	15 W (Typ.)	*
7" (16:10)	W07T700-OFA4	152.40 x 91.44	800 x 480	1000:1(Typ.)	400 nits	-80~80 (H); -80~80 (V)	Yes	12V DC	10 W (Typ.)	*
8"	R08T100-OFA1	162.0 x 121.5	800 x 600	400:1 (Typ.)	250 nits	-70~70 (H); -70~50 (V)	Yes	12V DC	10 W (Typ.)	*
8.4"	R08L200-OFU1	170.4 x 127.8	800 x 600	600:1 (Typ.)	600 nits	-75~75 (H); -60~70 (V)	Yes	12V DC	15 W (Typ.)	*
10.1" (16:10)	W10L100-OFH1	222.72 x 125.28	1024 x 600	800:1 (Typ.)	450 nits	-80~80 (H); -80~75 (V)	Yes	12V DC	10 W (Typ.)	*
10.4"	R10L100-OFP3	211.2 x 158.4	640 x 480	700:1 (Typ.)	450 nits	-80~80 (H) ; -60~80 (V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L600-OFP1	211.2 x 158.4	800 x 600	400:1 (Typ.)	600 nits	-70~70 (H); -70~60 (V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L100-OFT2	210.4 x 157.8	1024 x 768	1200:1 (Typ.)	350 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12L600-OFM2	245.76 x 184.32	1024 x 768	700:1 (Typ.)	500 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	20 W (Typ.)	*
12.1"	R12T600-OFL1	246.0 x 184.5	800 x 600	700:1 (Typ.)	450 nits	-80~80 (H); -75~65 (V)	Yes	12V DC	16 W (Typ.)	*
12.1" (16:10)	W12L100-OFM9	261.12 x 163.2	1280 x 800	1000:1 (Typ.)	400 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L600-OFC3	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15 W (Typ.)	*
15"	R15L100-OFA3	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	500 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	17 W (Typ.)	*
15"	R15L100-OFA1	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	550 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	20 W (Typ.)	*
15.6" (16:9)	W15L100-OFA2	344.2 x 195.5	1366 x 768	500:1 (Typ.)	400 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	25 W (Typ.)	*
17"	S17L500-OFM1	337.92 x 270.336	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	36 W (Typ.)	*
18.5" (16:9)	W18L100-OFA2	409.8 x 230.4	1366 x 768	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	19 W (Typ.)	*
19"	R19L300-OFM2	376.3 x 301.1	1280 x 1024	1300:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	54 W (Typ.)	*
19"	R19L300-OFM1	376.3 x 301.1	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27 W (Typ.)	*
19"	R19L300-OFA1	376.3 x 301.1	1280 x 1024	500:1 (Typ.)	400 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	54 W (Typ.)	*
20.1"	R20L100-OFA2	408.0 x 306.0	1600 x 1200	1400:1 (Typ.)	330 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	60 W (Typ.)	*
21.5" (16:9)	W22L100-OFA3	476.64 x 268.11	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
22" (16:10)	W22L100-OFM1	473.76 x 296.1	1680 x 1050	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	25 W (Typ.)	*
23.1"	R23L100-OFS1	470.4 x 352.8	1600 x 1200	600:1 (Typ.)	500 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	80 W (Typ.)	*
23.8" (16:9)	W24L100-OFA2	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
24" (16:10)	W24L100-OFS1	518.4 x 324	1920 x 1200	1000:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
27" (16:9)	W27L100-OFA1	596.7 x 336.15	1920 x 1080	3000:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
32" (16:9)	W32L300-OFA3	698.4 x 392.85	1920 x 1080	4000:1 (Typ.)	400 nits	-89~89 (H); -89~89 (V)	Yes	24V DC	75 W (Typ.)	*
42" (16:9)	W42L300-OFA3	930.24 x 523.26	1920 x 1080	2500:1 (Typ.)	500 nits	-89~89 (H); -89~89 (V)	Yes	24V DC	100 W (Typ.)	*
55" (16:9)	W55L100-OFL2	1209.6 x 680.4	1920 x 1080	4000:1 (Typ.)	500 nits	-89~89 (H); -89~89 (V)	Yes	100~ 240V AC	145W (Typ.)	*



# 6.5" ~55" Industrial Display Chassis

## Custom configuration



Housing



Resistive  
Touchscreen



SAW  
Touchscreen



DVI-D



S-Video



Composite



Audio and  
Speaker



“ **FIT SEAMLESSLY INTO SPACE CONSTRICTED APPLICATIONS.** ”

- 6.5" ~55" screen
- Panel mount, VESA mount

---

VGA, HDMI video input

---

Touch interface USB or RS232

---

OSD control 5 keys

---

VESA mount

---

Operating temperature 0°C to 50°C

---

## Application



### Pharmacy Information Display

“VERSATILE MOUNTING SOLUTION.”

Chassis LCD installed on the VESA arm displays order information in the pharmacy back-end.

## Accessories

Power Cord

AC Adapter

Touch Drive CD

VGA Cable 1.8m

HDMI Cable 2m

# Industrial Display

## Chassis



Size	Model Name	Active Display Area (mm)	Number of Pixels	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Power Input	Optional DVI Input	Resistive
6.5"	R06L200-CHA1	132.48 x 99.36	640 x 480	600:1(Typ.)	700 nits	-80~80 (H); -70~70 (V)	12V DC	No	*
8"	R08T100-CHA1	162.0 x 121.5	800 x 600	400:1(Typ.)	250 nits	-70~70 (H), -70~50 (V)	12V DC	Yes	*
8.4"	R08L200-CHU1	170.4 x 127.8	800 x 600	600:1(Typ.)	600 nits	-75~75 (H); -60~70 (V)	12V DC	Yes	*
10.1"(16:10)	W10L100-CHH1	222.72 x 125.28	1024 x 600	800:1(Typ.)	450 nits	-80~80 (H); -80~75 (V)	12V DC	Yes	*
10.1"(16:10)	W10L100-CHA1	216.81 x 135.50	1920 x 1200	800:1(Typ.)	700 nits	-89~89 (H); -89~89 (V)	12V DC	Yes	*
10.4"	R10L600-CHP1	211.2 x 158.4	800 x 600	400:1(Typ.)	600 nits	-70~70 (H); -70~60 (V)	12V DC	Yes	*
10.4"	R10L100-CHT2	210.4 x 157.8	1024 x 768	1200:1(Typ.)	350 nits	-88~88 (H); -88~88 (V)	12V DC	Yes	*
12.1"	R12T600-CHL1	246.0 x 184.5	800 x 600	700:1(Typ.)	450 nits	-80~80 (H); -75~65 (V)	12V DC	Yes	*
12.1"	R12L600-CHM2	245.76 x 184.32	1024 x 768	700:1(Typ.)	500 nits	-89~89 (H); -89~89 (V)	12V DC	Yes	*
12.1"(16:10)	W12L100-CHM9	261.12 x 163.2	1280 x 800	1000:1(Typ.)	400 nits	-88~88 (H); -88~88 (V)	12V DC	Yes	*
15"	R15L600-CHC3	304.1 x 228.1	1024 x 768	2000:1(Typ.)	250 nits	-88~88 (H); -88~88 (V)	12V DC	Yes	*
15"	R15L100-CHA1	304.1 x 228.1	1024 x 768	2000:1(Typ.)	550 nits	-88~88 (H); -88~88 (V)	12V DC	Yes	*
15"	R15L100-CHA3	304.1 x 228.1	1024 x 768	2500:1(Typ.)	500 nits	-88~88 (H); -88~88 (V)	12V DC	Yes	*
15.6"(16:9)	W15L100-CHA2	344.2 x 195.5	1366 x 768	500:1(Typ.)	400 nits	-85~85 (H); -80~80 (V)	12V DC	Yes	*
17"	R17L500-CHM1	337.92 x 270.336	1280 x 1024	1000:1(Typ.)	350 nits	-85~85 (H); -80~80 (V)	12V DC	Yes	*
19"	R19L300-CHM1	376.3 x 301.1	1280 x 1024	1000:1(Typ.)	250 nits	-85~85 (H); -80~80 (V)	12V DC	Yes	*
19"	R19L300-CHA1	376.3 x 301.1	1280 x 1024	500:1(Typ.)	400 nits	-85~85 (H); -80~80 (V)	12V DC	Yes	*
19"	R19L300-CHM2	376.3 x 301.1	1280 x 1024	1300:1(Typ.)	300 nits	-89~89 (H); -89~89 (V)	12V DC	Yes	*
20.1"	R20L100-CHA2	408 x 306	1600 x 1200	1400:1(Typ.)	330 nits	-85~85 (H); -85~85 (V)	12V DC	Yes	*
21.5"(16:9)	W22L100-CHA3	476.64 x 268.11	1920 x 1080	3000:1(Typ.)	250 nits	-89~89 (H); -89~89 (V)	12V DC	Yes	*
22"(16:10)	W22L100-CHM1	473.76 x 296.1	1680 x 1050	1000:1(Typ.)	250 nits	-85~85 (H); -80~80 (V)	12V DC	Yes	*
23.1"	R23L100-CHS1	470.4 x 352.8	1600 x 1200	600:1(Typ.)	500 nits	-85~85 (H); -85~85 (V)	12V DC	Yes	
23.8"(16:9)	W24L100-CHA2	527.04 x 296.46	1920 x 1080	3000:1(Typ.)	250 nits	-89~89 (H); -89~89 (V)	12V DC	Yes	*
24"(16:10)	W24L100-CHS1	518.4 x 324	1920 x 1200	1000:1(Typ.)	300 nits	-89~89 (H); -89~89 (V)	12V DC	Yes	
27"(16:9)	W27L100-CHA1	597.6 x 336.15	1920 x 1080	2000:1(Typ.)	300 nits	-89~89 (H); -89~89 (V)	12V DC	Yes	
30"(16:10)	W30L100-CHL1	641.28 x 400.8	2560 x 1600	1000:1(Typ.)	350 nits	-89~89 (H); -89~89 (V)	12V DC	Yes	
32"(16:9)	W32L300-CHA3	698.40 x 392.85	1920 x 1080	3000:1(Typ.)	400 nits	-89~89 (H); -89~89 (V)	24V DC	Yes	
42"(16:9)	W42L100-OML2	930.24 x 523.26	1920 x 1080	4000:1(Typ.)	450 nits	-89~89 (H); -89~89 (V)	100~ 240V AC	Yes	
55"(16:9)	W55L100-OML2	1209.6 x 680.4	1920 x 1080	4000:1(Typ.)	500 nits	-89~89 (H); -89~89 (V)	100~ 240V AC	Yes	

# 8.4"~24" Industrial Display

## Rear Mount

### Custom configuration



Housing



Resistive  
Touchscreen



SAW  
Touchscreen



DVI-D



S-Video



Composite



Audio and  
Speaker



“

**WHERE SAFETY IS A  
PRIORITY.**

”

- 8.4"~20.1" screen
- Rear mount

---

VGA, HDMI video input

---

Touch interface USB or RS232

---

OSD control 5 keys

---

VESA mount

---

Operating temperature 0°C to 50°C

---

### ATM Machine

“RELIABLE AND SECURE  
PAYMENTS.”

Rear mount LCD is secured  
from the back and leaves on  
sides of the panel outside.

### Application



### Accessories

Power Cord

AC Adapter

Touch Drive CD

VGA Cable 1.8m

HDMI Cable 2m

# Industrial Display

Rear Mount



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
8.4"	R08L200-RMU1	170.4 x 127.8	800 x 600	600:1 (Typ.)	600 nits	-75~75 (H); -60~70 (V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L600-RMP1	211.2 x 158.4	800 x 600	400:1 (Typ.)	600 nits	-70~70 (H); -70~60 (V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12T600-RML1	246.0 x 184.5	800 x 600	700:1 (Typ.)	450 nits	-80~80 (H); -75~65 (V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12L600-RMM2	245.76 x 184.32	1024 x 768	700:1 (Typ.)	500 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L600-RMA1	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	550 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L600-RMC3	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15 W (Typ.)	*
17"	S17L500-RMM1	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	36 W (Typ.)	*
19"	R19L300-RMM2	376.3 x 301.1	1280 x 1024	1300:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	54 W (Typ.)	*
19"	R19L300-RMM1	376.3 x 301.1	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27 W (Typ.)	*
20.1"	R20L100-RMA2	408.0 x 306.0	1600 x 1200	1400:1 (Typ.)	330 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	60 W (Typ.)	*
21.5"	W22L100-RMA3	476.64 x 268.11	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	63 W (Typ.)	*
24"	W24L100-RMA2	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	65 W (Typ.)	*

# 5.7"~27" Industrial Display

## Front IP65

### Custom configuration



Audio and Speaker



Resistive Touchscreen



SAW Touchscreen



DVI-D



S-Video



Composite



### Application



#### Beautician cabinet

"WATERPROOF FRONT PANEL."

Designed to be rugged, front IP65- displays are ideal for use in wet and dusty environments.

“

**FOR WET AND DUSTY ENVIRONMENTS.**

”

- 5.7"~32" screen
- Panel mount, VESA mount

---

VGA, HDMI video input

---

Touch interface USB or RS232

---

OSD control 5 key

---

VESA mount

---

Operating temperature 0°C to 50°C

---

### Accessories

Power Cord

AC Adapter

Touch Drive CD

VGA Cable 1.8m

HDMI Cable 2m



# Industrial Display

Front IP65



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
5.7"	R05T100-IPD1(HB)	115.2 x 86.4	640 x 480	300:1 (Typ.)	900 nits	-70~70 (H); -40~60 (V)	No	12V DC	15 W (Typ.)	*
6.5"	R06L200-IPA1	132.48 x 99.36	640 x 480	600:1 (Typ.)	700 nits	-80~80 (H); -70~70 (V)	No	12V DC	10 W (Typ.)	*
8.4"	R08L200-IPU1	170.4 x 127.8	800 x 600	600:1 (Typ.)	600 nits	-75~75 (H); -60~70 (V)	No	12V DC	15 W (Typ.)	*
10.1"(16:10)	W10L100-IPH1	222.72 x 125.28	1024 x 600	800:1 (Typ.)	450 nits	-80~80 (H); -80~75 (V)	No	12V DC	10 W (Typ.)	*
10.4"	R10L600-IPP1	211.2 x 158.4	800 x 600	400:1 (Typ.)	600 nits	-70~70 (H); -70~60 (V)	No	12V DC	15 W (Typ.)	*
10.4"	R10L100-IPT2	210.4 x 157.8	1024 x 768	1200:1 (Typ.)	350 nits	-88~88 (H); -88~88 (V)	No	12V DC	15 W (Typ.)	*
12.1"	R12L600-IPM2	245.76 x 184.32	1024 x 768	700:1 (Typ.)	500 nits	-89~89 (H); -89~89 (V)	No	12V DC	20 W (Typ.)	*
12.1"	R12T600-IPL1	246.0 x 184.5	800 x 600	700:1 (Typ.)	450 nits	-80~80 (H); -75~65 (V)	No	12V DC	15 W (Typ.)	*
15"	R15L100-IPA1	304.1 x 228.1	1024 x 768	700:1 (Typ.)	550 nits	-80~80 (H); -70~70 (V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L600-IPC3	304.1 x 228.1	1024 x 768	700:1 (Typ.)	250 nits	-80~80 (H); -70~70 (V)	Yes	12V DC	15 W (Typ.)	*
17"	S17L500-IPM1	337.92 x 270.336	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27 W (Typ.)	*
19"	R19L300-IPM1	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27 W (Typ.)	*
19"	R19L300-IPM2	376.32 x 301.06	1280 x 1024	2000:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	54 W (Typ.)	*
20.1"	R20L100-IPA2	408.0 x 306.0	1600 x 1200	1400:1 (Typ.)	330 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	60 W (Typ.)	*
21.5"(16:9)	W22L100-IPA3	476.64 x 269.11	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
22"(16:10)	W22L100-IPM1	473.76 x 296.1	1680 x 1050	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	25 W (Typ.)	*
23.8"(16:9)	W24L100-IPA2	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
24"(16:10)	W24L100-IPS1	518.14 x 324	1920 x 1200	1000:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
27"(16:9)	W27L100-IPA1	597.6 x 336.15	1920 x 1080	3000:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*

# 15"~20.1" Industrial Display Rack Mount

## Custom configuration



Audio and  
Speaker



Resistive  
Touchscreen



SAW  
Touchscreen



DVI-D



S-Video



Composite



“ **FOR INSTALLATION IN  
VERTICAL SURFACES.** ”

## Application



### Network Server

“SUPERIOR  
FUNCTIONALITY.”

Being able to be mounted to walls, shelves, and other vertical surfaces, Winmate's 15-inch rack mount display is able to visualize data from network servers in a data room.

- 15"~20.1" screen
- Rack mount

---

VGA, HDMI video input

---

Touch interface USB or RS232

---

OSD control 5 keys

---

VESA mount

---

Operating temperature 0°C to 50°C

---

## Accessories

Power Cord

AC Adapter

Touch Drive CD

VGA Cable 1.8m

HDMI Cable 2m

# Industrial Display

Rack Mount



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
15"	R15L600-RKC3	304.1 x 228.1	1024 x 768	700:1 (Typ.)	250 nits	-80~80 (H); -70~70 (V)	Yes	12V DC	15 W (Typ.)	*
15"	R15L100-RKA1	304.1 x 228.1	1024 x 768	700:1 (Typ.)	550 nits	-80~80 (H); -70~70 (V)	Yes	12V DC	20 W (Typ.)	*
17"	R17L500-RKM1	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27 W (Typ.)	*
19"	R19L300-RKM1	376.32 x 301.056	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27 W (Typ.)	*
19"	R19L300-RKM2	376.32 x 301.056	1280 x 1024	2000:1 (Typ.)	300 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	54 W (Typ.)	*
20.1"	R20L100-RKA2	408.0 x 306.0	1600 x 1200	1400:1 (Typ.)	330 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	60 W (Typ.)	*

# 7"~43" Industrial Display Multi-Touch Series

## Custom configuration



Housing



Resistive  
Touchscreen



Audio and  
Speaker



DVI-D



S-Video



Composite



“  
**SLEEK AND STYLISH DESIGN.**  
”

- 7"~43" screen with PCAP touchscreen
- Chassis, panel mount, open frame

---

VGA, HDMI video input

---

Touch interface USB

---

OSD control 5 key

---

VESA mount

---

Operating temperature 0°C to 50°C

---

## Application



### In-Vehicle Navigation

“ROUTE OPTIMIZATION  
AND EASY NAVIGATION.”

Installed inside a tractor,  
information and navigation  
display helps to optimize  
harvesting wheat field.

## Accessories

Power Cord

Adapter

Touch Drive CD

VGA Cable 1.8m

VGA Cable 1.8m

# Industrial Display

## Multi-Touch Series



### Chassis

Size	Model Name	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Display Colors	Power Input	Power Consumption	Capacitive
7" (16:10)	W07L100-PCO1	1024 x 600	700:1 (Typ.)	1000 nits	-75~75 (H); -75~70 (V)	16.7M	12V DC	10W (Typ.)	*
7" (16:10)	W07L100-PCT1	1024 x 600	500:1 (Typ.)	320 nits	-75~75 (H); -75~70 (V)	16.7M	12V DC	10W (Typ.)	*
10.1" (16:10)	W10L100-PCH1	1024 x 600	800:1 (Typ.)	450 nits	-75~80 (H); -80~80 (V)	16.7M	12V DC	10W (Typ.)	*
10.1" (16:10)	W10L100-PCH2	1280 x 800	800:1 (Typ.)	350 nits	-85~85 (H); -85~85 (V)	16.7M	12V DC	10W (Typ.)	*
10.1" (16:10)	W10L100-PCH2LB	1280 x 800	800:1 (Typ.)	350 nits	-85~85 (H); -85~85 (V)	16.7M	12V DC	10W (Typ.)	*
10.4"	R10L100-PCT2	1024 x 768	1000:1 (Typ.)	350 nits	-88~88 (H); -88~88 (V)	16.2M	12V DC	10W (Typ.)	*
12.1"	R12L100-PCM2	1024 x 768	700:1 (Typ.)	500 nits	-80~80 (H); -70~70 (V)	16.2M	12V DC	12W (Typ.)	*
15"	R15L600-PCC3	1024 x 768	2000:1 (Typ.)	1000 nits	-88~88 (H); -88~88 (V)	16.2M	12V DC	25W (Typ.)	*
15"	R15L100-PTC3	1024 x 768	2000:1 (Typ.)	300 nits	-88~88 (H); -88~88 (V)	16.2M	12V DC	10W (Typ.)	*
15.6" (16:9)	W15L100-PTA3	1920 x 1080	700:1 (Typ.)	300 nits	-85~85 (H); -85~85 (V)	16.2M	12V DC	10W (Typ.)	*
18.5" (16:9)	W18L100-PTA2	1366 x 768	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	16.7M	12V DC	30W (Typ.)	*
23.8" (16:9)	W24L100-POA2	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	16.7M	12V DC	40W (Typ.)	*
32" (16:9)	W32L100-PCA3	1920 x 1080	3000:1 (Typ.)	400 nits	-89~89 (H); -89~89 (V)	16.7M	100~240V AC	75W (Typ.)	*
43" (16:9)	W43L100-PCA3	1920 x 1080	3000:1 (typ.)	400 nits	-89~89 (H); -89~89 (V)	16.7M	100~240V AC	75W (Typ.)	*

### Front IP65



Size	Model Name	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Capacitive
8.4"	R08L200-PPU1	800 x 600	600:1 (Typ.)	600 nits	-75~75 (H); -60~70 (V)	Yes	12V DC	15 W (Typ.)	*
10.1" (16:10)	W10L100-EHH2	1280 x 800	800:1 (Typ.)	300 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	10 W (Typ.)	*
10.4"	R10L100-PPT2	1024 x 768	1000:1 (Typ.)	350 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15 W (Typ.)	*
15"	R15L600-PPC3	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15 W (Typ.)	*
15.6" (16:9)	W15L100-PPA4	1920 x 1080	800:1 (Typ.)	300 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	25 W (Typ.)	*
17"	R17L100-PPM1	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	36W (Typ.)	*
19"	R19L300-PPM1	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27 W (Typ.)	*
21.5" (16:9)	W22L100-PPA3	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40 W (Typ.)	*
24" (16:9)	W24L100-PPA2	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	65 W (Typ.)	*

### Open Frame



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Capacitive
7" (16:10)	W07L100-POT1	153.6 x 90	1024 x 600	1100:1 (Typ.)	320 nits	-70~75 (H); -75~75 (V)	Yes	12V DC	10W (Typ.)	*
10.1" (16:10)	W10L100-POH2	216.96 x 135.60	1280 x 800	800:1 (Typ.)	350 nits	-85~85 (H); -85~85 (V)	Yes	12V DC	10W (Typ.)	*
10.1" (16:9)	W10L100-POA1	216.57 x 135.36	1920 x 1080	800:1 (Typ.)	700 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	10W (Typ.)	*
15"	R15L100-POC3	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15W (Typ.)	*
17"	R17L100-POM1	337.920 x 270.336	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	36W (Typ.)	*
19"	R19L100-POM1	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27W (Typ.)	*
21.5" (16:9)	W22L100-POA3	476.64 x 269.11	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	40W (Typ.)	*
24" (16:9)	W24L100-POA2	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	65W (Typ.)	*
32" (16:9)	W32L100-POA3	698.4 x 392.85	1920 x 1080	3000:1 (Typ.)	400 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	75W (Typ.)	*



## 17"/ 19" Industrial Display

# 1U Console Drawer



**“A SINGLE SET OF KEYBOARD,  
MONITOR & MOUSE.”**

### Application



### **Enterprise Data Center**

“SAVE SPACE AND CAN  
BE DRAWN  
WHEN NEEDED.”

Provides ease of access to servers, making software upgrades, troubleshooting and system monitoring convenient and less time consuming.

- 17"/19" screen
- Console mount

---

VGA video input

---

Keyboard, mouse: HDB-15

---

OSD control 5 keys

---

Console mount

---

Operating temperature 0°C to 50°C

---

### **Accessories**

---

Power Cord

AC Adapter

Touch Drive CD

VGA Cable 1.8m

# Industrial Display

1U Console Drawer



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Power Input	Power Consumption
17"	LDS310D-1P	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	12V DC	35 W (Typ.)
17"	LDS310D-16P	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	12V DC	35 W (Typ.)
19"	LDS410D-1P	376.32 x 301.056	1280 x 1024	500:1 (Typ.)	250 nits	-85~85 (H); -85~85 (V)	12V DC	35 W (Typ.)
19"	LDS410D-16P	376.32 x 301.056	1280 x 1024	500:1 (Typ.)	250 nits	-85~85 (H); -85~85 (V)	12V DC	35 W (Typ.)

# 5.7"~32" Industrial Display LCD Kit

## Custom configuration



HDMI



## Application



### Exhibition Hall Information Stand

"FOR BRIGHT LIT  
LOCATIONS."

Installed in an exhibition hall and wired with display in the hall to inform visitors about the latest daily schedule, allow them to see overview of the meeting venues and its location.

“ **CREATE YOUR OWN  
DISPLAY SOLUTION.** ”

- 5.7" ~32" screen LCD kit solution
- Chassis, open frame, panel mount, front IP65
- Sunlight readable screen

VGA, DVI video input

Operating temperature 0°C to 50°C

## Accessories

Scaler Board	Driver Board	OSD Board	Panel	Panel Cable
LED Driver Cable	OSD Cable			

# Industrial Display

LCD Kit



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
5.7"	R057-D1(HB)	115.2 x 86.4	640 x 480	300:1 (Typ.)	900 nits	-70~70 (H); -40~60 (V)	Yes (R2AH)	12V DC	15 W (Typ.)	*
7" (16:10)	W070-O1(HB)	153.6 x 90.0	1024 x 600	700:1 (Typ.)	1000 nits	-75~75 (H); -75~70 (V)	Yes (R2AH)	12V DC	8 W (Typ.)	*
8.4"	R084-T1(HB)	170.4 x 127.8	800 x 600	600:1 (Typ.)	1000 nits	-80~80 (H); -60~80 (V)	Yes (R2AH)	12V DC	15 W (Typ.)	*
10.1" (16:10)	W101-H1(HB)	222.72 x 125.28	1024 x 600	800:1 (Typ.)	800 nits	-80~80 (H); -80~75 (V)	Yes (R2AH)	12V DC	7 W (Typ.)	*
10.4"	R104-P1(HB)	211.2 x 158.4	800 x 600	400:1 (Typ.)	1000 nits	-70~70 (H); -70~60 (V)	Yes (R2AH)	12V DC	15 W (Typ.)	*
12.1"	R121-M2(HB)	245.76 x 184.32	1024 x 768	700:1 (Typ.)	1000 nits	-80~80 (H); -70~70 (V)	Yes (R2AH)	12V DC	17 W (Typ.)	*
15"	R150-C3(HB)	304.128 x 228.096	1024 x 768	2000:1 (Typ.)	1000 nits	-88~88 (H); -88~88 (V)	Yes (R2AH)	12V DC	22 W (Typ.)	*
17"	R170-A1(HB)	337.92 x 270.336	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85 (H); -80~80 (V)	Yes (R2AH)	12V DC	32 W (Typ.)	*
19"	R190-A1(HB)	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85 (H); -80~80 (V)	Yes (R2AH)	12V DC	31 W (Typ.)	*
15.6" (16:9)	W156-A2(HB)	344.232 x 193.536	1366 x 768	500:1 (Typ.)	1300 nits	-85~85 (H); -80~80 (V)	Yes (R2AH)	12V DC	25 W (Typ.)	*
21.5" (16:9)	W215-A3(HB)	476.64 x 268.11	1920 x 1080	1000:1 (Typ.)	1000 nits	-89~89 (H); -89~89 (V)	Yes (R2AH)	12V DC	50 W (Typ.)	*
24" (16:9)	W238-A2(HB)	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89 (H); -89~89 (V)	Yes (R2AH)	12V DC	65 W (Typ.)	*
27" (16:9)	W270-A1(HB)	597.6 x 336.15	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89 (H); -89~89 (V)	Yes (R2AH)	12V DC	70 W (Typ.)	*
32" (16:9)	W320-A3(HB)	698.4 x 392.85	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89 (H); -89~89 (V)	Yes (R2AH)	12V DC	75 W (Typ.)	*

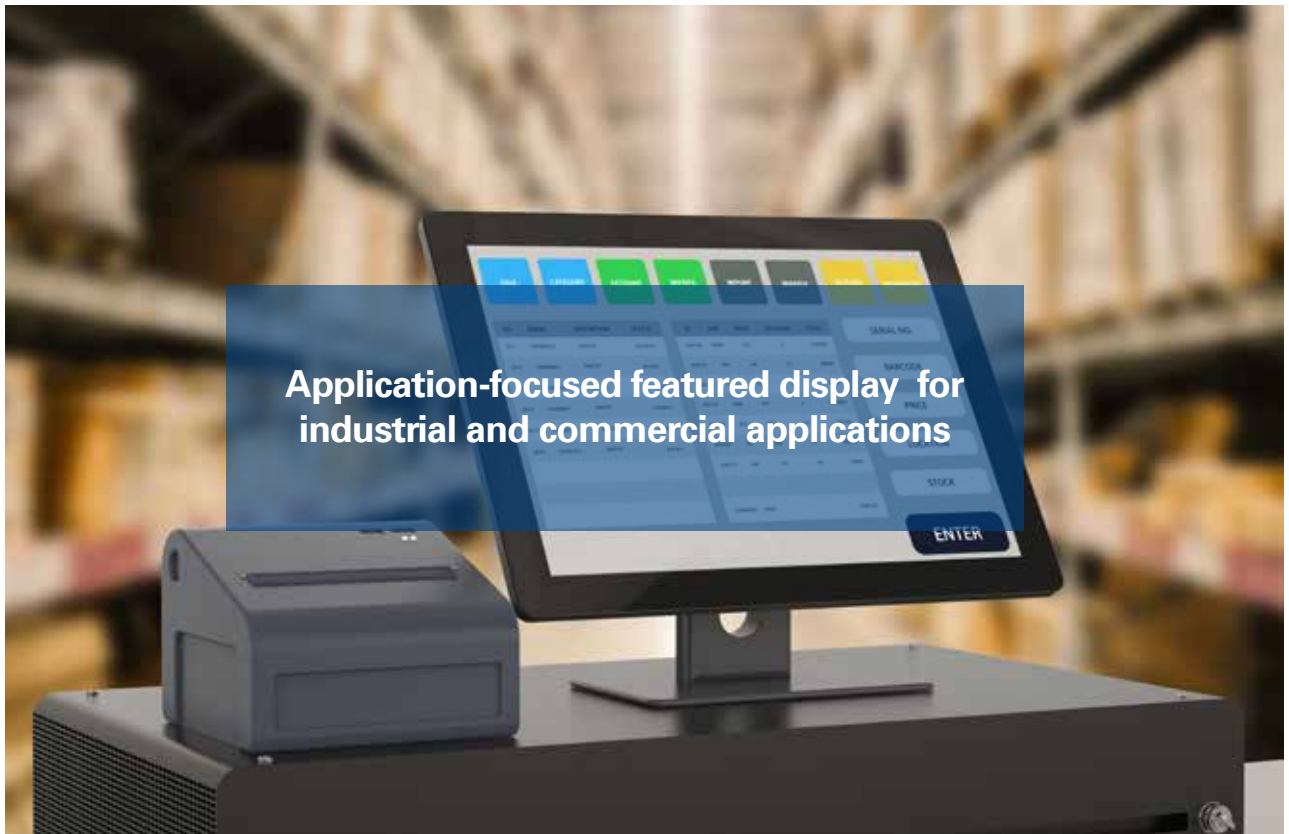
# Featured Display

## Overview

Winmate brings advanced LCD technologies to the market. We design and manufacture application-focused display solutions, including wide power and temperature range display, transfective, high brightness, bar-type, stainless display. Our featured displays are used across industries in industrial automation, outdoor kiosks, human machine interfaces (HMI), heavy duty vehicles and various other applications.

### Winmate's featured display solutions include:

- Various housing options: chassis, open frame, panel mount, rack mount, front IP65
- Touch capabilities: resistive, projected capacitive (PCAP) or SAW touch screen
- High resolution 4K UHD display
- Sunlight readable display

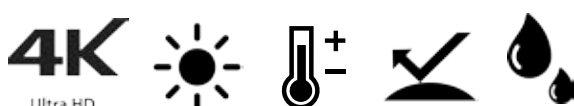




## Product Offering

Winmate industrial displays also provide several kinds of mounting solutions for your unique application and environment, such as chassis, panel mount, open frame, rear mount, rack mount, bar-type and others.

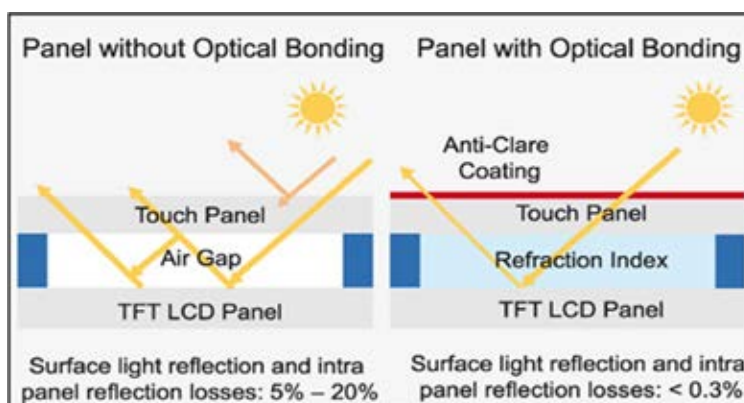
### Featured Industrial Display



## Technology

### In-house Direct Optical Bonding

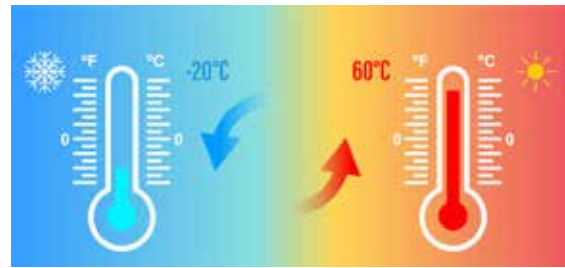
Winmate has in-house facilities for direct optical bonding. The advantages of optical bonding is minimizing the reflection from inner-surface of the glass, improved ruggedness, condensation prevention and increased anti-shock and vibration capabilities.



# Technology

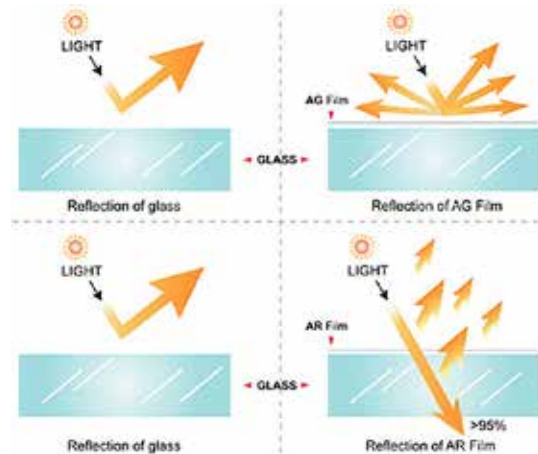
## Wide Temperature

Winmate uses a heating film an in-house intelligent AD board to control the temperature of the TFT-LCD, so that the display is capable to deliver accurate color images in extreme sunlight under the temperature range from -20 to 60 degree Celsius.



## Sunlight Readability

Winmate uses several techniques to make the screen sunlight readable. Among them is panel backlight enhancement, anti-reflective film or coating on the glass surface, anti-glare film or etching on the glass surface, or direct optical bonding between touch and panel.



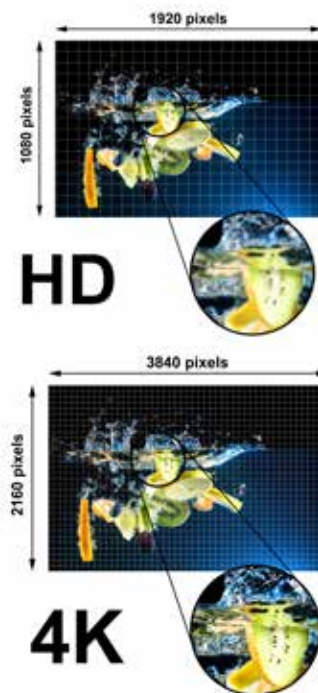
## Ultra-High Resolution LCD

Ultra High Definition (UHD) is also been called 4K/2K resolution. This is 3840 x 2160 resolution which is 4 times from Full HD. And the total pixels are 8 mega pixels in comparison with Full HD which only has 2 megapixels. In short, UHD can offer better image's quality and keep the image details.

Compare to full HD the UHD has several advantages:

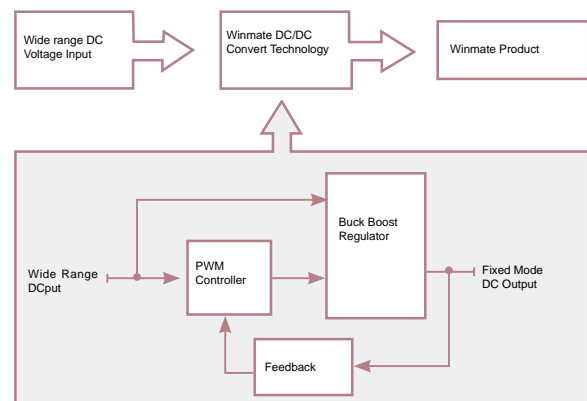
- Higher resolution
- Wider viewing angle
- Shorter viewing distance

Winmate UHD 2160p display ensures the best image quality, highest resolution and optimal contrast.











## Wide Voltage Solution

The supply of voltage in different application scenarios vary or sometimes appear unstable as a result of using unsuitable power to fit the appliances. Incorrect voltage and current may also damage the electrical components. The wide voltage range solution for power input is designed accordingly to solve the problem and to protect the products by converting different voltage input to meet the ones as required.



# Product Guide-Featured Industrial Display

Our product guide helps you to navigate and find the right product from our excessive product line

<p><b>4K UHD Display</b></p>  <p>27" / 32"</p> <p>p.175</p>	<p><b>PT Series Display</b></p>  <p>15" ~32"</p> <p>p.177</p>
<p><b>GC Series Display</b></p>  <p>19" ~23.8"</p> <p>p.193</p>	<p><b>USB Type-C Display</b></p>  <p>7" ~18.5"</p> <p>p.201</p>
<p><b>PoE Touch Display</b></p>  <p>10.1" ~15.6"</p> <p>p.205</p>	<p><b>SDI Display</b></p>  <p>10.1" ~32"</p> <p>p.207</p>
<p><b>Sunlight Readable</b></p>  <p>7" ~32"</p> <p>p.213</p>	<p><b>Wide Temperature</b></p>  <p>6.5" ~19"</p> <p>p.215</p>

# 27" / 32" Featured Display

## 12G-SDI Series

NEW

### Custom configuration



PCAP  
Touchscreen



DICOM



Backlight  
Sensor



Calibration  
Software



High Panel  
Brightness  
(Optional)



VSEL  
Bonding  
(Optional)



### Application



#### Endoscopy

"FAITHFUL  
REPRESENTATION OF  
IMAGES AND VIDEO."

The monitors are able to achieve faithful representation of surgical images or videos for use in endoscopy and operating rooms.

“  
**TRANSFER MOST  
ACCURATE IMAGES FROM  
THE SOURCE.**  
”

- 27" / 32" screen with PCAP touchscreen
- Chassis housing
- 12G-SDI Loop in, 12G-SDI Loop out

---

4K UHD (3840 x 2160) native resolution

---

12G-SDI, HDMI 1.4, HDMI 2.0, Display Port 1.2

---

3D Look Up Table (LUT)

---

VESA mount

---

Front IP65 waterproof and dustproof

---

Operating temperature 0°C to 50°C

### Accessories

---

Adapter	Power Cord	Remote Control	VESA Screws	HDMI Cable
SDI Cable	DVI Cable			



# Featured Display

12G-SDI Display

NEW



NEW



Model Name	27" (16:9)	32" (16:9)
	M270TF-SDI	M320TF-SDI
<b>Display</b>		
<b>Native Resolution</b>	3840 x 2160 (UHD 4K)	3840 x 2160 (UHD 4K)
<b>Contrast Ratio</b>	1000:1 (typ)	1000:1 (typ)
<b>View Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Active Area</b>	596.16 x 335.34	708.48 x 398.52
<b>Response Time</b>	12ms (Gray to Gray)	12ms (Gray to Gray)
<b>Screen Technology</b>	LED Backlight Technology, TFT Active matrix, Widescreen, IPS Technology	LED Backlight Technology, TFT Active matrix, Widescreen, IPS Technology
<b>Light Intensity</b>	300 nits, optional high brightness up to 700 nits	350 nits, optional high brightness up to 700 nits
<b>Max Colors</b>	1.07B	1.07B
<b>Synchronization Signal Auto-detect</b>	Digital Separate Sync., Composite Sync., Sync. On Green	Digital Separate Sync., Composite Sync., Sync. On Green
<b>Color Profiles</b>	Support 3D LUT profile 6 x general user color schemes DICOM GSDF (Optional)	Support 3D LUT profile 6 x general user color schemes DICOM GSDF (Optional)
<b>Optimal Resolution and Hz</b>	3840 x 2160 @ 60 Hz	3840 x 2160 @ 60 Hz
<b>User Controls</b>		
<b>Sensors</b>	Backlight sensor, Ambient light sensor, IR Control	Backlight sensor, Ambient light sensor, IR Control
<b>Control</b>	Capacitive OSD: Power On/Off, On Screen Display Menu, Brightness Control (-/+)	Capacitive OSD: Power On/Off, On Screen Display Menu, Brightness Control (-/+)
<b>Input Signal</b>	<ul style="list-style-type: none"> <li>• 12G SDI</li> <li>• HDMI 2.0</li> <li>• DP1.2</li> <li>• HDMI1.4</li> <li>• USB for Touch (Optional)</li> <li>• S232 for Remote Control (Optional)</li> </ul>	<ul style="list-style-type: none"> <li>• 12G SDI</li> <li>• HDMI 2.0</li> <li>• DP1.2</li> <li>• HDMI1.4</li> <li>• USB for Touch (Optional)</li> <li>• S232 for Remote Control (Optional)</li> </ul>
<b>Output Signal</b>	<ul style="list-style-type: none"> <li>• 12G SDI (Loop Through)</li> </ul>	<ul style="list-style-type: none"> <li>• 12G SDI (Loop Through)</li> </ul>
<b>Mechanical</b>		
<b>Dimensions</b>	643.17 x 408.06 x 48 mm (25.3 x 16.1 x 1.8 in)	777.58 x 477.62 x 48 mm (30.6 x 18.8 x 1.8 in)
<b>Mounting</b>	VESA Mount (100 x 100, 200 x 100 mm)	VESA Mount (100 x 100, 200 x 100, 300 x 100 mm)
<b>Product Weight</b>	9.5 kg (20.9 lbs)	11 Kg (24.2 lbs)
<b>Factory Options</b>	PCAP touchscreen (USB)	PCAP touchscreen (USB)
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 35°C, Humidity up to 95%	0°C to 35°C, Humidity up to 95%
<b>Storage Temp.</b>	-20°C to 60°C, Humidity up to 95%	-20°C to 60°C, Humidity up to 95%
<b>IP Rating</b>	Front - IP65, Rear - IP22	Front - IP65, Rear - IP22
<b>Power</b>		
<b>Power Input</b>	24V DC 150W	24V DC 150W
<b>AC Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Certifications</b>		
<b>Type Approval, Testing and Certificates</b>	CE, FCC	CE, FCC

# 27" / 32" Featured Display

## 4K UHD

### Custom configuration



PCAP  
Touchscreen



DICOM



Backlight  
Sensor



Calibration  
Software



High Panel  
Brightness  
(Optional)



VSEL  
Bonding  
(Optional)



### Application



### Hospital Surgery Room

"ACCURATE IMAGE REPRODUCTON."

The 4K UHD Display with color calibration is suited for operating room usage where image reproduction needs to be accurate.

“**SUPERIOR RESOLUTION.  
PRECISE IMAGING.**”

- 27"/32" screen, 3840 x 2160 (UHD 4K) resolution
- Chassis housing

---

3840 x 2160 (UHD 4K) resolution

---

VGA, HDMI, DP, DVI, SDI input

---

Projected capacitive multi-touch

---

Capacitive Touch key x 5

---

Operating temperature 0°C to 50°C

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IEC 60601-1, EN 60601-1-2

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### Accessories

User Manual

VGA Cable

HDMI Cable

DP Cable

DVI Cable



# Featured Display

4K UHD Display



Model Name	27" (16:9)	32" (16:9)
	M270TF	M320TF
<b>Display</b>		
<b>Native Resolution</b>	3840 x 2160 (UHD 4K)	3840 x 2160 (UHD 4K)
<b>Contrast Ratio</b>	1000:1 (typ)	1000:1 (typ)
<b>View Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Active Area</b>	596.16 x 335.34	708.48 x 398.52
<b>Response Time</b>	12ms (Gray to Gray)	12ms (Gray to Gray)
<b>Screen Technology</b>	LED Backlight Technology, TFT Active matrix, Widescreen, IPS Technology	LED Backlight Technology, TFT Active matrix, Widescreen, IPS Technology
<b>Light Intensity</b>	300 nits, optional high brightness up to 700 nits	350 nits, optional high brightness up to 700 nits
<b>Max Colors</b>	1.07B	1.07B
<b>Synchronization Signal Auto-detect</b>	Digital Separate Sync., Composite Sync., Sync. On Green	Digital Separate Sync., Composite Sync., Sync. On Green
<b>Color Profiles</b>	Support 3D LUT profile 6 x general user color schemes DICOM GSDF (Optional)	Support 3D LUT profile 6 x general user color schemes DICOM GSDF (Optional)
<b>Optimal Resolution and Hz</b>	3840 x 2160 @ 60 Hz	3840 x 2160 @ 60 Hz
<b>User Controls</b>		
<b>Sensors</b>	Backlight sensor, Ambient light sensor, IR Control	Backlight sensor, Ambient light sensor, IR Control
<b>Control</b>	Capacitive OSD: Power On/Off, On Screen Display Menu, Brightness Control (-/+)	Capacitive OSD: Power On/Off, On Screen Display Menu, Brightness Control (-/+)
<b>Input Signal</b>	<ul style="list-style-type: none"> <li style="margin-right: 10px;">• 3G SDI</li> <li style="margin-right: 10px;">• HDMI 2.0</li> <li style="margin-right: 10px;">• DP1.2</li> <li style="margin-right: 10px;">• VGA</li> <li style="margin-right: 10px;">• Dual DVI In</li> <li style="margin-right: 10px;">• HDMI 1.4</li> <li style="margin-right: 10px;">• Audio In</li> </ul>	<ul style="list-style-type: none"> <li style="margin-right: 10px;">• 3G SDI</li> <li style="margin-right: 10px;">• HDMI 2.0</li> <li style="margin-right: 10px;">• DP1.2</li> <li style="margin-right: 10px;">• VGA</li> <li style="margin-right: 10px;">• Dual DVI In</li> <li style="margin-right: 10px;">• HDMI 1.4</li> <li style="margin-right: 10px;">• Audio In</li> </ul>
<b>Output Signal</b>	<ul style="list-style-type: none"> <li>• DP (Multi-Stream Transport)</li> <li>• Audio Out</li> <li>• 5V out</li> <li>• 3G-SDI (Loop Through), support 1080P</li> </ul>	<ul style="list-style-type: none"> <li>• DP (Multi-Stream Transport)</li> <li>• Audio Out</li> <li>• 5V out</li> <li>• 3G-SDI (Loop Through), support to 1080P</li> </ul>
<b>Mechanical</b>		
<b>Dimensions</b>	643.17 x 408.06 x 48 mm (25.3 x 16.1 x 1.8 in)	777.58 x 477.62 x 48 mm (30.6 x 18.8 x 1.8 in)
<b>Mounting</b>	VESA Mount (100 x 100, 200 x 100 mm)	VESA Mount (100 x 100, 200 x 100, 300 x 100 mm)
<b>Product Weight</b>	9.5 kg (20.9 lbs)	11 Kg (24.2 lbs)
<b>Factory Options</b>	PCAP touchscreen (USB)	PCAP touchscreen (USB)
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 35°C, Humidity up to 95%	0°C to 35°C, Humidity up to 95%
<b>Storage Temp.</b>	-20°C to 60°C, Humidity up to 95%	-20°C to 60°C, Humidity up to 95%
<b>IP Rating</b>	Front - IP65, Rear - IP22	Front - IP65, Rear - IP22
<b>Power</b>		
<b>Power Input</b>	24V DC 150W	24V DC 150W
<b>AC Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Certifications</b>		
<b>Type Approval, Testing and Certificates</b>	<ul style="list-style-type: none"> <li>• IEC 60601-1:2005 + A1:2015 (Ed. 3.1)</li> <li>• IEC 60601-1-6:2010 + A1:2013 (Ed. 3.1)</li> <li>• IEC 62366:2007 + A1:2014 (Ed. 1.1)</li> <li>• ANSI/AAMI ES60601-1:2005/A1:2012 and C1:2009/(R)2012 and A2:2010/(R)2012</li> <li>• CAN/CSA-C22.2 No.60601-1:14</li> <li>• EN606001-1-2</li> <li>• EN55032/EN55024, FCC part 15B</li> <li>• EN60950-1</li> </ul>	<ul style="list-style-type: none"> <li>• IEC 60601-1:2005 + A1:2015 (Ed. 3.1)</li> <li>• IEC 60601-1-6:2010 + A1:2013 (Ed. 3.1)</li> <li>• IEC 62366:2007 + A1:2014 (Ed. 1.1)</li> <li>• ANSI/AAMI ES60601-1:2005/A1:2012 and C1:2009/(R)2012 and A2:2010/(R)2012</li> <li>• CAN/CSA-C22.2 No.60601-1:14</li> <li>• EN606001-1-2</li> <li>• EN55032/EN55024, FCC part 15B</li> <li>• EN60950-1</li> </ul>

# 15"~32" Featured Display PT Series

NEW



“**ENTERPRISE GRADE DISPLAY  
WITH FUTURE PROOF  
MONITORING SOLUTION.**”

- 15"~32" screen with PCAP touchscreen
- VESA mount (stand-alone)

---

VGA, HDMI video input

---

OSD control 5 keys

---

VESA mount, panel mount

---

Front IP65 waterproof and dustproof

---

Operating temperature 0°C to 50°C

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## Custom configuration



Remote Control  
RS232

## Application



### Point-of-Sales (POS)

“STYLISH AND  
FUNCTIONAL.”

Winmate's 15" PT Series display was installed inside the counter of a famous grocery store. Brilliant LCD screen, stand-alone design and convenient mounting options.

## Accessories

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Adapter

Power Cord

HDMI Cable

VGA Cable

USB Cable for Touch

# Featured Display

## PT Series Display

NEW



Model Name	15"	15" (16:9)	18" (16:9)	32" (16:9)	32" (16:9)	32" (16:9)
	R15L100-PTC3	W15L100-PTA3	W18L100-PTA2(HB)	W32L100-PTA2	W32L100-PTA1	W32L100-PTA1-SDI
<b>Display</b>						
Active Area	304.1 x 228.1	344.1 x 193.5	409.8 x 230.4	698.4 x 392.8	708.4 x 398.5	708.4 x 398.5
Resolution	1024 x 768	1920 x 1080	1366 x 768	1920 x 1080	3840 x 2160	3840 x 2160
Contrast Ratio	2000:1	800:1	1000:1	4000:1	1000:1	1000:1
Display Color	16.2M	16.2M	16.7M	16.2M	1.07B	1.07B
Brightness	250(typ.)	300(typ.)	250(typ.)	250(typ.)	350(typ.)	350(typ.)
Viewing Angle	-88~88(H); -88~88(V)	-85~85(H) ; -85~85 (V)	-85~85(H) ; -80~80 (V)	-89~89(H) ; -89~89 (V)	-89~89(H) ; -89~89 (V)	-89~89(H) ; -89~89 (V)
Touch	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>I/O Connectors</b>						
Power	1 x DC Input	1 x DC Input	1 x DC Input	1 x DC Input	1 x DC Input	1 x DC Input
HDMI	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI 1.4, HDMI 2.0	1 x HDMI 1.4, HDMI 2.0
VGA	1 x VGA	1 x VGA	1 x VGA	1 x VGA	1 x VGA	-
DP	-	-	-	-	1 x DP 1.2	1 x DP 1.2
SDI	-	-	-	-	1 x 3G-SDI	1 x 12G-SDI
DVI	-	-	-	-	1 x DVI-D	-
<b>Power</b>						
Power Input	12V DC	12V DC	12V DC	12V DC	12V DC	12V DC
Power Consumption	10W	15W	15W	50W	55W	55W
<b>Mechanical</b>						
Dimensions	352.5 x 276.7 x 45 mm	387.8 x 232.9 x 38.45 mm	583 x 352 x 55 mm	799 x 478 x 63.7 mm	799 x 478 x 63.7 mm	799 x 478 x 63.7 mm
Mouting	VESA	VESA	VESA	VESA	VESA	VESA
<b>Environment</b>						
Operating Temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
Operating Humidity	10% to 90% (Non- condensing, RH)	10% to 90% (Non- condensing, RH)	10% to 90% (Non- condensing, RH)	10% to 90% (Non- condensing, RH)	10% to 90% (Non- condensing, RH)	10% to 90% (Non- condensing, RH)
IP Rating	-	-	Front IP65	Front IP65	Front IP65	Front IP65

# 15"~23.8" Featured Display IP69K Stainless P Series

NEW

## Custom configuration



AG Coating



Wide Power



Yoke Mount  
Stand Kit



“**PERFECT FOR OPERATIONS IN  
HARSH ENVIRONMENTS.**”

## Application



### Food Production

“VERSATALE MOUNTING, ROUND EDGES AND RUGGED CONSTRUCTION.”

Working with the snack manufacturer, Winmate provided our 21.5-inch P-Series Display. The IP69K series is built to withstand extensive wash downs with corrosion resistance against cleaning agents, especially against close-range high-pressure, high temperature wash downs.

- 15"~23.8" screen with PCAP touchscreen
- Stainless housing SUS316
- Full I69

VGA, HDMI

USB for touch

OSD control 5 keys

Waterproof conduit pipe

Air vent valve

VESA mount, panel mount

IP69K waterproof and dustproof

Operating temperature 0°C to 45°C

### Accessories

Adapter

Power Cord

Conduit Elbow

Waterproof Conduit 1.5m

Open Wire Cable

Yoke Mount Stand Kit (Optional)

# Featured Display

IP69K Stainless P Series



Model Name	15"	19"	21.5" (16:9)	23.8" (16:9)
	R15L100-SPC369-P	R19L100-SPM169-P	W22L100-SPA369-P	W24L100-SPA269-P
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1280 x 1024	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	250 nits	350 nits	250 nits	250 nits
<b>Contrast Ratio</b>	2000:1	1000:1	3000:1	3000:1
<b>Viewing Angle</b>	-88~88 (H); -88~88(V)	-85~85 (H); -80~80(V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Active Area</b>	210.4 x 157.8	304.128 x 228.096	376.32 x 301.06	527.04 x 296.46
<b>Display Color</b>	16.2M	16.7M	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>Connectors</b>				
<b>Connectors</b>	1 x USB for Touch 1 x HDMI input 1 x VGA	1 x USB for Touch 1 x HDMI input 1 x VGA	1 x USB for Touch 1 x HDMI input 1 x VGA	1 x USB for Touch 1 x HDMI input 1 x VGA
<b>Mechanical</b>				
<b>Dimensions</b>	356 x 280 x 56 mm	445 x 370 x 56 mm	531 x 322 x 56 mm	600 x 369 x 56 mm
<b>Mounting</b>	VESA Mount (100 x 100 mm), Panel Mount, optional Yoke Mount Stand	VESA Mount (100 x 100 mm), Panel Mount, optional Yoke Mount stand	VESA Mount (100 x 100 mm), Panel Mount, optional Yoke Mount Stand	VESA Mount (100 x 100 mm), Panel Mount, optional Yoke Mount Stand
<b>Environment</b>				
<b>IP Rating</b>	IP69K	IP69K	IP69K	IP69K
<b>Operating Temp.</b>	0 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C
<b>Storage Temp.</b>	-10 °C to 60 °C	-10 °C to 60 °C	-10 °C to 60 °C	-10 °C to 60 °C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	18W (typ.)	23W (typ.)	29W (typ.)	26W (typ.)
<b>AC Adapter</b>	100~240V AC to 12V DC Adapter	100~240V AC to 12V DC Adapter	100~240V AC to 12V DC Adapter	100~240V AC to 12V DC Adapter
<b>Certifications</b>				
<b>EMC</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC



# 10.4"~21.5" Featured Display IP69K Stainless

## Custom configuration



P-Cap



DVI-D

PCAP  
Touchscreen



“**WITHSTANDS HIGH  
PRESSURE WASH DOWNS,  
EASY-TO-CLEAN.**”

- 10.4"~21.5" screen with PCAP touchscreen
- Stainless housing SUS316
- Full IP69K with air venting valve

---

Stainless steel housing SUS316

---

Waterproof connectors DVI, VGA, power, USB for touch

---

OSD control 5 keys

---

VESA mount

---

Air venting valve

---

IP69K waterproof and dustproof

---

Operating temperature -10°C to 55°C

---

## Accessories

Quick Start Guide

VESA Screws

Power Cord

Adapter

VGA Cable

USB Cable for Touch

## Application



### Food Production Plant

“EASY TO CLEAN  
FOR HYGIENIC  
REQUIREMENTS.”

Sealed to IP69K Winmate's Stainless Steel Display was used in a food processing facility where it had to withstand high pressure washdowns everyday.

# Featured Display

IP69K Stainless



Model Name	10.4"	15"	19"	21.5" (16:9)
	R10L100-SPT269	R15L100-SPC369	R19L100-SPM169	W22L100-SPA369
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1024 x 768	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	350 nits	250 nits	250 nits	250 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	700 : 1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
<b>Active Area</b>	210.4 x 157.8	304.128 x 228.096	376.32 x 301.06	476.64 x 268.11
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-80~80 (H); -70~70 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.2M	16.2M	16.7M	16.7M
<b>Touch</b>	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
<b>Connectors</b>				
<b>Video Input</b>	1 x 3-Pin power 1 x VGA 1 x DVI-D (Optional) 1 x USB connector	1 x 3-Pin power 1 x VGA 1 x DVI-D (Optional) 1 x USB connector	1 x 3-Pin power 1 x VGA 1 x DVI-D (Optional) 1 x USB connector	1 x 3-Pin power 1 x VGA 1 x DVI-D (Optional) 1 x USB connector
<b>Mechanical</b>				
<b>Dimensions</b>	289.5 x 246 x 49.4 mm	378 x 301 x 56.4 mm	467.4 x 392 x 56.6 mm	541 x 337 x 53 mm
<b>Operating Temp.</b>	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>Environment</b>				
<b>IP Proof</b>	IP69K, air venting valve	IP69K, air venting valve	IP69K, air venting valve	IP69K, air venting valve
<b>Mouting</b>	VESA Mount (75 x 75 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (200 x 100 mm)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	26W	30W	36W	50W
<b>AC Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 10.4"~19" Featured Display IP67 Stainless

## Custom configuration



Housing



RS232  
For Touch



USB  
For Touch



Resistive  
Touchscreen



## Application



### Pharmaceutical Manufacturing Control Systems

"INCREASE  
PRODUCTIVITY AND  
PROFITABILITY"

Real-time access and  
extended enterprise visibility  
to vital manufacturing data.

**“ RUGGED. WATERPROOF.  
DUSTPROOF. ”**

- 10.4"~19" screen with resistive touchscreen
- Stainless housing SUS316
- VESA mount

---

VGA video input

---

Touch interface USB or RS232

---

OSD control 5 keys

---

Operating temperature 0°C to 50°C

---

## Accessories

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Power Cord

AC Adapter

Drive CD

VGA Cable 1.8m

# Featured Display

IP67 Stainless



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
10.4"	R10L100-67T2ST	210.432 x 157.824	1024 x 768	1200:1 (Typ.)	350 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15W (Typ.)	*
15"	R15L600-67C3ST	304.128 x 228.096	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	25W (Typ.)	*
19"	R19L300-67M1ST	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	27W (Typ.)	*

## Custom configuration



PCAP  
Touchscreen

## Application



### Industrial Control Panel

“PROVIDES A FAST  
RESPONSE IN  
EMERGENCY SITUATIONS.”

A factory in Europe utilizes Winmate's 15" stainless display with push buttons for industrial control panel application. Brilliant flat screen with PCAP touch offers the best user controls. IP69K-rated corrosion resistant and completely waterproof housing saves the hassles of maintenance in harsh factory environments.

# 10.1"~21.5" Featured Display Stainless Series with Push Buttons

NEW



“**SPEED UP RESPONSE TIME IN  
EMERGENCY SITUATIONS.**”

”

- 10.1"~21.5" screen with PCAP touchscreen
- Stainless housing SUS316
- Full IP65 with air venting valve

---

Stainless steel housing SUS316

---

Waterproof connectors VGA, power, USB for touch, push button

---

OSD control 5 keys

---

VESA mount

---

Push Button for automation control

---

IP65 waterproof and dustproof

---

Operating temperature 0°C to 45°C

---

### Accessories

Quick Start Guide

VESA Screws

Power Cord

Adapter

VGA Cable

USB Cable for Touch



# x86 IP65 Stainless Series with Push Buttons

Intel® Celeron® N2930

NEW



NEW



NEW



NEW



Model Name	10.1" (16:9)	15"	19"	21.5" (16:9)
	W10L100-SPH1-B	R15L100-SPC3-B	R19L100-SPM1-B	W22L100-SPA3-B
<b>Display</b>				
<b>Resolution</b>	1024 x 600	1024 x 768	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	450 nits	250 nits	250 nits	250 nits
<b>Contrast Ratio</b>	800:1 (Typ.)	700 : 1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
<b>Active Area</b>	210.4 x 157.8	304.128 x 228.096	376.32 x 301.06	476.64 x 268.11
<b>Viewing Angle</b>	-80~80 (H); -75~80 (V)	-80~80 (H); -70~70 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.2M	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>Connectors</b>				
<b>Power Input</b>	1 x 3-Pin Power	1 x 3-Pin Power	1 x 3-Pin Power	1 x 3-Pin Power
<b>Video Input</b>	1 x 12-Pin VGA	1 x 12-Pin VGA	1 x 12-Pin VGA	1 x 12-Pin VGA
<b>Touch Control</b>	1 x USB connector	1 x USB connector	1 x USB connector	1 x USB connector
<b>Mechanical</b>				
<b>Operating Temp.</b>	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Push Buttons</b>	2 x M12 waterproof connector for push-button extension	2 x M12 waterproof connector for push-button extension	2 x M12 waterproof connector for push-button extension	2 x M12 waterproof connector for push-button extension
<b>Environment</b>				
<b>IP Proof</b>	IP65	IP65	IP65	IP65
<b>Mouting</b>	VESA mount (75 x 75 mm)	VESA mount (100 x 100 mm)	VESA mount (100 x 100 mm)	VESA mount (100 x 100 mm)
<b>Power</b>				
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	26W	30W	26W	50W
<b>AC Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 10.4"~21.5" Featured Display

## IP65 Stainless PCAP

### Custom configuration



P-Cap



DVI-D

PCAP  
Touchscreen



### Application



#### Automotive Part Manufacturing Plant

"RESISTS ANY  
SUBSTANCE WITH  
ROBUST STAINLESS  
DESIGN."

Winmate's IP65 Stainless Steel Displays were used in an automobile parts manufacturing facility where the corrosion resistant housing is able to withstand the chemicals used.

“**DURABLE IN ALL HARSH ENVIRONMENTS.**”

- 10.4"~21.5" screen with PCAP touchscreen
- Stainless housing SUS316
- Full IP65

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Stainless steel housing SUS316

---

Waterproof connectors VGA, Power, USB for touch

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OSD control 5 keys

---

VESA mount

---

Full IP65

---

Operating temperature -10°C to 55°C

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### Accessories

Quick Start Guide

R-Series AD Board Manual

Power Cord

AC Adapter

VGA Cable

USB Cable for Touch

VESA Screws

# Featured Display

IP65 Stainless PCAP



Model Name	10.4"	15"	17"	19"	21.5" (16:9)
	R10L100-SPT2	R15L100-SPC3	R17L100-SPM1	R19L100-SPM1	W22L100-SPA3
<b>Display</b>					
<b>Resolution</b>	1024 x 768	1024 x 768	1280 x 1024	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	350 nits	250 nits	350 nits	250 nits	250 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	700 : 1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)
<b>Active Area</b>	210.4 x 157.8	304.1 x 228.1	337.92 x 270.34	376.32 x 301.06	476.64 x 268.11
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Pixel Pitch</b>	0.0685 (H) x 0.2055 (V)	0.297 (H) x 0.297 (V)	0.264 (H) x 0.264 (V)	0.294 (H) x 0.294 (V)	0.248 (H) x 0.248 (V)
<b>Display Color</b>	16.2M	16.2M	16.7M	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen	PCAP touchscreen
<b>Connectors</b>					
<b>Video Input</b>	1 x DVI-D (Optional) 1 x VGA 1 x USB for Touch	1 x DVI-D (Optional) 1 x VGA 1 x USB for Touch	1 x DVI-D (Optional) 1 x VGA 1 x USB for Touch	1 x DVI-D (Optional) 1 x VGA 1 x USB for Touch	1 x DVI-D (Optional) 1 x VGA 1 x USB for Touch
<b>Mechanical</b>					
<b>Dimensions</b>	289 x 246 x 49.9 mm	378 x 301 x 56.4 mm	412 x 344 x 61.3 mm	467.4 x 392 x 56.6 mm	541 x 337 x 53 mm
<b>Mouting</b>	VESA Mount (75 x 75 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)	VESA Mount (200 x 100 mm)
<b>Environment</b>					
<b>Operating Temp.</b>	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C	-10°C to 55°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>IP Proof</b>	Full IP65	Full IP65	Full IP65	Full IP65	Full IP65
<b>Power</b>					
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC	12V DC
<b>Power Consumption</b>	26W	30W	31W	36W	50W
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 8.4"~42" Featured Display IP65 Stainless Resistive

## Custom configuration



Housing



Resistive  
Touchscreen



PCAP  
Touchscreen



Optical  
Bonding



“ **WATERPROOF AND  
CORROSION RESISTANT.** ”

- 8.4"~42" screen with resistive touchscreen
- Stainless housing SUS316
- Chassis, moisture prevention
- VESA mount

---

VGA video input

---

Touch interface RS232 or USB

---

OSD control 5 keys

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Operating temperature 0°C to 50°C

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## Packaging Automation System

“IMPROVE PACKAGING  
FLEXIBILITY.”

Information display at the  
bottling water on the plant  
make packaging machines  
smarter.



## Accessories

Power Cord

AC Adapter

Drive CD

VGA Cable 1.8m

# Featured Display

## IP65 Stainless Resistive Touch Display



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Power Input	Power Consumption	Resistive
8.4"	R08T200-65U1	170.4 x 127.8	800 x 600	600:1 (Typ.)	600 nits	-70~60 (H); -75~75 (V)	12V DC	25 W (Typ.)	*
15"	R15L600-65C3	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	12V DC	25 W (Typ.)	*
17"	R17L500-65A1	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	12V DC	32 W (Typ.)	*
17"	R17L500-65M1	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	12V DC	32 W (Typ.)	*
19"	R19L300-65M1	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	12V DC	27 W (Typ.)	*
21.5" (16:9)	W22L100-65A3	476.64 x 268.11	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	12V DC	50 W (Typ.)	*
24" (16:9)	W24L100-65A2	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	12V DC	50W (Typ.)	*
32" (16:9)	W32L300-65A3	698.4 x 392.85	1920 x 1080	3000:1 (Typ.)	400 nits	-89~89 (H); -89~89 (V)	24V DC	48 W (Typ.)	
42" (16:9)	W42L300-65A3	930.24 x 523.26	1920 x 1080	4000:1 (Typ.)	500 nits	-89~89 (H); -89~89 (V)	24V DC	105 W (Typ.)	



## Full IP65 Moisture Prevention

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Source	Power Consumption (Optional)	Resistive
15"	R15L600-65C3-1	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	25 W (Typ.)	*
17"	R17L500-65A1-1	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	32 W (Typ.)	*
19"	R19L300-65M1-1	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	12V DC	31 W (Typ.)	*



## Flat Stainless Display

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Capacitive
15"	R15L600-65A1FTP	304.128 x 228.096	1024 x 768	2000:1 (Typ.)	400 nits	-88~88 (H); -88~88 (V)	NO	12V DC	20 W (Typ.)	*



# 15"~21.5" Featured Display

## Front IP65 Stainless

### Custom configuration



Protection  
Glass



DVI-D



S-Video



Composite



“ **DURABLE LCD SOLUTION.** ”

### Application



#### Chemical Factory

“SCRATCH RESISTANT  
SCREEN AND STAINLESS  
HOUSING.”

Winmate's 15" Stainless Display with IP65 water and dust protection rating was installed in the HMI terminal of a chemical factory. Resistant to scratches screen combined with corrosion resistant housing for best vaccine production facilities.

- 15"~21.5" screen with resistive touchscreen
- Stainless housing SUS316
- Front IP65 rating

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VGA, HDMI

---

USB/ RS232 for touch

---

OSD control 5 keys

---

VESA mount, panel mount

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Front IP65 waterproof and dustproof

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Operating temperature 0°C to 50°C

### Accessories

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Adapter

Power Cord

VGA Cable

HDMI Cable

# Featured Display

Front IP65 Display



Size	Model Name	Active Display Area (mm)	Number of Pixels	Contrast Ratio	Panel Brightness (cd/m <sup>2</sup> )	Viewing Angle (CR>=10)	Optional DVI Input	Resistive
15"	R15L100-STC3	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	250 nits	-88~88 (H); -88~88 (V)	Yes	*
17"	S17L500-STM1	337.92 x 270.336	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85 (H); -80~80 (V)	Yes	*
19"	R19L300-STM1	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	250 nits	-85~85 (H); -80~80 (V)	Yes	*
21.5" (16:9)	W22L100-STA3	476.64 x 268.11	1920 x 1080	3000:1 (Typ.)	250 nits	-89~89 (H); -89~89 (V)	Yes	*

# 19"~23.8" Featured Display

## G-WIN GC Series

NEW



### Application



### Restaurant Counter

"FAITHFUL REPRESENTATION OF IMAGES AND VIDEO."

Cost-effective solution and brilliant readability for versatile point-of-sale (POS) and smart retail scenarios. 21.5" GC-Series display in sleek design found its application inside the counter in the restaurant chain in Europe.

**" COST-EFFECTIVE SOLUTION WITH NO COMPROMISE ON PERFORMANCE. "**

- 19"~23.8" screen with PCAP touchscreen
- VESA mount (stand-alone), panel mount
- Standard I/O connectors

---

VGA, HDMI video input

---

OSD control 5 keys

---

VESA mount, panel mount

---

Front IP65 waterproof and dustproof

---

Operating temperature 0°C to 50°C

---

### Accessories

Adapter

Power Cord

HDMI Cable

VGA Cable

USB Cable for Touch

# Featured Display

G-WIN GC Series



Model Name	19"	21.5" (16:9)	23.8" (16:9)
	R19L100-GCM1	W22L100-GCA3	W24L100-GCA2
<b>Display</b>			
<b>Resolution</b>	1280 x 1024	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	250	250	250
<b>Contrast Ratio</b>	1000	3000	3000
<b>Active Area</b>	376.32 x 301.06	476.64 x 268.11	527.04 x 296.46
<b>Viewing Angle</b>	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Touch</b>	USB	USB	USB
<b>Connectors</b>			
<b>Connectors</b>	1 X USB for Touch 1 X HDMI 1 X VGA	1 X USB for Touch 1 X HDMI 1 X VGA	1 X USB for Touch 1 X HDMI 1 X VGA
<b>Mechanical</b>			
<b>Dimensions</b>	444 x 368 x 51 mm	529 x 320.4 x 51 mm	587 x 356 x 55 mm
<b>Mouting</b>	VESA Mount (100 x 100 mm), Panel Mount	VESA Mount (100 x 100 mm), Panel Mount	VESA Mount (100 x 100 mm), Panel Mount
<b>Environment</b>			
<b>Operating Temp.</b>	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C
<b>Storage Temp.</b>	-10 °C to 60 °C	-10 °C to 60 °C	-10 °C to 60 °C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>IP Proof</b>	Front IP65	Front IP65	Front IP65
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	12V DC
<b>Power Consumption</b>	15W	20W	25W
<b>Certifications</b>			
<b>EMC</b>	CE, FCC	CE, FCC	CE, FCC

# 7"~15" Featured Display

## G-WIN GS Series

### Custom configuration



Protection  
Glass



“ **TOUGH. RUGGED.  
HEAVY DUTY.** ”

- 7"~15" screen with PCAP touchscreen
- Aluminum housing
- Full IP65, waterproof I/O connectors

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VGA video input

---

USB for touch

---

OSD control 5 keys

---

M12 waterproof connectors

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VESA mount, panel mount

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IP65 waterproof and dustproof

---

MIL-STD-810F/G shock, vibration resistance

---

Operating temperature -15°C to 55°C

---

### Accessories

Adapter

M12 Power Cord

VGA Cable

USB Cable for Touch

### Application



#### Wood Harvester

“FOR DEMANDING  
LOGGING CONDITIONS.”

Winmate 7-inch GS  
SeriesDisplay was installed  
inside a wood harvester.

Heavyduty panel PC  
designedfor demanding  
conditionssurvives both  
water drops andtemperature  
changes.



# Featured Display

## G-WIN GS Series Display



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input (CR>=10)	Power Input (M12 Type)	Capacitive
<b>7"</b> <b>(16:9)</b>	W07L100-GSO1	153.6 x 90	1024 x 600	700:1 (Typ.)	1000 nits	-75~75 (H); -70~75 (V)	• VGA • USB for touch	12V DC (M12 Type Connector)	*
<b>7"</b> <b>(16:10)</b>	W07L100-GST1	153.6 x 90	1024 x 600	500:1 (Typ.)	320 nits	-75~75 (H); -70~75 (V)	• VGA • USB for touch	12V DC (M12 Type Connector)	*
<b>10.1"</b> <b>(16:10)</b>	W10L100-GSH2	216.96 x 135.6	1280 x 800	800:1 (Typ.)	350 nits	-85~85 (H); -85~85 (V)	• VGA • USB for touch	12V DC (M12 Type Connector)	*
<b>10.1"</b>	W10L100-GSH1	222.72 x 125.28	1024 x 600	800:1 (typ.)	450 nits	-75~80 (H); -80~80 (V)	• VGA • USB for touch	9~36V DC (M12 Type Connector)	*
<b>10.4"</b>	R10L100-GST2	210.4 x 157.8	1024 x 768	1000:1 (Typ.)	350 nits	-88~88 (H); -88~88 (V)	• VGA • USB for touch	9~36V DC (M12 Type Connector)	*
<b>12.1"</b>	R12L100-GSM2(HB)	245.76 x 184.32	1024 x 768	700:1 (Typ.)	500 nits	-80~80 (H); -70~70 (V)	• VGA • USB for touch	9~36V DC (M12 Type Connector)	*
<b>15"</b>	R15L600-GSC3(HB)	304.1 x 228.1	1024 x 768	700:1 (Typ.)	2000 nits	-80~80 (H); -70~70 (V)	• VGA • USB for touch	9~36V DC (M12 Type Connector)	*

# 8.4"~19" Featured Display

## G-WIN VM Series

### Custom configuration



DVI-D



S-Video



Composite



HDMI



RS232  
For Touch



USB  
For Touch



Resistive  
Touchscreen



DC Lockable  
Input



**“ WIDE TEMPERATURE FOR  
EXTREME WEATHER. ”**

### Application



#### Military Vehicle Navigation Display

“EASY-TO-READ,  
EASY-TO-USE.”

15-inch G-WIN display now is a part of navigation and information system for force vehicles.

- 8.4"~19" screen
- Anti-corrosion housing
- VESA mount

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VGA video input

---

USB/ RS232 for touch

---

OSD control panel

---

VESA mount, yoke mount

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IP65 waterproof and dustproof

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MIL-STD-810F/G shock, vibration resistance

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Operating temperature -10°C to 55°C

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### Accessories

Power Cord

AC Adapter

Drive CD

VGA Cable 1.8m

Mounting Bracket

# Featured Display

G-WIN VM Series



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR $\geq$ 10)	Touch
<b>8.4"</b>	R08T200-VMU1	170.4 x 127.8	800 x 600	600:1 (Typ.)	600 nits	-75~75 (H); -70~60 (V)	5 Wire Resistive
<b>10.4"</b>	R10L100-VMT2	210.4 x 157.8	1024 x 768	1000:1 (Typ.)	350 nits	-88~88 (H); -88~88 (V)	5 Wire Resistive
<b>12.1" (16:10)</b>	W12L100-VMM9	261.12 x 163.2	1280 x 800	1000:1 (Typ.)	400 nits	-88~88 (H); -88~88 (V)	5 Wire Resistive
<b>15"</b>	R15L100-VMC3(HB)	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	1000 nits	-88~88 (H); -88~88 (V)	5 Wire Resistive
<b>19"</b>	R19L100-67FTP	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	400 nits	-85~85 (H); -80~80 (V)	Projected Capacitive

# 15"/ 19" Featured Display

## IP67 Aluminum

### Custom configuration



Housing



Resistive  
Touchscreen



AR Glass



High Panel  
Brightness



HDMI



RS232  
For Touch



**“ RUGGED. WATERPROOF.  
DUSTPROOF. ”**

### Application



#### Train Operator Navigation

“VIBRATION RESISTANCE  
AND VIBRANT COLORS”

Vibration resistant Winmate  
19-inch aluminum display  
helps train operator to  
navigate the way even when  
temperature goes far below  
zero degrees.

- 15"/ 19" screen
- Aluminum housing
- VESA mount

---

VGA video input

---

Touch interface USB

---

Front OSD control

---

Wide range input power 9~36V DC

---

Extended operating temperature

---

### Accessories

Power Cord

AC Adapter

Drive CD

VGA Cable 1.8m

# Featured Display

## IP67 Aluminum Display



Model Name	15"	19"
	R15L100-67C3(HB)	R19L100-67FTP
<b>Display</b>		
<b>Resolution</b>	1024 x 768	1280 x 1024
<b>Panel Brightness</b>	300 nits/ 1000 nits (Optional)	400 nits/ 1000 nits (Optional)
<b>Contrast Ratio</b>	2000:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	304.1 x 228.1	376.32 x 301.06
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)
<b>Touch</b>	5-wire Resistive	PCAP touch
<b>Connectors</b>		
<b>VGA</b>	1 x IP67 VGA	1 x IP67 VGA
<b>HDMI</b>	1 x IP67 HDMI (Optional)	1 x IP67 HDMI (Optional)
<b>DVI</b>	1 x IP67 DVI (Optional)	1 x IP67 DVI (Optional)
<b>Power</b>	1 x IP67 DC 9~36V	1 x IP67 DC 9~36V
<b>RS232/ USB</b>	1 x IP67 RS232 remote control	1 x IP67 RS232 remote control
<b>USB</b>	1 x IP67 USB for touch	1 x IP67 USB for touch
<b>Mechanical</b>		
<b>Dimensions</b>	398 x 308 x 58 mm	474 x 410 x 111 mm
<b>Mouting</b>	One robust bracket with locking handle (Can adjust from -5° to 90°)	One robust bracket with locking handle (Can adjust from -5° to 90°)
<b>Environment</b>		
<b>Shock</b>	MIL-STD-810G Method 516.6	MIL-STD-810G Method 516.6
<b>Vibration</b>	MIL-STD-810G Method 514.6	MIL-STD-810G Method 514.6
<b>Power</b>		
<b>Power Input</b>	9~36V DC	9~36V DC
<b>Certifications</b>		
<b>Certifications</b>	CE, FCC Class B MIL810G for Vibration /Shock	CE, FCC MIL810G for Vibration /Shock

# 7"~18.5" Featured Display

## USB Type-C

### Custom configuration



PCAP  
Touchscreen



Audio and  
Speaker



Housing



High Panel  
Brightness



“**SINGLE CABLE SOLUTION.**”

- 7"~18.5" screen
- USB Type-C port
- Stand-alone and open frame housing

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USB Type-C connector for power, touch, video input

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USB 5V/3A power delivery

---

P-Cap multi-touch

---

OSD control 5 keys

---

Operating temperature 0°C to 50°C

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### Application



#### Truck Cabin

“SAVING CABLING SPACE  
WITH SINGLE CABLE”

The USB Type-C display connected to the EAC Mini-C IoT gateway is installed in a vehicle cabin .

### Accessories

User Manual

USB Type-C Cable



# Featured Display

USB Type-C  
Open Frame



Model Name	7" (17:10)	10.1" (16:10)	10.4"	12.1"	15"
	W07L100-POT1-C	W10L100-POH2-C	R10L100-POT2-C	R12L100-POM2-C	R15L600-POC3-C
<b>Display</b>					
<b>Resolution</b>	1024 x 600	1280 x 800	1024 x 768	1024 x 768	1024 x 768
<b>Panel Brightness</b>	320 nits	350 nits	350 nits	500 nits	250 nits
<b>Contrast Ratio</b>	500:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)	700:1 (Typ.)	2000:1 (Typ.)
<b>Active Area</b>	153.6 x 90	216.96 x 135.6	210.4 x 157.8	245.76 x 184.32	304.1 x 228.1
<b>Viewing Angle</b>	-75~75 (H) ; -75~75 (V)	-85~85 (H) ; -85~85 (V)	-88~88 (H) ; -88~88 (V)	-80~80 (H) ; -70~70 (V)	-88~88 (H) ; -88~88 (V)
<b>Display Color</b>	16.7M	16.7M	16.2M	16.2M	16.2M
<b>Touch</b>	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)
<b>Connectors</b>					
<b>Video Input</b>	1 x USB Type-C connector	1 x USB Type-C connector	1 x USB Type-C connector	1 x USB Type-C connector	1 x USB Type-C connector
<b>User Controls</b>					
<b>Control Buttons</b>	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter
<b>Audio</b>					
<b>Audio</b>	2 x Speaker (Optional)	2 x Speaker (Optional)	2 x Speaker (Optional)	2 x Speaker (Optional)	2 x Speaker (Optional)
<b>Environment</b>					
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Storage Temp.</b>	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C
<b>Power</b>					
<b>Power Input</b>	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)
<b>Power Consumption</b>	6W (Typ.)	10W (Typ.)	9W (Typ.)	12W (Typ.)	12W (Typ.)
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# Featured Display

USB Type-C  
Stand-Alone



Model Name	7" (16:10)	7" (16:10)	10.1" (16:10)	10.1" (16:9)	10.4"
	W07L100-GCT1-C	W07L100-GCO1(HB)-C	W10L100-GCH2-C	W10L100-GCH1(HB)-C	R10L100-GCT2-C
<b>Display</b>					
<b>Resolution</b>	1024 x 600	1024 x 600	1280 x 800	1024 x 600	1024 x 768
<b>Panel Brightness</b>	320 nits	1000 nits	350 nits	800 nits	350 nits
<b>Contrast Ratio</b>	500:1 (Typ.)	700:1 (Typ.)	800:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	153.6 x 90	153.6 x 90	216.96 x 135.6	222.72 x 125.28	210.4 x 157.8
<b>Viewing Angle</b>	-75~75 (H) ; -70~75 (V)	-75~75 (H) ; -75~70 (V)	-85~85 (H) ; -85~85 (V)	-80~80 (H) ; -80~75 (V)	-88~88 (H) ; -88~88 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M	16.2M
<b>Touch</b>	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)
<b>Connectors</b>					
<b>Video Input</b>	1 x USB Type-C connector	1 x USB Type-C connector	1 x USB Type-C connector	1 x USB Type-C connector	1 x USB Type-C connector
<b>User Controls</b>					
<b>Control Buttons</b>	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter
<b>Audio</b>					
<b>Audio</b>	1 x 1W Speaker (Optional)	1 x Speaker (Optional)	1 x Speaker (Optional)	1 x Speaker (Optional)	1 x Speaker (Optional)
<b>Environment</b>					
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Storage Temp.</b>	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65	Front IP65	Front IP65
<b>Power</b>					
<b>Power Input</b>	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)
<b>Power Consumption</b>	6W (Typ.)	9W (Typ.)	8W (Typ.)	13W (Typ.)	10W (Typ.)
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# Featured Display

USB Type-C  
Stand-Alone



Model Name	12.1"	15"	15"	15.6" (16:9)	18.5" (16:9)
	R12L100-GCM2-C	R15L100-PTC3-C	R15L600-GCC3-C	W15L100-PTA3-C	W18L100-PTA1-C
<b>Display</b>					
<b>Resolution</b>	1024 x 768	1024 x 768	1024 x 768	1920 x 1080	1366 x 768
<b>Panel Brightness</b>	500 nits	250 nits	250 nits	300 nits	250 nits
<b>Contrast Ratio</b>	700:1 (Typ.)	700:1 (Typ.)	2000:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	245.76 x 184.32	304.128 x 228.096	304.1 x 228.1	344.16 x 193.59	409.8 x 230.4
<b>Viewing Angle</b>	-80~80 (H) ; -70~70 (V)	-80~80 (H) ; -80~80 (V)	-88~88 (H) ; -88~88 (V)	-85~85 (H) ; -85~85 (V)	-85~85 (H) ; -80~80 (V)
<b>Display Color</b>	16.2M	16.2M	16.2M	16.2M	16.7M
<b>Touch</b>	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)	Projected capacitive (Default), Protection glass, no touch (Optional)
<b>Connectors</b>					
<b>Video Input</b>	1 x USB Type-C	1 x USB Type-C	1 x USB Type-C	1 x USB Type-C	1 x USB Type-C
<b>Power Jack</b>	-	-	-	-	1 x Power Jack
<b>User Controls</b>					
<b>Buttons</b>	5 Keys OSD Control	7 Keys OSD Control	5 Keys OSD Control	7 Keys OSD Control	5 Keys OSD Control
<b>Audio</b>					
<b>Audio</b>	2 x 1W Speaker (Optional)	2 x 1W Speaker (Optional)	2 x 1W Speaker (Optional)	2 x 1W Speaker (Optional)	2 x 1W Speaker (Optional)
<b>Environment</b>					
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Storage Temp.</b>	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65	Front IP65	Front IP65
<b>Power</b>					
<b>Power Source</b>	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)	USB Type-C Alt mode (5V/3A)
<b>Power Consumption</b>	12W (Typ.)	12W (Typ.)	12W (Typ.)	13W (Typ.)	30W (Typ.)
<b>Certifications</b>					
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 10.1"~15.6" Featured Display PoE Series

## Custom configuration



PCAP  
Touchscreen



Audio and  
Speaker



“

**FAST INSTALLATION  
WITHOUT ADDITIONAL  
ELECTRICAL WIRING.**

”

- 10.1" ~15.6" screen
- Power over Ethernet (PoE)
- Chassis housing

---

Power over Ethernet (PoE) IEEE 802.3at (25W)

---

VGA, HDMI video input

---

Projected capacitive multi-touch

---

OSD control 5 keys

---

Operating temperature 0°C to 50°C

---

## Application



### Lobby Digital Signage

“CONVIENIENT ETHERNET  
INSTALLATION.”

The PoE Touch Monitor was installed as a digital signage in an office lobby. The PoE function allowed it to be installed high up on a wall without needing additional wiring costs.

## Accessories

User Manual

VGA Cable

HDMI Cable

# Featured Display

PoE Series



Model Name	10.1" (16:10)	10.1" (16:10)	10.4"	12.1"	15"	15.6" (16:9)
	W10L100-PCH1-PoE	W10L100-PCH2-PoE	R10L100-PCT2-PoE	R12L100-PCM2-PoE	R15L100-PTC3-PoE	W15L100-PTA3-PoE
<b>Display</b>						
<b>Resolution</b>	1024 x 600	1280 x 800	1024 x 768	1024 x 768	1024 x 768	1920 x 1080
<b>Panel Brightness</b>	450 nits	350 nits	350 nits	500 nits	300 nits	300 nits
<b>Contrast Ratio</b>	800:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)	700:1 (Typ.)	700:1 (Typ.)	700:1 (Typ.)
<b>Viewing Angle</b>	-75~80 (H); -80~80 (V)	-85~85 (H); -85~85 (V)	-88~88 (H); -88~88 (V)	-80~80 (H); -70~70 (V)	-80~80 (H); -80~80 (V)	-85~85 (H); -85~85 (V)
<b>Display Color</b>	16.7M	16.7M	16.2M	16.2M	16.2 M	16.2 M
<b>Touch</b>	Projected capacitive, Protective glass (Optional)	Projected capacitive, Protective glass (Optional)	Projected capacitive, Protective glass (Optional)	Projected capacitive, Protective glass (Optional)	Projected capacitive, Protective glass (Optional)	Projected capacitive, Protective glass (Optional)
<b>Touch Interface</b>	USB	USB	USB	USB	USB	USB
<b>Power</b>						
<b>Power Device (PD)</b>	follows IEEE 802.3at (25W)	follows IEEE 802.3at (25W)	follows IEEE 802.3at (25W)	follows IEEE 802.3at (25W)	follows IEEE 802.3at (25W)	follows IEEE 802.3at (25W)
<b>Power Consumption</b>	10W typical, normal operation	10W typical, normal operation	10W typical, normal operation	12W typical, normal operation	15W typical, normal operation	10W typical, normal operation
<b>Power Input</b>	PoE, Power Device (PD) follows IEEE 802.3at (25 W), IEEE 802.3af (15 W)	PoE, Power Device (PD) follows IEEE 802.3at (25 W), IEEE 802.3af (15 W)	PoE, Power Device (PD) follows IEEE 802.3at (25 W), IEEE 802.3af (15 W)	PoE, Power Device (PD) follows IEEE 802.3at (25 W), IEEE 802.3af (15 W)	PoE, Power Device (PD) follows IEEE 802.3at (25 W), IEEE 802.3af (15 W)	PoE, Power Device (PD) follows IEEE 802.3at (25 W), IEEE 802.3af (15 W)
<b>Audio</b>						
<b>Speaker</b>	1 x Speaker (Optional)	1 x Speaker (Optional)	1 x Speaker (Optional)	2 x 1 Watt speakers (Optional)	2 x 1 Watt speaker (Optional)	2 x 1 Watt speaker (Optional)
<b>Connectors</b>						
<b>Video Input</b>	Standard: 1 x VGA (D-sub 15), 1 x HDMI (Type-A)	Standard: 1 x VGA (D-sub 15), 1 x HDMI (Type-A)	Standard: 1 x VGA (D-sub 15), 1 x HDMI (Type-A)	Standard: 1 x VGA (D-sub 15), 1 x HDMI (Type-A)	Standard: 1 x VGA (D-sub 15), 1 x HDMI (Type-A)	Standard: 1 x VGA (D-sub 15), 1 x HDMI (Type-A)
<b>User Controls</b>						
<b>OSD User Controls</b>	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter	5 Keys: -, +, Power, Esc, Enter
<b>Environment</b>						
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Storage Temp.</b>	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65	Front IP65	Front IP65	Front IP65
<b>Certifications</b>						
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 10.1"~32" Featured Display SDI Series

## Custom configuration



PCAP  
Touchscreen



“ **LONG DISTANCE DATA  
TRANSMISSION.** ”

## Application



### Surveillance Control Room

“CONNECT TO MULTIPLE PRO CAMERAS.”

SDI input and output provide rugged locking connection and long distance data transmission for our Surveillance application.

- 10.1"~32" screen
- 3G SDI input and output (Loop out)
- Chassis housing

---

3G-SDI input, 3G SDI output

---

Two CVBS (BNC)

---

VGA, HDMI video input

---

Projected capacitive multitouch

---

OSD control 5 keys

---

VESA mount

---

Operating temperature 0°C to 50°C

---

## Accessories

User Manual

VGA Cable

HDMI Cable



# Featured Display

SDI Series



Model Name	10.1" (16:10)	15"	19"	21.5 (16:9)	32" (16:9)
	W10L100-SDH2	R15L100-SDA3	R19L300-SDA1	W22L100-SDA3	W32L100-SDA3
<b>Display</b>					
<b>Resolution</b>	1280 x 800	1024 x 768	1280 x 1024	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	300 nits	550 nits	400 nits	250 nits	250 nits
<b>Contrast Ratio</b>	800:1 (Typ.)	700:1 (Typ.)	1000:1 (Typ.)	3000:1 (Typ.)	3000:1 (Typ.)
<b>Active Display Area (mm)</b>	216.69 x 135.6	304.1 x 228.1	376.32x301.06	476.62 x 268.11	698.4 x 392.85
<b>Viewing Angle</b>	-80~80 (H); -70~70 (V)	-80~80 (H); -70~70 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M	16.7M
<b>Touch</b>	Projected capacitive	Projected capacitive	Projected capacitive	Projected capacitive	Projected capacitive
<b>Power</b>					
<b>Power Input</b>	12V DC	12V DC	12V DC	12V DC	24V DC
<b>Power Consumption</b>	15W	20W	27W	30W	45W
<b>Connectors</b>					
<b>Signal Connector</b>	1 x HDMI 1.3 1 x VGA 2 x CVBS (BNC) 1 x 3G-SDI in 1 x 3G-SDI out (Loop out)	1 x HDMI 1.3 1 x VGA 2 x CVBS (BNC) 1 x 3G-SDI in 1 x 3G-SDI out (Loop out)	1 x HDMI 1.3 1 x VGA 2 x CVBS (BNC) 1 x 3G-SDI in 1 x 3G-SDI out (Loop out)	1 x HDMI 1.3 1 x VGA 2 x CVBS (BNC) 1 x 3G-SDI in 1 x 3G-SDI out (Loop out)	1 x HDMI 1.3 1 x VGA 2 x CVBS (BNC) 1 x 3G-SDI in 1 x 3G-SDI out (Loop out)

# 5.7"~42" Featured Display

## High Brightness

### Custom configuration



Housing



Resistive  
Touchscreen



SAW  
Touchscreen



DVI-D



S-Video



Composite



Audio and  
Speaker

### Application



#### Self Service Post Terminal

"CRISP AND CLEAR SCREEN."

High brightness screen emits more light compare to commercial-grade screens, which means more luminance and contrast. Ideal for use in outdoor environment.



“ **VISIBILITY AND BEATING THE SUN.** ”

- 5.7"~42" screen
- Chassis, open frame, panel mount, front IP65
- Sunlight readable screen

---

VGA, HDMI video input

---

Touch interface USB/RS232

---

Chassis, open frame, panel mount, front IP65

---

OSD control 5 keys

---

Supports VESA mount

---

Operating temperature 0°C to 50°C

---

### Accessories

Power Cord

AC Adapter

Drive CD

VGA Cable 1.8m

HDMI Cable 2m

# Featured Display

High Brightness

Open Frame



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
5.7"	R05T100-OFD1(HB)	115.2 x 86.4	640 x 480	300:1 (Typ.)	900 nits	-70~70(H); -40~60(V)	No	12V DC	15 W (Typ.)	*
7" (16:10)	W07T700-OFO1(HB)	153.6 x 90.0	1024 x 600	700:1 (Typ.)	1000 nits	-75~75(H); -75~70(V)	No	12V DC	8 W (Typ.)	*
8.4"	R08T200-OFT1(HB)	170.4 x 127.8	800 x 600	600:1 (Typ.)	1000 nits	-80~80(H); -60~80(V)	Yes	12V DC	15 W (Typ.)	*
10.1" (16:10)	W10L100-OFH1(HB)	222.72 x 125.28	1024 x 600	800:1 (Typ.)	800 nits	-80~80(H); -80~75(V)	Yes	12V DC	7 W (Typ.)	*
10.4"	R10L600-OPF1(HB)	211.2 x 158.4	800 x 600	400:1 (Typ.)	1000 nits	-70~70(H); -70~60(V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L100-OFT2(HB)	210.4 x 157.8	1024 x 768	1200:1 (Typ.)	1000 nits	-88~88(H); -88~88(V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12T600-OFL1(HB)	246.0 x 184.5	800 x 600	700:1 (Typ.)	1000 nits	-80~80(H); -75~65(V)	Yes	12V DC	15 W (Typ.)	*
12.1" (16:10)	W12L100-OFM9(HB)	261.12 x 163.2	1280 x 800	1000:1 (Typ.)	1000 nits	-88~88(H); -88~88(V)	Yes	12V DC	20 W (Typ.)	*
12.1"	R12L600-OFM2(HB)	245.76 x 184.32	1024 x 768	700:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L100-OFC3(HB)	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	1000 nits	-88~88(H); -88~88(V)	Yes	12V DC	22 W (Typ.)	*
15.6" (16:9)	W15L100-OFA2(HB)	344.2 x 193.5	1366 x 768	500:1 (Typ.)	1300 nits	-85~85(H); -80~80(V)	Yes	12V DC	25 W (Typ.)	*
17"	S17L500-OFA1(HB)	337.9 x 270.3	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	31 W (Typ.)	*
18.5" (16:9)	W18L100-OFA2(HB)	409.8 x 230.4	1366 x 768	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	36 W (Typ.)	*
19"	R19L300-OFA1(HB)	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	31 W (Typ.)	*
21.5" (16:9)	W22L100-OFA3(HB)	476.64 x 268.11	1920 x 1080	5000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	50 W (Typ.)	*
22" (16:10)	W22L100-OFM1(HB)	473.76 x 296.1	1680 x 1050	1000:1 (Typ.)	1000 nits	-80~80(H); -80~80(V)	Yes	12V DC	60 W (Typ.)	*
24" (16:9)	W24L100-OFA2(HB)	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	65W (Typ.)	*
27" (16:9)	W27L100-OFA1(HB)	597.6 x 336.15	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	70W (Typ.)	*
32" (16:9)	W32L100-OFA3(HB)	698.4 x 392.85	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	75W (Typ.)	*



Chassis

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
15"	R15L100-CHC3(HB)	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	1000 nits	-88~88(H); -88~88(V)	Yes	12V DC	22 W typical, normal operation	*
17"	R17L500-CHA1(HB)	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	45 W typical, normal operation	*
19"	R19L300-CHA1(HB)	376.3 x 301.1	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	32 W typical, normal operation	*
21.5" (16:9)	W22L100-CHA3(HB)	476.64 x 268.11	1920 x 1080	5000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	50 W typical, normal operation	*
42" (16:9)	W42L100-OML2(HB)	930.24 x 523.26	1920 x 1080	4000:1 (Typ.)	700 nits	-89~89(H); -89~89(V)		100~240V AC	110 W typical, normal operation	*

# High Brightness Display



## Panel Mount

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
5.7"	R05T100-PMD1(HB)	115.2 x 86.4	640 x 480	300:1 (Typ.)	900 nits	-70~70(H); -40~60(V)	No	12V DC	15 W (Typ.)	*
8.4"	R08T200-PMT1(HB)	170.4 x 127.8	800 x 600	600:1 (Typ.)	1000 nits	-80~80(H); -60~80(V)	Yes	12V DC	15 W (Typ.)	*
10.1"(16:10)	W10L100-PMH1(HB)	222.72 x 125.28	1024 x 600	800:1 (Typ.)	800 nits	-70~70(H); -60~50(V)	Yes	12V DC	7 W (Typ.)	*
10.4"	R10L600-PMP1(HB)	211.2 x 158.4	800 x 600	400:1 (Typ.)	1000 nits	-70~70(H); -70~60(V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L100-PMT2(HB)	210.4 x 157.8	1024 x 768	1200:1 (Typ.)	1000 nits	-88~88(H); -88~88(V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12T600-PML1(HB)	246.0 x 184.5	800 x 600	700:1 (Typ.)	1000 nits	-80~80(H); -75~65(V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12L600-PMM2(HB)	245.76 x 184.32	1024 x 768	700:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L100-PMC3(HB)	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	1000 nits	-88~88(H); -88~88(V)	Yes	12V DC	22 W (Typ.)	*
15.6"(16:9)	W15L100-PMA2(HB)	344.2 x 193.5	1366 x 768	500:1 (Typ.)	1300 nits	-85~85(H); -80~80(V)	Yes	12V DC	25 W (Typ.)	*
17"	S17L500-PMA1(HB)	337.9 x 270.3	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	32 W (Typ.)	*
19"	R19L300-PMA1(HB)	376.3 x 301.1	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	31 W (Typ.)	*
21.5"(16:9)	W22L100-PMA3(HB)	476.64 x 268.11	1920 x 1080	5000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	50 W (Typ.)	*
24"(16:9)	W24L100-PMA2(HB)	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	65W (Typ.)	
27"(16:9)	W27L100-PMA1(HB)	597.6 x 336.15	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	70W (Typ.)	
32"(16:9)	W32L100-PMA3(HB)	698.4 x 392.85	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	75W (Typ.)	



## Front IP65

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
7"(16:10)	W07T700-IPO1(HB)	153.6 x 90.0	1024 x 600	700:1 (Typ.)	1000 nits	-75~75(H); -75~70(V)	No	12V DC	8 W (Typ.)	*
8.4"	R08T200-IPT1(HB)	170.4 x 127.8	800 x 600	600:1 (Typ.)	1000 nits	-80~80(H); -60~80(V)	Yes	12V DC	10 W (Typ.)	*
10.4"	R10L600-IPP1(HB)	211.2 x 158.4	800 x 600	400:1 (Typ.)	1000 nits	-70~70(H); -70~60(V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L100-IPT2(HB)	210.4 x 157.8	1024 x 768	1200:1 (Typ.)	1000 nits	-88~88(H); -88~88(V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12L600-IPM2(HB)	245.76 x 184.32	1024 x 768	700:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	17 W (Typ.)	*
15"	R15L100-IPC3(HB)	304.128 x 228.096	1024 x 768	2000:1 (Typ.)	700 nits	-80~80(H); -70~70(V)	Yes	12V DC	22 W (Typ.)	*
17"	S17L500-IPA1(HB)	337.9 x 270.3	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	32 W (Typ.)	*
19"	R19L300-IPA1(HB)	376.3 x 301.1	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	31 W (Typ.)	*
21.5"	W22L100-IPA3(HB)	476.64 x 268.11	1920 x 1080	5000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	50 W (Typ.)	*
24"(16:9)	W24L100-IPA2(HB)	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	65W (Typ.)	
27"(16:9)	W27L100-IPA1(HB)	597.6 x 336.15	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	70W (Typ.)	
32"(16:9)	W32L100-IPA3(HB)	698.4 x 392.85	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	75W (Typ.)	

# High Brightness Display



## PCAP Panel Mount

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Capacitive
10.4"	R10L100-PPP1(HB)	211.2 x 158.4	800 x 600	400:1 (Typ.)	1000 nits	-70~70 (H); -70~60 (V)	Yes	12V DC	15 W (Typ.)	*
10.4"	R10L100-PPT2(HB)	210.4 x 157.8	1024 x 768	1200:1 (Typ.)	1000 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	15 W (Typ.)	*
15"	R15L600-PPC3(HB)	304.1 x 228.1	1024 x 768	2000:1 (Typ.)	1000 nits	-88~88 (H); -88~88 (V)	Yes	12V DC	25 W (Typ.)	*
15.6" (16:9)	W15L100-PPA2(HB)	344.232 x 193.536	1366 x 768	500:1 (Typ.)	1300 nits	-85~85(H); -80~80(V)	Yes	12V DC	25 W (Typ.)	*
19"	R19L300-PPA1(HB)	376.32 x 301.06	1280 x 1024	1000:1 (Typ.)	1000 nits	-85~85(H); -80~80(V)	Yes	12V DC	27 W (Typ.)	*
21.5" (16:9)	W22L100-PPA3(HB)	476.64 x 268.11	1920 x 1080	5000:1 (Typ.)	1000 nits	-89~89 (H); -89~89 (V)	Yes	12V DC	30 W (Typ.)	*
24" (16:9)	W24L100-PPA2(HB)	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	65W (Typ.)	*
27" (16:9)	W27L100-PPA1(HB)	597.6 x 336.15	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	70W (Typ.)	*
32" (16:9)	W32L100-PPA3(HB)	698.4 x 392.85	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	75W (Typ.)	*

# 7"~32" Featured Display Transflective

## Custom configuration



Housing



Resistive  
Touchscreen



SAW  
Touchscreen



DVI-D



S-Video

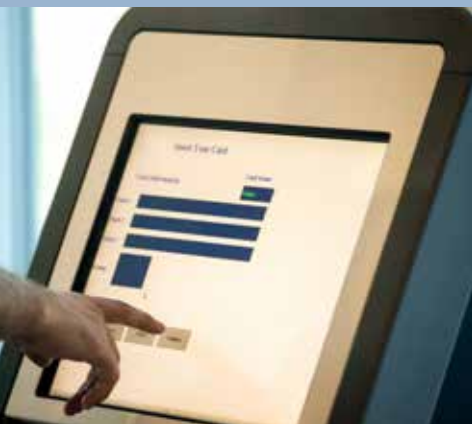


Composite



Audio and  
Speaker

## Application



### Parking Paying Terminal

"BRIGHTER BACKLIGHT  
WITHOUT DRAWING  
MORE POWER."

The transflective display remains readable in bright light without requiring a specialized backlight. This reduces thermal issues and power consumption.



“**LOW POWER CONSUMPTION.  
SUNLIGHT READABLE SCREEN.**”

- 7"~32" screen
- Chassis, open frame, front IP65, Panel mount
- Lower power consumption

---

VGA, HDMI video input

---

Touch interface USB/RS232

---

Chassis, open frame, front IP65

---

OSD control 5 keys

---

Supports VESA mount

---

Operating temperature 0°C to 50°C

---

## Accessories

Power Cord

AC Adapter

Drive CD

VGA Cable 1.8m

HDMI Cable 2m



# Featured Display

Transflective Display

Open Frame



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
7" (16:10)	W07T700-OFA4TR	152.40 x 91.44	800 x 480	1000:1 (Typ.)	500 nits	-80~80(H); -80~80(V)	No	12V DC	10 W (Typ.)	*
8.4"	R08L200-OFU1TR	170.4 x 127.8	800 x 600	600:1 (Typ.)	500 nits	-75~75(H); -60~70(V)	Yes	12V DC	10W (Typ.)	*
10.4"	R10L600-OPF1TR	211.2 x 158.4	800 x 600	400:1 (Typ.)	700 nits	-70~70(H); -70~60(V)	Yes	12V DC	13 W (Typ.)	*
12.1"	R12L600-OFM2TR	245.76 x 184.32	1024 x 768	700:1 (Typ.)	600 nits	-89~89(H); -89~89(V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L100-OFA1TR	304.1 x 228.1	1024 x 768	700:1 (Typ.)	610 nits	-80~80(H); -70~70(V)	Yes	12V DC	31 W (Typ.)	*
17"	S17L500-OFA1TR	337.92 x 270.34	1280 x 1024	1000:1 (Typ.)	400 nits	-85~85(H); -80~80(V)	Yes	12V DC	32 W (Typ.)	*
21.5" (16:9)	W24L100-OFA3TR	476.64 x 286.11	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	50 W (Typ.)	*
24" (16:9)	W24L100-OFA2TR	527.04 x 296.46	1920 x 1080	3000:1 (Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	65W (Typ.)	*
32" (16:9)	W32L300-OFA3TR	698.40 x 392.85	1920 x 1080	3000:1 (Typ.)	430 nits	-89~89(H); -89~89(V)	Yes	24V DC	75 W (Typ.)	*



Chassis

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
7" (16:10)	W07T700-CHA4TR	152.40 x 91.44	800 x 480	1000:1(Typ.)	500 nits	-80~80(H); -80~80(V)	No	12V DC	9 W (Typ.)	*
10.4"	R10L600-CHP1TR	211.2 x 158.4	800 x 600	400:1(Typ.)	700 nits	-70~70(H); -70~60(V)	Yes	12V DC	13 W (Typ.)	*
10.4"	R10L100-CHP3TR	211.2 x 158.4	640 x 480	700:1(Typ.)	540 nits	-80~80(H); -80~60(V)	Yes	12V DC	15 W (Typ.)	*
12.1"	R12L600-CHM2TR	245.76 x 184.32	1024 x 768	700:1(Typ.)	600 nits	-89~89(H); -89~89(V)	Yes	12V DC	20 W (Typ.)	*
15"	R15L100-CHA1TR	304.1 x 228.1	1024 x 768	700:1(Typ.)	610 nits	-80~80 (H); -70~70 (V)	Yes	12V DC	31 W (Typ.)	*
17"	R17L500-CHA1TR	337.92 x 270.34	1280 x 1024	1000:1(Typ.)	400 nits	-85~85(H); -80~80(V)	Yes	12V DC	32 W (Typ.)	*
21.5" (16:9)	W22L100-CHA3TR	476.64 x 286.11	1920 x 1080	3000:1(Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	50 W (Typ.)	*
24" (16:9)	W24L100-CHA2TR	527.04 x 296.46	1920 x 1080	3000:1(Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	65W (Typ.)	*
32" (16:9)	W32L100-CHA3TR	698.4 x 392.85	1920 x 1080	3000:1(Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	75 W (Typ.)	*



Front IP65

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
15"	R15L100-IPA1TR	304.1 x 228.1	1024 x 768	700:1(Typ.)	610 nits	-80~80(H); -70~70(V)	Yes	12V DC	31 W (Typ.)	*
17"	S17L500-IPA1TR	337.92 x 270.34	1280 x 1024	1000:1(Typ.)	400 nits	-85~85(H); -80~80(V)	Yes	12V DC	32 W (Typ.)	*
21.5" (16:9)	W22L100-IPA3TR	476.64 x 286.11	1920 x 1080	3000:1(Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	50 W (Typ.)	*
24" (16:9)	W24L100-IPA2TR	527.04 x 296.46	1920 x 1080	3000:1(Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	65W (Typ.)	*
32" (16:9)	W32L100-IPA3-TR	698.4 x 392.85	1920 x 1080	3000:1(Typ.)	1000 nits	-89~89(H); -89~89(V)	Yes	12V DC	75 W (Typ.)	*

# 6.5"~19" Featured Display

## Wide Temperature

### Custom configuration



Housing



Resistive  
Touchscreen



SAW  
Touchscreen



DVI-D



S-Video



Composite



Audio and  
Speaker



“

**FOR EXTREME WEATHER.**

”

- 6.5"~19" screen
- Rear mount, front IP65, panel mount
- Wide operating temperature -20°C to 60°C

---

VGA, HDMI video input

---

Touch interface USB/ RS232

---

Rear mount, front IP65

---

OSD control 5 key

---

Operating temperature -20°C to 60°C

---

### ATM Machine

“RELIABLE SYSTEM  
WITH EXTENDED  
TEMPERATURE RANGE.”

With front IP65 water and dust protection our display was installed in an ATM machine located outdoors.



### Accessories

Power Cord

Adapter

Drive CD

VGA Cable 1.8m

HDMI Cable 2m

# Featured Display

Wide Temperature Display

Front IP65



Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
8.4"	R08T200-IPT1WT	170.4 x 127.8	800 x 600	600:1 (Typ.)	450 nits	-80~80(H); -60~80(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	15 W typical, normal operation	*
10.4"	R10L100-IPA1WT	211.2 x 158.4	800 x 600	700:1 (Typ.)	450 nits	-80~80(H); -70~60(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	18 W typical, normal operation	*
12.1"	R12L600-IPM2WT	245.76 x 184.32	1024 x 768	1000:1 (Typ.)	500 nits	-89~89(H); -89~89(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	20 W typical, normal operation	*
15"	R15L100-IPA3WT	304.1 x 228.1	1024 x 768	2500:1 (Typ.)	500 nits	-88~88(H); -88~88(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	23 W typical, normal operation	*
17"	S17L500-IPA1WT	337.92 x 270.336	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85(H); -80~80(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	35 W typical, normal operation	*
19"	R19L300-IPA3WT	376.3 x 301.1	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85(H); -80~80(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	40 W typical, normal operation	*



## Rear Mount

Size	Model Name	Active Display Area (mm)	Resolution	Contrast Ratio	Panel Brightness	Viewing Angle (CR>=10)	Optional DVI Input	Power Input	Power Consumption	Resistive
6.5"	R06L200-RMA1WT	132.48 x 99.36	640 x 480	450:1 (Typ.)	400 nits	-80~80(H); -70~70(V)	No	12V DC, with External AC-DC Adapter (100~240V)	15 W typical, normal operation	
8.4"	R08T200-RMT1WT	170.4 x 127.8	800 x 600	600:1 (Typ.)	450 nits	-80~80(H); -60~80(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	15 W typical, normal operation	*
10.4"	R10L100-RMA1WT	211.2 x 158.4	800 x 600	700:1 (Typ.)	400 nits	-80~80(H); -70~60(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	18 W typical, normal operation	*
12.1"	R12L600-RMM2WT	245.76 x 184.32	1024 x 768	1000:1 (Typ.)	500 nits	-89~89(H); -89~89(V)	No	12V DC, with External AC-DC Adapter (100~240V)	20 W typical, normal operation	*
15"	R15L100-CHA3WT	304.1 x 228.1	1024 x 768	2500:1 (Typ.)	500 nits	-88~88(H); -88~88(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	23 W typical, normal operation	*
17"	R17L500-CHA1WT	337.9 x 270.3	1280 x 1024	1000:1 (Typ.)	350 nits	-85~85(H); -80~80(V)	Yes	12V DC, with External AC-DC Adapter (100~240V)	35 W typical, normal operation	*



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# Market Ready Solution

## Overview

For enterprises operating in rugged or potentially hazardous environments, access to the latest technology built specifically for these demanding industries is imperative. Winmate understands the need for ruggedness and uninterrupted productivity when it comes to operating in challenging environments.

At Winmate, we have the engineering expertise and strategic partnership with world-known technology companies to provide customers the leading edge in industrial-grade communications tools that maximize operational efficiency, safety, asset tracking and data management.

Our engineering process and in-depth knowledge of electrical, mechanical, thermal, and firmware design ensures optimized performance, durability and reliability with every rugged product we create. At Winmate, our technologies undergo a series of tests at our state-of-the-art in-house testing facility to verify the performance.

### Winmate's products for Market Ready Solution include:

- Compliance to international standards
- The latest Android™, Windows® operating system
- The most innovative product know-how

Winmate provides rugged computing solutions for demanding industries, including ATEX, Healthcare, Marine and Military.

## Product Overview





# Designed for Harsh Environments

## ATEX

### Certified for harsh environments

- Class 1 Division 2 (C1D2) Certified
- Intrinsic safety schematics design
- Non-spark safety design
- No-air potting process
- UL and CSA certified factory with Quality Management System (QMS)



## Healthcare

### Right technology to improve patient care

- Super-high ESD protection
- Excellent RS immunity
- Super-low current leakage
- Low surface temperature



## Marine

### Robust technologies for maritime

- Accurate color representation for DAY/DUSK/NIGHT
- Calibrated following ECDIS standard
- Auto-calibrating know-how



## Military

### Designed for mission critical challenges

- Anti-drop solutions
- Anti-vibration solutions
- Waterproof & dustproof solutions
- Anti-moisture design
- Thermal design for fanless systems



## Product Guide - Market Ready Solution

ATEX	Healthcare
 <p data-bbox="395 1778 520 1805">p.221~p.230</p>	 <p data-bbox="1034 1778 1158 1805">p.231~p.238</p>
Marine	Military
 <p data-bbox="395 2132 520 2159">p.239~p.256</p>	 <p data-bbox="1034 2132 1158 2159">p.257~p.280</p>

## Overview

Oil rigs and remote pipeline locations are some of the most dangerous and challenging work environments anywhere.

When looking for electronics to support these environments, devices must stand up to three key requirements:

1. Provide advanced system monitoring even in the most challenging conditions.
2. Accurately identify and track assets and communicate data from remote sites.
3. Withstand the highest scrutiny of certification and inspection.

Winmate rugged computers are designed for the harsh environments of an oil refinery or a drilling rig and come with ATEX Zone 2 and Class 1 Division 2 (C1D2) certifications. By employing automated processes, oil and gas companies can increase the number of production wells, improve production control and reap the benefits of modern technologies.

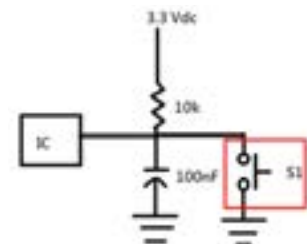
## Technology

It is required by law and legislation by countries around the world that electrical equipment must be designed and manufactured for safe use in environments or atmospheres that may be potentially flammable or explosive. These hazardous areas are defined as where flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers or flyings are present. At oil and gas production operations and facilities, these hazards and dangers are common place. Flammable or explosive substances may be present in some varying quantity at all times, so fire and explosion protection and safety certifications for all electrical equipment used in these operations is mandatory.

Winmate has technology know-how for production and development of explosion-proof devices:

### Intrinsic Safety Schematic Design

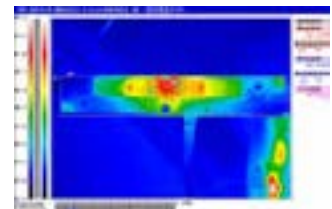
The schematic design of the electronic system must ensure that the temperature under all fault conditions can never rise to a value which may cause the ignition of explosive gasses. Our engineers design the intrinsic safety schematics for explosion-proof product line.



*Intrinsically safe design*

### Non-Sparking Device

Intrinsically safe design means that ignition of a hazardous atmosphere (explosive gas or dust) cannot occur. This is achieved by ensuring that only low voltages and currents enter the hazardous area and that no significant energy storage is possible. Tout thermal design also prevents device's from overheating.



*Thermal design*

### No-Air Potting Process

Potting is a process of filling a complete electronic assembly with a solid or gelatinous compound for resistance to shock and vibration, and for exclusion of moisture and corrosive agents. Winmate perform no-air potting of electronic components in-house. Potting prevents the substrate from failing in harsh environments or from vibrations or other potentially-damaging uses.



*Potting process*

# Safety and Standards

## Quality Management System

Winmate factory is UL and CSA certified with Quality Management System.



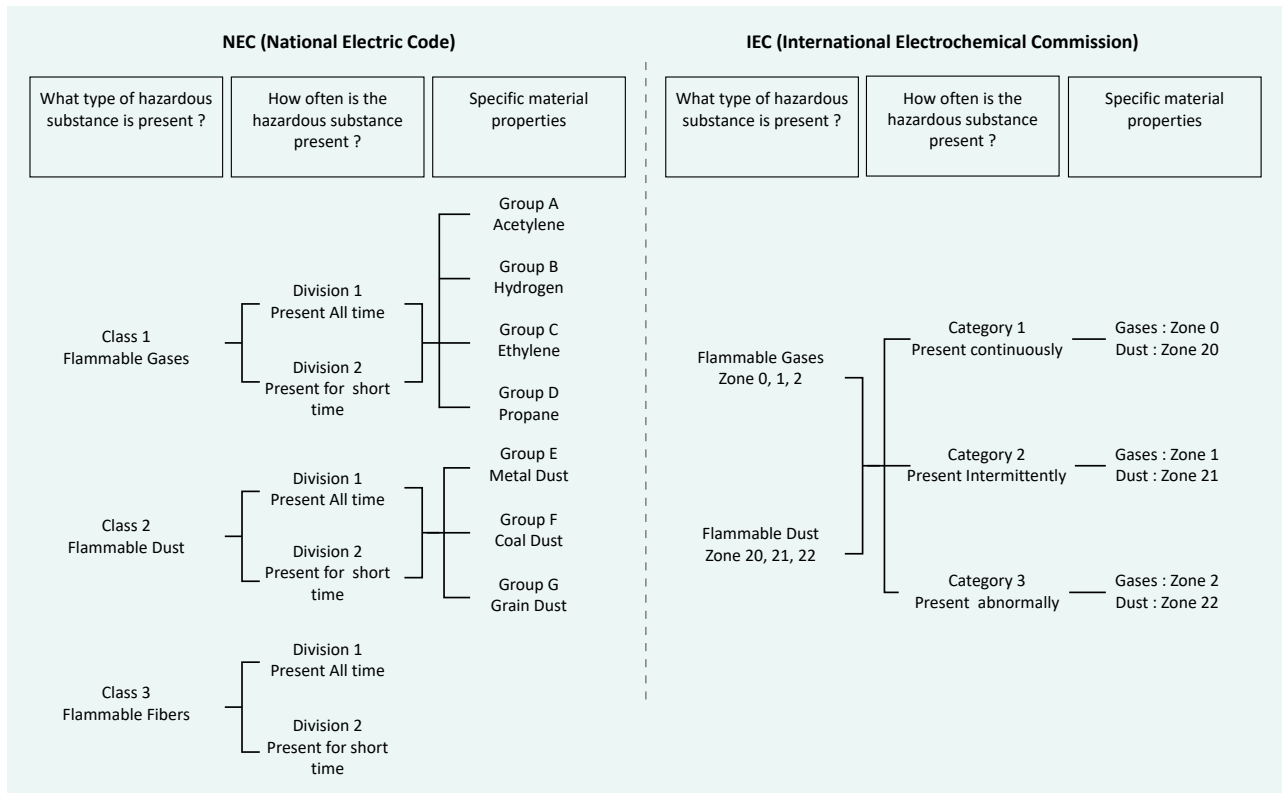
## Product Testing & Certifications

To meet the safety qualification, Winmate offers ATEX and Class 1 Division 2 (C1D2)certified solutions for maintaining safe operations and collecting detailed, sensitive data in remote rig and pipeline locations.

For the classification of the equipment, Winmate generally uses both the North American National Electric Code (NEC) and the European ATEX directive.

## NEC and IEC Certifications

<p>NEC (National Electric Code)</p>	<p>According to OSHA, NEC defines hazardous locations as those areas where fire or explosion hazards may exist due to flammable gases or vapors, flammable liquids, combustible dust of ignitable fibers or flyings. NEC classified hazardous locations in three ways; type, condition, and nature.</p>
<p>IEC (International Electrochemical Commission)</p>	<p>IEC defines the flammable gases and vapors and then flammable dust, each of this type are assigned into three different zone and each zone then requires equipment built for category I,II or III.</p>



# ATEX Embedded Computing IBDRW100-EX

## Custom configuration



Memory



Storage



2<sup>nd</sup> Storage



Wi-Fi



4G



## Application



### Petrochemical Processing Plant

"STABLE PERFORMANCE IN A COMPACT RUGGED DESIGN."

This DIN Rail Box PC was integrated as the system controller for a petrochemical plant monitoring onsite data.

“

**COMPACT.  
FOR HAZARDOUS  
LOCATIONS.**

”

- Intel® Celeron® N2930
- Windows 10
- DIN-Rail mount

---

Class 1, Division 2, ATEX Zone 2

---

Certified AWS IoT Greengrass

---

RS232/422/485 communication port, switch by jumper

---

Digital I/O, four Giga LAN

---

VGA video output

---

One USB 3.0, three USB 2.0

---

Fanless, streamlined enclosure

---

Wide operating temperature -20°C to 60°C

## Accessories

### Standard

Power Adapter

Power Cable

Open Wire Cable

Terminal Block DI/DO

Terminal Block Adapter

Cable Holder Kit

DIN Rail Mount Clip

# ATEX Embedded Computing

Intel® Celeron® N2930



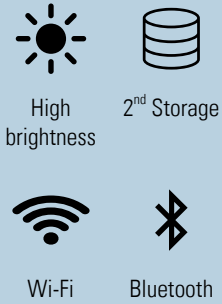
Model Name	IBDRW100-EX	IBDRW100-EX-P
<b>System</b>		
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)
<b>Memory</b>	1 x DDR3L 1333MHz SO-DIMM (Default 4GB, up to 8GB)	1 x DDR3L 1333MHz SO-DIMM (Default 4GB, up to 8GB)
<b>Storage</b>	Main Storage : Default : 64GB mSATA SSD, up to 512GB Optional Second Storage : 2.5" SSD 64GB to 512GB	Main Storage : Default : 64GB M.2 SSD, up to 512GB Optional Second Storage : 2.5" SSD 64GB to 512GB
<b>Ethernet Controller</b>	Intel® I210-AT GbE LAN	Intel® I210-AT Gigabit-LAN Controller
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise
<b>Connectors</b>		
<b>Power</b>	1 x 3 Pin Terminal Block	1 x 3 Pin Terminal Block
<b>Ethernet</b>	4 x RJ45 10/100/1000 (LAN3 disabled if WLAN Module is added)	4 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232) 1 x RS422/485 (Isolation)	1 x RS232/422/485 (Default RS232) 1 x RS422/485 (Isolation)
<b>USB</b>	1 x USB3.0, 3 x USB2.0	3 x USB 3.0, 1 x USB 2.0
<b>VGA</b>	1 x VGA	1 x VGA
<b>DI/DO</b>	1 x 20 pins terminal block DI/DO (9in/9out)	1 x 20 pins terminal block DI/DO (9in / 9out)
<b>Audio</b>	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
<b>Power</b>		
<b>Power Input</b>	9~36V DC with isolation	9~36V DC with isolation
<b>Power Consumption</b>	25W	25W
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Mechanical</b>		
<b>Dimensions</b>	139 x 65 x 152 mm	139 x 65 x 152 mm
<b>Mounting</b>	DIN Rail	DIN Rail
<b>Color</b>	Dark Silver	Dark Silver
<b>Housing</b>	Aluminum	Aluminum
<b>Cooling System</b>	Fanless design	Fanless design
<b>Environment</b>		
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C
<b>Storage Temp.</b>	-40°C to 80°C	-40°C to 80°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz / 1Grms/3 Axis
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration
<b>Certifications</b>		
<b>Safety</b>	CE, FCC, AWS, IoT Greengrass	CE, FCC
<b>HazLoc</b>	Class 1, Division 2 & ATEX Zone 2 device certified	Class 1, Division 2 & ATEX Zone 2 device certified



# 19" ATEX Panel PC

## R19IHAT-66EX

### Custom configuration



### Application



#### Oilfield Drilling Monitoring System

"THE HIGHEST STANDARD IN RELIABILITY AND SERVICE."

The 19" aluminum panel PC was implemented as part of an oilfield drilling monitoring system that now allows for better control over operations.

**“ EXPLOSION PROOF. FOR SAFE OPERATIONS. ”**

- 19", 1280 x 1024 screen
- Intel® Core™ i7-4650U
- Windows 10

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Class 1, Division 2 & ATEX Zone 2

---

4GB DDR3L SO-DIMM

---

128GB mSATA SSD

---

Projected capacitive touch, optical bonding

---

Fanless cooling system

---

Aluminum housing

---

Touch screen control physical button

---

VESA mount, Panel mount

---

Wide power input 9~36V DC with isolation

---

Wide operating temperature -40°C to 70°C

---

### Accessories

#### Standard

Open Wire Cable	Terminal Block DI/DO	Terminal Block Adapter	VESA Screws
Cable Holder Clip	DIN Rail Mount Clip	Power Cord	Power Converter Cable (0.15 m)

#### Optional

Side Handle	WiFi Antenna Extension Cable
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# ATEX Panel PC

Intel® Core™ i7-4650U



<b>Model Name</b>	<b>19"</b>
	<b>R19IHAT-66EX</b>
<b>Display</b>	
<b>Resolution</b>	1280 x 1024
<b>Panel Brightness</b>	600 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)
<b>Active Area</b>	376.32 x 301.06
<b>Viewing Angle</b>	-85~85 (H); -80~80 (V)
<b>Display Color</b>	16.7M
<b>Touch</b>	PCAP touchscreen
<b>System</b>	
<b>Processor</b>	Intel® Core™ i7-4650U (4M Cache, up to 3.30 GHz)
<b>BIOS</b>	AMI BIOS
<b>Chipset</b>	Intel® HD graphics 5000
<b>Memory</b>	4GB DDR3L 1600MHz SO-DIMM (Up to 8GB)
<b>Storage</b>	128GB mSATA SSD (Up to 512GB)
<b>OS</b>	Windows 10 IoT Enterprise
<b>Connectors</b>	
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232) 1 x RS422/485 (Isolation)
<b>USB</b>	1 x USB 2.0 terminal, 1 x USB 3.0, 2 x USB 2.0 (Female)
<b>LAN</b>	1 x LAN terminal block, 1 x RJ45 10/100/1000
<b>Power</b>	1 x DC in
<b>VGA</b>	1 x VGA (DB15)
<b>Mechanical</b>	
<b>Dimension</b>	474 x 410 x 111 mm
<b>Mounting</b>	VESA Mount (100 x 100 mm), Panel Mount
<b>Environment</b>	
<b>Operating Temp.</b>	-40°C to 70°C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6
<b>Vibration</b>	MIL-STD-810F/G Method 514.6
<b>Drop</b>	MIL-STD-810F/G Method 516.6
<b>Power</b>	
<b>Power Input</b>	9~36V DC (Isolation)
<b>Power Consumption</b>	56W (Typ.)
<b>Certifications</b>	
<b>Safety</b>	CE, FCC
<b>Hazardous Location</b>	IECEx Zone 2, ATEX Zone 2, Class I, Div. 2

# 15" ATEX Panel PC

## R15IB3S-65EX

### Custom configuration



Memory



Storage



High  
brightness



### Application



#### Gas Pipe Monitoring

"GAS DISTRIBUTION  
PROCESS VISUALIZATION  
AND OPERATOR  
CONTROL."

ATEX-certified panel PC  
visualizes each step of the  
gas distribution journey from  
extraction to refinery to  
improve production control  
and monitor possible leakage.

“**OPTIMIZE PERFORMANCE IN  
HAZARDOUS LOCATIONS.**”

- 15", 1024 x 768 screen
- Intel® Celeron® N2930 (R15IB3S-65EX)
- Intel Atom® N2600 (R15ID3S-65EX)
- Windows 10

Class 1, Division 2, ATEX Zone 2, IECEx Zone 2

Projected capacitive touch, optical bonding

Fanless cooling system

Stainless housing

VESA mount

Wide power input 9~36V DC with isolation

Operating temperature -20°C to 50°C

### Accessories

#### Standard

RS232 Cable

Ethernet Extension Adapter

USB Cable

USB Adapter

RJ45 Cable

Power Cord

Power Adapter

VESA Screws

# ATEX Panel PC

Intel® Celeron® N2930  
Intel Atom® N2600



Model Name	15"	15"
	R15ID3S-65EX	R15IB3S-65EX
<b>Display</b>		
Resolution	1024 x 768	1024 x 768
Panel Brightness	550 nits	550 nits
Contrast Ratio	2000:1 (Typ.)	2000:1 (Typ.)
Active Area	304.1 x 228.1	304.1 x 228.1
Viewing Angle	-88~88 (H); -88~88 (V)	-88~88 (H); -88~88 (V)
Display Color	16.2M	16.2M
Touch	Resistive touchscreen	PCAP touchscreen
<b>System</b>		
Processor	Intel Atom® N2600 (1M Cache, 1.6 GHz)	Intel® Celeron® N2930, 1.83 GHz
BIOS	AMI BIOS	AMI BIOS
Chipset	Intel® NM10	Intel® SoC Integrated
Memory	4GB DDR3 1600MHz SO-DIMM (Up to 8GB)	4GB DDR3L 1600MHz SO-DIMM (Up to 8GB)
Storage	64GB mSATA SSD (Up to 512GB)	64GB mSATA SSD (Up to 512GB)
OS	Windows 7 Pro for Embedded System Windows Embedded Std. 7	Windows 10 IoT Enterprise
<b>Connectors</b>		
Serial Interface	1 x M12 Type RS232/422/485	1 x M12 Type RS232/422/485
USB	1 x M21 Type USB Type-A Receptacle	1 x M21 Type USB Type-A Receptacle
LAN	1 x M12 Type RJ45 10/100/1000	1 x M12 Type RJ45 10/100/1000
Power	1 x M21 Type DC in	1 x M21 Type DC in
<b>Mechanical</b>		
Dimension	396 x 310 x 49 mm	396 x 310 x 49 mm
Mounting	VESA Mount (100 x 100 mm)	VESA Mount (100 x 100 mm)
<b>Environment</b>		
Operating Temp.	-20°C to 50°C	-20°C to 50°C
Humidity	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
Shock	MIL-STD-810F/G Method 516.6	MIL-STD-810F/G Method 516.6
Vibration	MIL-STD-810F/G Method 514.6	MIL-STD-810F/G Method 514.6
Drop	MIL-STD-810F/G Method 516.6	MIL-STD-810F/G Method 516.6
<b>Power</b>		
Power Input	9~36V DC (Isolation)	9~36V DC (Isolation)
Power Consumption	25W (Typ.)	35W (Typ.)
<b>Certifications</b>		
Safety	CE, FCC	CE, FCC
Hazardous Location	IECEX Zone 2, ATEX Zone 2, UL Class I, Div. 2	IECEX Zone 2, ATEX Zone 2, UL Class I, Div. 2

# 15" ATEX Display

## R15L600-65EX

### Custom configuration



High  
brightness



### Application



### Flow and Temperature Monitoring

"INTRISTICALLY SAFE DESIGN WITH USER FRIENDLY INTERFACE."

As a part of monitoring system Winmate's 15" ATEX-certified display to visualize gas flow and temperature on the operator control panel.

**“ OPTIMIZE PERFORMANCE IN HAZARDOUS LOCATIONS. ”**

- 15", 1024 x 768 screen
- VGA input
- Stainless housing

---

Class 1, Division 2, ATEX Zone 2, IECEx Zone 2

---

Projected capacitive touch, optical bonding

---

Fanless cooling system

---

Stainless housing

---

VESA mount, Panel mount

---

Wide power input 9~36V DC with isolation

---

Operating temperature -20°C to 50°C

---

### Accessories

#### Standard

RS232 Cable

USB Cable

RJ45 Cable

Power Adapter

Ethernet Extension Adapter

USB Adapter

Power Cord

VESA Screws

# ATEX Display

Stainless



<b>Model Name</b>	<b>15"</b>
	<b>R15L600-65EX</b>
<b>Display</b>	
<b>Resolution</b>	1024 x 768
<b>Panel Brightness</b>	550 nits (Optional 1000 nits)
<b>Contrast Ratio</b>	2000:1 (Typ.)
<b>Active Area</b>	304.128 x 228.096
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.2M
<b>Touch</b>	Resistive touchscreen/PCAP touchscreen
<b>Connectors</b>	
<b>USB</b>	1 x M12 Type USB or RS232 (For touch)
<b>Power</b>	1 x M21 type DC power input connector
<b>VGA</b>	1 x M21 Type VGA in
<b>Mechanical</b>	
<b>Dimension</b>	396 x 310 x 49 mm
<b>Mounting</b>	VESA Mount (100 x 100 mm)
<b>Environment</b>	
<b>Operating Temp.</b>	-20°C to 50°C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6
<b>Vibration</b>	MIL-STD-810F/G Method 514.6
<b>Drop</b>	MIL-STD-810F/G Method 516.6
<b>Power</b>	
<b>Power Input</b>	9~36V DC with isolation protection
<b>Power Consumption</b>	20W (typ.)
<b>Certifications</b>	
<b>Safety</b>	CE, FCC, CSA, UL60950-1
<b>Hazardous Location</b>	IECEx Zone 2, ATEX Zone 2, UL Class I, Div. 2

# Healthcare Solutions

## Overview

Technology has long played an imperative role in streamlining hospital operations and improving patient care. In hospital environments, performance, reliable and accurate image reproduction are imperative. From medical images to patient data, the hospital environment is a complex ecosystem that requires advanced technology to keep it running smoothly.

### Our medical imaging solutions include:

- Surgical and clinical display
- Durable design and know-how in medical images visualization

Expand your medical and healthcare business with the Winmate. As a technology solutions leader, Winmate values our partners. As a partner, you are a vital instrument in ensuring the customer needs are understood and that their expectations are exceeded every time.

## Technology

### Certification & Quality Approvals

Winmate developed and implemented a quality management system based on a process management approach which has demonstrate its ability to provide consistent products that meet customer and applicable regulatory requirements. The quality system complies with the international standard ISO 9001:2008 and the standards which apply to related industries.

Winmate achieved ISO 13485:2016 and EN ISO 13485:2016 certification for its' design, development, production, installation, and servicing of medical devices. This achievement also enables Winmate to expand its medical-related product line, and create new opportunities for our original design manufacturer (ODM), original equipment manufacturer (OEM), and rebranding partners.



What does this mean for you? Winmate's certification confirms any portable panel PCs and mobile tablets we develop for use in the medical industry are safe and meet all regulatory design requirements.





**YOUR HEALTHCARE APPLICATON.  
OUR RUGGED COMPUTING SOLUTION.**

## Industrial Challenges

### • Real Time Information

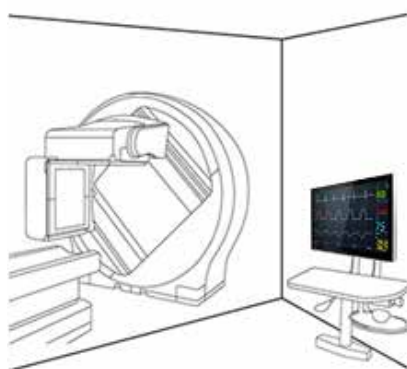
The trend in Healthcare applications is to get patients' information in real time for a quick response. Cost saving, online data available everywhere and reduced loading of personnel are the key benefits of this solution. Physicians, clinicians, nurses and ambulance workers who take care patients can focus on helping them, instead working with papers and reports.

### • Reliable and Accurate Image Reproduction

In hospital environments, performance, reliable, and accurate image reproduction are imperative. From Healthcare images to patient data, the hospital environment is complex ecosystem that requires advance technology to keep it running smoothly. The Display with a UHD 4K (3840 x 2160) resolution and a 3D LUT for color accuracy; helps minimize errors and improve hospital operational efficiencies.

### • Complex Environment

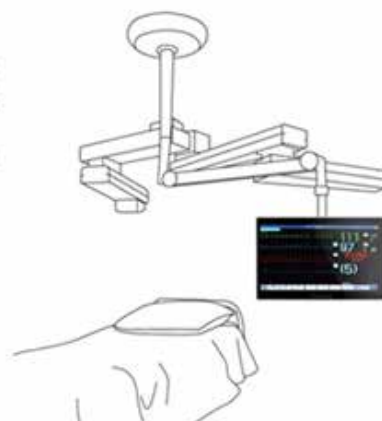
The need is to reduce cable cluttering and maintenance downtime.



Radiology Display



Surgical Display



Patient Monitoring Display

# 27" / 32" Healthcare Display

## 12G-SDI Series

NEW

### Custom configuration



Optical Bonding



DICOM



High Brightness



Light Sensor



P-Cap Touch



Calibration Software

# 4K

Ultra HD

12G-SDI



### Application



#### Surgical Display

"4K SIGNAL TRANSMISSION TO A DISTANCE FOR UP TO 150 METERS."

The M270TF-SDI is a 27" surgical display with 12G-SDI interface to ensure the precise imagery remains unchanged from the video source to the 4K display and therefore allows healthcare providers to have the most accurate imaging.

“NEXT LEVEL OF MEDICAL IMAGING.”

- 27" / 32" screen, 3840 x 2160 resolution

IEC 60601, EN60950-1

12G-SDI in/out, HDMI 2.0, HDMI 1.4, DP 1.2

3D LUT color scheme

Backlight sensor, ambient light sensor

Antimicrobial surface coating

VESA mount

Front IP65 waterproof and dustproof

Operating temperature 0~35°C

### Accessories

AC Adapter

HDMI Cable

VGA Cable

USB Cable for Touch

# Healthcare Display

12G-SDI Series

NEW



NEW



Model Name	27" (16:9)	32" (16:9)
	M270TF-SDI	M320TF-SDI
<b>Display</b>		
<b>Native Resolution</b>	3840 x 2160 (UHD 4K)	3840 x 2160 (UHD 4K)
<b>Light Intensity</b>	300 nits 700 nits (Optional)	350 nits 700 nits (Optional)
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	596.16 x 335.34	708.48 x 398.52
<b>View Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Response Time</b>	12ms (Gray to Gray)	12ms (Gray to Gray)
<b>Max Colors</b>	1.07B	1.07B
<b>Screen Technology</b>	LED Backlight Technology, TFT Active-matrix, Widescreen, IPS Technology	LED Backlight Technology, TFT Active-matrix, Widescreen, IPS Technology
<b>Color Profiles</b>	Support 3D LUT profile 6 x general user color schemes DICOM GSDF (Optional)	Support 3D LUT profile 6 x general user color schemes DICOM GSDF (Optional)
<b>Optimal Resolution and Hz</b>	3840 x 2160 @ 60 Hz	3840 x 2160 @ 60 Hz
<b>User Controls</b>		
<b>Sensors</b>	Ambient light sensor IR Control Internal Backlight sensor (Optional for 700 cd/m <sup>2</sup> )	Ambient light sensor IR Control Internal Backlight sensor (Optional for 700 cd/m <sup>2</sup> )
<b>Control</b>	Capacitive OSD : Power On/Off, On Screen Display Menu, Panel Brightness Control (-/+)	Capacitive OSD : Power On/Off, On Screen Display Menu, Panel Brightness Control (-/+)
<b>Input Signal</b>	<ul style="list-style-type: none"> <li>• 12G-SDI</li> <li>• HDMI 1.4</li> <li>• HDMI 2.0</li> <li>• DP 1.2</li> <li>• USB for Touch (Optional)</li> <li>• RS232 for Remote Control (Optional)</li> </ul>	<ul style="list-style-type: none"> <li>• 12G-SDI</li> <li>• HDMI 1.4</li> <li>• HDMI 2.0</li> <li>• DP 1.2</li> <li>• USB for Touch (Optional)</li> <li>• RS232 for Remote Control (Optional)</li> </ul>
<b>Output Signal</b>	• 12G SDI (Loop Through)	• 12G SDI (Loop Through)
<b>Mechanical</b>		
<b>Product Dimensions</b>	643.17 x 408.06 x 48 mm	777.58 x 477.62 x 48 mm
<b>Mounting</b>	VESA Mount (100 x 100, 200 x 100 mm)	VESA Mount (100 x 100, 200 x 100, 300 x 100 mm)
<b>Product Weight</b>	9.5 kg	11 Kg
<b>Factory Options</b>	Projected Capacitive PCAP Multi-Touch (USB)	Projected Capacitive PCAP Multi-Touch (USB)
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 35°C, humidity up to 95%	0°C to 35°C, humidity up to 95%
<b>Storage Temp.</b>	-20°C to 60°C, humidity up to 95%	-20°C to 60°C, humidity up to 95%
<b>IP Rating</b>	Front-IP65, Rear-IP22	Front-IP65, Rear-IP22
<b>Power</b>		
<b>Power Input</b>	12V DC	12V DC
<b>AC Adapter</b>	110~240V AC to DC Adapter	110~240V AC to DC Adapter
<b>Certifications</b>		
<b>Type Approval, Testing and Certificates</b>	CE, FCC	CE, FCC

# 27"/32" Healthcare Display

## 4K UHD Series

### Custom configuration



Optical Bonding



DICOM



High Brightness



Light Sensor



P-Cap Touch



Calibration Software

# 4K

Ultra HD



### Application



### Fluoroscopy Display

"PICTURE-INPICTURE  
FUNCTION  
FOR DIAGNOSTIC  
INTERPRETATION."

Real-time imaging during a fluoroscopy procedure enables surgeons to confirm diagnosis in many areas of the body including bones, joints, muscles, as well as digestive, and reproductive systems.

**“ ACCURATE DEPICTION OF  
CRITICAL DETAILS. ”**

- 27"/ 32" screen, 3840 x 2160 resolution
- Certified ISO 13485:2016

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IEC 60601, EN60950-1

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ANSI/AAMI ES60601, IEC 62366

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3G-SDI in/out, HDMI 2.0, HDMI 1.4, VGA, DP 1.2, DVI

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3D LUT color scheme

---

Backlight sensor, ambient light sensor

---

Antimicrobial surface coating

---

VESA mount

---

Front IP65 waterproof and dustproof

---

Operating temperature 0~35°C

### Accessories

AC Adapter

HDMI Cable

VGA Cable

USB Cable for Touch

# Healthcare Display

4K UHD Series



Model Name	27" (16:9)	32" (16:9)
	M270TF	M320TF
<b>Display</b>		
<b>Native Resolution</b>	3840 x 2160 (UHD 4K)	3840 x 2160 (UHD 4K)
<b>Light Intensity</b>	300 nits, optional high panel brightness up to 700 nits	350 nits, optional high panel brightness up to 700 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	596.16 x 335.34	708.48 x 398.52
<b>View Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Response Time</b>	12ms (Gray to Gray)	12ms (Gray to Gray)
<b>Max Colors</b>	1.07B	1.07B
<b>Screen Technology</b>	LED Backlight Technology, TFT Active-matrix, Widescreen, IPS Technology	LED Backlight Technology, TFT Active-matrix, Widescreen, IPS Technology
<b>Synchronization Signal Auto-detect</b>	Digital Separate Sync., Composite Sync., Sync. On Green	Digital Separate Sync., Composite Sync., Sync. On Green
<b>Color Profiles</b>	3D LUT profile selection + 6 general user color schemes	3D LUT profile selection + 6 general user color schemes
<b>Optimal Resolution and Hz</b>	3840 x 2160 @ 60 Hz	3840 x 2160 @ 60 Hz
<b>User Controls</b>		
<b>Sensors</b>	Backlight sensor, Ambient light sensor, IR Control	Backlight sensor, Ambient light sensor, IR Control
<b>Control</b>	Capacitive OSD : Power On/Off, On Screen Display Menu, Panel Brightness Control (-/+)	Capacitive OSD : Power On/Off, On Screen Display Menu, Panel Brightness Control (-/+)
<b>Input Signal</b>	<ul style="list-style-type: none"> <li style="margin-right: 10px;">• 3G SDI</li> <li style="margin-right: 10px;">• HDMI 2.0</li> <li style="margin-right: 10px;">• DP1.2</li> <li style="margin-right: 10px;">• VGA</li> <li style="margin-right: 10px;">• HDMI 1.4</li> <li>• Audio In</li> </ul>	<ul style="list-style-type: none"> <li style="margin-right: 10px;">• 3G SDI</li> <li style="margin-right: 10px;">• HDMI 2.0</li> <li style="margin-right: 10px;">• DP1.2</li> <li style="margin-right: 10px;">• VGA</li> <li style="margin-right: 10px;">• HDMI 1.4</li> <li>• Audio In</li> </ul>
<b>Output Signal</b>	<ul style="list-style-type: none"> <li style="margin-right: 10px;">• 3G SDI</li> <li>• DP1.2</li> </ul>	<ul style="list-style-type: none"> <li style="margin-right: 10px;">• 3G SDI</li> <li>• DP1.2</li> </ul>
<b>Mechanical</b>		
<b>Product Dimensions</b>	643.17 x 408.06 x 48 mm	777.58 x 477.62 x 48 mm
<b>Mounting</b>	VESA Mount (100 x 100, 200 x 100 mm)	VESA Mount (100 x 100, 200 x 100, 300 x 100 mm)
<b>Product Weight</b>	9.5 kg	13 Kg
<b>Factory Options</b>	<ul style="list-style-type: none"> <li>• Rubber Bumper</li> <li>• Projected Capacitive PCAP Multi-Touch (USB)</li> </ul>	<ul style="list-style-type: none"> <li>• Rubber Bumper</li> <li>• Projected Capacitive PCAP Multi-Touch (USB)</li> </ul>
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 35°C, humidity up to 95%	0°C to 35°C, humidity up to 95%
<b>Storage Temp.</b>	-20°C to 60°C, humidity up to 95%	-20°C to 60°C, humidity up to 95%
<b>IP Rating</b>	Front-IP65, Rear-IP22	Front-IP65, Rear-IP22
<b>Power</b>		
<b>Power Input</b>	24V DC 150W	24V DC 150W
<b>AC Adapter</b>	AC 110~240 V, Universal, ±10%	AC 110~240 V, Universal, ±10%
<b>Certifications</b>		
<b>Type Approval, Testing and Certificates</b>	<ul style="list-style-type: none"> <li>• IEC 60601-1:2005 + A1:2015 (Ed. 3.1)</li> <li>• IEC 60601-1-6:2010 + A1:2013 (Ed. 3.1)</li> <li>• IEC 62366:2007 + A1:2014 (Ed. 1.1)</li> <li>• ANSI/AAMI ES60601-1:2005/A1:2012 and C1:2009/(R)2012 and A2:2010/(R)2012</li> <li>• CAN/CSA-C22.2 No.60601-1:14</li> <li>• EN606001-1-2</li> <li>• EN55032/EN55024, FCC part 15B</li> <li>• EN60950-1</li> </ul>	<ul style="list-style-type: none"> <li>• IEC 60601-1:2005 + A1:2015 (Ed. 3.1)</li> <li>• IEC 60601-1-6:2010 + A1:2013 (Ed. 3.1)</li> <li>• IEC 62366:2007 + A1:2014 (Ed. 1.1)</li> <li>• ANSI/AAMI ES60601-1:2005/A1:2012 and C1:2009/(R)2012 and A2:2010/(R)2012</li> <li>• CAN/CSA-C22.2 No.60601-1:14</li> <li>• EN606001-1-2</li> <li>• EN55032/EN55024, FCC part 15B</li> <li>• EN60950-1</li> </ul>



# 15.6" Healthcare Display

## Multi-Touch Series



### Application



### Diagnosis and Clinical Review

"SHARP & BRIGHT IMAGES."

Winmate 15.6" medical display allow monitoring patient information and support various mounting options.

“**FOR MEDICAL IMAGING AND CLINICAL DATA VIZUALISATION.**”

”

- 15.6", 1920 x 1080 screen
- Projected capacitive touch
- Certified ISO 13485:2016

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IEC 60601-1:2005, IEC 60601-1-6:2010, EN60601-1-2 Ed.4.0

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Touch interface USB

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VGA, HDMI input

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VESA mount

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IP65 waterproof and dustproof

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Operating temperature 0~50°C

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### Accessories

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AC Adapter

HDMI Cable

VGA Cable

USB Cable for Touch



# Healthcare Display

Multi-Touch Series



<b>Model Name</b>	<b>15.6" (16:9)</b> <b>W15L100-PTA3-ME</b>
<b>Display</b>	
<b>Resolution</b>	1920 x 1080
<b>Panel Brightness</b>	300 nits
<b>Contrast Ratio</b>	700 : 1 (Typ.)
<b>Viewing Angle</b>	-85~85 (H); -85~85 (V)
<b>Max Colors</b>	16.2M
<b>Touch</b>	Projected Capacitive PCAP Multi-Touch
<b>Connectors</b>	
<b>VGA</b>	1 x VGA
<b>HDMI</b>	1 x HDMI
<b>USB</b>	1 x USB for touch
<b>Audio</b>	
<b>Audio Input</b>	Line-in
<b>OSD Membrane</b>	Buttons at rear side
<b>Speaker</b>	2 x 1 Watt speaker
<b>Mechanical</b>	
<b>Dimensions</b>	387.8 x 232.9 x 384 mm
<b>Mounting</b>	VESA Mount (75 x 75, 100 x 200 mm)
<b>Housing</b>	Back cover color White, Plastic housing
<b>Environment</b>	
<b>Operating Temp.</b>	0°C to 50°C
<b>LCD Panel Lifetime</b>	50,000 hours
<b>Power</b>	
<b>Power Input</b>	12V DC 2.5 mm
<b>Power Consumption</b>	10W (Typ.)
<b>AC Adapter</b>	External AC to DC Adapter. Complies with Level V1 efficiency standard
<b>Certifications</b>	
<b>Safety</b>	<ul style="list-style-type: none"> <li>• RoHS-2, REACH, WEEE compliant</li> <li>• EN55032/EN55024, FCC part 15B</li> </ul>
<b>Medical</b>	<ul style="list-style-type: none"> <li>• IEC 60601-1:2005 + A1:2015 (Ed. 3.1)</li> <li>• IEC 60601-1-6:2010 + A1:2013 (Ed. 3.1)</li> <li>• IEC 62366:2007 + A1:2014 (Ed. 1.1)</li> <li>• ANSI/AAMI ES60601-1:2005/ A1:2012 and C1:2009/(R)2012 and A2:2010/(R)2012</li> <li>• CAN/CSA-C22.2 No.60601-1:14</li> <li>• EN60601-1-2 (Ed. 4.0)</li> <li>• EN60950-1</li> </ul>

# Marine

## Overview




Winmate understands the needs of the marine industry and provides solutions to the unique challenges that the industry faces.

- Ruggedness: Winmate reliability tests ensure optimal performance in harsh environments, including exposure to humidity, shock and vibration.
- Panel Options: Transflective screen or a high brightness display.
- Viewability: Numerous combinations of display and touch technologies as well as backlight intensities help enable sunlight viewability.
- Design and Electronics: Powder coated aluminum housings feature anti-corrosion protection.

## Technology

### Certificate

Winmate marine products are built and tested according to the DNV 2.4 Standard, IEC60945 and IACS-E10.

	DNV GL is an independent foundation with the objectives of safeguarding life, property and the environment at sea and on shore. DNV certification pertains to the quality of ships, offshore units and installations of the system and components. DNV requirements are harmonized with IACS Unified Requirements E10 and IEC publication 60945.
	International Association of Classification Societies (IACS) is an organization that provides technical support and guidance for promoting the safety of life, property and the environment through the verification of compliance with technical and engineering standards for the design, construction and life-cycle maintenance of ships, offshore units and other marine-related facilities.
	Equipment wished to be use in navigation and radio communication systems is to comply with IEC 60945, "Maritime navigation and radio communication equipment and systems – General Requirements- Method of testing and required test results."

### ECDIS Color Calibration

Winmate Marine Displays and Panel PCs can be adjusted to day, dusk or night mode to accommodate any lighting situation. Color settings are calibrated at the factory for the accurate color reproduction according to the IEC 61174 ECDIS Standard.



Reliable computing for  
safe maritime operations

## Industrial Challenges

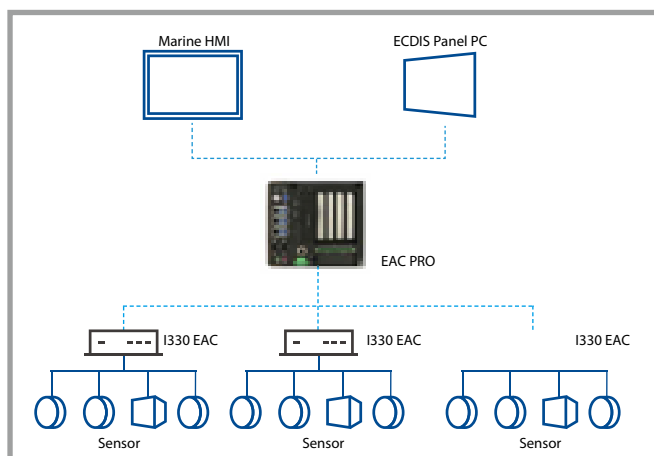
To meet the regulatory requirements of the marine industry, Winmate offers certified solutions for shipping navigation, monitoring and surveillance, and ship automation systems. Winmate understands the needs of the marine industry and provides solutions to industrial challenges:

- **Extreme environments**  
Marine equipment faces extreme environments such as temperature changes, strong vibration, water drops.
- **Accurate chart depiction**  
Accurate chart displaying is crucial in maritime applications.
- **Day, night and dusk**  
On-board computers must provide viewability in day, night and dusk conditions.

## Innovative Solutions

All Winmate marine products are built and tested according to DNV 2.4 Standard, IEC60945 and IACS-E10.

- Winmate reliability test ensure optimal performance in harsh maritime environments.
- Powder coated aluminum housing feature anti-corrosion protection, handle significant vibration and shock as well as operation in high humidity.
- Enhanced panel viewability and backlight intensity.
- Transflective screen or a high brightness display.
- Dimmable backlight.
- ECDIS color calibration to accurately display navigational charts.



# Marine Embedded Computing

## I330EAC-IKW

### Custom configuration



Memory



2nd Storage



NMEA 0183



DI/DO



### Application



#### Bridge System

“EFFECTIVE  
MARINE DEVICES  
COMMUNICATION.”

High-performance embedded system that feature an NMEA 0183 interface and digital input/ output for effective marine device communication.

“**ABUNDANT INTERFACES  
AND RUGGED  
CONSTRUCTION.**”

- Intel® Core™ i5-7200U
- Windows 10
- IEC 60945 Test Report

---

64GB mSATA SSD

---

Four USB 3.0

---

HDMI, VGA, DVI output

---

RS232/422/485

---

Two LAN ports

---

Aluminum housing

---

Power input 9~36V DC with 1.5KV isolation

---

Vibration, shock resistant DNV 2.4 (Class A)

---

Wide operating temperature -15~55°C

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### Accessories

#### Standard

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AC Adapter

Power Cord

# Marine Embedded Computing

Intel® Core™ i5-7200U



<b>Model Name</b>	<b>I330EAC-IKW</b>
<b>System</b>	
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	Insyde BIOS
<b>Memory</b>	1 x SODIMM DDR4L-2133 4GB (Max up to 16GB)
<b>Storage</b>	1 x mSATA SSD 64GB (Default) 2 x 2.5" Removable SSD/HDD
<b>Ethernet Controller</b>	1000 Base-Tx Gigabit Ethernet Compatible
<b>Connectors</b>	
<b>Power</b>	1 x 3pin Power Input w/Phoenix type Terminal Block
<b>Ethernet</b>	2 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)
<b>USB</b>	4 x USB 3.0
<b>GPIO</b>	8 x Isolated DI/DO, 4 In/4out (Optional)
<b>NMEA 0183 Port</b>	8 x NMEA 0183 (Optional)
<b>Display Output</b>	1 x HDMI Output, 1 x VGA, 1 x DVI
<b>Audio</b>	Line-in, Line-out
<b>User Interfaces</b>	
<b>Control Buttons</b>	1 x Power Button, 1 x Reset Button
<b>Mechanical</b>	
<b>Dimensions</b>	316.44 x 206.8 x 62.1 mm
<b>Mounting</b>	VESA Mount (100 x 100 mm), Wall, Desktop
<b>Color</b>	Black
<b>Housing</b>	Aluminum
<b>Environment</b>	
<b>Operating Temp.</b>	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	0.7g@DNVGL CG-0339 (Class A)
<b>Shock</b>	15G, 11ms duration
<b>Power</b>	
<b>Power Input</b>	24V DC with 1.5KV DC Isolation Resistance (9~36V DC Acceptable)
<b>Power Consumption</b>	40W (Typ.)
<b>Certifications</b>	
<b>Safety</b>	CE, FCC
<b>Marine</b>	IEC 60945 4th Edition (Test Report Available)

# Marine Embedded Computing

## I330EAC-IK3

### Custom configuration

Up to  
**16 GB**

Memory

Up to  
**512 GB**

Storage



### Application



### Integrated Automation System

“REAL-TIME SYSTEM MONITORING.”

Marine box computer is connected to integrated alarm systems, engine control systems, propulsion control systems of the vessel. The data collected is displayed on a marine display. Reliable I/O connection and processing power facilitate real-time system monitoring and collaboration of control rooms.

“

**PROCESSING POWER AND RELIABLE I/O CONNECTIONS.**

”

- Intel® Core™ i5-7200U
- Intel Atom® D2550
- Windows 10
- VESA, wall mount, desktop

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4GB DDR4-2133 SO-DIMM

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64GB M.2 B Key SATA III SSD

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HDMI, VGA

---

RS232/422/485

---

Three isolated RS-422/485 with auto-detect

---

Two LAN ports

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8 Channel GPIO

---

Power input 24V DC with 1.5KV DC isolation

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Aluminum housing

---

Vibration, shock resistant

---

Wide operating temperature -15~55°C

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### Accessories

#### Standard

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AC Adapter



# Marine Embedded Computing

Intel® Core™ i5-7200U

Intel Atom® D2550



Model Name	I330EAC-IK3	I330EAC-ID3
<b>System</b>		
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel Atom® D2550 (1M Cache, 1.86 GHz)
<b>BIOS</b>	Insyde BIOS	AMI BIOS
<b>Chipset</b>	Intel® SoC Integrated	Intel® NM10
<b>Memory</b>	4GB DDR4-2133 SO-DIMM (Max 16GB)	1 x SODIMM, Max 4GB DDR3L 1600 (2GB Default)
<b>Storage</b>	1 x 64GB M.2 B Key SATA III (Options up to 512GB)	1 x mSATA SSD 64G (Default) 1 x 2.5" SATA HDD (Optional)
<b>Ethernet Controller</b>	Intel® I211 Gigabit-LAN controller + I219LM Gigabit-LAN PHY	-
<b>Connectors</b>		
<b>Power</b>	1 x 3pin Power Input with Phoenix type Terminal Block	1 x 3pin Power Input w/Phoenix type Terminal Block
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	3 x RS422/485 (Isolated)	3 x RS422/485 (Isolated)
<b>USB</b>	2 x USB 3.0	2 x USB
<b>GPIO</b>	8 Channel GPIO by Phoenix type Terminal Block 5V/12mA	1 x GPIO 4 in/out by Phoenix type Terminal Block
<b>Display Output</b>	1 x VGA	1 x VGA
<b>Audio</b>	Mic-in, Line-out, Line-in	Micro-in, Line-out, Line-in
<b>User Interfaces</b>		
<b>Control Buttons</b>	1 x Power Button, 1 x Reset Button	1 x Power Button, 1 x Reset Button
<b>Mechanical</b>		
<b>Dimensions</b>	296 x 169 x 66 mm	296 x 169 x 66 mm
<b>Mounting</b>	VESA / Wall-mount / Desktop	VESA / Wall-mount / Desktop
<b>Color</b>	Silver	Silver
<b>Housing</b>	Aluminum	Aluminum
<b>Environment</b>		
<b>Operating Temp.</b>	-15°C to 55°C	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz/1Grms/3 Axis
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration
<b>Power</b>		
<b>Power Input</b>	24V DC with 1.5KV DC Isolation Resistance (9~36V DC Acceptable)	24V DC with 1.5KV DC Isolation Resistance (9~36V DC Acceptable)
<b>Power Consumption</b>	60W (Typ.)	40W (Typ.)
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC
<b>Marine</b>	-	IEC60945, DNV GL-CG-0339, IACS-E10

# 15" ~ 26" Marine Panel PC ECDIS Series

## Custom configuration



Color  
Calibration



AR  
Glass



NMEA 0183



DI/DO



## Application



### Bridge System

"ECDIS COMPLIANCE TO REPRODUCE ACCURATE CHART DISPLAY"

Marine panel PC featuring a flat edge-to-edge surface and PCAP touchscreen. Large screen and responsive touch allow for intuitive user controls of the bridge system.

“

**PROCESSING POWER AND  
USER-FRIENDLY INTERFACE.**

”

- 15"/19"/24"/26" with PCAP touchscreen
- Intel® Core™ i5-5250U
- Windows 10/7
- IEC 60945, DNVGL-CG-0339, IACS E10

---

RS232/422/485, RS232, two USB 3.0

---

Capacitive touch keys for display control

---

Day, dusk, and night mode

---

0%~100% backlight brightness dimming control

---

Panel mount, VESA mount

---

Vibration resistant DNV 2.4 (Class A)

---

Wide power input 9~36V DC with isolation

---

Front IP66 waterproof and dustproof

---

Wide operating temperature -15~55°C

## Accessories

### Standard

AC Adapter

Power Cord

3pin Terminal Block

Black Screw Bolts

### Optional

Four 5pin Terminal Block 3.81(Phoenix Type)

# Marine Panel PC

Intel® Core™ i5-5250U



Model Name	15"	19"	24" (16:9)	26" (16:10)
	R15IH3S-MRA3FP	R19IH3S-MRA1FP	W24IH3S-MRA1FP	W26IH3S-MRA1FP
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1280 x 1024	1920 x 1080	1920 x 1200
<b>Panel Brightness</b>	400 nits	350 nits	300 nits	350 nits
<b>Contrast Ratio</b>	2500:1 (Typ.)	1000:1 (Typ.)	5000:1 (Typ.)	1500:1 (Typ.)
<b>Active Area</b>	306.0 x 230.0	376.32 x 301.06	531.36 x 298.89	550.1 x 343.8
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	-88~88 (H); -88~88 (V)
<b>Display Color</b>	16.2M	16.7M	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen (Optional AR Protection Glass)	PCAP touchscreen (Optional AR Protection Glass)	PCAP touchscreen (Optional AR Protection Glass)	PCAP touchscreen (Optional AR Protection Glass)
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-5250U (3M Cache, up to 2.70 GHz)	Intel® Core™ i5-5250U (3M Cache, up to 2.70 GHz)	Intel® Core™ i5-5250U (3M Cache, up to 2.70 GHz)	Intel® Core™ i5-5250U (3M Cache, up to 2.70 GHz)
<b>Chipset</b>	Intel® 8 series QM87	Intel® 8 series QM87	Intel® 8 series QM87	Intel® 8 series QM87
<b>Memory</b>	4GB DDR3L SODIMM (Max. 16GB)	4GB DDR3L SODIMM (Max. 16GB)	4GB DDR3L SODIMM (Max. 16GB)	4GB DDR3L SODIMM (Max. 16GB)
<b>Security</b>	Trusted Platform Module (TPM 1.2)	Trusted Platform Module (TPM 1.2)	Trusted Platform Module (TPM 1.2)	Trusted Platform Module (TPM 1.2)
<b>Ethernet Controller</b>	Dual Ethernet Gb LAN	Dual Ethernet Gb LAN	Dual Ethernet Gb LAN	Dual Ethernet Gb LAN
<b>Storage</b>	64GB mSATA SSD (Max. 256GB)	64GB mSATA SSD (Max. 256GB)	64GB mSATA SSD (Max. 256GB)	64GB mSATA SSD (Max. 256GB)
<b>Speaker</b>	2 x 2W Speaker	2 x 2W Speaker	2 x 2W Speaker	2 x 2W Speaker
<b>Buzzer</b>	75 dB~80 dB, 2300 Hz, 1m	75 dB~80 dB, 2300 Hz, 1m	75 dB~80 dB, 2300 Hz, 1m	75 dB~80 dB, 2300 Hz, 1m
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>Power</b>	1 x 3pin terminal block (Phoenix type)	1 x 3pin terminal block (Phoenix type)	1 x 3pin terminal block (Phoenix type)	1 x 3pin terminal block (Phoenix type)
<b>LAN</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	2 x USB3.0	2 x USB3.0, 1 x USB2.0	2 x USB3.0, 1 x USB2.0	2 x USB3.0, 1 x USB2.0
<b>HDMI</b>	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI
<b>Digital I/O</b>	8 Channel Isolated DI/DO (Optional)	8 Channel Isolated DI/DO (Optional)	8 Channel Isolated DI/DO (Optional)	8 Channel Isolated DI/DO (Optional)
<b>NMEA</b>	4 x NMEA 0183 port (Optional)	4 x NMEA 0183 port (Optional)	4 x NMEA 0183 port (Optional)	4 x NMEA 0183 port (Optional)
<b>Mechanical</b>				
<b>Dimensions</b>	363 x 312 x 66.5 mm	429 x 382 x 72.8 mm	595 x 385 x 63.8 mm	621 x 432.4 x 85.5 mm
<b>Mounting</b>	Panel Mount, VESA (100 x 100 mm)	Panel Mount, VESA (100 x 100 mm)	Panel Mount, VESA (100 x 100, 150 x 150 mm)	Panel Mount, VESA (100 x 100, 100 x 200 mm)
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Power</b>				
<b>Power Input</b>	24V DC with Isolation (9~36V acceptable)	24V DC with Isolation (9~36V acceptable)	24V DC with Isolation (9~36V acceptable)	24V DC with Isolation (9~36V acceptable)
<b>Power Consumption</b>	80W (Max.)	80W (Max.)	80W (Max.)	80W (Max.)
<b>Environment</b>				
<b>Operating Temp.</b>	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	0.7g@DNV2.4 (Class A)	0.7g@DNV2.4 (Class A)	0.7g@DNV2.4 (Class A)	0.7g@DNV2.4 (Class A)
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration
<b>IP Rating</b>	Front IP66	Front IP66	Front IP66	Front IP66
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC
<b>Marine</b>	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th, DNV GL-CG-0339, IACS E10

# 10.4"~24" Marine Panel PC VR Knob Series

## Custom configuration



Memory



AR  
Glass



PCAP  
Touchscreen



Mounting  
Bracket



RS-422/  
485



## Application



### Boat Command Center

"GREAT VIZUALIZATION.  
OF THE DASHBOARD."

The marine panel PC installed in a boat command center allows you to view all of your boat's vital signs directly from your computer. Customized dimming setting increase the visibility in dusk or night time.

“**CORROSION RESISTANT.**”

- 10.4"~24" screen with resistive touchscreen
- Intel Atom® N2600
- Windows 7
- IEC 60945, DNV 2.4, IACS-E10 certified

---

4GB SODIMM DDR3

---

VGA

---

Two USB 2.0

---

Two RS232, RS232/422/485

---

RAM mount, VESA mount

---

Vibration, shock resistant DNV 2.4 (Class A)

---

Power input 9~36V DC with ignition

---

Front IP66 waterproof and dustproof

---

Wide operating temperature -15~55°C

## Accessories

### Standard

Screw bolts

### Optional

Power Cord

# Marine Panel PC

Intel Atom® N2600



Model Name	10.4"	12.1"	15"
	R10ID3S-MRM2	R12ID3S-MRM2	R15ID3S-MRM2
<b>Display</b>			
Resolution	800 x 600	1024 x 768	1024 x 768
Panel Brightness	400 nits	500 nits	400 nits
Contrast Ratio	500:1 (Typ.)	1000:1 (Typ.)	700:1 (Typ.)
Active Area	211.2 x 158.4	245.76 x 184.32	304.128 x 228.096
Viewing Angle	-80~80 (H); -60~80 (V)	-89~89 (H); -89~89 (V)	-80~80 (H); -60~80 (V)
Display Color	16.2M	16.2M	16.2M
Touch	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass
<b>System</b>			
Processor	Intel Atom® N2600 (1M Cache, 1.6 GHz)	Intel Atom® N2600 (1M Cache, 1.6 GHz)	Intel Atom® N2600 (1M Cache, 1.6 GHz)
BIOS	AMI BIOS	AMI BIOS	AMI BIOS
Chipset	Intel® NM10 express chipset	Intel® NM10 express chipset	Intel® NM10 express chipset
Memory	1 x SODIMM DDR3L, max.4GB (Default 2GB)	1 x SODIMM DDR3L, max.4GB (Default 2GB)	1 x SODIMM DDR3L, max.4GB (Default 2GB)
Ethernet	Dual Broadcom BCM57780 GbE controller	Dual Broadcom BCM57780 GbE controller	Dual Broadcom BCM57780 GbE controller
Audio	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
Storage	32GB SSD	32GB SSD	32GB SSD
<b>Connectors</b>			
Power Input	1 x DC Terminal block	1 x DC Terminal block	1 x DC Terminal block
Ethernet	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
COM	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232)
USB	2 x USB Type-A Receptacle	2 x USB Type-A Receptacle	2 x USB Type-A Receptacle
VGA	1 x VGA 15P DSUB (Female)	1 x VGA 15P DSUB (Female)	1 x VGA 15P DSUB (Female)
<b>Power</b>			
Power Input	9~36V DC power supply with terminal block	9~36V DC power supply with terminal block	9~36V DC power supply with terminal block
Power Consumption	30W (Typ.)	30W (Typ.)	40W (Typ.)
<b>Mechanical</b>			
Cooling System	Fanless design	Fanless design	Fanless design
Mounting	Panel Mount, VESA Mount (75 x 75 mm)	Panel Mount, VESA Mount (75 x 75 mm)	Panel Mount, VESA Mount (75 x 75 mm)
<b>Environment</b>			
Operating Temp.	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
Humidity	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
Vibration	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz/1Grms/3 Axis
Shock	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration
IP Rating	Front IP66	Front IP66	Front IP66
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC
Marine	IEC60945, DNV GL-CG-0339, IACS-E10	IEC60945, DNV GL-CG-0339, IACS-E10	IEC60945, DNV GL-CG-0339, IACS-E10



# Marine Panel PC

Intel Atom® N2600



Model Name	17"	19"	24" (16:9)
	R17ID3S-MRM1	R19L300-MRA2ID3S	W24L100-MRA1ID3S
<b>Display</b>			
<b>Resolution</b>	1280 x 1024	1280 x 1024	1920 x 1080
<b>Panel Brightness</b>	350 nits	350 nits	300 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	5000:1 (Typ.)
<b>Active Area</b>	304.128 x 228.096	376.32 x 301.06	531.36 x 298.89
<b>Viewing Angle</b>	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (H)
<b>Pixel Pitch</b>	0.297 (H) x 0.297 (V)	0.294 (H) x 0.294 (V)	0.276 (H) x 0.276 (V)
<b>Display Color</b>	16.2M	16.7M	16.7M
<b>Touch</b>	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass
<b>System</b>			
<b>Processor</b>	Intel Atom® N2600 (1M Cache, 1.6 GHz)	Intel Atom® N2600 (1M Cache, 1.6 GHz)	Intel Atom® N2600 (1M Cache, 1.6 GHz)
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS
<b>Chipset</b>	Intel® NM10 express chipset	Intel® NM10 express chipset	Intel® NM10 express chipset
<b>Memory</b>	1 x SODIMM DDR3L max.4GB (Default 2 GB)	1 x SODIMM DDR3L max.4GB (Default 2 GB)	1 x SODIMM DDR3L max.4GB (Default 2 GB)
<b>Ethernet</b>	Dual Broadcom BCM57780 GbE controller	Dual Broadcom BCM57780 GbE controller	Dual Broadcom BCM57780 GbE controller
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>Storage</b>	32GB SSD	32GB SSD	32GB SSD
<b>Expansion slot</b>	4 x RS232 or 4 x Isolate RS422/485 (Optional)	4 x RS232 or 4 x Isolate RS422/485 (Optional)	4 x RS232 or 4 x Isolate RS422/485 (Optional)
<b>Connectors</b>			
<b>Power Input</b>	1 x DC Terminal block	1 x DC Terminal block	1 x DC Terminal block
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>COM</b>	2 x RS232 1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	2 x USB Type-A Receptacle	2 x USB Type-A Receptacle	2 x USB Type-A Receptacle
<b>VGA</b>	1 x VGA 15P DSUB (Female)	1 x VGA 15P DSUB (Female)	1 x VGA 15P DSUB (Female)
<b>Mechanical</b>			
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	Panel Mount, VESA Mount (75 x 75 mm)	Panel Mount, VESA Mount (100 x 100 mm)	Panel Mount, VESA Mount (100 x 100, 150 x 280 mm)
<b>Environment</b>			
<b>Operating Temp.</b>	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz/1Grms/3 Axis
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration
<b>IP Rating</b>	Front IP66	Front IP66	Front IP66
<b>Power</b>			
<b>Power Input</b>	9~36V DC	9~36V DC	9~36V DC
<b>Power Consumption</b>	40W (Typ.)	100W (Typ.)	100W (Typ.)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC
<b>Marine</b>	IEC60945, DNV GL-CG-0339, IACS E10	IEC60945, DNV GL-CG-0339, IACS E10	IEC60945, DNV GL-CG-0339, IACS E10



# 10.1" Marine Panel PC

## Marine HMI



“ **FITS IN CONFINED SPACES.** ”

- 10.1"; 1280 x 800 with PCAP touchscreen
- Intel® Celeron® N2930
- Windows 10/8/7
- IEC 60945 Test Report

---

4GB DDR3L

---

64GB mSATA SSD

---

Two RS-422, USB 2.0

---

Gigabit LAN

---

Panel mount, VESA mount

---

Vibration resistant DNV 2.4 (Class A)

---

Wide power input 9~36V DC with isolation

---

Front IP65 waterproof and dustproof

---

Wide operating temperature -15~55°C

### Accessories

#### Standard

AC Adapter

M12 Power Cable

3pin Terminal Block

M12 USB/LAN Cable

M12 RS-422 Cable

I/O Protective Caps

#### Optional

External Wi-Fi Antenna

External WWAN Antenna

### Custom configuration



GPS



Wi-Fi



3G

### Application



### Yacht Navigation System

“COMPACT WATERPROOF DESIGN AND WIRELESS CONNECTIVITY.”

10.1" rugged marine HMI was installed in a space-restricted yacht as a part of navigation system. The customer installed GPS and Wi-Fi for wireless connectivity.

# Marine Panel PC

Intel® Celeron® N2930



<b>Model Name</b>	<b>10.1" (16:10)</b> <b>W10IB3S-MRH2</b>
<b>Display</b>	
<b>Resolution</b>	1280 x 800
<b>Brightness</b>	300 nits
<b>Contrast Ratio</b>	800:1 (Typ.)
<b>Active Area</b>	216.96 x 135.6
<b>Viewing Angle</b>	-89~89 (H); -89~89 (V)
<b>Display Color</b>	262K
<b>Touch</b>	PCAP touchscreen
<b>System</b>	
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	4GB DDR3L SODIMM
<b>Security</b>	Trusted Platform Module (TPM 1.2)
<b>Ethernet Controller</b>	1 x Gigabit LAN (M12 type)
<b>Storage</b>	64GB mSATA SSD
<b>Speaker</b>	1 x 1 Watt Speaker
<b>OS</b>	Windows 10 IoT Enterprise Windows Embedded 8.1 Industry Pro Windows Embedded Standard 7 Windows 7 Pro for Embedded System
<b>Connectors</b>	
<b>Power</b>	1 x DC in (M12 type)
<b>LAN</b>	1 x Gigabit LAN (M12 type)
<b>Serial Interface</b>	2 x RS-422 (M12 type), 1 x RS-422 when with WWAN (M12 type)
<b>USB</b>	1 x USB 2.0 (M12 type)
<b>Mechanical</b>	
<b>Dimensions</b>	263.28 x 173.6 x 40.2 mm
<b>Mounting</b>	Panel Mount, VESA Mount (75 x 75 mm)
<b>Cooling System</b>	Fanless design
<b>Power</b>	
<b>Power Input</b>	9~36V DC
<b>Power Consumption</b>	25W (Typ.)
<b>Environment</b>	
<b>Operating Temp.</b>	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	0.7g@DNV2.4 (Class A)
<b>Shock</b>	15G, 11ms duration
<b>IP Rating</b>	Front: IP65 water and dust proof, Full: IP44
<b>Certifications</b>	
<b>Safety</b>	CE, FCC
<b>Marine</b>	Comply with IEC60945 (Test report)

# 15"~26" Marine Display ECDIS Series



“ **PROCESSING POWER AND  
USER-FRIENDLY INTERFACE.** ”

- 15"/19"/24"/26" screen with PCAP touchscreen
- IEC 60945, DNVGL-CG-0339, IACS E10

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RS232/422/485

---

Capacitive touch keys for display control

---

Day, dusk, and night mode

---

0%~100% backlight brightness dimming control

---

Panel mount, VESA mount

---

Vibration resistant DNV 2.4 (Class A)

---

Wide power input 9~36V DC with isolation

---

Front IP66 waterproof and dustproof

---

Wide operating temperature -15~55°C

## Accessories

### Standard

AC Adapter

Power Cord

3pin Terminal Block

Black Screw Bolts

### Optional

Four 5pin Terminal Block 3.81(Phoenix Type)

## Custom configuration



Color  
Calibration



AR  
Glass



NMEA 0183



DI/DO

## Application



### Bridge System

“ECDIS COMPLIANCE TO  
REPRODUCE ACCURATE  
CHART DISPLAY.”

Marine panel PC featuring a flat edge-to-edge surface and PCAP touchscreen. Large screen and responsive touch allow for intuitive user controls of the bridge system.

# Marine Display

## ECDIS Series



Model Name	15"	19"	24" (16:9)	26" (16:10)
	R15L600-MRA3FP	R19L300-MRA1FP	W24L100-MRA1FP	W26L100-MRA1FP
<b>Display</b>				
<b>Resolution</b>	1024 x 768	1280 x 1024	1920 x 1080	1920 x 1200
<b>Panel Brightness</b>	400 nits	350 nits	300 nits	350 nits
<b>Contrast Ratio</b>	2500:1 (Typ.)	1000:1 (Typ.)	5000:1 (Typ.)	1500:1 (Typ.)
<b>Active Area</b>	306 x 230	376.3 2 x 301.06	531.36 x 298.89	550.1 x 343.8
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	-88~88 (H); -88~88 (V)
<b>Pixel Pitch</b>	0.2947 (H) x 0.2947 (V)	0.294 (H) x 0.294 (V)	0.276 (H) x 0.276 (V)	0.2865 (H) x 0.2865 (V)
<b>Display Color</b>	16.2M	16.7M	16.7M	16.7M
<b>Input Signals</b>				
<b>DVI-D Signal</b>	DVI-D 24pin (Female)	DVI-D 24pin (Female)	DVI-D 24pin (Female)	DVI-D 24pin (Female)
<b>DC Power Signal</b>	3pin Terminal block (Phoenix type)	3pin Terminal block (Phoenix type)	3pin Terminal block (Phoenix type)	3pin Terminal block (Phoenix type)
<b>Touch Screen</b>	PCAP touchscreen (Optional AR Protection Glass)	PCAP touchscreen (Optional AR Protection Glass)	PCAP touchscreen (Optional AR Protection Glass)	PCAP touchscreen (Optional AR Protection Glass)
<b>Remote control via RS232</b>	D-SUB 9pin connector (Female)	D-SUB 9pin connector (Female)	D-SUB 9pin connector (Female)	D-SUB 9pin connector (Female)
<b>VGA</b>	D-SUB 15pin (Female)	D-SUB 15pin (Female)	D-SUB 15pin (Female)	D-SUB 15pin (Female)
<b>HDMI</b>	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
<b>User Controls</b>				
<b>Display Control</b>	OSD control via programmable capacitive touch keys (ECDIS, Home, Brightness(+,-), Power)	OSD control via programmable capacitive touch keys (ECDIS, Home, Brightness(+,-), Power)	OSD control via programmable capacitive touch keys (ECDIS, Home, Brightness(+,-), Power)	OSD control via programmable capacitive touch keys (ECDIS, Home, Brightness(+,-), Power)
<b>OSD Remote Control</b>	Remote Control via RS232 Serial Interface	Remote Control via RS232 Serial Interface	Remote Control via RS232 Serial Interface	Remote Control via RS232 Serial Interface
<b>Power</b>				
<b>Power Input</b>	24V DC with Isolation (9~36V acceptable)	24V DC with Isolation (9~36V acceptable)	24V DC with Isolation (9~36V acceptable)	24V DC with Isolation (9~36V acceptable)
<b>Power Consumption</b>	80W (Max)	80W (Max)	80W (Max)	80W (Max)
<b>Mechanical</b>				
<b>Dimension</b>	363 x 312 x 66.5 mm	429 x 382 x 72.8 mm	595 x 385 x 63.8 mm	621 x 432.4 x 85.5 mm
<b>Mounting</b>	Panel Mount, VESA Mount (100 x 100 mm)	Panel Mount, VESA Mount (100 x 100 mm)	Panel Mount, VESA Mount (100 x 100, 100 x 200 mm)	Panel Mount, VESA Mount (100 x 100, 100 x 200 mm)
<b>Environment</b>				
<b>Operating Temp.</b>	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	0.7g@DNV2.4 (Class A)	0.7g@DNV2.4 (Class A)	0.7g@DNV2.4 (Class A)	0.7g@DNV2.4 (Class A)
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration
<b>IP Rating</b>	Front IP66	Front IP66	Front IP66	Front IP66
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC
<b>Marine</b>	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th, DNV GL-CG-0339, IACS E10

# 10.4"~24" Marine Display Knob Series



“ **BRIGHTNESS CONTROL  
WITH DIMMING KNOB.** ”

- 10.4"~24" screen with resistive touchscreen
- IEC 60945, DNV 2.4, IACS-E10 certified

---

RGB, composite video

---

VGA, S-Video, DVI-D

---

PIP function

---

RAM mount, VESA mount

---

Vibration, shock resistant DNV 2.4 (Class A)

---

Power input 24V DC with isolation

---

Front IP66 waterproof and dustproof

---

Wide operating temperature -15~55°C

## Accessories

### Standard

DVI Cable    VGA Cable    RS232 Cable    S-Video Cable    Composite Cable    Screw Bolts

### Optional

Power Cord

## Custom configuration



PCAP  
Touchscreen



SAW  
Touch



AR  
Glass



Mounting  
Bracket

## Application



### Navigation Simulator

“FAST DEPLOYMENT WITH EXISTING NAVIGATION SYSTEM.”

Winmate 24" marine monitor with resistive touchscreen was installed in a navigation system of a marine training center. Transmission of RGB and composite video signal was required to integrate with existing systems.



# Marine Display

## Knob Series



Model Name	10.4"	12.1"	15"	17"
	R10L210-MRM2	R12L600-MRM2	R15L600-MRM2	R17L500-MRM1
<b>Display</b>				
<b>Resolution</b>	800 x 600	1024 x 768	1024 x 768	1280 x 1024
<b>Panel Brightness</b>	400 nits	500 nits	400 nits	350 nits
<b>Contrast Ratio</b>	500:1 (Typ.)	1000:1 (Typ.)	700:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	211.2 x 158.4	245.76 x 184.32	304.128 x 228.096	337.92 x 270.34
<b>Viewing Angle</b>	-80~80 (H); -60~80 (V)	-89~89 (H); -89~89 (V)	-80~80 (H); -60~80 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>	16.2M	16.2M	16.2M	16.2M
<b>Touch</b>	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass
<b>Connectors</b>				
<b>RGB Signal</b>	D-SUB 15P (Female)	D-SUB 15P (Female)	D-SUB 15P (Female)	D-SUB 15P (Female)
<b>Composite Video</b>	RCA phono plug	RCA phono plug	RCA phono plug	RCA phono plug
<b>S-Video Signal</b>	S-Video (SVHS) plug	S-Video (SVHS) plug	S-Video (SVHS) plug	S-Video (SVHS) plug
<b>DVI-D Signal</b>	DVI-D input 24pin	DVI-D input 24pin	DVI-D input 24pin	DVI-D input 24pin connector
<b>DC Power Signal</b>	Screw terminal block	Screw terminal block	Screw terminal block	Screw terminal block
<b>AC Power Signal (Optional)</b>	Std. IEC inlet	Std. IEC inlet	Std. IEC inlet	Yes
<b>Touch Screen</b>	D-SUB 9P (Female)	D-SUB 9P (Female)	D-SUB 9P (Female)	D-SUB 9P connector (Female)
<b>Remote control via RS232</b>	D-SUB 9P (Female)	D-SUB 9P (Female)	D-SUB 9P (Female)	D-SUB 9P connector (Female)
<b>User Controls</b>				
<b>Power Control</b>	Power On/Off via Front Button	Power On/Off via Front Button	Power On/Off via Front Button	Power On/Off via Front Button
<b>VR Control</b>	Brightness Knob Control	Brightness Knob Control	Brightness Knob Control	Brightness Knob Control
<b>Display Control</b>	On Screen Display control(OSD)	On Screen Display control(OSD)	On Screen Display control(OSD)	On Screen Display control(OSD)
<b>OSD Remote Control</b>	OSD Remote Control via RS232	OSD Remote Control via RS232	OSD Remote Control via RS232	OSD Remote Control via RS232
<b>LED indicators</b>	Power Mode Status LED	Power Mode Status LED	Power Mode Status LED	Power Mode Status LED
<b>Mechanical</b>				
<b>Mounting</b>	Panel Mount, VESA Mount (75 x 75 mm)	Panel Mount, VESA Mount (75 x 75 mm)	Panel Mount, VESA Mount (75 x 75 mm)	Panel Mount, VESA Mount (100 x 100 mm)
<b>Environment</b>				
<b>Operating Temp.</b>	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	5Hz~500Hz /1Grms /3 Axis	5Hz~500Hz /1Grms /3 Axis	5Hz~500Hz /1Grms /3 Axis	5Hz~500Hz /1Grms /3 Axis
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration
<b>IP Rating</b>	Front IP66	Front IP66	Front IP66	Front IP66
<b>Power</b>				
<b>Power Input</b>	24V DC	9~36V DC	24V DC	9~36V DC
<b>Power Consumption</b>	21W (Typ.)	32W (Typ.)	40W (Typ.)	48W (Typ.)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC
<b>Marine</b>	IEC60945 4th, DNV GL-CG-0339, IACS E1	IEC60945 4th	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th



# Marine Display

## Knob Series



Model Name	19"	20.1"	23.1"	24" (16:9)
	R19L300-MRA1	R20L100-MRA2	R23L100-MRS1	W24L100-MRA1
<b>Display</b>				
<b>Resolution</b>	1280 x 1024	1600 x 1200	1600 x 1200	1920 x 1080
<b>Panel Brightness</b>	400 nits	300 nits	500 nits	300 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	800:1 (Typ.)	600:1 (Typ.)	5000:1 (Typ.)
<b>Active Area</b>	376.32 x 301.06	408 x 306	470.4 x 352.8	531.36 x 298.89
<b>Viewing Angle</b>	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)	-85~85 (H); -85~85 (V)	-85~85 (H); -85~85 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M
<b>Touch</b>	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass	SAW, 5 Wire Resistive touchscreen or 3mm Anti-reflective protection glass
<b>Connectors</b>				
<b>RGB Signal</b>	D-SUB 15P connector (Female)	D-SUB 15P connector (Female)	D-SUB 15P connector (Female)	D-SUB 15P connector (Female)
<b>Composite Video</b>	RCA phono plug	RCA phono plug	RCA phono plug	-
<b>S-Video Signal</b>	S-Video (SVHS) plug	S-Video (SVHS) plug	S-Video (SVHS) plug	-
<b>DVI-D Signal</b>	DVI-D input 24pin connector	DVI-D input 24pin connector	DVI-D input 24pin connector	DVI-D input 24pin connector
<b>DC Power Signal</b>	Screw terminal block	Screw terminal block	Screw terminal block	Screw terminal block
<b>AC Power Signal (Optional)</b>	Yes	-	Std IEC Inlet	-
<b>Touch Screen</b>	D-SUB 9P connector (Female)	D-SUB 9P connector (Female)	D-SUB 9P connector (Female)	D-SUB 9P connector (Female)
<b>Remote control via RS232</b>	D-SUB 9P connector (Female)	D-SUB 9P connector (Female)	D-SUB 9P connector (Female)	D-SUB 9P connector (Female)
<b>User Controls</b>				
<b>Power Control</b>	Power On/Off via Front Button	Power On/Off via Front Button	Power On/Off via Front Button	Power On/Off via Front Button
<b>VR Control</b>	Brightness Knob Control	Brightness Knob Control	Brightness Knob Control	Brightness Knob Control
<b>Display Control</b>	On Screen Display control (OSD)	On Screen Display control (OSD)	On Screen Display control (OSD)	On Screen Display control (OSD)
<b>OSD Remote Control</b>	OSD Remote Control via RS232	OSD Remote Control via RS232	OSD Remote Control via RS232	OSD Remote Control via RS232
<b>LED indicators</b>	Power Mode Status LED	Power Mode Status LED	Power Mode Status LED	Power Mode Status LED
<b>Mechanical</b>				
<b>Mounting</b>	Panel Mount, VESA Mount (100 x 100 mm)	Panel Mount, VESA Mount (100 x 100 mm)	Panel Mount, VESA Mount (100 x 100 mm)	Panel Mount, VESA Mount (100 x 100, 150 x 280 mm)
<b>Environment</b>				
<b>Operating Temp.</b>	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C	-15°C to 55°C
<b>Humidity</b>	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Vibration</b>	5Hz~500Hz /1Grms /3 Axis	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz/1Grms/3 Axis	5Hz~500Hz/1Grms/3 Axis
<b>Shock</b>	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration	15G, 11ms duration
<b>IP Rating</b>	Front IP66	Front IP66	Front IP66	Front IP66
<b>Power</b>				
<b>Power Input</b>	24V DC	9~36V DC	24V DC	24V DC
<b>Power Consumption</b>	45W (Typ.)	70W (Typ.)	80W (Typ.)	80W (Typ.)
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC
<b>Marine</b>	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th	IEC60945 4th, DNV GL-CG-0339, IACS E10	IEC60945 4th, DNV GL-CG-0339, IACS E10

# Military

## Overview

Winmate's military panel PC and display are designed to be rugged, and undergo rigorous testing to ensure safety and performance, going beyond military standard compliance.

Winmate understands the needs of the military industry and provides solutions that can overcome these industrial challenges:

- MIL-STD 810-G Testing: For MIL-STD 810G compliance, Winmate tests the product against extreme environmental conditions (temperature, shock, vibration, humidity).
- MIL-STD 461-F Testing: For MIL-STD 461F compliance, detailed testing specification ensures that the product meets the requirements for the control of electromagnetic interference.



Built to survive drops, shocks, liquid spills, vibrations, dust, salt, and extreme temperatures, our specially designed military line of products has been tested for MIL-STD-810G environmental and MIL-STD 461F EMC standards.



## Technology

### Military Certifications

All Winmate military products are built and tested according to military standards MIL-STD-810 and MIL-STD-461.

 <p>MIL-STD-461E/F</p>	<p>MIL-STD-461 is a United States Military Standard that describes how to test equipment for electromagnetic compatibility.</p> <p>Specifically, MIL-STD-461F details testing specification to ensure the conducted emissions (CE), conducted susceptibility (CS), radiated emissions (RE), and radiated susceptibility (RS) of a system can meet the requirements for the control of electromagnetic interference.</p> <ul style="list-style-type: none"> <li>• MIL-STD-461 Method - CE101/CE102: Conducted Emissions</li> <li>• MIL-STD-461 Method - RE101/RE102: Radiated Emissions</li> <li>• MIL-STD-461 Method - CS101/CS106/CS109/CS114/CS115/CS116: Conducted Susceptibility</li> <li>• MIL-STD-461 Method - RS101/RS103: Radiated Susceptibility</li> </ul>
 <p>MIL-STD-810F/G</p>	<p>The MIL-STD-810 test series are approved for use by all departments and agencies of the United States Department of Defense (DoD).</p> <p>The standard describes environmental management and engineering processes that can be of enormous value to generate confidence in the environmental worthiness and overall durability of a system design.</p> <ul style="list-style-type: none"> <li>• MIL-STD-810 Method 501.4: High Temperature</li> <li>• MIL-STD-810 Method 502.4: Low Temperature</li> <li>• MIL-STD-810 Method 507.4: Humidity</li> <li>• MIL-STD-810 Method 514.5: Vibration</li> <li>• MIL-STD-810 Method 516.5: Shock</li> </ul>

## Special Connectors

### Military Connectors

Winmate military panel PC and display come with MIL-DTL-38999 type I and III connectors – high-performance cylindrical connectors for cable-to-panel applications in military, air traffic control, or other mission-critical situations.



### Panel Viewability & OSD Control

The high-resolution display is fully rugged offering optimized visibility with optical bonding, and comes with easy-to-use front panel control. The advanced computing platform enables faster searches and real-time information, providing rapid response capabilities.



# 17"~24" Military Panel PC Rack Mount

## Custom configuration

Up to  
**16 GB**

Memory

Up to  
**256 GB**

Storage



Resistive  
Touchscreen



AR Glass



EMI Mesh  
Coating



RS232

**9~36V  
DC**

DC Power  
Input



## Application



### Military Training Center

"COMPATIBLE WITH OUR EXISTING SYSTEM DESIGN."

Military grade panel PC was installed in a new military training center facility in Europe. The solution simulates real experience on the field.

**“ HIGH PERFORMANCE FOR MILITARY APPLICATIONS. ”**

- 17"~24" with AR glass
- Intel® Core™ i5-7200U
- Windows 10

---

Up to 16GB DDR4-2133

---

64GB M.2 B Key SATA III

---

Two USB 3.0, one HDMI

---

Two RJ45 for Ethernet

---

RS232/422/485

---

Vibration, shock MIL-STD 810F/G, EMC MIL-STD 461E/F

---

Power connector MIL-DTL-38999/1

---

Power input AC 110~240V

---

Console mount, VESA mount

---

Front IP65 waterproof and dustproof

---

Wide operating temperature -20~60°C

## Accessories

### Standard

Power Cord MIL-DTL-38999/1

Driver CD

User Manual

# Military Rack Mount Panel PC

Intel® Core™ i5-7200U



Model Name	17"	19"	20.1"	24" (16:10)
	R17IK3S-RKA1ML	R19IK3S-RKA3ML	R20IK3S-RKA2ML	W24IK3S-RKS1ML
<b>Display</b>				
<b>Resolution</b>	1280 x 1024	1280 x 1024	1600 x 1200	1920 x 1200
<b>Panel Brightness</b>	350 nits	350 nits	300 nits	300 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	1400:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	337.92 x 270.34	376.32 x 301.06	408 x 306	518.4 x 324
<b>Viewing Angle</b>	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-85~85(H);-80~80(V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M
<b>Touch</b>	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>Glass</b>	Default AR Glass Optional EMI Coating Glass	Default AR Glass Optional EMI Coating Glass	Default AR Glass Optional EMI Coating Glass	Default AR Glass Optional EMI Coating Glass
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)	Intel® Core™ i5-7200U (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	Insyde BIOS	Insyde BIOS	Insyde BIOS	Insyde BIOS
<b>Memory</b>	1 x DDR4-2133, Default 4GB (Max 16GB)	1 x DDR4-2133, Default 4GB (Max 16GB)	1 x DDR4-2133, Default 4GB (Max 16GB)	1 x DDR4-2133, Default 4GB (Max 16GB)
<b>Storage</b>	1 x M.2 B Key SATA III , Default 64GB	1 x M.2 B Key SATA III , Default 64GB	1 x M.2 B Key SATA III , Default 64GB	1 x M.2 B Key SATA III , Default 64GB
<b>Ethernet Controller</b>	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® Gigabit-LAN Controller I211AT + PHY I219LM
<b>OS</b>	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
<b>Connectors</b>				
<b>Power</b>	1 x Power Input (MIL-DTL-38999/1)	1 x Power Input (MIL-DTL-38999/1)	1 x Power Input (MIL-DTL-38999/1)	1 x Power Input (MIL-DTL-38999/1)
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>COM</b>	1 x RS232/422/485 (Default RS232) 1 x RS232 (optional)	1 x RS232/422/485 (Default RS232) 1 x RS232 (optional)	1 x RS232/422/485 (Default RS232) 1 x RS232 (optional)	1 x RS232/422/485 (Default RS232) 1 x RS232 (optional)
<b>USB</b>	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0
<b>VGA</b>	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI
<b>Mechanical</b>				
<b>Dimensions</b>	482 x 354 x 80 mm	482.6 x 399.3 x 81.4 mm	482.6 x 399.3 x 85 mm	609.5 x 399.3 x 76.2 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	Rack Mount/VESA Mount	Rack Mount/VESA Mount	Rack Mount/VESA Mount	Rack Mount/VESA Mount
<b>User Controls</b>				
<b>Control Buttons</b>	Power/Brightness DOWN/ Brightness UP/Night/Day/Auto/ Manual/Reset/LOCK	Power/Brightness DOWN/ Brightness UP/Night/Day/Auto/ Manual/Reset/LOCK	Power/Brightness DOWN/ Brightness UP/Night/Day/Auto/ Manual/Reset/LOCK	Power/Brightness DOWN/ Brightness UP/Night/Day/Auto/ Manual/Reset/LOCK
<b>LED Indicator</b>	Power LED/HDD/Lock	Power LED/HDD/Lock	Power LED/HDD/Lock	Power LED/HDD/Lock
<b>Environment</b>				
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C	0°C to 60°C	0°C to 50°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I
<b>Vibration</b>	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65	Front IP65
<b>Power</b>				
<b>Power Input</b>	Default AC 110~240V, Optional isolation 9~36V DC	Default AC 110~240V, Optional isolation 9~36V DC	Default AC 110~240V, Optional isolation 9~36V DC	Default AC 110~240V, Optional isolation 9~36V DC
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC



# 17"~24" Military Panel PC Rack Mount

## Custom configuration



Memory



Storage



Resistive  
Touchscreen



AR Glass



EMI Mesh  
Coating



RS232



DC Power  
Input



## Application



### Communications Center

“DESIGNED TO  
MEET MILITARY  
REQUIREMENTS.”

The whole unit feature military grade interfaces to connect to many different equipment in the military communications center. Rugged housing for safety and performance.

## “MILITARY GRADE POWER AND INTERFACES.”

- 17"~24" screen
- Intel® Core™ i7-4650U
- Windows 10/8/7

---

4GB DDR3L 1600

---

64GB mSATA SSD

---

Mini PCIe expansion slot

---

Connectors MIL-DTL-38999/3

---

VGA, RS232, USB A-Type, LAN

---

EMC MIL-STD 461E/F

---

Vibration, shock MIL-STD 810F/G

---

Power connector MIL-DTL-38999/1

---

Power input AC 110~240V

---

Console mount, VESA mount

---

Front IP65 waterproof and dustproof

---

Wide operating temperature -20~60°C

## Accessories

### Standard

Power Cord MIL-DTL-38999/1

VGA Cable

RS232 Cable

User Manual

Driver CD



# Military Rack Mount Panel PC

Intel® Core™ i7-4650U



Model Name	17"	19"	24" (16:10)
	R17IH3S-MLA1-89	R19IH3S-MLA3-89	W24IH3S-MLS1-89
<b>Display</b>			
<b>Resolution</b>	1280 x 1024	1280 x 1024	1920 x 1200
<b>Panel Brightness</b>	350 nits	350 nits	300 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	337.92 x 270.34	376.32 x 301.06	518.4 x 324
<b>Viewing Angle</b>	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M
<b>Touch</b>	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>Glass</b>	Default AR Glass Optional EMI Coating Glass	Default AR Glass Optional EMI Coating Glass	Default AR Glass Optional EMI Coating Glass
<b>System</b>			
<b>Processor</b>	Intel® Core™ i7-4650U (4M Cache, up to 3.30 GHz)	Intel® Core™ i7-4650U (4M Cache, up to 3.30 GHz)	Intel® Core™ i7-4650U (4M Cache, up to 3.30 GHz)
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS
<b>Memory</b>	1 x SO-DIMM DDR3L 1600, Default 4GB	1 x SO-DIMM DDR3L 1600, Default 4GB	1 x SO-DIMM DDR3L 1600, Default 4GB
<b>Storage</b>	mSATA SSD, Default 64GB (Up to 256GB)	mSATA SSD, Default 64GB (Up to 256GB)	mSATA SSD, Default 64GB (Up to 256GB)
<b>Ethernet Controller</b>	Intel® Ethernet Controller 1211-AT +, Intel® Gigabit Etherne PHY 1218-LM	Intel® Ethernet Controller 1211-AT +, Intel® Gigabit Etherne PHY 1218-LM	Intel® Ethernet Controller 1211-AT +, Intel® Gigabit Etherne PHY 1218-LM
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7
<b>Connectors</b>			
<b>Power</b>	1 x Power Input (MIL-DTL-38999/1)	1 x Power Input (MIL-DTL-38999/1)	1 x Power Input (MIL-DTL-38999/1)
<b>Ethernet</b>	1 x LAN (MIL-DTL-38999/3)	1 x LAN (MIL-DTL-38999/3)	1 x LAN (MIL-DTL-38999/3)
<b>COM</b>	1 x RS232 (MIL-DTL-38999/3)	1 x RS232 (MIL-DTL-38999/3)	1 x RS232 (MIL-DTL-38999/3)
<b>USB</b>	1 x USB A Type (MIL-DTL-38999/3)	1 x USB A Type (MIL-DTL-38999/3)	1 x USB A Type (MIL-DTL-38999/3)
<b>VGA</b>	1 x VGA (MIL-DTL-38999/3)	1 x VGA (MIL-DTL-38999/3)	1 x VGA (MIL-DTL-38999/3)
<b>Mechanical</b>			
<b>Dimensions</b>	482 x 354 x 80 mm	482.6 x 399.3 x 81.4 mm	609.5 x 399.3 x 76.2 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	Rack Mount/VESA Mount	Rack Mount/VESA Mount	Rack Mount/VESA Mount
<b>User Controls</b>			
<b>Control Buttons</b>	Power/Brightness DOWN/ Brightness UP/Night/Day/ Auto/ Manual/Reset/LOCK	Power/Brightness DOWN/ Brightness UP/Night/Day/ Auto/ Manual/Reset/LOCK	Power/Brightness DOWN/ Brightness UP/Night/Day/ Auto/ Manual/Reset/LOCK
<b>LED Indicator</b>	Power LED/HDD/Lock	Power LED/HDD/Lock	Power LED/HDD/Lock
<b>Environment</b>			
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C	0°C to 50°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6/ Procedure I	MIL-STD-810F/G Method 516.6/ Procedure I	MIL-STD-810F/G Method 516.6/ Procedure I
<b>Vibration</b>	MIL-STD-810F/G Method 514.6/ Procedure I	MIL-STD-810F/G Method 514.6/ Procedure I	MIL-STD-810F/G Method 514.6/ Procedure I
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65
<b>Power</b>			
<b>Power Input</b>	Default AC 110~240V, Optional isolation 9~36V DC	Default AC 110~240V, Optional isolation 9~36V DC	Default AC 110~240V, Optional isolation 9~36V DC
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# 17"~24" Military Panel PC Console Rack

## Custom configuration



Memory



Storage



Resistive  
Touchscreen



AR Glass



EMI Mesh  
Coating



RS232



DC Power  
Input



## Application



### Military Base Airport

"RUGGED HOUSING FOR  
VEHICLE DEPLOYMENT"

The G-WIN Military Panel PC was mounted in an armored vehicle for vibration resistant data visualization for armed forces.

“**POWERFUL PROCESSING  
AND LATEST OS.**”

- 17"~24" screen with AR glass
- Intel® Celeron® N2930
- Windows 10/8/7

---

4GB DDR3L 1066/1333

---

64GB MSATA SSD

---

1 x USB2.0, 1 x USB3.0, HDMI

---

Two RJ45 for Ethernet

---

RS232/422/485

---

EMC MIL-STD 461E/F

---

Vibration, shock MIL-STD 810F/G

---

Power connector MIL-DTL-38999/1

---

Power input AC 110~240V

---

Console mount, VESA mount

---

Front IP65 waterproof and dustproof

---

Wide operating temperature -20~60°C

## Accessories

### Standard

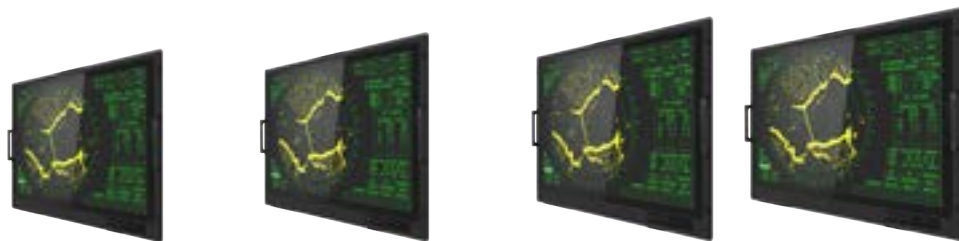
Power Cord MIL-DTL-38999/1

User Manual

Driver CD

# Military Rack Mount Panel PC

Intel® Celeron® N2930



Model Name	17"	19"	20.1"	24" (16:10)
	R17IB3S-RKA1ML	R19IB3S-RKA3ML	R20IK3S-RKA2ML	W24IB3S-RKS1ML
<b>Display</b>				
<b>Resolution</b>	1280 x 1024	1280 x 1024	1600 x 1200	1920 x 1200
<b>Panel Brightness</b>	350 nits	350 nits	300 nits	300 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	1400:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	337.92 x 270.34	376.32 x 301.06	408 x 306	518.4 x 324
<b>Viewing Angle</b>	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-85~85(H);-80~80(V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M
<b>Touch</b>	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen	Resistive touchscreen
<b>Glass</b>	Default AR Glass Optional EMI Coating Glass	Default AR Glass Optional EMI Coating Glass	Default AR Glass Optional EMI Coating Glass	Default AR Glass Optional EMI Coating Glass
<b>System</b>				
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS	AMI BIOS
<b>Memory</b>	1 x SO-DIMM DDR3L, Default 4GB, max up to 8GB	1 x SO-DIMM DDR3L, Default 4GB, max up to 8GB	1 x SO-DIMM DDR3L, Default 4GB, max up to 8GB	1 x SO-DIMM DDR3L, Default 4GB, max up to 8GB
<b>Storage</b>	mSATA SSD, Default 64GB	mSATA SSD, Default 64GB	mSATA SSD, Default 64GB	mSATA SSD, Default 64GB
<b>Ethernet Controller</b>	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>				
<b>Power</b>	1 x Power Input (MIL-DTL-38999/1)	1 x Power Input (MIL-DTL-38999/1)	1 x Power Input (MIL-DTL-38999/1)	1 x Power Input (MIL-DTL-38999/1)
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>COM</b>	1 x RS232	1 x RS232	1 x RS232	1 x RS232
<b>USB</b>	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0
<b>HDMI</b>	1 x HDM	1 x HDM	1 x HDM	1 x HDM
<b>Mechanical</b>				
<b>Dimensions</b>	482 x 354 x 80 mm	482.6 x 399.3 x 81.4 mm	482.6 x 399.3 x 85 mm	609.5 x 399.3 x 76.2 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	Rack Mount	Rack Mount	Rack Mount	Rack Mount
<b>User Controls</b>				
<b>Control Buttons</b>	Power/Brightness DOWN/ Brightness UP/Night/Day/Auto/ Manual/Reset/LOCK	Power/Brightness DOWN/ Brightness UP/Night/Day/Auto/ Manual/Reset/LOCK	Power/Brightness DOWN/ Brightness UP/Night/Day/Auto/ Manual/Reset/LOCK	Power/Brightness DOWN/ Brightness UP/Night/Day/Auto/ Manual/Reset/LOCK
<b>LED Indicator</b>	Power LED/HDD/Lock	Power LED/HDD/Lock	Power LED/HDD/Lock	Power LED/HDD/Lock
<b>Environment</b>				
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C	0°C to 60°C	0°C to 50°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I
<b>Vibration</b>	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65	Front IP65
<b>Power</b>				
<b>Power Input</b>	Default AC 110~240V, Optional isolation 9~36V DC	Default AC 110~240V, Optional isolation 9~36V DC	Default AC 110~240V, Optional isolation 9~36V DC	Default AC 110~240V, Optional isolation 9~36V DC
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# 8.4"~15" G-WIN Military Panel PC

## G-WIN Military

### Custom configuration



Memory



Storage



EMI Mesh Coating



RS232



DC Power Input



AR Glass



“ **WIRELESS CONNECTIVITY AND RUGGED FORM FACTOR.** ”

- 8"/10.4"/15" screen with resistive touchscreen
- Intel® Celeron® N2930
- Windows 10

---

4GB DDR3L 1066/1333

---

64GB mSATA SSD

---

Mini PCIe expansion slot

---

USB 2.0, USB 3.0

---

HDMI, two RJ45 for Ethernet

---

RS232/422/485

---

EMC MIL-STD 461E/F

---

Vibration, shock MIL-STD 810F/G

---

Power connector MIL-DTL-38999/1

---

Power input 12V DC

---

VESA mount, bracket stand

---

Front IP65 waterproof and dustproof

---

Wide operating temperature 20~70°C

### Accessories

#### Standard

---

Power Cord MIL-DTL-38999/1

### Application



#### Military Base Airport

“FAST COMPUTING AND RICH CONNECTIVITY.”

Console rack mount panel PC with powerful processor and latest operating system now controls traffic in a military base airport.

# G-WIN Military Panel PC

Intel® Celeron® N2930



Model Name	8"	10"	15"
	R08IB3S-MLU1	R10IB3S-MLT2	R15IB3S-MLA3(HB)
<b>Display</b>			
Resolution	800 x 600	1024 x 768	1024 x 768
Panel Brightness	600 nits	350 nits	1000 nits
Contrast Ratio	600:1 (Typ.)	1200:1 (Typ.)	2500:1 (Typ.)
Active Area	170.4 x 127.8	210.4 x 157.8	304.1 x 228.1
Viewing Angle	-75~75 (H); -60~70 (V)	-88~88 (H); -88~88 (V)	-88~88 (H); -88~88 (V)
Display Color	262K	16.2M	16.7M
<b>System</b>			
Processor	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
BIOS	AMI BIOS	AMI BIOS	AMI BIOS
Memory	1 x DDR3L 1066/1333 MHz SO-DIMM (Default 4GB, max.8GB)	1 x DDR3L 1066/1333 MHz SO-DIMM (Default 4GB, max.8GB)	1 x DDR3L 1066/1333 MHz SO-DIMM (Default 4GB, max. 8GB)
Ethernet Controller	Intel® I210-AT GbE LAN	Intel® I210-AT GbE LAN	Intel® I210-AT GbE LAN
Storage	mSATA SSD (Default 64GB)	mSATA SSD (Default 64GB)	mSATA SSD (Default 64GB)
Expansion Slot	1 x Mini PCIe for wireless	1 x Mini PCIe for wireless	1 x Mini PCIe for wireless
OS	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System
<b>Connectors</b>			
Power	1 x Military Grade Lockable (MIL-DTL-38999/1) Power	1 x Military Grade Lockable (MIL-DTL-38999/1) Power	1 x Military Grade Lockable (MIL-DTL-38999/1) Power
Ethernet	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
COM	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
USB	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0
HDMI	1 x HDMI	1 x HDMI	1 x HDMI
<b>User Controls</b>			
Control Buttons	Power On/Off, Reset, Panel Brightness Up, Panel Brightness Down	Power On/Off, Reset, Panel Brightness Up, Panel Brightness Down	Power, Reset, Lock / Unlock, Auto Dimming / Manually, Day / Night Mode / Brightness UP / Brightness DOWN / LED Adjustment
LED Indicator	Power On/Off, HDD Status	Power On/Off, HDD Status	Power On/Off, HDD Status
<b>Mechanical</b>			
Dimensions	277 x 219.5 x 59.7 mm	315 x 250 x 67 mm	398 x 308 x 58 mm
Mounting	VESA Mount (75 x 75 mm), Vehicle Mount	VESA Mount (75 x 75 mm), Vehicle Mount	VESA Mount (100 x 100 mm), Vehicle Mount
<b>Environment</b>			
Operating Temp.	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
Humidity	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
Shock	MIL-STD-810F/G Method 516.6/ Procedure I	MIL-STD-810F/G Method 516.6/ Procedure I	MIL-STD-810F/G Method 516.6/ Procedure I
Vibration	MIL-STD-810F/G Method514.6/ Procedure I	MIL-STD-810F/G Method514.6/ Procedure I	MIL-STD-810F/G Method514.6/ Procedure I
<b>Power</b>			
Power Input	12V DC	12V DC	12V DC
<b>Certifications</b>			
Safety	CE, FCC	CE, FCC	CE, FCC



# 27"~40" Military Display

## 4K UHD Rack Mount

### Custom configuration



High  
Brightness



P-Cap  
Touch



AR  
Glass



### Application



#### Flight Simulator

"TRUE COLOR DEPICTION."

Mounted in a console, Winmate's 40" display was installed in the military training center for the simulation of tactical operations on the field.

Future commanders admit that the 4K UHD resolution makes a difference and allows visualization of every small detail of the complex training program with lots of charts, diagrams and hardly visible marks.

“**ULTRA HD RESOLUTION IN A MILITARY FORM FACTOR.**”

- 27"/32"/40", 3840 x 2160 (4K UHD)
- Vibration, shock MIL-STD 810F/G
- EMC MIL-STD 461E/F

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1.07B colors

---

VGA, DVI, Display Port 1.2

---

HDMI 1.4, HDMI 2.0

---

LED backlight, TFT active-matrix, IPS technology

---

Ambient light sensor, dimming

---

Power connector MIL-DTL-38999/1

---

Console mount, VESA mount

---

Front IP65 waterproof and dustproof

#### Accessories

##### Standard

Power Cord MIL-DTL-38999/1    VGA Cable    DVI Cable    HDMI Cable    Display Port Cable    User Manual

##### Optional

RS232 Remote Control Shielding Cable

USB Cable for Touch



# 4K UHD Military Display

Rack Mount



Model Name	27"	32"	40"
	W27L100-MLA1FP/FG-4K	W32L100-MLA1FP/FG-4K	W40L100-MLM1FG-4K
<b>Display</b>			
<b>Resolution</b>	3840 x 2160 (UHD 4K)	3840 x 2160 (UHD 4K)	3840 x 2160 (UHD 4K)
<b>Panel Brightness</b>	300 nits (Optional 700 nits)	350 nits (Optional 700 nits)	350 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	5000:1 (Typ.)
<b>Active Area</b>	596.16 x 335.54	708.48 x 398.52	878.1 x 485.3
<b>Viewing Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	1.07B	1.07B	1.07B
<b>Touch</b>	PCAP/AR Glass	PCAP/AR Glass	AR Glass
<b>Connectors</b>			
<b>DVI</b>	1 x DVI-D	1 x DVI-D	1 x DVI-D
<b>VGA</b>	1 x VGA	1 x VGA	1 x VGA
<b>HDMI</b>	1 x HDMI 1.4, 1 x HDMI 2.0	1 x HDMI 1.4, 1 x HDMI 2.0	1 x HDMI 1.4, 1 x HDMI 2.0
<b>USB</b>	USB for Optional Touch	USB for Optional Touch	-
<b>Display Port</b>	1 x Display Port	1 x Display Port	1 x Display Port
<b>User Controls</b>			
<b>Audio</b>	Line-in (Optional)	Line-in (Optional)	Line-in (Optional)
<b>Control Buttons</b>	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control
<b>Led Indicator</b>	Power On/Off, Menu Brightness Control	Power On/Off, Menu Brightness Control	Power On/Off, Menu Brightness Control
<b>Mechanical</b>			
<b>Dimensions</b>	697.17 x 442.06 x 73.8 mm	825 x 486 x 88.5 mm	978.2 x 580.4 x 88.55 mm
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Mounting</b>	Rack Mount / Panel Mount VESA Mount (100 x 100, 200 x 100, 200 x 200 mm)	Flush Rack / Rack Mount VESA Mount (100 x 200, 200 x 200, 400 x 200 mm)	Flush Rack / Rack Mount VESA Mount (100 x 200, 200 x 200, 400 x 200 mm)
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65
<b>Power</b>			
<b>Power Input</b>	AC 110~240V, 24V DC (Optional)	AC 110~240V, 24V DC (Optional)	AC 110~240V, 24V DC (Optional)
<b>AC Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# 27" / 32" Military Display

## 4K UHD Chassis

### Custom configuration



High  
Brightness



P-Cap  
Touch



### Application



#### Command Center

"CLEAR DEPICTION OF  
MAP DETAILS."

Winmate 27" chassis display with 4K UHD resolution was installed in a command center of a military base. Intuitive touch controls and superior resolution depict clearly all the details on the maps. The display screen has an ability to adjust to changing light conditions with ambient light sensor. EMC compliance with military standard allows smooth deployment of the system to customer's facilities.

“**SUPERIOR RESOLUTION.**”

- 27" / 32", 3840 x 2160 (4K UHD)
- Impact resistant screen
- Vibration, shock MIL-STD 810F/G
- EMC MIL-STD 461E/F

---

1.07B colors

---

DVI, Display Port 1.2

---

VGA, HDMI 1.4, HDMI 2.0

---

LED backlight, TFT active-matrix, IPS technology

---

Ambient light sensor, dimming

---

Capacitive OSD control

---

VESA mount

---

Power 24V DC with external 110~240V AC Adapter

---

Front IP65 waterproof and dustproof

### Accessories

#### Standard

AC Adapter	Power Cord	Power Converter Cable	VGA Cable
DVI Cable	RS232 Cable	VESA Screws	User Manual

#### Optional

USB Cable for Touch

# 4K UHD Military Display

## Chassis



Model Name	27"	32"
	M270TF-MIL	M320TF-MIL
<b>Display</b>		
<b>Resolution</b>	3840 x 2160 (UHD 4K)	3840 x 2160 (UHD 4K)
<b>Panel Brightness</b>	300 nits (Optional 700 nits)	350 nits (Optional 700 nits)
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	596.16 x 335.34	708.48 x 398.52
<b>Viewing Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	1.07B (Max)	1.07B (Max)
<b>Touch</b>	PCAP touchscreen (USB, Optional)	PCAP touchscreen (USB, Optional)
<b>Connectors</b>		
<b>DVI</b>	1 x DVI-D	1 x DVI-D
<b>VGA</b>	1 x VGA	1 x VGA
<b>HDMI</b>	1 x HDMI 1.4, 1 x HDMI 2.0	1 x HDMI 1.4, 1 x HDMI 2.0
<b>USB</b>	USB for Optional Touch	USB for Optional Touch
<b>COM</b>	RS232 for Remote Control (Optional)	RS232 for Remote Control (Optional)
<b>Display Port</b>	1 x Display Port	1 x Display Port
<b>User Controls</b>		
<b>Audio</b>	Line-in	Line-in
<b>Control Buttons</b>	Capacitive OSD: Power On/Off, On Screen Display Menu, Panel Brightness Control (-/+)	Capacitive OSD: Power On/Off, On Screen Display Menu, Panel Brightness Control (-/+)
<b>Led Indicator</b>	Power on, Standby	Power on, Standby
<b>Mechanical</b>		
<b>Dimensions</b>	643.17 x 408.06 x 48 mm	777.58 x 477.62 x 48 mm
<b>Cooling System</b>	Fanless design	Fanless design
<b>Mounting</b>	VESA Mount (100 x100, 100 x 200 mm)	VESA Mount (100 x100, 100 x 200, 100 x 300 mm)
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>IP Rating</b>	Front-IP65, Rear-IP22	Front-IP65, Rear-IP22
<b>Power</b>		
<b>Power Input</b>	24V DC	24V DC
<b>AC Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# 15"~32" Military Display PCAP Rack Mount

## Custom configuration



EMI ITO  
Glass



DC Power  
Input



## Application



### Control Center

"BNC CONNECTOR FOR MILITARY USE."

Military control center required a large screen size panel PC with BNC connectors. The 32" console rack mount panel PC with BNC interface was opted to communicate with the existing radio-frequency electronic equipment, and transmits analog and serial digital interface video signals.

“**INTUITIVE USER CONTROLS.**”

- 15"~32" screen with P-Cap touch
- Vibration, shock MIL-STD 810F/G
- EMC MIL-STD 461E/F

---

VGA, DVI

---

5 x BNCs (R,G,B,H,V)

---

Power connector MIL-DTL-38999/1

---

Power input AC 110~240V

---

Console mount, VESA mount

---

Front IP65 waterproof and dustproof

---

Wide operating temperature -20~60°C

## Accessories

### Standard

Power Cord MIL-DTL-38999/1

VGA Cable

DVI Cable

VGA to 5 BNC Shielding Cable

### Optional

RS232 Remote Control Shielding Cable

RS232 Touch Shielding Cable

# Rack Mount Military Display

PCAP



Model Name	15"	17"	19"
	R15L600-MLA3FP	R17L100-MLA1FP	R19L100-MLA3FP
<b>Display</b>			
<b>Resolution</b>	1024 x 768	1280 x 1024	1280 x 1024
<b>Panel Brightness</b>	500 nits	350 nits	350 nits
<b>Contrast Ratio</b>	2500:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	304.1 x 228.1	337.920 x 270.336	376.32 x 301.06
<b>Viewing Angle</b>	-88~88(H); -88~88(V)	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen EMI ITO Glass (Optional)	PCAP touchscreen EMI ITO Glass (Optional)	PCAP touchscreen EMI ITO Glass (Optional)
<b>Connectors</b>			
<b>Power</b>	1 x AC Power input (Military grade)	1 x AC Power input (Military grade)	1 x AC Power input (Military grade)
<b>COM</b>	1 x RS232 (Optional)	1 x RS232 (Optional)	1 x RS232 (Optional)
<b>USB</b>	1 x USB Touch Interface	1 x USB Touch Interface	1 x USB Touch Interface
<b>BNC</b>	5 x BNCs (R,G,B,H,V)	5 x BNCs (R,G,B,H,V)	5 x BNCs (R,G,B,H,V)
<b>VGA</b>	1 x VGA	1 x VGA	1 x VGA
<b>DVI</b>	1 x DVI-D	1 x DVI-D	1 x DVI-D
<b>User Controls</b>			
<b>Control Buttons</b>	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control
<b>Led Indicator</b>	Power On/Off, Menu Brightness Control	Power On/Off, Menu Brightness Control	Power On/Off, Menu Brightness Control
<b>Mechanical</b>			
<b>Dimensions</b>	402 x 321 x 70 mm	482.6 x 399.3 x 79.6 mm	482.6 x 399.3 x 76.9 mm
<b>Mounting</b>	Flush, Rack Mount	Flush, Rack Mount	Flush, Rack Mount
<b>Environment</b>			
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I
<b>Vibration</b>	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65
<b>Power</b>			
<b>Power Input</b>	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# Rack Mount Military Display

PCAP



Model Name	23.8" (16:9) W24L100-MLA2FP	32" (16:9) W32L100-MLA3FP
<b>Display</b>		
<b>Resolution</b>	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	250 nits	400 nits
<b>Contrast Ratio</b>	3000:1 (Typ.)	3000:1 (Typ.)
<b>Active Area</b>	527.04 x 290.46	698.4 x 392.85
<b>Viewing Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Pixel Pitch</b>	0.270 (H) x 0.270 (V)	0.3637 (H) x 0.3637 (V)
<b>Display Color</b>	16.7M	16.7M
<b>Touch</b>	PCAP touchscreen, EMI ITO Glass (Optional)	PCAP touchscreen, EMI ITO Glass (Optional)
<b>Connectors</b>		
<b>Power</b>	1 x AC Power input (Military grade)	1 x AC Power input (Military grade)
<b>COM</b>	1 x RS232 (Optional)	1 x RS232 (Optional)
<b>USB</b>	1 x USB Touch Interface	1 x USB Touch Interface
<b>BNC</b>	5 x BNCs (R,G,B,H,V)	5 x BNCs (R,G,B,H,V)
<b>VGA</b>	1 x VGA	1 x VGA
<b>DVI</b>	1 x DVI-D	1 x DVI-D
<b>User Control</b>		
<b>Control Buttons</b>	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control
<b>Led Indicator</b>	Power On/Off, Menu Brightness Control	Power On/Off, Menu Brightness Control
<b>Mechanical</b>		
<b>Dimensions</b>	635.2 x 430.9 x 66 mm	825 x 486 x 88.5 mm
<b>Mounting</b>	Flush, Rack Mount	Flush, Rack Mount
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I
<b>Vibration</b>	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I
<b>IP Rating</b>	Front IP65	Front IP65
<b>Power</b>		
<b>Power Input</b>	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)
<b>Power Consumption</b>	25W (Typ.)	50W (Typ.)
<b>Power Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC



17"~32" Military Display

# Resistive Rack Mount



“ **RUGGED CONSTRUCTION AND SCRATCH RESISTANT SCREEN.** ”

- 17"~32" screen with resistive touchscreen
- Vibration, shock MIL-STD 810F/G
- EMC MIL-STD 461E/F

---

VGA, DVI

---

5 x BNCs (R,G,B,H,V)

---

Power connector MIL-DTL-38999/1

---

Power input AC 110~240V

---

Console mount, VESA mount

---

Front IP65 waterproof and dustproof

---

Wide operating temperature -20~60°C

---

## Accessories

### Standard

Power Cord MIL-DTL-38999/1    VGA Cable    DVI Cable    VGA to 5 BNC Shielding Cable    User Manual

### Optional

RS232 Remote Control Shielding Cable

RS232 Touch Shielding Cable

## Custom configuration



Resistive Touch



AR Glass



EMI Mesh Coating



DC Power Input

## Application



### Command Room

“MILITARY GRADE COMPLIANCE”

The military console rack display was mounted in a command center on a military base. Full military compliance and ruggedness allows for easy implementation.

# Rack Mount Military Display

Resistive



Model Name	17"	19"	20.1"
	R17L100-RKA1ML	R19L100-RKA3ML	R20L100-RKA2ML
<b>Display</b>			
<b>Resolution</b>	1280 x 1024	1280 x 1024	1600 x 1200
<b>Panel Brightness</b>	350 nits	350 nits	300 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	800:1 (Typ.)
<b>Active Area</b>	337.92x 270.34	376.32 x 301.06	408 x 306
<b>Viewing Angle</b>	-85~85 (H); -80~80 (V)	-85~85 (H); -80~80 (V)	-89~89 (H); -89~89 (V)
<b>Pixel Pitch</b>	0.264 (H) x 0.264 (V)	0.294 (H) x 0.294 (V)	0.255 (H) x 0.255 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M
<b>Touch</b>	AR Glass (Default) 5-wire Resistive touchscreen (Optional), 5-wire Resistive touchscreen with EMI Mesh Coating (Optional), EMI ITO Glass (Optional)	AR Glass (Default) 5-wire Resistive touchscreen (Optional), 5-wire Resistive touchscreen with EMI Mesh Coating (Optional), EMI ITO Glass (Optional)	AR Glass (Default) 5-wire Resistive touchscreen (Optional), 5-wire Resistive touchscreen with EMI Mesh Coating (Optional), EMI ITO Glass (Optional)
<b>Connectors</b>			
<b>Power</b>	1 x AC Power input (Military grade)	1 x AC Power input (Military grade)	1 x AC Power input (Military grade)
<b>COM</b>	1 x RS232 (Optional)	1 x RS232 (Optional)	1 x RS232 (Optional)
<b>BNC</b>	5 x BNCs (R,G,B,H,V)	5 x BNCs (R,G,B,H,V)	5 x BNCs (R,G,B,H,V)
<b>VGA</b>	1 x VGA	1 x VGA	1 x VGA
<b>DVI</b>	1 x DVI-D	1 x DVI-D	1 x DVI-D
<b>User Controls</b>			
<b>Control Buttons</b>	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control
<b>Led Indicator</b>	Power On/Off, OSD Lock	Power On/Off, OSD Lock	Power On/Off, OSD Lock
<b>Mechanical</b>			
<b>Dimensions</b>	482.6 x 399.3 x 79.6 mm	482.6 x 399.3 x 76.9 mm	482.6 x 399.3 x 85 mm
<b>Mounting</b>	Flush, Rack Mount	Flush, Rack Mount	Flush, Rack Mount
<b>Environment</b>			
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C	0°C to 60°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I
<b>Vibration</b>	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I
<b>IP Rating</b>	Front IP65	Front IP65	Front IP65
<b>Power</b>			
<b>Power Input</b>	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# Rack Mount Military Display

Resistive



Model Name	24" (16:10)	32"
	W24L100-RKS1ML	W32L100-RKA3ML
<b>Display</b>		
<b>Resolution</b>	1920 x 1200	1920 x 1080
<b>Panel Brightness</b>	300 nits	400 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	3000:1 (Typ.)
<b>Active Area</b>	518.4 x 324	698.4 x 392.85
<b>Viewing Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Pixel Pitch</b>	0.270 (H) x 0.270 (V)	0.3637 (H) x 0.3637 (V)
<b>Display Color</b>	16.7M	16.7M
<b>Touch</b>	AR Glass (Default) 5-wire Resistive touchscreen (Optional), 5-wire Resistive touchscreen with EMI Mesh Coating (Optional), EMI ITO Glass (Optional)	AR Glass (Default)
<b>Connectors</b>		
<b>Power</b>	1 x AC Power input (Military grade)	1 x AC Power input (Military grade)
<b>COM</b>	1 x RS232 (Optional)	1 x RS232 (Optional)
<b>BNC</b>	5 x BNCs (R,G,B,H,V)	5 x BNCs (R,G,B,H,V)
<b>VGA</b>	1 x VGA	1 x VGA
<b>DVI-D</b>	1 x DVI-D	1 x DVI-D
<b>User Controls</b>		
<b>Control Buttons</b>	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control	Power, Brightness Down/Up, Auto Adjustment, Main Menu, Day/Night Mode, Key Pad Control
<b>Led indicator</b>	Power On/Off, Menu Brightness Control	Power On/Off, Menu Brightness Control
<b>Mechanical</b>		
<b>Dimensions</b>	609.5 x 399.3 x 76.2 mm	825 x 486 x 88.5 mm
<b>Mounting</b>	Flush, Rack Mount	Flush, Rack Mount
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	95% ±3% (Non-condensing, RH)	95% ±3% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I
<b>Vibration</b>	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.5
<b>IP Rating</b>	Front IP65	Front IP65
<b>Power</b>		
<b>Power Input</b>	AC 110~240V, Universal, ±10%; DC 9~36V, ±10% (Optional)	AC 110~240V, Universal, ±10% DC 24V, ±10% (Optional)
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# 8.4"~10.4" Military Display

## G-WIN Military Vehicle Mount

### Custom configuration



Resistive Touch



AR Glass



EMI Mesh Coating



“ FITS IN MILITARY VEHICLES ”

- 8.4"/10.4" screen
- Vibration, shock MIL-STD 810F/G
- EMC MIL-STD 461E/F

---

VGA

---

EMC MIL-STD 461E/F

---

Vibration, shock MIL-STD 810F/G

---

Power connector MIL-DTL-38999/1

---

Power input 12V DC

---

VESA mount, bracket stand

---

Front IP65 waterproof and dustproof

---

Wide operating temperature -20~60°C

### Accessories

#### Standard

Open Wire Cable

Mounting Bracket (Optional)

User Manual

Driver CD

### Application



#### Vehicle Information Screen

“SURVIVE STRONG VIBRATION ON UNCHARTED ROADS.”

Tested to survive in extreme conditions, G-WIN display also features vehicle mount design and scratch resistant touch screen. Now our 8.4" display is helping to navigate the road of a military vehicle.

# G-WIN Military Display

## Vehicle Mount



Model Name	8.4"	10"	10"
	R08L100-MLU1	R10L100-MLT2	R10L100-MLP1
<b>Display</b>			
<b>Resolution</b>	800 x 600	1024 x 768	800 x 600
<b>Panel Brightness</b>	600 nits	350 nits	400 nits
<b>Contrast Ratio</b>	600:1 (Typ.)	1200:1 (Typ.)	500:1 (Typ.)
<b>Active Area</b>	170.4 x 127.8	210.4 x 157.8	211.2 x 158.4
<b>Viewing Angle</b>	-75~75 (H); -60~70 (V)	-88~88 (H); -88~88 (V)	-70~70 (H); -55~65 (V)
<b>Display Color</b>	16.2M	16.2M	16.2M
<b>Touch</b>	5 Wire Resistive touchscreen (Optional)	5 Wire Resistive touchscreen (Optional)	5 Wire Resistive touchscreen (Optional)
<b>Connectors</b>			
<b>Power</b>	1 x Military Grade Lockable (MIL-DTL-38999/1) Power Connector	1 x Military Grade Lockable (MIL-DTL-38999/1) Power Connector	1 x Military Grade Lockable (MIL-DTL-38999/1) Power Connector
<b>VGA</b>	1 x VGA (DB-15)	1 x VGA (DB-15)	1 x VGA (DB-15)
<b>RS232</b>	1 x RS232 for Touch Screen (Optional with touch)	1 x RS232 for Touch Screen (Optional with touch)	1 x RS232 for Touch Screen (Optional with touch)
<b>User Controls</b>			
<b>Control Buttons</b>	Enter/ Menu, Esc/ Auto, Brightness Up, Brightness Down, Power Button	Enter/ Menu, Esc/ Auto, Brightness Up, Brightness Down, Power Button	Enter/ Menu, Esc/ Auto, Brightness Up, Brightness Down, Power Button
<b>LED Indicator</b>	Power, Standby	Power, Standby	Power, Standby
<b>Mechanical</b>			
<b>Dimensions</b>	277 x 219.5 x 59.7 mm	316 x 250 x 67 mm	316 x 250 x 67 mm
<b>Mounting</b>	VESA Mount (75 x 75 mm), Vehicle mount	VESA Mount (75 x 75 mm), Vehicle mount	VESA Mount (75 x 75 mm), Vehicle mount
<b>Housing</b>	Aluminum Housing with Anti-Corrosion Treatments	Aluminum Housing with Anti-Corrosion Treatments	Aluminum Housing with Anti-Corrosion Treatments
<b>Environment</b>			
<b>Operating Temp.</b>	-20°C to 70°C	-20°C to 70°C	-10°C to 60°C
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Shock</b>	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I	MIL-STD-810F/G Method 516.6/Procedure I
<b>Vibration</b>	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I	MIL-STD-810F/G Method 514.6/Procedure I
<b>IP Rating</b>	Full IP65	Full IP65	Full IP65
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	12V DC
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC



# 15"/ 19" Military Display

## G-WIN Military Vehicle Mount

### Custom configuration



Resistive Touch



DC Power Input



AR Glass



EMI Mesh Coating



### Application



#### In-Vehicle Display

"RATED FOR EXTREME TEMPERATURES."

These display survives harsh conditions and features wide operating temperature.

Installed inside a military vehicle our 19" display helps to navigate during tactic and field studies.

**“ RUGGED & RELIABLE IMAGING SOLUTION. ”**

- 15"/19" screen
- Vibration, shock MIL-STD 810F/G
- EMC MIL-STD 461E/F

---

VGA

---

EMC MIL-STD 461E/F

---

Vibration, shock MIL-STD 810F/G

---

Power connector MIL-DTL-38999/1

---

Power input 9~36V DC

---

VESA mount, bracket stand

---

Front IP65 waterproof and dustproof

---

Wide operating temperature -20~60°C

### Accessories

#### Standard

Open Wire Cable    VGA Cable    User Manual    Driver CD    AC Adapter    Power Converter Cable



# G-WIN Military Display

Vehicle Mount



Model Name	15"	19"
	R15L100-MLA3(HB)	R19L100-MLA3
<b>Display</b>		
<b>Resolution</b>	1024 x 768	1280 x 1024
<b>Panel Brightness</b>	1000 nits	350 nits
<b>Contrast Ratio</b>	2500:1 (Typ.)	1000:1 (Typ.)
<b>Active Area</b>	304.128 x 228.096	376.32 x 301.06
<b>Viewing Angle</b>	-88~88 (H); -88~88 (V)	-85~85 (H); -80~80 (V)
<b>Display Color</b>	16.7M	16.7M
<b>Touch</b>	5 Wire Resistive touchscreen	AR Glass (Default), ELO 5 Wire Resistive touchscreen (Optional)
<b>Connectors</b>		
<b>Power</b>	1 x Military Grade Lockable (MIL-DTL-38999/1) Power Connector	1 x Military Grade Lockable (MIL-DTL-38999/1) Power Connector
<b>VGA</b>	1 x VGA (DB-15)	1 x VGA (DB-15)
<b>RS232</b>	1 x RS232 for Touch Screen (Optional with touch)	1 x RS232 for Touch Screen (Optional with touch)
<b>DVI</b>	-	1 x DVI-D
<b>User Controls</b>		
<b>Control Buttons</b>	Menu, Enter Button, Auto-adjust, Esc Button, Panel Brightness Up, Increase Button, Panel Brightness Down, Decrease Button, Power Button	Menu, Enter Button, Auto-adjust, Esc Button, Panel Brightness Up, Increase Button, Panel Brightness Down, Decrease Button, Power Button
<b>LED Indicator</b>	Power On/Off, Sleep	Power On/Off, Sleep
<b>Mechanical</b>		
<b>Dimensions</b>	398 x 308 x 58 mm	474 x 410 x 111 mm
<b>Mounting</b>	VESA Mount (100 x 100 mm), Vehicle Mount	VESA Mount (100 x 100 mm), Vehicle Mount
<b>Housing</b>	Aluminum Housing with Anti-Corrosion Treatments	Aluminum Housing with Anti-Corrosion Treatments
<b>Environment</b>		
<b>Operating Temp.</b>	-20°C to 70°C	-40°C to 70°C (With intelligent heater control design)
<b>Humidity</b>	10% to 95% (Non-condensing, RH)	10% to 95% (Non-condensing, RH)
<b>Shock</b>	Method 516.6 Procedure I	Method 516.6 Procedure I
<b>Vibration</b>	Method 514.6 Procedure I	Method 514.6 Procedure I
<b>IP Rating</b>	Front Full IP65	Front Full IP65
<b>Power</b>		
<b>Power Input</b>	9~36V DC with isolation	9~36V DC with isolation
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# SMART RETAIL

## Overview

Smart Retail transforms the way you interact with your audience. By enabling you to deliver targeted and dynamic visual messaging, Smart Retail increase engagement and reduce cost. To empower smart Smart Retail applications Winmate provides Smart Retail to cover most business and environmental needs, from single store to central management, commercial to industrial applications.

Winmate Smart Retail offers a complete range of pre-integrated hardware and software solutions with content management, device monitoring, and content security software for a flexible range of applications in retail, lobbies, restaurants, hotels and other public spaces.

### Winmate's Smart Retail include:

- The latest Android™, Windows® operating system
- Bar type stretched panel PC and display
- Embedded player and Smart Retail box PC
- Open Pluggable Specification (OPS) solutions

Backed by high picture quality, Winmate's Smart Retail brings creative ideas to life, and enable businesses to deliver engaging and informative content in public places.



## Product Overview

Winmate provides one-stop solution for your Smart Retail application. From embedded player to bar type display and panel PC, our devices find its application in retail, gaming, banking, public navigation systems.



## Technology

### Stretched Bar Type Display

**Designed to meet the demands of the most restricted Smart Retail spaces**

Winmate offers a versatile solution for industrial and commercial advertising, especially in areas with high traffic and restricted, atypical shaped spaces. Maximize available space and dynamic scenarios with ultra wide ratio design.



# MSO Pro Software

## Seamless Smart Retail experience

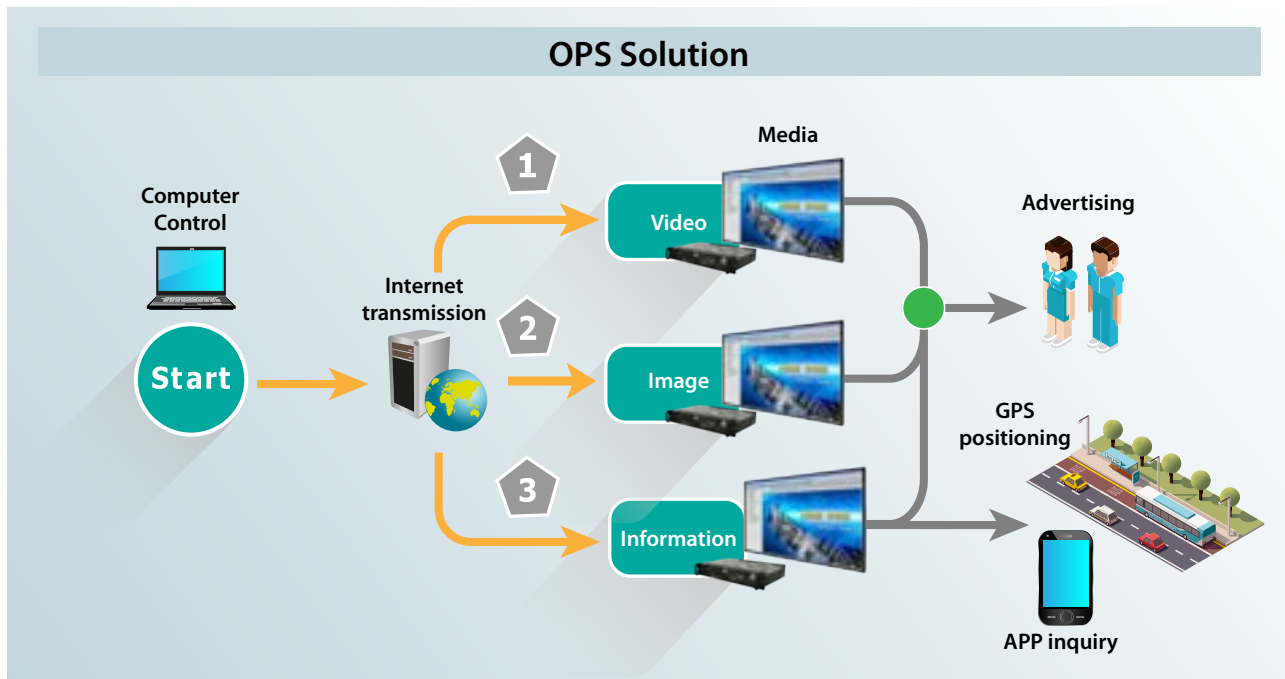
Winmate partners with Microsoft® to enable seamless Smart Retail experience. Our hardware comes bundled with Microsoft's signage management software - MSO Pro for incredible experience.



# OPS Solution

## Easy integration and maintenance

Winmate deploys Intel® Open Pluggable Specification (OPS) into Smart Retail. OPS is a universal, embedded interface which can link external media players with a large video display, thus providing users with integration of their signage and conferencing applications. Winmate's OPS series series is a scalable and reliable solution that simplifies device installation, use, maintenance and upgrades.



## Product Guide - Smart Retail

Our product guide helps you to navigate and find the right product from our excessive product line.

Digital Signage Solutions	
	
<p><b>27.6" / 28.6" / 38"</b> <b>Bar Type Panel PC</b> p.285</p>	<p><b>27.6" / 28.6" / 38"</b> <b>Bar Type Open Frame/Chassis Display</b> p.288</p>
	
<p><b>Digital Signage Embedded Player</b> p.291</p>	<p><b>Digital Signage Box PC</b> p.293</p>
	
<p><b>42" / 55"</b> <b>OPS Panel PC</b> p.295</p>	<p><b>OPS PC Module</b> p.297</p>



## 27.6"~38" Bar Type Panel PC

# Bar Type

### Custom configuration



AR Glass



### Application



### **Arrival Hall Signage Solution**

"CRAFTED TO ENHANCE YOUR PUBLIC NAVIGATION ECOSYSTEM."

Traditional public navigation in train station terminal building was replaced by Winmate's wide viewing angle 38" bar type panel PC.

**“ GREAT FIT FOR ATYPICAL SPACES. ”**

- 27.6"/ 28.6"/ 38" screen
- Intel® Celeron® N2930
- Arm Cortex-A9
- Windows 10/8/7
- Android 6.0

---

Ultra wide aspect ratio

---

Fanless cooling system

---

VESA mount

---

Front IP54 waterproof and dustproof (with AR glass)

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Operating temperature 0°C to 50°C

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### **Accessories**

Driver CD

Terminal Block

VESA Screws

AC Adapter

Power Cord



# Bar Type Panel PC

Intel® Celeron® N2930  
Arm Cortex-A9



Model Name	27.6"	28.6"	38"
	W27IB3S-CHC1	W28IB3S-CHA2	W38IB3S-CHA1
<b>Display</b>			
<b>Resolution</b>	1920 x 360	1920 x 540	1920 x 540
<b>Panel Brightness</b>	1000 nits	1000 nits	1000 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	4000:1 (Typ.)
<b>Viewing Angle</b>	-85~85 (H); -85~85 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M
<b>System</b>			
<b>Processor</b>	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
<b>Memory</b>	1 x SODIMM DDR3L 1600, max. 8GB	1 x SODIMM DDR3L 1600, max. 8GB	1x SODIMM DDR3L 1600, max. 8GB
<b>Storage</b>	64GB mSATA SSD, Max 512GB	64GB mSATA SSD, Max 512GB	64GB mSATA SSD, Max 512GB
<b>Ethernet</b>	Intel® I210-AT GbE LAN	Intel® I210-AT GbE LAN	Intel® I210-AT GbE LAN
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>OS</b>	Windows 10 IoT Enterprise, Windows Embedded 8.1 Industry Pro, Windows Embedded Standard 7, Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise, Windows Embedded 8.1 Industry Pro, Windows Embedded Standard 7, Windows 7 Pro for Embedded System	Windows 10 IoT Enterprise, Windows Embedded 8.1 Industry Pro, Windows Embedded Standard 7, Windows 7 Pro for Embedded System
<b>Connectors</b>			
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)	1 x RS232/422/485 (Default RS232)
<b>USB</b>	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0
<b>Display output</b>	1 x HDMI	1 x HDMI	1 x HDMI
<b>Power</b>	1 x Terminal Block (Phoenix Type)	1 x Terminal Block (Phoenix Type)	1 x Terminal Block (Phoenix Type)
<b>Mechanical</b>			
<b>Dimensions</b>	727.6 x 179.2 x 75 mm	736.5 x 234.4 x 70 mm	928.3 x 282.1 x 69 mm
<b>Mounting</b>	VESA Mount (200 x 100 mm)	VESA Mount (200 x 100 mm)	VESA Mount (200 x 100, 400 x 100 mm)
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>Power</b>			
<b>Power Input</b>	9~36V DC	9~36V DC	9~36V DC
<b>Power Consumption</b>	72.5W (Typ.)	72.5W (Typ.)	85W (Typ.)
<b>AC Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# Arm Bar Type Panel PC

Arm Cortex-A9



Model Name	27.6"	28.6"	38"
	W27FA3S-CHC1	W28FA3S-CHA2	W38FA3S-CHA1
<b>Display</b>			
<b>Resolution</b>	1920 x 360	1920 x 540	1920 x 540
<b>Panel Brightness</b>	1000 nits	1000 nits	1000 nits
<b>Contrast Ratio</b>	1000:1(Typ.)	1000:1 (Typ.)	4000:1 (Typ.)
<b>Viewing Angle</b>	-85~85 (H);-85~85 (V)	-89~89 (H);-89~89 (V)	-89~89 (H);-89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M
<b>System</b>			
<b>Processor</b>	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>Memory</b>	1GB LPDDR3	1GB LPDDR3	1GB LPDDR3
<b>Storage</b>	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)	Onboard 16GB eMMC (Default)
<b>OS</b>	Android 6.0 (Default)	Android 6.0 (Default)	Android 6.0 (Default)
<b>Connectors</b>			
<b>Ethernet</b>	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000
<b>Serial Interface</b>	1 x RS232 (Optional 422/485)	1 x RS232 (Optional 422/485)	1 x RS232 (Optional 422/485)
<b>USB</b>	1 x USB 2.0, 1 x USB OTG	1 x USB 2.0, 1 x USB OTG	1 x USB 2.0, 1 x USB OTG
<b>CANBus</b>	1 x CANBus	1 x CANBus	1 x CANBus
<b>Others</b>	1 x Console Port (Linux use) 1 x Micro SD Card Slot	1 x Console Port (Linux use) 1 x Micro SD Card Slot	1 x Console Port (Linux use) 1 x Micro SD Card Slot
<b>Power</b>	1 x Terminal Block (Phoenix Type)	1 x Terminal Block (Phoenix Type)	1 x Terminal Block (Phoenix Type)
<b>Mechanical</b>			
<b>Dimensions</b>	727.6 x 179.2 x 75 mm	740.6 x 175.6 x 72 mm	972.5 x 284.5 x 71.6 mm
<b>Mounting</b>	VESA Mount (200 x 100 mm)	VESA Mount (200 x 100 mm)	VESA Mount (400 x 100, 200 x 100 mm)
<b>Cooling System</b>	Fanless design	Fanless design	Fanless design
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to 50°C	0°C to 50°C	0°C to 50°C
<b>Humidity</b>	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)	10% to 90% (Non-condensing, RH)
<b>Power</b>			
<b>Power Input</b>	9~24V DC	9~24V DC	9~24V DC
<b>Power Consumption</b>	72.5W (Typ.)	72.5W (Typ.)	85W (Typ.)
<b>AC Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

27.6"~38" Bar Type Display

# Open Frame Chassis



“ **ULTRA HD PANORAMIC VIEW.** ”

- 27.6"/ 28.6/ 38" screen
- Open frame or chassis housing
- Ultra wide ratio

---

VGA, HDMI, DVI

---

VESA mount, open frame

---

Operating temperature 0°C to 50°C

---

## Accessories

Adapter

Power Cord

VGA Cable

HDMI Cable

DVI Cable

## Custom configuration



Audio and  
Speaker



RS232  
Remote Control

## Application



### Elevator Signage

“ULTRA WIDE  
STRETCHED LCD”

Digital signage solution for a full-length elevator interface offers greater flexibility in functionality and advertising.

# Bar Type Display

Open Frame



Model Name	27.6"	28.6"	38"
	W27L100-OFC1	W28L100-OFA2	W38L100-OFA1
<b>Display</b>			
<b>Resolution</b>	1920 x 360	1920 x 540	1920 x 540
<b>Panel Brightness</b>	1000 nits	1000 nits	1000 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	4000:1 (Typ.)
<b>Active Area</b>	688.896 x 129.168	698.4 x 196.4	904.32 x 254.34
<b>Viewing Angle</b>	-85~85 (H); -85~85 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M
<b>Touch</b>	N/A	N/A	N/A
<b>Connectors</b>			
<b>VGA</b>	1 x VGA	1 x VGA	1 x VGA
<b>DVI</b>	1 x DVI	1 x DVI	1 x DVI
<b>HDMI</b>	1 x HDMI	1 x HDMI	1 x HDMI
<b>Mechanical</b>			
<b>Chassis Dimensions</b>	727.6 x 179.2 x 75 mm	736.5 x 234.4 x 70 mm	928.3 x 282.1 x 69.0 mm
<b>Open Frame Dimensions</b>	727.6 x 191.5 x 64 mm	734.0 x 252.0 x 51 mm	954.0 x 306.0 x 66.0 mm
<b>Mounting</b>	VESA Mount (75 x 75 mm)	VESA Mount (200 x 100 mm)	VESA Mount (200 x 200, 400 x 200 mm)
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	24V DC
<b>Power Consumption</b>	40W (Typ.)	40W (Typ.)	75W (Typ.)
<b>AC Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# Bar Type Display

## Chassis



Model Name	27.6"	28.6"	38"
	W27L100-CHC1	W28L100-CHA2	W38L100-CHA1
<b>Display</b>			
<b>Resolution</b>	1920 x 360	1920 x 540	1920 x 540
<b>Panel Brightness</b>	1000 nits	1000 nits	1000 nits
<b>Contrast Ratio</b>	1000:1 (Typ.)	1000:1 (Typ.)	4000:1 (Typ.)
<b>Active Area</b>	688.896 x 129.168	698.4 x 196.4	904.32 x 254.34
<b>Viewing Angle</b>	-85~85 (H); -85~85 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M
<b>Touch</b>	N/A	N/A	N/A
<b>Connectors</b>			
<b>VGA</b>	1 x VGA	1 x VGA	1 x VGA
<b>DVI</b>	1 x DVI	1 x DVI	1 x DVI
<b>HDMI</b>	1 x HDMI	1 x HDMI	1 x HDMI
<b>Mechanical</b>			
<b>Chassis Dimensions</b>	727.6 x 179.2 x 75 mm	736.5 x 234.4 x 70 mm	928.3 x 282.1 x 69.0 mm
<b>Open Frame Dimensions</b>	727.6 x 191.5 x 64 mm	734.0 x 252.0 x 51 mm	954.0 x 306.0 x 66.0 mm
<b>Mounting</b>	VESA Mount (200 x 100 mm)	VESA Mount (200 x 100 mm)	VESA Mount (200 x 100, 400 x 200 mm)
<b>Power</b>			
<b>Power Input</b>	12V DC	12V DC	24V DC
<b>Power Consumption</b>	40W (Typ.)	40W (Typ.)	75W (Typ.)
<b>AC Adapter</b>	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%	AC 110~240V, Universal, ±10%
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# Digital Signage Embedded Player

# Embedded Player

## Custom configuration

**3G**

3G Module



Additional Storage



Wi-Fi



RS232C



## Application



### Department Store

“CONTENT DELIVERY FOR CUSTOMER ENGAGEMENT.”

Display dynamic and eye-catching product advertisements on digital screens located on-shelf or in aisles.

“ **ENHANCE CUSTOMER ENGAGEMENT.** ”

- Multi HD resolution 1080 pixel
- Low power consumption
- Wireless capabilities

---

Fanless cooling system

---

1GB of storage

---

USB 2.0

---

DVI-I, VGA, S-Video, Composite

---

RJ45 for Ethernet

---

Real Time RSS Feed

---

MPEG1, MPEG2, MPEG4, WMV9, DAT, VOB, Divx, Xvid, H.264

---

JPEG, BMP, PNG

---

Operating temperature -20°C to 60°C

---

## Accessories

Power Cord

AC Adapter

Driver CD

Content Management Software

DVI Cable



# Digital Signage Embedded Player



Model Name	MSS550	MSS550-3G
<b>System</b>		
<b>Storage Media</b>	1GB, optional with bigger capacity up to 40GB (Need to be Linux ext2 format)	1GB, optional with bigger capacity up to 40GB (Need to be Linux ext2 format)
<b>Content Update</b>	Ethernet/WLAN/USB flash drive	Ethernet/3G/USB flash drive
<b>Connectors</b>		
<b>Ethernet</b>	1 x RJ45 10/100	1 x RJ45 10/100 and 3G
<b>USB</b>	USB 2.0 for Flash Storage Drive	USB 2.0 for Flash Storage Drive
<b>Audio Output</b>	Line-out	Line-out
<b>Video Output</b>	DVI-I/VGA/S-video/Composite	DVI-I/VGA/S-video/Composite
<b>Mechanical</b>		
<b>Dimensions</b>	258 x 127 x 47 mm	258 x 127 x 47 mm
<b>Weight</b>	1.0 kg	1.0 kg
<b>Environment</b>		
<b>Operating Temp.</b>	-20°C to 60°C	-20°C to 60°C
<b>Humidity</b>	5% to 85%@50°C	5% to 85%@50°C
<b>Power</b>		
<b>Power Input</b>	12V DC	12V DC
<b>Power Consumption</b>	5W (Typ.)	5W (Typ.)
<b>AC Adapter</b>	AC 100~240V, Universal, ±10%	AC 100~240V, Universal, ±10%
<b>Wireless Communications</b>		
<b>Wi-Fi</b>	Via half mini PCIe Card (Optional)	Via half mini PCIe Card (Optional)
<b>3G</b>	Via half mini PCIe Card (Optional)	Via half mini PCIe Card
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC

# Digital Signage Box PC

## x86 Box PC

### Custom configuration

**3G**

3G Module



Additional Storage



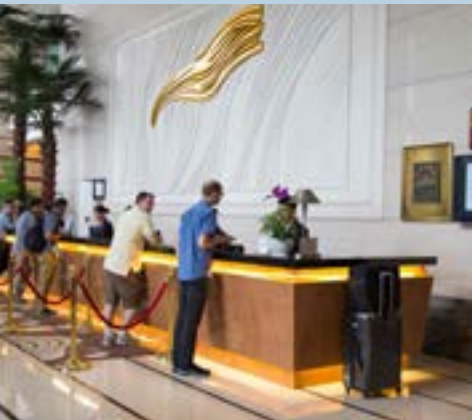
Wi-Fi



RS232C



### Application



#### Hotel Lobby

“DISPLAY ONLY RELEVANT INFORMATION.”

Winmate embedded signage box PC with Wi-Fi module and chassis display were installed in a hotel lobby to display current exchange rate, weather information and advertisement.

“ **BROADCAST ONLY RELEVANT CONTENT.** ”

- Intel Atom® D2550
- Intel® Celeron® N2930
- 4<sup>th</sup> Gen. Intel® Core™ i5
- Flexible storage devices
- Content synchronization with Zone Sync

---

Two USB 2.0

---

VGA, RS232

---

RJ45 for Ethernet

---

MPEG 1/2/4, AVI, WMV, Divx, Xvid

---

MP3, WAV, WMA

---

JPEG, BMP, PNG

---

Operating temperature 0°C to 45°C

---

### Accessories

Power Cord

AC Adapter

Driver CD

Content Management Software

DVI Cable

# Digital Signage Box PC

4<sup>th</sup> Gen. Intel® Core™ i5

Intel® Celeron® N2930

Intel Atom® D2550



Model Name	MSS970-I1	MSS970-IB	MSS970-IH
<b>System</b>			
<b>Processor</b>	Intel Atom® D2550 (1M Cache, 1.86 GHz)	Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)	Intel® Core™ i5-4200M (3M Cache, up to 3.10 GHz)
<b>BIOS</b>	AMI BIOS	AMI BIOS	AMI BIOS
<b>Chipset</b>	NM10	Intel® SoC Integrated	Intel® 8 series Chipset (Q 87)
<b>Memory</b>	Dual DDR3 800/1066 MHz SO-DIMM Slot, Max.4GB	Dual DDR3L 1066/1333 MHz SO-DIMM Slot, Max. 8GB	2 x SODIMM, Max 16GB DDR3L 1333/1600 z (Default 4GB)
<b>Ethernet</b>	Intel® I210-AT GbE LAN	Intel® I210-AT GbE LAN	Intel® I210IT Gigabit-LAN Controller+ I218LM Gigabit-LAN PHY
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>File Support</b>			
<b>Video</b>	MPEG 1/2/4, AVI, WMV, Divx, Xvid	MPEG 1/2/4, AVI, WMV, Divx, Xvid	MPEG 1/2/4, AVI, WMV, Divx, Xvid
<b>Audio</b>	MP3, WAV, WMA	MP3, WAV, WMA	MP3, WAV, WMA
<b>Images</b>	JPG, BMP, PNG, GIF	JPG, BMP, PNG, GIF	JPG, BMP, PNG, GIF
<b>Flash</b>	SWF, FLV	SWF, FLV	SWF, FLV
<b>MS PowerPoint</b>	PPT (Slide show)	PPT (Slide show)	PPT (Slide show)
<b>HTML</b>	HTML	HTML	HTML
<b>Connectors</b>			
<b>USB</b>	2 x USB 2.0	2 x USB 2.0, 1 x USB 3.0	2 x USB 2.0, 1 x USB 3.0
<b>Serial Interface</b>	2 x RS232 1 x RS232(Optional) 1 x RS232/422/485 (Default RS232)	3 x RS232 1 x RS232/422/485 (Default RS232)	2 x RS232 1 x RS232/422/485 (Default RS232) 1 x RS232 (Optional)
<b>Power</b>	1 x DC-IN Power Jack	1 x DC-IN Power Jack	1 x DC-IN Power Jack
<b>Ethernet</b>	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000	2 x RJ45 10/100/1000
<b>VGA</b>	1 x VGA 15p DSUB (Female)	1 x VGA 15p DSUB (Female)	1 x VGA 15p DSUB (Female)
<b>Audio</b>	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
<b>Mouse/Keyboard</b>	2 x PS/2	2 x PS/2	2 x PS/2
<b>User Controls</b>			
<b>LED</b>	1 x Power/HDD LED	1 x Power/HDD LED	1 x Power/HDD LED
<b>Control Buttons</b>	1 x Power Reset Button 1 x Power on Button	1 x Power Reset Button 1 x Power on Button	1 x Power Reset Button 1 x Power on Button
<b>Power</b>			
<b>Power Input</b>	12V DC (Lockable, Power Jack)	12V DC (Lockable, Power Jack)	12V DC (Lockable, Power Jack)
<b>Power Consumption</b>	5W (Typ.)	5W (Typ.)	5W (Typ.)
<b>Environment</b>			
<b>Operating Temp.</b>	0°C to 45°C	0°C to 45°C	0°C to 50°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)	5% to 95% (Non-condensing, RH)
<b>Wireless Communications</b>			
<b>Wi-Fi</b>	Via half mini PCIe Card (Optional)	Via half mini PCIe Card (Optional)	Via half mini PCIe Card (Optional)
<b>3G</b>	Via half mini PCIe Card (Optional)	Via half mini PCIe Card (Optional)	Via half mini PCIe Card (Optional)
<b>Certifications</b>			
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC

# 42"/55" OPS Panel PC

## OPS Solution

### Custom configuration



Additional Storage



3G Module



SAW Touch



Wi-Fi



**“ BETTER VISUALIZATION FOR ADVERTISING. ”**

### Application



#### Group Video Conferencing

“LESS CABLES. MORE SPACE.”

Winmate's big screen OPS panel PC is a simple and elegant solution for group video conferencing application. Simple installation and setup paired with Android operating system for easy configuration.

- 42"/ 55" screen
- Intel® Core™ i5-5250U
- Arm Cortex-A9
- Built-in OPS

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Fanless cooling system

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Mini D-Sub, 1 x RCA L/R in/out, DVI in/out

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HDMI, Display Port 1.2

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Component video input

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RS232 in/out, RJ45 for Ethernet

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VESA mount

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Operating temperature 0°C to 45°C

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### Accessories

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Power Cord

AC Adapter

Driver CD

# OPS Panel PC

Intel® Core™ i5-5250U

Arm Cortex-A9



Model Name	42" (16:9)	42" (16:9)	55" (16:9)	55" (16:9)
	W42L100-OML2/OMIW	W42L100-OML2/OMFA	W55L100-OML2/OMIW	W55L100-OML2/OMFA
<b>Display</b>				
<b>Resolution</b>	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
<b>Panel Brightness</b>	500 nits	500 nits	500 nits	500 nits
<b>Contrast Ratio</b>	1300:1 (Typ.)	1300:1 (Typ.)	1300:1 (Typ.)	1300:1 (Typ.)
<b>Viewing Angle</b>	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)	-89~89 (H); -89~89 (V)
<b>Display Color</b>	16.7M	16.7M	16.7M	16.7M
<b>Touch</b>	SAW touch	SAW touch	-	-
<b>System</b>				
<b>Processor</b>	Intel® Core™ i5-5250U (3M Cache, up to 2.70 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)	Intel® Core™ i5-5250U (3M Cache, up to 2.70 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>BIOS</b>	AMI BIOS	-	AMI BIOS	-
<b>Memory</b>	4GB SO-DIMM DDR3 1600, up to 8GB	1GB DDR3	4GB SO-DIMM DDR3 1600, up to 8GB	1GB DDR3
<b>Storage</b>	2.5" HDD 500GB	Onboard 16GB eMMC (Default), 2.5" SATA HDD/SSD (Optional)	2.5" HDD 500GB	Onboard 16GB eMMC (Default), 2.5" SATA HDD/SSD (Optional)
<b>Ethernet</b>	Intel® Gigabit-LAN DHY I218	Gigabit Ethernet LAN	Intel® Gigabit-LAN DHY I218	Gigabit Ethernet LAN
<b>Audio</b>	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
<b>OS</b>	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Android 4.4	Windows 10 IoT Enterprise /Windows Embedded 8.1 Industry Pro /Windows Embedded Standard 7 /Windows 7 Pro for Embedded System	Android 4.4
<b>Display Connectors</b>				
<b>Mini D-sub</b>	1 x Mini D-sub 15pin In	1 x Mini D-sub 15pin In	1 x Mini D-sub 15pin In	1 x Mini D-sub 15pin In
<b>RCA</b>	1 x RCA L/R In, 1 x RCA L/R Out	1 x RCA L/R In, 1 x RCA L/R Out	1 x RCA L/R In, 1 x RCA L/R Out	1 x RCA L/R In, 1 x RCA L/R Out
<b>DVI</b>	1 x DVI-D In, 1 x DVI-I Out	1 x DVI-D In, 1 x DVI-I Out	1 x DVI-D In, 1 x DVI-I Out	1 x DVI-D In, 1 x DVI-I Out
<b>Audio</b>	Line-in, Line-out	Line-in, Line-out	Line-in, Line-out	Line-in, Line-out
<b>Component</b>	1 x Component Video In	1 x Component Video In	1 x Component Video In	1 x Component Video In
<b>RS232</b>	1 x RS232 In, 1 x RS232 Out	1 x RS232 In, 1 x RS232 Out	1 x RS232 In, 1 x RS232 Out	1 x RS232 In, 1 x RS232 Out
<b>HDMI</b>	1 x HDMI In	1 x HDMI In	1 x HDMI In	1 x HDMI In
<b>LAN</b>	1 x LAN	1 x LAN	1 x LAN	1 x LAN
<b>Display Port</b>	1 x Display port 1.2	1 x Display port 1.2	1 x Display port 1.2	1 x Display port 1.2
<b>OPS Module Connectors</b>				
<b>Ethernet</b>	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000
<b>USB</b>	2 x USB 3.0	1 x USB OTG, 2 x USB 2.0	2 x USB 3.0	1 x USB OTG, 2 x USB 2.0
<b>Audio</b>	Line-in, Line-out	Line-in, Line-out	Line-in, Line-out	Line-in, Line-out
<b>Control Buttons</b>	Reset, Power	-	Reset, Power	-
<b>Power</b>				
<b>Power Consumption</b>	130W (Typ.)	130W (Typ.)	140W (Typ.)	145W (Typ.)
<b>Power Input</b>	110~240V AC	110~240V AC	110~240V AC	110~240V AC
<b>Mechanical</b>				
<b>Dimensions</b>	947 x 541 x 56.8 mm	947 x 541 x 56.8 mm	1228 x 689.9 x 71.1 mm	1228.1 x 698.9 x 71.1 mm
<b>Mounting</b>	VESA Mount (200 x 200 mm)	VESA Mount (200 x 200 mm)	VESA Mount (200 x 200, 400 x 200 mm)	VESA Mount (200 x 200, 400 x 200 mm)
<b>Environment</b>				
<b>Operating Temp.</b>	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>Humidity</b>	20% to 80% (Non-condensing, RH)	20% to 80% (Non-condensing, RH)	20% to 80% (Non-condensing, RH)	20% to 80% (Non-condensing, RH)
<b>Wireless Communications</b>				
<b>Wi-Fi</b>	Optional	Optional	Optional	Optional
<b>3G</b>	Optional	Optional	Optional	Optional
<b>Certifications</b>				
<b>Safety</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC

# OPS Module

# OPS Solution

## Custom configuration



Additional  
Storage

**3G**

3G Module



Wi-Fi



## Application



### Lecture Theatre Learning

“STREAMLINED  
DEPLOYMENT AND QUICK  
INSTALLATION.”

Winmate’s OMFA-OPS module was deployed in the lecture hall in one of the universities in Taiwan. Easy to deploy OPS system allowed quick installation and seamless integration with already installed equipment.

“ **STREAMLINE DIGITAL  
SIGNAGE APPLICATIONS.** ”

- Intel® Core™ i5-5250U
- Arm Cortex-A9
- Windows 10/8/7
- Android 4.4
- Built-in OPS

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JAE 80 pin connector

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500GB 2.5" HDD

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USB 3.0

---

RJ45 for Ethernet

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Two audio phone jack (Line in/Line out)

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Operating temperature 0°C to 50°C

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## Accessories

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Driver CD



# OPS Module

Intel® Core™ i5-5250U

Arm Cortex-A9



Model Name	OMIW-OPS	OMFA-OPS
<b>System</b>		
<b>Processor</b>	Intel® Core™ i5-5250U (3M Cache, up to 2.70 GHz)	Arm Cortex-A9 (1 GHz to 1.6 GHz)
<b>BIOS</b>	AMI BIOS	-
<b>Memory</b>	SO-DIMM DDR3L-1600, up to 8GB (Default 4GB)	DDR3 1GB
<b>Storage</b>	Removable 2.5 SATA Drive Bay (Default 2.5" HDD 500GB)	Onboard 16GB eMMC (Default) 1 x 2.5" SATA HDD/SSD (Optional)
<b>Ethernet</b>	Intel® Gigabit-LAN DHY I218	Gigabit Ethernet LAN
<b>Audio</b>	Realtek HD Audio Codec	-
<b>OS</b>	Windows 10 IoT Enterprise / Windows Embedded 8.1 Industry Pro / Windows Embedded Standard 7 / Windows 7 Pro for Embedded System	Android 4.4
<b>Connectors</b>		
<b>Ethernet</b>	1 x RJ45 10/100/1000	1 x RJ45 10/100/1000
<b>USB</b>	2 x USB 3.0	2 x USB 2.0 1 x USB 2.0 OTG
<b>Display Port</b>	1 x Display Port 1.2	-
<b>Audio</b>	Line-in, Line-out	Line-in, Line-out
<b>Control Buttons</b>	1 x Power button 1 x Reset button	1 x Power button 1 x Reset button
<b>Internal</b>		
<b>Mini PCIe</b>	1 x Mini PCIe (For Wi-Fi or 3G module)	1 x Mini PCIe (For Wi-Fi or 3G module)
<b>Rear Side</b>		
<b>OPS Interconnector</b>	1 x JAE 80Pin connector (Follows OPS standard)	1 x JAE 80Pin connector (Follows OPS standard)
<b>Environment</b>		
<b>Operating Temp.</b>	0°C to 55°C	-10°C to 60°C
<b>Humidity</b>	30% to 90% (Non-condensing, RH)	30% to 90% (Non-condensing, RH)
<b>Mechanical</b>		
<b>Dimensions</b>	200 x 30 x 118 mm (OPS compliant)	200 x 30 x 118 mm (OPS compliant)
<b>Mounting</b>	OPS Standard	OPS Standard
<b>Cooling System</b>	System fan	Fanless design
<b>Power</b>		
<b>Power Input</b>	12~19V DC (Via OPS interconnection)	12~19V DC (Via OPS interconnection)
<b>Power Consumption</b>	25W (Burn-in test)	10W (Burn-in Test)
<b>Certifications</b>		
<b>Safety</b>	CE, FCC	CE, FCC



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