Ver.218P

About Portwell

Portwell, Inc. was founded in 1993 and entered the Industrial PC market in 1995 by developing single-board computers. Today, our continuous development of leading-edge products has resulted in strong growth in market shares and revenue, a firm place on the Taipei stock exchange (TAISDAQ), and has established Portwell as a major worldwide supplier of specialty computing application platforms and services. Portwell, Inc. is a Premier member of the Intel® Intelligent Systems Alliance. From modular components to market-ready systems, Intel and the 200+ global member companies of the Alliance provide the performance, connectivity, manageability, and security developers need to create smart, connected systems. Close collaboration with Intel and each other enables Alliance members to innovate with the latest technologies, helping developers deliver first-in-market solutions. Portwell, Inc. is also a member of the selected group of Intel® Applied Computing Platform Providers (IACPP), as well as Advanced Telecom Computing Architecture (ATCA) and an executive member of PCI Industrial Computer Manufacturing group (PICMG).

Portwell Engine (PE) Building

Portwell, Inc. has worldwide operations in the U.S.A., Taiwan, Japan, China, Netherlands, United Kingdom, and India. Whether you are working on a computer board or turnkey system, Portwell is the perfect partner to help you deliver your products to the market on time as well as maintain longevity of product. With 18 years experience in the design and manufacturing of specialty computer boards and systems, Portwell not only provides a one-stop resource for off-the-shelf products, but also supplies custom-built solutions and a global logistics services to suit your needs.

Portwell OEM and ODM solutions satisfy your needs in retail automation, medical equipment, industrial automation, infotainment, communication, and network security markets. Encouraged by our flexible business support, manufacturing excellence, and compliance with high quality and environmental standards such as ISO 9001/14000/13485, OHSAS and RoHS, customers have taken advantage of our dedicated and sophisticated engineering resource to satisfy their requirements for the design, manufacturing and logistics of application-specific computer boards, customized computer chassis, and specific computer system configurations. Whether you are working on a Medical Single Board Computer or Internet Security Appliance, Portwell is, again, the perfect partner to help you deliver your products to the market on time and stay one step ahead of the competition.

Portwell is famous for her platform service that could offer the following benefits to customers.

■ Complete Product Portfolio

Select from our full range of both off-the-shelf and versatile custom solutions to scale your products. Portwell provides not only board-level products but also peripheral-level and complete system solutions.

■ Implement Latest Intel Technology

Portwell delivers cutting-edge solutions not only to meet and exceed the demand for the newest technologies, but also the need for greater product life cycles. Since partnering with Intel in 1999, and with streamline access to the latest Intel technologies and roadmaps, Portwell delivers superior products to meet your needs.

■ Faster Time-to-Market

Portwell's experienced engineers, complete product solutions, global operation and flexible business service help you meet the time-to-market requirement and reduce your new product introduction cycles as well as the costs of conducting business.

■ Leading Edge Innovator

Portwell is committed to product and solution innovation. We have a complete variety of proof-of-concept designs with Intel and we are also a leader in offering the latest technologies to the market.

■ Committed to Customer Satisfaction

Portwell maintains high expectations in a determined pursuit of commitment to continuously improve our products and services in order to satisfy and exceed our customers' needs.
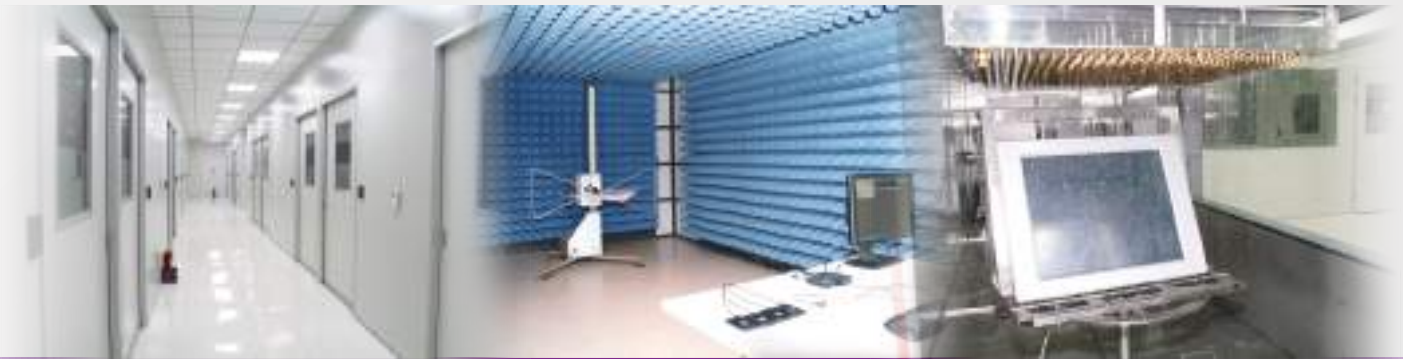
Consulting • Design • Product • Manufacturing • Logistics

Portwell is proud of the technology service it provides to our partners. These services include complete service-demand consulting, product development, advanced design, quality production and global logistics.

Share for Success

Portwell is eager to share its industrial know-how with customers via our online consulting. This feature enables customers to obtain suitable or customized solutions quickly and efficiently.

Design, Develop, and Deliver

- We design, develop and deliver our customer requirements, such as production, reliability, stability, cost-effectiveness, and longevity of product.
- Our experienced and sophisticated engineering capabilities include electronic, mechanical, firmware and system integration expertise.

Portwell Manufacturing Excellence

- We supply component inventory management with automation.

- In-house SMT lines and PCB assembly and functional testing.
- In-house system integration and testing.
- ISO 14001 and ISO 9001 certified manufacturing facilities (89,000 sq. ft. in Taipei).
- Flexible production capability.

Portwell Global Presence

- Single contact window, global support.
- Sales and technical support teams are available through Portwell worldwide offices in the U.S.A., Taiwan, Japan, China, Netherland, United Kingdom, and India.
- Customer-centric service and support.

System Production Flow

IPQC
Verifies that all the production processes are completed correctly and accordingly to specification.

Visual Inspection
Once systems have been assembled, they will have already been visually inspected. Our inspectors ensure all components and accessories are assembled properly and follow SOP before testing.

Assembly
Makes certain that all the system components were assembled properly (Main board, Cable, Fan, HDD, etc.)

**Shipping**
In order to meet the demands of storage, transportation, loading and unloading the products mechanically, our pallet stretch wrap machine is designed to enhance production efficiency and prevent damage to the products during transportation.

OQC
To implement QC inspection procedure on packaged and finished goods, OQC has the MIL–STD 105E Table. QC staff conducts sampling according to required sampling by quantity.

Visual Inspection

Assembly

Kiting Material

System

Shipping

OQC
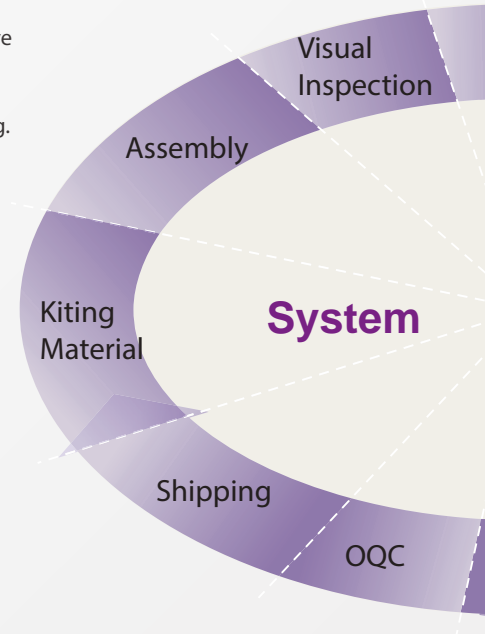
Certifications
ISO 28000:2007 specifies the requirements for a security management system, including those aspects critical to security assurance of the supply chain.

Certifications
ISO 9000 deals with the fundamentals of quality management systems, including the eight management principles on which the family of standards is based.

Certifications
The ISO 14000 environmental management standards exist to help organizations minimize how their operations negatively affect the environment and comply with applicable laws, regulations, and other environmentally oriented requirements and continually improve in the above.

Basic Function Test

In order to ensure the system product is able to boot up by Dynamic Burn-In, 100% of the system products are tested for electronic functionality via a Basic Function Testing after assembly.

Dynamic Burn In Test

DBI is the test used before the product is shipped out. The purpose is to screen possible weaknesses and failures which affect its reliability under different environments.

Advanced Function Test

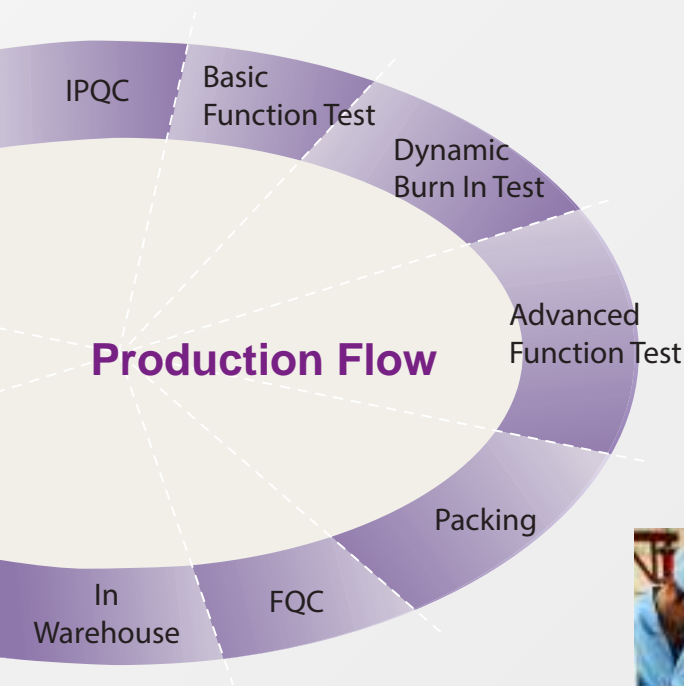This procedure is to ensure the quality and functionality of the system product after the Burn-in test.

Packing

We inspect the product for external defectiveness. Once they have passed, we then collocate all accessories into plastic bags then proceed with boxing and labeling.

FQC

Finished and packed goods are placed in this area for inspection; the FQC department will inspect finished goods based on standard procedures.

Production Flow

- IPQC
- Basic Function Test
- Dynamic Burn In Test
- Advanced Function Test
- Packing
- FQC
- In Warehouse

TÜV CERT ISO 28000 TÜV CERT ISO 14064 OHSAS 18001 Occupational Health and Safety Management ANAB ACCREDITED RoHS

Certifications

ISO 13485 is an ISO standard that represents the requirements for a comprehensive management system for the design and manufacture of medical devices.

Certifications

Quality management systems -- Particular requirements for the application of ISO 9001:2008 for automotive production and relevant service part organizations

Certifications

OHSAS 18001:2007 is a standard which represent her highly regards labors' safety, the commitment to employees' health management and continuously improvement to the company and society.

Our Philosophy in Panel PC

Before every model of Portwell's Panel PC comes into exist, we make sure these systems can create as much value as they can, that is, not only to Portwell, but also to our partners, customers, end users and our society. Bearing our core philosophy in mind, Portwell is dedicated to providing IPC customers with products of TFT-LCD display related industrial grade Panel PC with Refinement, Affordability and Creativity.

Refinement, Affordability and Creativity

Refinement - In addition to an industrial computer system, Portwell tries to make Panel PC an exquisite craft in slim, compact and light style with aesthetic design to enhance user' experience. With abundant researching and developing capacity, Portwell can optimize component choosing, board placement and mechanical design, bringing industrial panel systems to a new era.

Affordability - By optimizing and simplifying system and mechanical design, Portwell creates panel systems that can especially meet the extreme expectations in harsh industrial environment but remain competitive and value optimized pricing. Therefore, everyone in this society can enjoy and benefit from the convenient and smart lives thanks to fair cutting-edge technology.

Creativity - As the premium member of Intel® IoT Solution Alliance, Portwell always adopts the newest Intel® platform to create the best industrial panel system for customers. At the same time, we focus on future trend and customer feedbacks to continuously improve our products and services. Therefore, Portwell's Panel PC always stands out in the market.

PPC Key Features

In order to make a R.A.C industrial Panel PC, Portwell, with more than 20 years experience, cares about....

▪ Radiation is no longer a concern!

Before released to sale, Portwell's Panel PC has passed safety regulations by EEA and FCC Class A requirements, which indicate the system is suitable for office or factory use since it has low radio frequency that would not cause harmful interference and accept interference received.

▪ IP Certification proves our outstanding technology.

IP rating classifies the degrees of protection against the intrusion of solid objects, dust, accidental contact and water in electrical enclosures. Portwell's Panel PC has proven itself as a rugged system by passing IP65 or IP54, ensuring its reliability and durability in harsh environment.

▪ Explore the limit of your system.

Vibration and shock test simulates the systems experiencing vibrations during transportation, installation and field environments to verify stability and withstand vibration. By passing critical test, Portwell's Panel PC proves its ability to meet expectations in rough environment.

▪ Aluminum makes the greatest Portwell Panel PC.

In addition to a good electricity and heat conductor, Aluminum naturally generates a protective oxide coating and is highly corrosion resistive. Besides, the eco-friendly material also matches our commitment to Mother Earth; thus, Portwell makes Panel PC in aluminum for front frame but it can be easily modified into a stainless Panel PC as well.


Rugged

▪ Don't let MTBF of Fan constrain your Panel PC!

Portwell's Panel PC aims at providing solutions that working reliably in difficult industrial environment. With fan-less design in our Panel PC, customers don't need to worry about excessive power consumption, reliability of fans, noise as well as dirt and system overheating due to unexpected fan failure.

▪ Best thermal dissipation design ever.

To realize a truly fan-less system, thermal simulation would be conducted at early stage of system design, significantly optimizing thermal dissipation efficacy as well as design efficiency. Measurable issues like components selection and placement, air flow vents, and heat-sinks has been considered thoroughly.
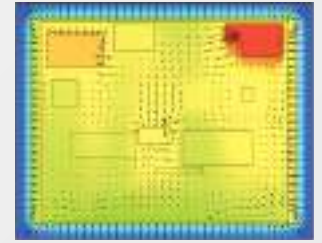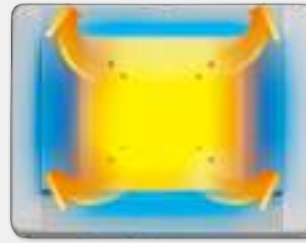
Fan-less

Touch Panel

▪ Aesthetic outlook design attracts users at the first sight.

Instead of bulky appearance in traditional panel system, Portwell's Panel PC features stylish design: the true-flat surface, crystal screen, sleek bezel and refined edge draw everyone's attention immediately.

▪ Panel box is designed in slim and light type.

By leveraging Intel® low power consumption technology, Portwell's Panel PC is slim and compact in panel solution, making it more capable in all applications. Either to install a new HMI/MMI or to replace an old one in limited space; the space-saving and light panel systems can well-fitted.

▪ Touch the cloud through resistive or P-CAP touch screen.

More than a computer, Portwell's touch panel system aims at building a platform to link between human and machine. By adopting sensitive touch screen and panel of high brightness, Portwell would like to enhance user's experience; thus, user's can operate by intuition, making lives easier, smarter and more efficient.

Target Market Applications

Automation

Global Industrial PC market is driven by higher demand from global automated manufacturing market especially in developed countries. In developing countries too, labor-intensive industries are adopting IPC in order to reduce their dependence on labor while ensuring high output.

As the core control system in the production line, highly reliable and stable operation is the essential requirement. Unexpected working conditions like severe operating temperature, dusty factory environment and vibrating machines will push system's ability to the limit.

Before shipping, Portwell's Panel PC need to pass burn-in and advanced function tests that ensure system quality and functionality. All procedures are certified by ISO9001/ISO14001. Also, the fan-less deign guarantees longer life time and the excellent vibration/shock resistance, IP65 certification, and wide temperature/voltage support protect systems from potential damage in different environments. Slim and compact design including mounting kits is good for space limited space. Various I/O ports enhance flexibility for application fields.

In transportation application fields, safety is always the highest concern. Systems, no matter serving as an in-vehicle infotainment or a control system, may encounter strong and continuous vibration or warm operating environment inside car, making system stability and reliability a big challenge.

Portwell's Panel PC is equipped with robust mechanical design and provides best ventilation with great thermal design while using in car. Low power components on small factor boards can fit into slimmer cabinet, and lead to a greener system as well as reduce utility expenses. With abundant experience in OEM/ODM projects, Portwell has the capacities to meet transportation application requirements including eMark and EN50155. Moreover, Portwell's Panel PC has passed high quality industrial tests including shock, vibration, drop tests and IP65/54 certification; thus, it proves itself be able to operate in harsh environment.

Transportation

POS and KIOSK

Touch panel is now everywhere such as POS, order taking machines, exhibit kiosks and gaming terminals. With a touch screen, users can operate panel systems by themselves; thus, the amount of clerks in a store can be reduced, saving a lot of time and labor costs. Moreover, it can as increase flexibility to extend additional functions.

With more than 20 years of industrial market leadership, Portwell solution ensure retailers are well-positioned to move through the current economy into a successful and profitable future, while giving their customers more information faster and easier than ever before. Portwell's high performance Panel PC in slim, compact style and aesthetic design with various mounting methods can serve a perfect platform as HMI/MMI in POS, KIOSK applications, making lives easier, smarter, more efficient and more interesting.

It's common to see posters or TV monitors in public areas showing latest information like promotional activities in retail stores, commercial or governmental advertisement. What's more is "infotainment", kind of media that combines information and entertainment, not only broadcasting information as posters or TV, but allowing audience to interact with it and enhancing user's experience.

As a result, Portwell adopts sensitive touch screen in systems. so that users can quickly choose whatever information and receive instant responses from Portwell's Panel PC. The interaction makes the information searching procedure more fun. In addition to users, information providers can also benefit from Portwell's Panel PC. For example, with tools like database management system, shopkeepers can gather precious data from customers and then effectively increase performance after analyzing. By creating a platform between users and information providers to communicate, Portwell brings values to both parties.

Digital Signage and Public Infotainment

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- Projective Capacitive Touch Screen Becomes Popular in Factory Automation Application
- An Ideal HMI for Industrial Market
- Flexible I/O for Industrial Environment

19 | *FUDA2 Single-Touch Panel PC*

Slim and Fan-less 5-wire Resistive Touch Panel PC with Wide Temperature Support Powered by Intel® Bay Trail Quad-core Processor

- Wide Operating Temperature Support with Fan-less Design
- An Ideal Panel PC for Semi-outdoor Application
- A More Powerful and Flexible Panel PC
- Effortless Upgrade

21 | *FUDA Touch Panel PC*

Slim and Fan-less 5-wire Resistive Touch Panel PC with Low Power Intel® Atom® Platform

- Compact Design with VESA/Panel Mount
- 5-wire Resistive Touch Screen
- Rich Customization Options
- Flexible I/O Combination

23 | *EUDA2 Touch Panel PC*

Stylish and Fan-less Multi-touch Panel PC with Low Power Intel® Atom® Platform

- Cable-less Motherboard for Better Panel PC Solution
- Slim and Stylish Design
- Projective Capacitive Multi-touch Screen
- Flexible I/O Combination

COMBO Multi-Touch HMI Series

Compact and Projective Capacitive Touch HMI with Wide Temperature and Voltage Support Powered by NXP i.MX 6 Series Family

In IPC market, a robust and highly reliable Panel PC system is a must to ensure non-stop and stable operation on production line. Featuring cost effective and power efficiency, COMBO Series is an ideal HMI in factory automation, food and beverage industry, data collecting equipment environments.

Product Introduction

COMBO Series HMI is a new era and innovation of Portwell's standard HMI product line. Powered by NXP i.MX6 processor, the cost effective and power efficient HMI comes with one Gigabit Ethernet, two USB 2.0 hosts, one OTG, one HDMI input port, one HDMI output port, one serial port, one CAN port, a wide range DC input from DC 12V to 24V and an optional Wi-Fi/3G/4G LTE feature. Besides, it is equipped with 512MB or 2GB DDR3 memory down and 8GB eMMC, which targets to support mission-critical industrial applications.

COMBO Series HMI can boot from the onboard eMMC or SD card to Yocto Linux 4.1.15 kernel version or Android 6.0 operating systems via U-Boot boot loader, specially customized to take full advantage of the i.MX6 CPU 3D graphics acceleration capabilities. To sum up, COMBO Series HMI is a ready platform for all kind of industrial applications, including factory automation, machine automation, data collecting and energy-saving control systems.

▌HMI with NXP i.MX 6 Solo/Quad-core Processor

The i.MX 6 series processors unleash a scalable multi-core platform that includes single-, dual- and quad-core families based on the ARM® Cortex™ A9 architecture for next generation industrial applications. By combining the power-efficient processing capabilities with bleeding edge 3D and 2D graphics, as well as high-definition video, the i.MX 6 series provides a new level of multimedia performance to enable an unbounded next generation user experience. The unprecedented levels of performance and power efficiency making it an ideal solution for designs requiring high performance in low power or thermally constrained cost-sensitive devices.

i.MX 6 Series
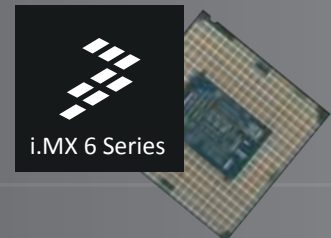
▌CAN Bus Connectivity

COMBO Series HMI features CAN Bus specifctation version 2.0B, which supports both standard and extended message frames communication, making it a suitable equipment for applications such as cars, trucks, tractors, trains, agricultural machinery, textile machinery, etc. With a high degree of reliability and stability, CAN Bus is also widely used in industrial control.

10.1"

1x RS-232/422/485
Storage LED
HDMI
Power LED
Reset Button
HDMI Input   SD Card

29 mm
19.6 mm

CAN
1x GbE LAN
2x USB2.0
USB OTG
DC in 12V ~ 24V
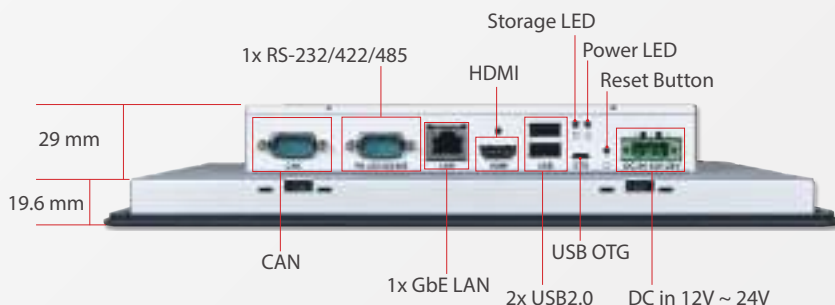
* The picture of COMBO-S1020

▌ Wide Operating Temperature Support with Fan-less Design

COMBO Series HMI takes advantage of NXP i.MX6 family to operate under extremely hot and cold conditions. Compared to most HMI in the market, the operating temperature of COMBO Series HMI can be as low as -20℃ or up to 60℃ in spite of its fan-less design. Moreover, the cable-less structure optimizes the thermal dissipation as well as makes it more durable in rugged environments.

▌ Projective Capacitive Multi-Touch Screen

By adopting antiscratch surface with 7H hardness protection, high touch durability and long-term stability are built-in features of COMBO Series HMI. 10-points multi-touch supports a full set of gestures such as zooming in/out, panning, or rotating, giving users a whole new way to control and interact with what's on the screen even with surgical gloves or thin cotton gloves.

Zoom	Pan	Rotate	Swipe	Scroll	Mulit-tap
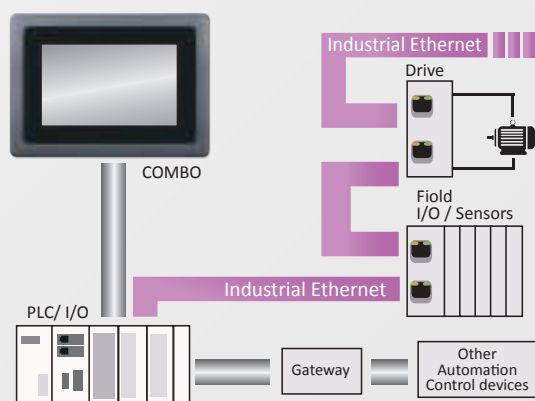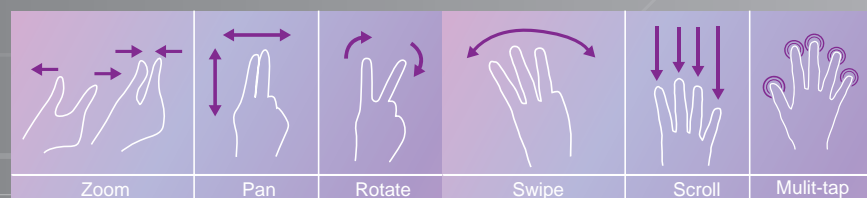
▌ Act multi-mission as PC / Monitor

COMBO Series HMI can not only support dual display output via an additional HDMI output port, but also support monitor function via one HDMI input port. It can be an ideal PIP (picture in picture) solution to integrate external video signal and compute on COMBO 10.1" HMI by itslef.

Ordering Guide

AL6-3224	(R).ATO.COMBO-S1020-Solo-512-8G. 10.1" i.MX6 P-CAP HMI
AL6-3236	(R).ATO.COMBO-S1020-Quad-2G-8G. 10.1" i.MX6 P-CAP HMI

Industrial Ethernet
Drive
COMBO
Fiold I/O / Sensors
Industrial Ethernet
PLC/ I/O
Gateway
Other Automation Control devices

Product Features

| ARM Cortex-A9	Wide Temp.	Fan-less	P-CAP Touch	IP65	Wide Voltage 12V-24V	VESA mount	CAN Bus	SD / eMMC	Monitor	Panel Mount

PEDA Touch Panel PC Series

Modularized Fan-less Panel PC with High Performance and Low Power Consumption Powered by Intel® Haswell ULT SoC Processor

In industrial PC markets, systems can be applied in versatile applications so it's always a good strategy to keep high flexibility and expandability, and that's what PEDA Series focuses on.

Product Introduction

PEDA Panel PC sets a new standard in HMI solutions. Remarkable advanced and brand new features of this incredible system makes it powerful for most industrial application markets. By adopting the 4th generation Intel® Core™ processor with TDP as low as 15W, PEDA Panel PC is able to provide great computing ability while remain low power consumption as well as value-optimized pricing.

Perfect thermal dissipation and a truly rugged chassis with an IP65 aluminum bezel allows the system to operate in harsh industrial environments; also, thanks to plentiful expansion modules and I/O interfaces, it can be used for a variety of purposes. In conclusion, PEDA Panel PC is a well-integrated and flexible system working reliably even in extreme conditions, making it an ideal platform for machine control system, factory automation, indoor/outdoor vending machine, etc.

21.5"

12.1"
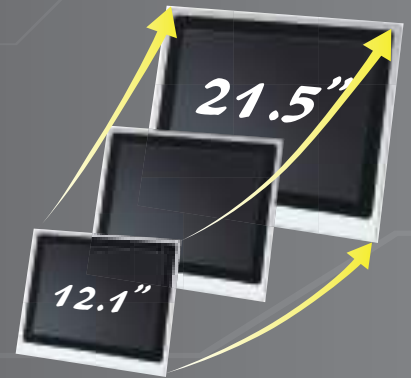
New! 1-Chip BGA Solution

- CPU and PCH Integrated into single BGA package
- 15W & 28W TDPs, 6W and below SDP
- Supports LPDDR3 and DDR3L memory

Traditional 2-Chip platform

- 2 chip scalable solution:CPU and chipset
- BGA and rPGA packages
- 57W,47W,and 37W TDPs
- Supports DDR3L Memory
- GT3e graphics

▌ Panel PC with Intel® ULT SoC Processor

The 4th generation Intel® Core™ processor features ultra-low TDP (thermal design power) and new technology to deliver a single SoC (system on chip) solution. By utilizing this latest technology, the fan-less PEDA Panel PC can optimize thermal dissipation as well as simplify the mechanics of board and chassis to achieve an extremely reliable and stable system. Also, the system can be designed to be very small and compact.

Power Button

Display Port

Reset Button

DC in 12V ~ 24V (DC Jack)

DC in 12V ~ 24V (3-pin Terminal Block)

2x USB 2.0

HDMI

CFEX

85.7mm

1x PCIe x1

32.8mm

HDD LED

2x GbE LAN

3x RS-232

Panel Mount Holes

Grounding Hole

2x USB 3.0

1x RS-232/422/485

Modularization Concept of PEDA Series
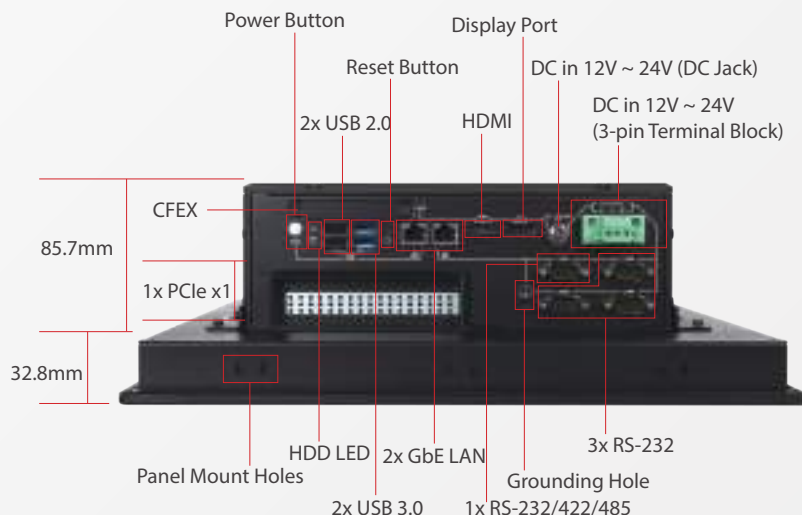
* The picture of PEDA-S1530

▌ Unique Embedded System and Touch Panel Screen Design

Modularization is the core design concept for PEDA Panel PC, which could be disassembled to an independent "embedded system" and a "touch panel display". As a result, users can choose different sizes of panel from 12.1″ to 21.5″ to integrate with the same "embedded system" by one single cable.

▌ Add-on Card Expansion Module

To enhance the flexibility, expansion modules for supplementary add-on cards are options for PEDA Panel PC. With Portwell's patent design of creative expansion cassettes, overheat after add-on cards inserted is no longer a problem, realizing a real rugged fan-less system. Installation and replacement of add-on cards are easy in innovative PCIe expansion modules.

Easily install or replace an add-on card step by step

1
2
3
4

Removable HDD tray and CFEX cover for easy installation and maintenance.

Ordering Guide

AL6-3177	(R).ATO.PEDA-S1230-4300-00. 12.1" Flat 5WR Touch & Haswell-ULT Core™ i5-4300U Panel PC with 1 x PCIe x 1 expansion slot
AL6-3167	(R).ATO.PEDA-S1530-4300-00.15" Flat 5WR Touch & Haswell-ULT Core™ i5-4300U Panel PC with 1 x PCIe x 1 expansion slot
AL6-3183	(R).ATO.PEDA-S1730-4300-00. 17" Flat 5WR Touch & Haswell-ULT Core™ i5-4300U Panel PC with 1 x PCIe x 1 expansion slot
AL6-3181	(R).ATO.PEDA-S1930-4300-00. 19" Flat 5WR Touch & Haswell-ULT Core™ i5-4300U Panel PC with 1 x PCIe x 1 expansion slot
AL6-3179	(R).ATO.PEDA-S2130-4300-00. 21.5" Flat 5WR Touch & Haswell-ULT Core™ i5-4300U Panel PC with 1 x PCIe x 1 expansion slot

Product Features

intel HASWELL | Fan-less | True-Flat | IP65 | WiFi LTE | Wide Voltage 12V-24V | Panel Mount | VESA Mount | Add-on Card | iAMT | CFEX

JAVI Touch Panel PC Series

Highly Flexible and Rugged Fan-less Touch Panel PC with Wide Temperature Support Powered by Intel® Bay Trail Quad-core Processor

Speaking of HMI in factory automation application, system reliability, stability and longevity are the three chief considerations without a doubt. JAVI Series is designed, in order to ensure safe and non-stop operation in the field.
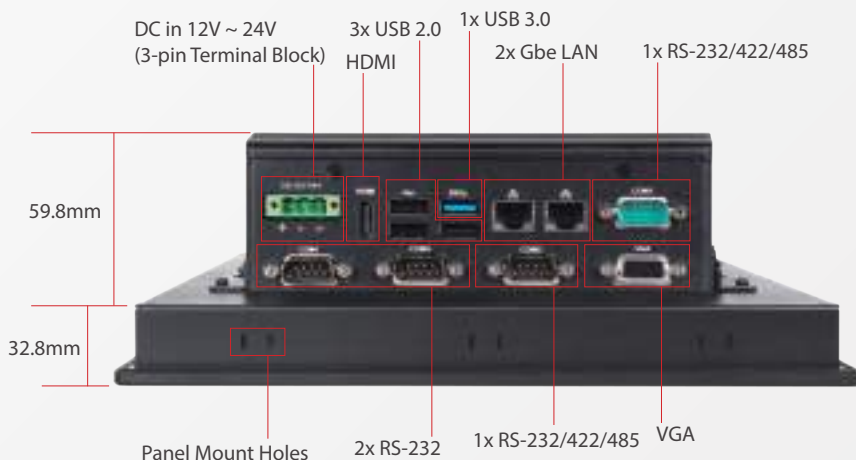
Product Introduction

Powered by Intel® Atom® platform, Bay Trail-I SoC processor E3845, which provides extended temperature and high I/O connectivity within 10W thermal design power (TDP), JAVI Panel PC is an ideal platform for applications like highly efficient and dedicated image signal processing with secure content delivery and visually appealing HMI thin clients.

Featuring brand new modularization and expansion design, JAVI Panel PC makes a new type of industrial Panel PC. This technology enables customers to change display size, upgrade processing power, enhance I/O connectivity and increase system functionality via various add-on modules. With these special hardware structure, JAVI Panel PC's high flexibility and expandability can catch customers' eye at the first sight.

10.4"   12"   15"   17"   19"

▌ Modularized Design of Display and System

JAVI Panel PC comprises two parts: the interdependent "touch panel display" and "embedded system" can be configured by request via only one cable connection. It's also very friendly when it comes to hardware maintenance, display exchange or system upgrade. Last but not least, the "embedded system" can operate independently, making it even more flexible in the field.

DC in 12V ~ 24V
(3-pin Terminal Block)

3x USB 2.0
HDMI

1x USB 3.0
2x Gbe LAN

1x RS-232/422/485

59.8mm

32.8mm

Panel Mount Holes

2x RS-232

1x RS-232/422/485   VGA

Modularization Concept of JAVI Series

* The picture of JAVI-S1230

▌ Wide Operating Temperature Support with Fan-less Design

JAVI Panel PC takes advantage of Intel® Atom® E3800 family to operate under extremely hot and cold conditions. Compared to most Panel PC in the market, the operating temperature of JAVI Panel PC can be as low as -25°C or up to 70°C in spite of its fan-less design.

▌ Highly Flexible I/O and Expandable Capabilities

It's always a good strategy to keep the system as flexible as possible to serve customers from different applications. As a result, JAVI Panel PC features impressive combination of modern and legacy I/O connectivity; also, additional interfaces like isolated COM or audio function can be expanded via proprietary expansion slot and six extension I/O kits. Except hardware focus, industrial protocols are also made available with JAVI Panel PC's highly flexible and expandable design.
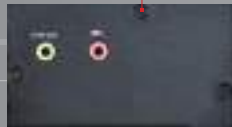
* The picture of JAVI-S1531

Option 1 -4IC
1 x 2KV Isolation RS-232/422/485, 3 x 2KV Isolation RS-232

Option 2 -2IC4U
1 x 2KV Isolation RS-232/422/485, 1 X 2KV Isolation RS-232, 4 x USB2.0

Option 3 -A
1 x Line-out, 1 x MIC, 1 x Full-size mPCIe with SIM holder
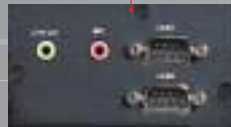
Option 4 -ACAN
1 x Line-out, 1 x MIC, 2 x CAN 2.0B
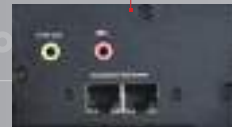
Option 5 -AIE
1 x Line-out, 1 x MIC, 2 x EtherCAT
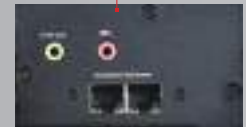
EtherCAT®

Option 6 -API
1 x Line-out, 1 x MIC, 2 x Profinet

Ordering Guide

AL6-3218	(R).ATO.JAVI-S1030-E3845-00. 10.4" F5WR Touch & Intel Bay Trail Atom E3845 Panel PC	AL6-3216	(R).ATO.JAVI-S1930-E3845-00. 19" Flat 5WR Touch & Intel Bay Trail Atom E3845 Panel PC
AL6-3219	(R).ATO.JAVI-S1230-E3845-00. 12.1" F5WR Touch & Intel Bay Trail Atom E3845 Panel PC	AL6-3215	(R).ATO.JAVI-S1531-E3845-00. 15" F5WR Touch & Intel Bay Trail Atom E3845 Panel PC
AL6-3217	(R).ATO.JAVI-S1530-E3845-00. 15" Flat 5WR Touch & Intel Bay Trail Atom E3845 Panel PC	AL6-3213	(R).ATO.JAVI-S1731-E3845-00. 17" Flat 5WR Touch & Intel Bay Trail Atom E3845 Panel PC
AL6-3220	(R).ATO.JAVI-S1730-E3845-00. 17" F5WR Touch & Intel Bay Trail Atom E3845 Panel PC	AL6-3214	(R).ATO.JAVI-S1931-E3845-00. 19" F5WR Touch & Intel Bay Trail Atom E3845 Panel PC
		AL6-3243	(R).JAVI-S1531-E3845-00. 15" F5WR Touch & Intel Bay Trail Atom E3845 Panel PC. 4G RAM. 32G SSD. Panel mount. PAB-SB-300-A.

HOT

Product Features

intel Atom

Wide Temp. -25°C 70°C | Fan-less | True-Flat | IP65 | WiFi LTE | Resistive Touch | Wide Voltage 12V-24V | Panel Mount | VESA Mount | HDD Easy ACCESS

FUDA2 Multi-Touch Panel PC Series

Slim and Fan-less Projective Capacitive Touch Panel PC with Wide Temperature and Panel Mount Support Powered by Intel® Bay Trail Quad-core Processor

In IPC market, a robust and highly reliable Panel PC system is a must to ensure non-stop and stable operation on production line. By enhancing performance and power efficiency, FUDA2 Series is an ideal HMI solution for factory automation, CNC machine and food and beverage industry.

Product Introduction

Powered by Intel® Atom® platform, Bay Trail-I SoC processor E3845, which provides extended temperature and high I/O connectivity within 10W thermal design power (TDP), FUDA2 Panel PC is an ideal platform for applications like highly efficient and dedicated image signal processing with secure content delivery and visually appealing HMI thin clients.

Equipped with a high resolution panel and a sleek, responsive, multi-touch screen, FUDA2 Multi-Touch Panel PC comes with an IP65 rated front bezel and true-flat design. This allows the system to be operated in harsh environment. With its refined appearance, rugged mechanical chassis and multiple modular flexibility, FUDA2 Panel PC's application-oriented design provides customers an ideal HMI solution for factory automation applications.

▌ Wide Operating Temperature Support with Fan-less Design

FUDA2 Panel PC takes advantage of Intel® Atom® E3800 family to operate under extremely hot and cold conditions. Compared to most Panel PC in the market, the operating temperature of FUDA2 Panel PC can be as low as -25℃ or up to 70℃ in spite of its fan-less design. Moreover, the cable-less structure optimizes the thermal dissipation as well as makes it more durable in rugged environments.

70°C

-25°C

▌ Flexible I/O for Industrial Environment

FUDA2 Panel PC features all required interfaces for industrial application: 12V ~ 24V DC input, dual LAN, multiple USB ports and RS-232/422/485 selectable in BIOS with auto-flow function. Different I/O extension kits can be chosen to serve different market demands.

Extension I/O Kits

HDD LED

2x GbE LAN
1x USB 2.0

Reset Button

31 mm

27 .2 mm

Panel Mount Holes

DVI-I

1x USB 3.0

Power LED

Power Button

DC in 12V ~ 24V
(3-pin Terminal Block)
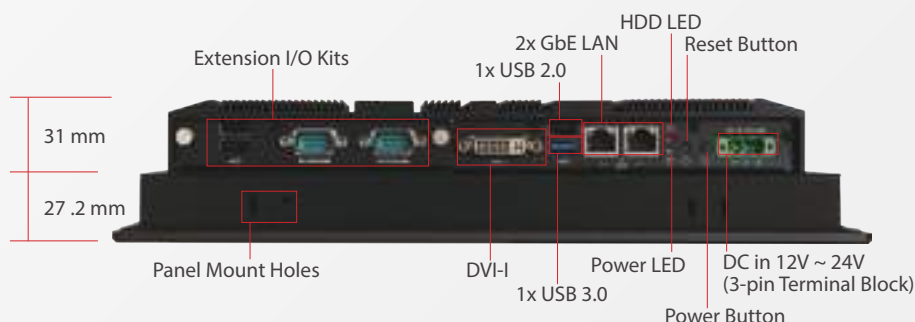
* The picture of FUDA2-S1221

I/O Options

FUDA2 - S1021

2 x RS-232 / 422 / 485
Option 0

1 x Line-out
1 x RS-232 / 422 / 485
Option 1

2 x USB 2.0, 1 x Line-out
Option 2
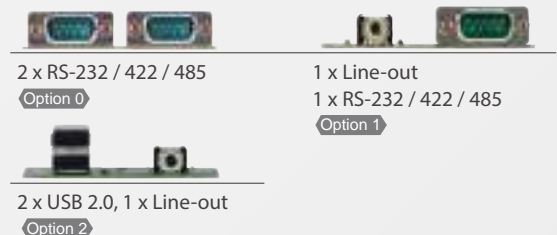
FUDA2 -S12/15/17/1921 & FUDA2-S1820

2 x USB 2.0
2 x RS-232 / 422 / 485
Option 0

1 x RS-232
2 x RS-232 / 422 / 485
Option 1

2 x USB 2.0, 1 x Line-out
1 x RS-232 / 422 / 485
Option 2
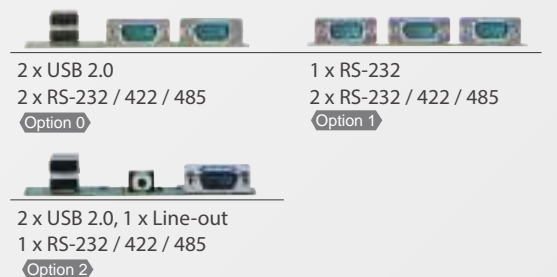
▌Projective Capacitive Touch Panel PC Becomes Popular in Factory Automation Application

Thanks to its robustness and easy operation, Panel PC with projective capacitive touch screen becomes a popular solution in the factory automation industry. With the latest touch screen technology, FUDA2 Multi-Touch Panel PC Series is responsive even when thick industrial gloves are worn and supports palm rejection. Moisture, contaminant, and cutting oil are common in an industrial environment, so it is important these materials don't cause any false actions to the machine. Last but not least, its excellent noise immunity makes it suitable in industrial application.

Zoom	Pan	Rotate	Swipe	Scroll	Mulit-tap
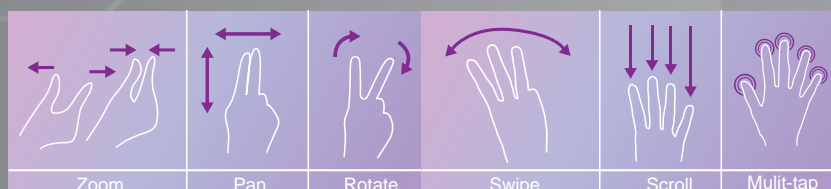
▌An Ideal HMI for Industrial Market

FUDA2 Multi-Touch Panel PC targets to apply in industrial environment. Designed to complied with UL 61010-2-201, which specifically addresses safety requirements and related verification tests for industrial control equipment, as well as the EMC directives for both industrial environment and information technology equipment like EN 55022, EN 55024, EN 61000-6-2, EN 61000-6-4, FUDA2 Multi-Touch Panel PC has proved itself an ideal HMI for industrial market by not only passing a variety of thorough and rigorous testing but also being verified by independent certified lab agent.

Water Proof

Oil Resistant

Ordering Guide

AL6-3222	(R).ATO. FUDA2-S1021-0000-00.10.4" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC
AL6-3226	(R).ATO. FUDA2-S1221-0000-00.12.1" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC
AL6-3227	(R).ATO. FUDA2-S1521-0000-00.15" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC
AL6-3223	(R).ATO. FUDA2-S1721-0000-00.17" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC
AL6-3209	(R).ATO. FUDA2-S1921-0000-00.19" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC
AL6-3200	(R).ATO. FUDA2-S1820-0000-02.18.5" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC
AL6-3242 HOT	(R).FUDA2-S1521-0000-00.15" Intel Bay Trail E3845 Projective Capacitive Touch Panel PC with Black Aluminum Bezel and Black Chassis. 4G RAM. 32G SSD. Panel mount. Extension 2*COM/2*USB

Product Features

intel Atom | Gloved Touch | Wide Temp. | Fan-less | P-CAP Touch | HDD/CF Easy ACCESS | Slim Panel | IP65 | Wide Voltage 12V-24V | VESA Mount | Panel Mount
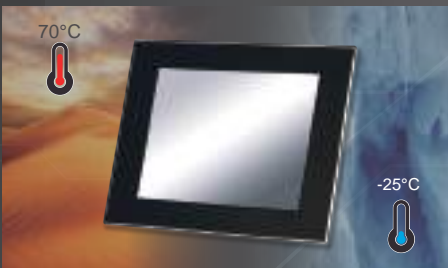
FUDA2 Single-Touch Panel PC Series

Slim and Fan-less 5-wire Resistive Touch Panel PC with Wide Temperature Support Powered by Intel® Bay Trail Quad-core Processor

In IPC market, a robust and highly reliable Panel PC system is a must to ensure non-stop and stable operation on production line. By enhancing performance and power efficiency, FUDA2 Series is an ideal HMI in factory automation, food and beverage industry, vending machine or semi-outdoor environments.

Product Introduction

FUDA2 Panel PC is the next generation of Portwell's standard Panel PC product line. Its ascendant, FUDA Panel PC, has been widely proven and adopted by industrial markets like application in factory automation and transportation. Keeping the successful designing and marketing experience in mind, FUDA2 Panel PC aims at serving IPC customers with much more powerful HMI solutions which provide high performance and low power consumption.

Powered by Intel® Atom® platform, Bay Trail-I SoC processor E3845, which provides extended temperature and high I/O connectivity within 10W thermal design power (TDP), FUDA2 Panel PC is an ideal platform for applications like highly efficient and dedicated image signal processing with secure content delivery and visually appealing HMI thin clients.

Wide Operating Temperature Support with Fan-less Design

FUDA2 Panel PC takes advantage of Intel® Atom® E3800 family to operate under extremely hot and cold conditions. Compared to most Panel PC in the market, the operating temperature of FUDA2 Panel PC can be as low as -25°C or up to 70°C in spite of its fan-less design. Moreover, the cable-less structure optimizes the thermal dissipation as well as makes it more durable in rugged environments.

Effortless Upgrade

FUDA2 Single-Touch Panel PC Series has been designed to be 100% mechanically compatible with the previous FUDA Panel PC – offering a smart, economical and easy replacement or upgrade solution. Customers can enjoy the identical mechanical design to give a direct upgrade to Intel's latest platform without any need to modify existing machine cabinets or mounting kits.

2x USB 2.0

HDD LED
2x GbE LAN
Reset Button
1x USB 2.0

31 mm

19.2 mm

FUDA

FUDA2

Panel Mount Holes

2x RS-232/422/485

DVI-I

1x USB 3.0

Power LED

DC in 12V ~ 24V (3-pin Terminal Block)

Power Button
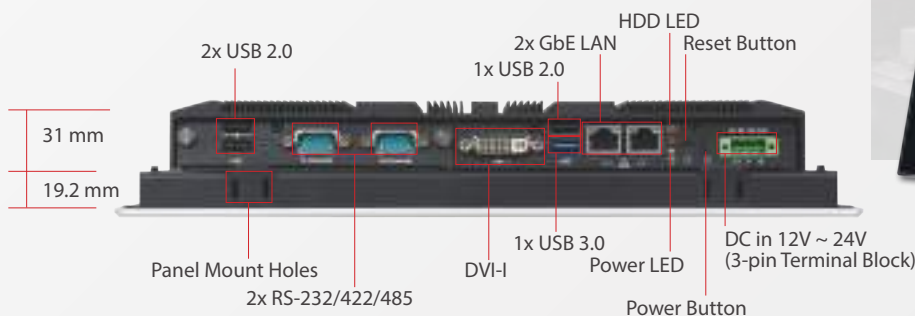
* The picture of FUDA2-S1011

Ambient Light Sensor

▌ An Ideal Panel PC for Semi-outdoor Application

Facilitated with an ambient light sensor, FUDA2 Single-Touch Panel PC Series is capable of automatically adjust panel brightness by sensing light intensity in the surroundings, which allows it to be more user friendly by optimizing the display's visibility in semi-outdoor environments. Other than providing comfortable viewing experience, this function also benefits FUDA2 Panel PC by lowering the power consumption and extending the lifetime of LED display.

▌ A More Powerful and Flexible Panel PC

By adopting the latest Intel® Atom® Bay Trail platform, FUDA2 Panel PC can achieve up to 3x the peak performance and 5x the power efficiency of the previous FUDA Panel PC; especially the visual processing capabilities are improved to enable faster media conversation as well as enhanced HD video transcoding. In addition, more 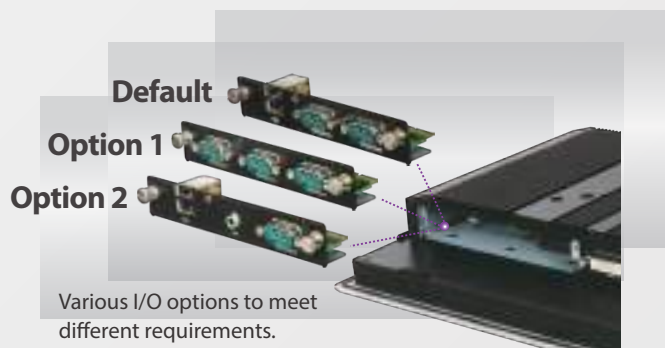functions are made available; for example, multiple storage including 2.5" HDD/SSD, CF and SD card, WiFi or 3G solutions; USB 3.0 is also adopted. Besides, one PCIe x1 slot and internal 2W speaker is reserved for project use.

Default
Option 1
Option 2

Various I/O options to meet different requirements.

Ordering Guide

AL6-3192	(R)ATO.FUDA2-S1011-AP1000.10.4" Bay Trail E3845 Panel PC with Aluminum Bezel and PW Overlay
AL6-3191	(R)ATO.FUDA2-S1211-AP1000.12.1" Bay Trail E3845 Panel PC with Aluminum Bezel and PW Overlay
AL6-3190	(R)ATO.FUDA2-S1511-AP1000.15" Bay Trail E3845 Panel PC with Aluminum Bezel and PW Overlay
AL6-3189	(R)ATO.FUDA2-S1711-AP1000.17" Bay Trail E3845 Panel PC with Aluminum Bezel and PW Overlay
AL6-3188	(R)ATO.FUDA2-S1911-AP1000.19" Bay Trail E3845 Panel PC with Aluminum Bezel and PW Overlay
AL6-3208	(R).ATO. FUDA2-S1830-0000-02.18.5" Intel Bay Trail E3845 Flat 5W Resistive Touch Panel PC
AL6-3241 HOT	(R).FUDA2-S1511-AP1000. 15" Intel Bay Trail E3845 Panel PC with Aluminum Bezel and PW Overlay. 4G RAM. 32G SSD. Panel mount. Extension 2*COM/2*USB

Product Features

Intel Atom | Light Sensor | Wide Temp. | Fan-less | Resistive Touch | WiFi ((3G)) | Slim Panel | IP65 | Wide Voltage 12V-24V | VESA Mount | Panel Mount

FUDA Touch Panel PC Series

Slim and Fan-less 5-wire Resistive Touch Panel PC with Low Power Intel® Atom® Platform

In IPC market, a robust and highly reliable Panel PC system is a must to ensure non-stop and stable operation on production line. Especially designed for industrial application fields, FUDA Series can survive in the harsh environments like factory automation, food and beverage industry.

Product Introduction

Powered by Intel® Atom® low power platform, FUDA Panel PC provides powerful computing abilities but remains power efficient properties. Taking advantage of advanced technology, this aluminum enclosed system not only forms a sturdy chassis with an IP65 certification but also offers professional-grade reliability in critical environments. MTBF of fans will never restrict the performance or lifetime of FUDA Panel PC with fan-less and cable-less design.

Moreover, by adopting a 5-wire resistive touch screen, the system features easy operation, sensitive response, undoubted durability, and can resists various chemical materials, avoiding potential damages in field areas. In conclusion, the slim and compact FUDA Panel PC is recommended for demanding industrial controls, building and restaurant systems and other workplace applications.

50mm

Wall

Mounting Kits Section
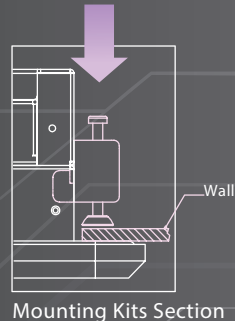
▎ Compact Design with VESA/Panel Mount

FUDA Panel PC features slim and compact design: refined bezel, sleek surface as well as the modern look attracts users at the first sight. The system is as light as 5.5 kg in 10" Panel PC, which can easily fit everywhere with supported mounting holes and kits. For example, FUDA Panel PC can mounted on the wall or installed in a machine cabinet. Panel mount kits and recommended cut-out dimension are clearly illustrated in "Quick Selection Guide" section. Moreover, FUDA Panel PC reaches 50mm thickness in panel solution, making it more adoptable in all applications.

▎ Flexible I/O Combination

Default I/O interfaces in FUDA Panel PC include 1x DVI-I, 2x RS-232/422/485, 4x USB 2.0 and 2x Gigabit Ethernet. To further enhance system flexibility as well as to increase the versatility in application fields, this system adopt gold finger design that allows users to select different I/O combinations for various market demands.
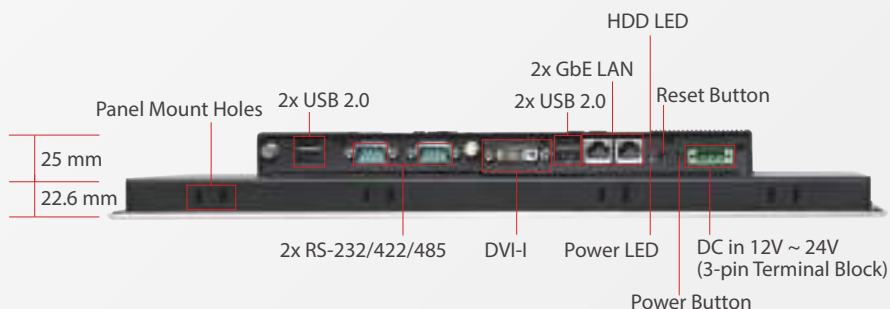
I/O Options

FUDA Panel PC series
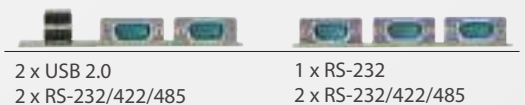
2 x USB 2.0
2 x RS-232/422/485
Default

1 x RS-232
2 x RS-232/422/485

2 x USB 2.0
1 x Line-out
1 x RS-232/422/485

HDD LED

2x GbE LAN
2x USB 2.0
Reset Button

Panel Mount Holes
2x USB 2.0

25 mm
22.6 mm

2x RS-232/422/485   DVI-I   Power LED   DC in 12V ~ 24V
(3-pin Terminal Block)

Power Button

* The picture of FUDA-S1510

5-wire Resistive Touch Screen

The 5-wire resistive touch is the most cost effective kind of touch screens. In addition to high resolution, resistive touch also features high reliability and long durability: it has been tested to endure 35 million times of points. Properties like dust/chemical resistance and shock/vibration tolerance are undoubted. Furthermore, adopting the pressure-sensitive touch screen, FUDA Panel PC is able to work with any stylus, bare finger or gloved hand.

Rich Customization Options

It's easy to make your own FUDA Panel PC, not only to decorate with an exclusive nameplate, to change the color of front bezel, but also to add additional functions; for examples, move power button to the front, increase a front USB port, and replace Aluminum bezel with stainless bezel for particular applications. Customization options on FUDA Panel PC offer quickest and cheapest way to satisfy user's demand with low MOQ.

Removable HDD tray and CF cover for easy installation and maintenance.

Ordering Guide

AL6-3116	(R).FUDA-S1010-AP1000.10.4" Cedar Trail D2550 Panel PC with Aluminum Bezel and PW Overlay
AL6-3138	(R).FUDA-S1210-AP1000. 12.1" Cedar Trail D2550 Panel PC with Aluminum Bezel and PW Overlay
AL6-3117	(R).FUDA-S1510-AP1000. 15" Cedar Trail D2550 Panel PC with Aluminum Bezel and PW Overlay
AL6-3139	(R).FUDA-S1710-AP1000. 17" Cedar Trail D2550 Panel PC with Aluminum Bezel and PW Overlay
AL6-3140	(R).FUDA-S1910-AP1000. 19" Cedar Trail D2550 Panel PC with Aluminum Bezel and PW Overlay

Product Features

intel Atom | Fan-less | Resistive Touch | HDD/CF Easy ACCESS | Slim Panel | IP65 | OP. Temp. | Wide Voltage 12V-24V | VESA Mount | Panel Mount
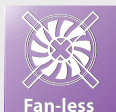
EUDA2 Touch Panel PC Series

Stylish and Fan-less Multi-touch Panel PC with Low Power Intel® Atom® Platform

Industrial Panel PC can be strong and robust but look modern and fashion at the same time. EUDA2 Series adopts proective capacitive multi-touch screen combined with aesthetic design, which draws everyone's attention at the first sight.

Product Introduction

Powered by Intel® Atom® low power platform, EUDA2 Panel PC provides powerful computing abilities but remains power efficient properties. Taking advantage of advanced technology, this aluminum enclosed system not only forms a sturdy and seamless chassis with an IP54 certification but also offers professional-grade reliability in critical environments.

The slim and compact design equipped with proective capacitive multi-touch screen features easy operation as well as aesthetic look, making the system the first choice of HMI/MMI built in limited space. To sum up, the stylish and user friendly EUDA2 Panel PC is the best solution ever for control systems in interactive digital signage, gaming and lottery terminals, industry automation, kiosk, and infotainment in public building, hotel or hospital.

▌ Cable-less Motherboard for Better Panel PC Solution

By utilizing an all-in-one board with I/O connectors onboard, cables are needless for both EUDA2 and FUDA Panel PC. The advantages of cable-less design are easy installation and maintenance: users can replace memory or expansion modules on their demand by just removing IPC back cover and thickness can be significantly reduced. Moreover, better vibration and thermal solution are for sure because loosening cables during vibration wouldn't be a problem and effective thermal dissipation can be provided thanks to unhindered air flow.

▌ Flexible I/O Combination

In addition to default I/O interfaces, including 1x DVI, 2x RS-232/422/485, 2x USB and 2x Gigabit Ethernet, to further enhance system flexibility as well as to increase the versatility in application fields, EUDA2 Panel PC allows users to select different I/O combinations for various market demands.

22 mm
24 mm

2x RS-232/422/485   DVI-I   2x USB 2.0   HDD LED   Reset Button

2x GbE LAN   DC in 12V ~ 24V (3-pin Terminal Block)

Power Button
Power LED
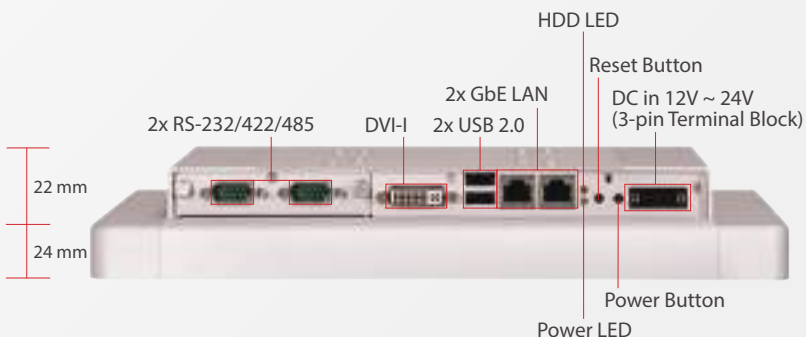
* The picture of EUDA2-S1220

I/O Options

EUDA2 - S1220

2 x RS-232 / 422 / 485   1 x Line-out
Default   1 x RS-232 / 422 / 485

2 x USB 2.0, 1 x Line-out

EUDA2-S1520 & EUDA2-S1821

2 x USB 2.0   1 x RS-232
2 x RS-232 / 422 / 485   2 x RS-232 / 422 / 485
Default

2 x USB 2.0, 1 x Line-out
1 x RS-232 / 422 / 485
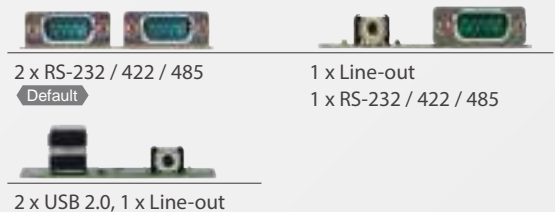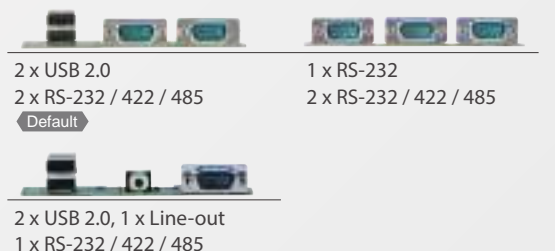
Slim and Stylish Design

Instead of bulky appearance in traditional panel system, EUDA2 Panel PC features compact and stylish design: the "tablet-like" look, true-flat surface and refined edge without any acute angle of EUDA2 Panel PC makes it attractive to users at the first sight. Also, by leveraging Intel® Atom® low power technology, EUDA2 Panel PC is slim and compact reaching 50mm thickness in panel solution, making it more adoptable in all applications.

Zoom	Pan	Rotate
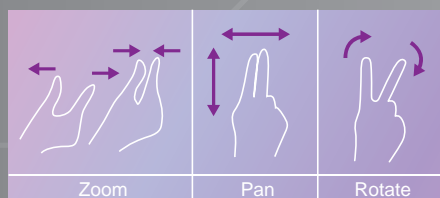
Projective Capacitive Multi-touch Screen

Proective capacitive multi-touch screen offers fast and sensitive response as well as pristine optical clarity combined with a sleek design. By adopting anti-scratch surface with 7H hardness protection, high touch durability and long-term stability are built-in features of EUDA2 Panel PC. Multi-touch supports a full set of gestures such as zooming in/out, panning, or rotating, giving users a whole new way to control and interact with what's on the screen even with latex gloves. The sensitive touch screen also enriches user's experience in operation industrial Panel PC.

Removable HDD tray and CF cover for easy installation and maintenance.

Ordering Guide

AL6-3126	(R).EUDA2-S1220-0000-01. 12.1" Atom® D2550 Panel PC with Projective Capactive Touch and Silver Chassis Assembly
AL6-3128	(R).EUDA2-S1520-0000-01. 15" Atom® D2550 Panel PC with Projective Capacitive Touch and Silver Chassis Assembly
AL6-3145	(R).EUDA2-S1821-0000-02. 18.5" Atom® D2550 Panel PC with Projective Capacitive Touch and Silver Chassis Assembly (Wide-Screen)

Product Features

intel Atom	Fan-less	P-CAP Touch	HDD/CF Easy ACCESS	Slim Panel	IP54/65	OP. Temp.	Wide Voltage 12V-24V	VESA Mount
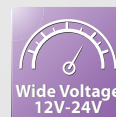
Quick Selection Guide

COMBO Multi-Touch 10.1"

Model Name	COMBO-S1020
Display	
LCD Size	10.1" (16:9)
Resolution	WXGA 1280 x 800
Brightness	300 cd/m^2
Contrast Ratio	1300 : 1
Backlight	LED type
Touch Screen	Projected Capacitive Multi-Touch
System	
SoC	Freescale™ i.MX6 Solo/Quad-core Processor (Coretex™ A9)
Memory	512MB/2GB DDR3 1066 Memory Chip on Board
BIOS	N/A
Graphics	Freescale™ i.MX6 Graphic Engine
LVDS	Single/Dual Channel 24-bit
LAN Chipset	Single Atheros AR8035 Ethernet PHY
Audio	SGTL 5000 Audio Codec
Watchdog Timer	Control by Software
Storage Device	8GB eMMC on board, 1x SD card, 1x half-size mSATA socket (Quad core sku support only)
OS	Yocto Linux™ 4.1.15 + QT 5.6.1 / Android 6.0
I/O Interface	
Series Port	1 x RS-232/422/485
Display	1 x HDMI input, 1 x HDMI output
USB	2 x USB 2.0, 1 x USB OTG
Ethernet	1 x Gigabit Ethernet
Others	1 x CAN 2.0B (DB9) 1 x SMA Antenna hole for WiFi, 3G, 4G LTE Solution
Expansion	1x Full-size Mini-PCIe socket
Mechanical	
Dimesion(mm)(WxDxH)	286 x 196 x 48.6 mm
Mounting	VESA Mount 50 x 25, 75 x 75 ; Panel Mount
Weight (Kg)(N)	1.6 Kg
Weight (Kg)(G)	3.4 Kg
Power	
Power Supply	DC 12V ~ 24V input with 3-pin terminal block connector
Consumption (Max)	25 W
Consumption (Min)	6.2 W
Environmental	
OP /Storage Temp	-20 ~ 60 °C / -30 ~ 80°C (20~90% non-condensing)
Vibration	1.0G (SD/eMMC), Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6
Shock	15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27
Drop	Package with Carton from 96.5 cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard
IP Protection	IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard
Certificate	CE/FCC Class A

Cut out Dimension

A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)
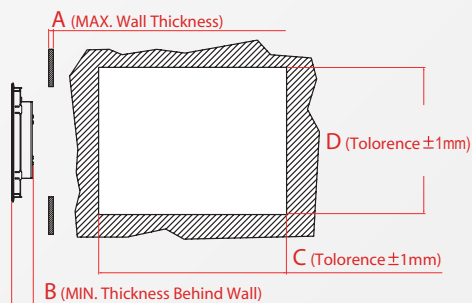
COMBO Multi-Touch

	A (mm)	B (mm)	C (mm)	D (mm)	Mounting Kits (pcs)
COMBO-S1020	< 8.6	45	270	180	x 8

Quick Selection Guide

PEDA 12.1" / 15" / 17" / 19" / 21.5"

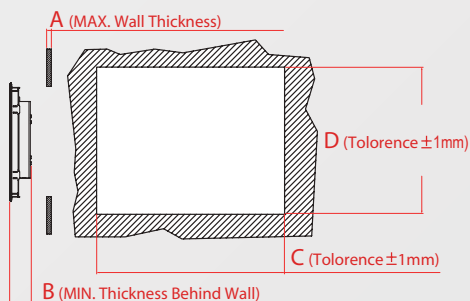| Model Name	PEDA-S1230	PEDA-S1530	PEDA-S1730	PEDA-S1930	PEDA-S2130
Display					
LCD Size	12.1"	15"	17"	19"	21.5" (16:9)
Resolution	XGA 1024x768	XGA 1024x768	SXGA1280x1024	SXGA 1280x1024	FHD 1920x1080
Brightness	500 cd/m²	450 cd/m²	350 cd/m²	350 cd/m²	250 cd/m²
Contrast Ratio	700:1	700:1	1000:1	1000:1	5000:1
Backlight	LED type	LED type	LED type	LED type	LED type
Touch Screen	True Flat 5-Wire Resistive Single Touch (Projective Capacitive Multi-Touch by Project)				
System					
SoC	Intel® Celeron™ 2980U(1.60GHz) & Intel® Core™ i5-4300U (1.90GHz)				
Memory	2 x DDR3L 1333/1600 SO-DIMM up to 16GB				
BIOS	AMI				
Graphics	Intel® HD Graphics 4400				
LVDS	Single/ Dual Channel 24-bit				
LAN Chipset	Intel® WG1210AT Gigabit Ethernet & Intel® WG1218LM Gigabit Ethernet (Support iAMT)				
Audio	Realtek® High Definition Audio Codec				
Watchdog Timer	Programmable 1 ~ 255 sec				
Storage Device	1 x 2.5" SATA HDD/ SSD, 1 x Half-size mSATA device, 1 x CEFX up to 128GB				
OS	Windows 7/ Windows 8.1 / Windows 10 / Linux™				
I/O Interface					
Series Port	1 x RS-232/422/485, 3 x RS-232				
Display	1 x HDMI, 1 x Display Port				
USB	2 x USB 2.0, 2 x USB 3.0				
Ethernet	2 x Gigabit Ethernet				
Others	2 x SMA Antenna hole for WiFi/3G Solution				
Expansion	1 x Half-size PCIe x4 (x1 signal) expansion slot, 1 x Full-size Mini-PCIe socket, 1 x Half-size Mini-PCIe socket with mSATA support				
Mechanical					
Dimesion(mm)(WxDxH)	307 x 253 x 118 mm	368 x 312 x 118 mm	387 x 340 x 118 mm	433 x 373 x 122 mm	529 x 338 x 122 mm
Mounting (mm)	VESA Mount 75 x 75, 100 x 100; Panel Mount				
Weight (Kg)(N)	5 Kg	8 Kg	10 Kg	12 Kg	15 Kg
Weight (Kg)(G)	8 Kg	11.4 Kg	12.5 Kg	15 Kg	18 Kg
Power					
Power Supply	DC 12V ~ 24V input by 1x lockable DC jack & 1x 3-pin terminal block connector				
Power Consumption (Working without PCIe card)	32.4W (Max); Idle: 22W; Sleep: 3.5W	53W (Max); Idle: 32W; Sleep: 2W	50.2W (Max); Idle: 38W; Sleep: 3.5W	48.4W (Max); Idle: 38.5W; Sleep: 3.5W	48W (Max); Idle: 37W; Sleep: 3.4W
Environmental					
OP /Storage Temp	0°C ~ 50°C / -20°C ~ 60°C (20°C ~ 90%, non-condensing)				
Vibration	1.0G (CFEX/SSD) and 0.5G (HDD) , Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6				
Shock	15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27				
Drop	Package with Carton from 96.5 cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard				
IP Protection	IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard				
Certificate	CE/FCC Class A				

Cut out Dimension

A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)

PEDA

	A (mm)	B (mm)	C (mm)	D (mm)	Mounting Kits (pcs)
PEDA-S1230	<10	118	310	256	x10
PEDA-S1530	<8.5	118	354	298	x10
PEDA-S1730	<8.5	118	390	343	x18
PEDA-S1930	<8.5	122	447	407	x18
PEDA-S2130	<8.5	122	533	342	x18

Quick Selection Guide

JAVI-S1X30 10.4" / 12.1" / 15" / 17" / 19"

Model Name	JAVI-S1030	JAVI-S1230	JAVI-S1530	JAVI-S1730	JAVI-S1930
Display					
LCD Size	10.4"	12.1"	15"	17"	19"
Resolution	XGA 1024 x 768	XGA 1024 x 768	XGA 1024 x 768	SXGA 1280 x 1024	SXGA 1280 x 1024
Brightness	450 cd/m^2	500 cd/m^2	450 cd/m^2	350 cd/m^2	350 cd/m^2
Contrast Ratio	3000:1	700:1	700:1	1000:1	1000:1
Backlight	LED type	LED type	LED type	LED type	LED type
Touch Screen	True Flat 5-Wire Resistive Single Touch (Projective Capacitive Multi-Touch by Project)				
System					
SoC	Intel® Atom® Quad-core E3845 (1.91 GHz)				
Memory	DDR3L 1333/1600 SO-DIMM up to 8GB				
BIOS	AMI				
Graphics	Intel® Gen 7 Graphics				
LVDS	Single/Dual Channel 24-bit				
LAN Chipset	Dual Intel® 1210IT Gigabit Ethernet (Support Jumbo Frame)				
Audio	N/A				
Watchdog Timer	Programmable 1 ~ 255 sec				
Storage Device	1 x 2.5" SATA HDD/ SSD, 1 x Half-size mSATA device				
OS	Windows 7/ Windows 8.1/ Windows 10/ Linux™				
I/O Interface					
Series Port	2 x RS-232/422/485, 2 x RS-232				
Display	1 x VGA, 1 x HDMI				
USB	1 x USB 3.0, 3 x USB 2.0				
Ethernet	2 x Gigabit Ethernet				
Others	1 x Programmable 8-bit Digital I/O, 2 x SMA Antenna hole for WiFi, 3G/GPS or 4G LTE Solution				
Expansion	1 x Full-size Mini-PCIe socket				
Mechanical					
Dimesion(mm)(WxDxH)	276 x 221 x 92.0 mm	328 x 261 x 95.0 mm	368 x 292 x 91.3 mm	417 x 353 x 99.5 mm	451 x 374 x 97.8 mm
Mounting	VESA Mount 100 x 100; Panel Mount				
Weight (Kg)(N)	3.1 Kg	4.1 Kg	4.6 Kg	7.4 Kg	8.5 Kg
Weight (Kg)(G)	4.9 Kg	5.9 Kg	6.7 Kg	8.9 Kg	9.7 Kg
Power					
Power Supply	DC 12V ~ 24V input with 3-pin terminal block connector				
Consumption (Max)	32.8W (12V);34.6W (24V)	32.8W (12V);34.6W (24V)	34.3W (12V); 34.0W (24V)	34.1W (12V);35.5W (24V)	36.2W (12V);33.8W (24V)
Consumption (Min)	15.4W (12V);17.6W (24V)	15.5W (12V);18.1W (24V)	16.2W (12V);17.0W (24V)	16.1W (12V);17.6W (24V)	16.3W (12V);19.0W (24V)
Environmental					
OP /Storage Temp	-25°C ~ 70°C / -40°C ~ 85°C (20°C ~ 90% non-condensing)				
Vibration	1.0G(SSD) and 0.5G(HDD) , Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6				
Shock	15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27				
Drop	Packaged with Carton 96.5cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard				
IP Protection	IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard				
Certificate	CE/FCC Class A				

Cut out Dimension

A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)

JAVI-S1X30

	A (mm)	B (mm)	C (mm)	D (mm)	Mounting Kits (pcs)
JAVI-S1030	< 8.5	86	253	198	x8
JAVI-S1230	< 8.5	89	313	246	x10
JAVI-S1530	< 8.5	85.3	352	277	x10
JAVI-S1730	< 8.5	91.8	394	329	x16
JAVI-S1930	< 8.5	89.9	435	358	x18

Quick Selection Guide

JAVI-S1X31 15" / 17" / 19"

Model Name	JAVI-S1531	JAVI-S1731	JAVI-S1931
Display			
LCD Size	15"	17"	19"
Resolution	XGA 1024 x 768	SXGA 1280 x 1024	SXGA 1280 x 1024
Brightness	450 cd/m²	350 cd/m²	350 cd/m²
Contrast Ratio	700:1	1000:1	1000:1
Backlight	LED type	LED type	LED type
Touch Screen	True Flat 5-Wire Resistive Single Touch (Projective Capacitive Multi-Touch by Project)		
System			
SoC	Intel® Atom® Quad-core E3845 (1.91 GHz)		
Memory	DDR3L 1333/1600 SO-DIMM up to 8GB		
BIOS	AMI		
Graphics	Intel® Gen 7 Graphics		
LVDS	Single/Dual Channel 24-bit		
LAN Chipset	Dual Intel® 1210IT Gigabit Ethernet (Support Jumbo Frame)		
Audio	Realtek® High Definition Audio Codec (Optional 3,4,5,6)		
Watchdog Timer	Programmable 1 ~ 255 sec		
Storage Device	1 x 2.5" SATA HDD/ SSD, 1 x Half-size mSATA device		
OS	Windows 7/ Windows 8.1/ Windows 10/ Linux™		
I/O Interface			
Series Port	2 x RS-232/422/485, 2 x RS-232		
Display	1 x VGA, 1 x HDMI		
USB	1 x USB 3.0, 3 x USB 2.0		
Ethernet	2 x Gigabit Ethernet		
Others	1 x Programmable 8-bit Digital I/O, 3 x SMA Antenna hole for WiFi, 3G/GPS or 4G LTE Solution		
Expansion	1 x Full-size Mini-PCIe socket (Option 1) 1 x 2KV Isolation RS-232/422/485, 3 x 2KV Isolation RS-232 (Option 4) 1 x Line-out, 1 x MIC, 2 x CAN 2.0B (Option 2) 1 x 2KV Isolation RS-232/422/485, 1 x 2KV Isolation RS-232, 4 x USB 2.0 (Option 5) 1 x Line-out, 1 x MIC, 2 x EtherCAT (Option 3) 1 x Line-out, 1 x MIC,1 x Full-size mPCIe socket with SIM Holder (Option 6) 1 x Line-out, 1 x MIC, 2 x Profinet		
Mechanical			
Dimesion(mm)(WxDxH)	368 x 292 x 91.3 mm	417 x 353 x 99.5 mm	451 x 374 x 97.8 mm
Mounting	VESA Mount 100 x 100; Panel Mount		
Weight (Kg)(N)	5.3 Kg	8.1 Kg	9.2 Kg
Weight (Kg)(G)	10.4 Kg	11 Kg	11.7 Kg
Power			
Power Supply	DC 12V ~ 24V input with 3-pin terminal block connector		
Consumption (Max)	45.1W (12V);48.1W (24V)	53.2W (12V);49.2W (24V)	48.5W (12V);49.3W (24V)
Consumption (Min)	16.3W (12V);19.3W (24V)	23.9W (12V);23.5W (24V)	22.9W (12V);23.7W (24V)
Environmental			
OP /Storage Temp	-25°C ~ 70°C / -40°C ~ 85°C (20°C ~ 90% non-condensing)		
Vibration	1.0G(SSD) and 0.5G(HDD) , Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6		
Shock	15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27		
Drop	Packaged with Carton 96.5cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard		
IP Protection	IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard		
Certificate	CE/FCC Class A		

Cut out Dimension

A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)

JAVI-S1X31

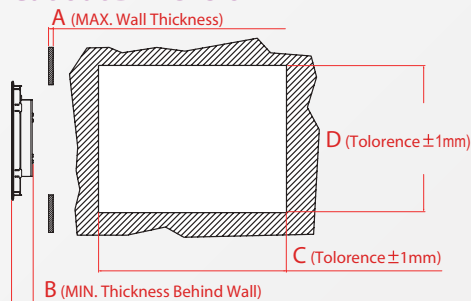|	A (mm)	B (mm)	C (mm)	D (mm)	Mounting Kits (pcs)
JAVI-S1531	< 8.5	85.3	352	277	x10
JAVI-S1731	< 8.5	91.8	394	329	x16
JAVI-S1931	< 8.5	89.9	435	358	x18

Quick Selection Guide

FUDA2 Multi-Touch 10.4" / 12.1" / 15" / 17" / 19" / 18.5"

Model Name	FUDA2-S1021	FUDA2-S1221	FUDA2-S1521	FUDA2-S1721	FUDA2-S1921	FUDA2-S1820
Display						
LCD Size	10.4"	12.1"	15"	17"	19"	18.5" (16:9)
Resolution	XGA 1024 x 768	XGA 1024 x 768	XGA 1024 x 768	SXGA 1280 x 1024	SXGA 1280 x 1024	1366 x 768
Brightness	450 cd/m²	600 cd/m²	450 cd/m²	350 cd/m²	350 cd/m²	350 cd/m²
Contrast Ratio	3000:1	700:1	700:1	1000:1	1000:1	1000:1
Backlight	LED type	LED type	LED type	LED type	LED type	LED type
Touch Screen	Projected Capacitive Multi-Touch (10 points)					(2 points)
System						
SoC	Intel® Atom® Quad-core E3845 (1.91 GHz)					
Memory	DDR3L 1333/1600 SO-DIMM up to 8GB					
BIOS	AMI					
Graphics	Intel® Gen 7 Graphics					
LVDS	Single/Dual Channel 24-bit					
LAN Chipset	Dual Intel® 1210IT Gigabit Ethernet (Support Jumbo Frame)					
Audio	Realtek® High Definition Audio Codec					
Watchdog Timer	Programmable 1 ~ 255 sec					
Storage Device	1 x 2.5" SATA HDD/ SSD, 1 x Compact Flash II up to 64GB, 1 x SD card					
OS	Windows 7/ Windows 8.1/ Windows 10/ Linux™					
I/O Interface						
Series Port	2 x RS-232/422/485 (Expansion: Option 0)					
Display	1x DVI-I					
USB	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0, 2 x USB 2.0 (Expansion: Option 0)				
Ethernet	2 x Gigabit Ethernet					
Others	1 x SMA Antenna hole for WiFi/3G Solution					
Expansion	1 x Half mPCIe socket 1 x RS-232/422/485, 1 x Line-out (Option 1) 1 x Line-out, 2 x USB 2.0 (Option 2)	1 x Half-size Mini-PCIe socket 2 x RS-232/422/485, 1 x RS-232 (Expansion: option 1) 1 x RS-232/422/485, 1 x Line-out, 2 x USB 2.0 (Expansion: option 2)				
Mechanical						
Dimension(mm)(WxDxH)	282 x 238 x 57.3 mm	305 x 260 x 58.2 mm	384 x 310 x 56.6 mm	437 x 375 x 63.2 mm	480 x 400 x 60.4 mm	467 x 293 x 63.4 mm
Mounting (mm)	VESA Mount 75 x 75, 100 x 100; Panel Mount					
Weight (Kg)(N)	3.5 Kg	3.9 Kg	5.1 Kg	6.5 Kg	7.6 Kg	7 Kg
Weight (Kg)(G)	5.8 Kg	6 Kg	7.8 Kg	9.8 Kg	11.5 Kg	10.3 Kg
Power						
Power Supply	DC 12V ~ 24V input with 3-pin terminal block connector					
Consumption (Max)	41W(12V); 40W(24V)	34W(12V); 34W(24V)	39W(12V); 38W(24V)	47W(12V); 46W(24V)	40W(12V); 42W(24V)	43W(12V); 45W(24V)
Consumption (Min)	15W(12V); 16W(24V)	13W(12V); 14W(24V)	16W(12V); 17W(24V)	14W(12V); 15W(24V)	20W(12V); 21W(24V)	23W(12V); 23W(24V)
Environmental						
OP /Storage Temp	-25°C ~ 70°C / -40°C ~ 85°C (20°C ~ 90% non-condensing)					0°C ~ 50°C / -20°C ~ 60°C
Vibration	1.0G(SD/CF/SSD) and 0.5G(HDD) , Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6					
Shock	15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27					
Drop	Packaged with Carton 96.5cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard					
IP Protection	IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard					
Certificate	CE/FCC Class A/UL (FUDA2-S1921 only)					

Cut out Dimension

A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)

FUDA2 Multi-Touch

	A (mm)	B (mm)	C (mm)	D (mm)	Mounting Kits (pcs)
FUDA2-S1021	<10	52.5	265	222	X 8
FUDA2-S1221	<10	52.4	289	244	X 8
FUDA2-S1521	<7	50.6	367	293	X 14
FUDA2-S1721	<8	57.4	420	358	X 16
FUDA2-S1921	<7.8	52.6	463	383	X 20
FUDA2-S1820	< 10.7	58.1	452	277	X 16

Quick Selection Guide

FUDA2 Single-Touch 10.4" / 12.1" / 15" / 17" / 19" / 18.5"

Model Name	FUDA2-S1011	FUDA2-S1211	FUDA2-S1511	FUDA2-S1711	FUDA2-S1911	FUDA2-S1830
Display						
LCD Size	10.4"	12.1"	15"	17"	19"	18.5" (16:9)
Resolution	XGA 1024 x 768	XGA 1024 x 768	XGA 1024 x 768	SXGA 1280 x 1024	SXGA 1280 x 1024	1366 x 768
Brightness	450 cd/m²	500 cd/m²	450 cd/m²	350 cd/m²	350 cd/m²	350 cd/m2
Contrast Ratio	3000:1	700:1	700:1	1000:1	1000:1	1000:1
Backlight	LED type	LED type	LED type	LED type	LED type	LED type
Touch Screen	5-Wire Resistive Single Touch					F5WR Single Touch
System						
SoC	Intel® Atom® Quad-core E3845 (1.91 GHz)					
Memory	DDR3L 1333/1600 SO-DIMM up to 8GB					
BIOS	AMI					
Graphics	Intel® Gen 7 Graphics					
LVDS	Single/ Dual Channel 24-bit					
LAN Chipset	Dual Intel® 1210IT Gigabit Ethernet (Support Jumbo Frame)					
Audio	Realtek® High Definition Audio Codec					
Watchdog Timer	Programmable 1 ~ 255 sec					
Storage Device	1 x 2.5" SATA HDD/ SSD, 1 x Compact Flash II up to 64GB, 1 x SD card					
OS	Windows 7/ Windows 8.1 / Windows 10 / Linux™					
I/O Interface						
Series Port	2 x RS-232/422/485 (Expansion: Option 0)					
Display	1x DVI-I					
USB	1 x USB 2.0, 1 x USB 3.0, 2 x USB 2.0 (Expansion: Option 0)					
Ethernet	2 x Gigabit Ethernet					
Others	1 x SMA Antenna hole for WiFi/3G Solution					
Expansion	1 x Half-size Mini-PCIe socket 2 x RS-232/422/485, 1 x RS-232 (Option 1) 1 x Line-out, 1 x RS-232/422/485, 2 x USB 2.0 (Option 2)					
Mechanical						
Dimesion(mm)(WxDxH)	314 x 253 x 50.2 mm	343 x 282 x 53.2 mm	425 x 330 x 55.6 mm	437 x 375 x 58.6 mm	480 x 400 x 58.6 mm	476 x 293 x 63.4 mm
Mounting (mm)	VESA Mount 75 x 75, 100 x 100; Panel Mount					
Weight (Kg)(N)	3.5 Kg	4.3 Kg	5.3 Kg	6.8 Kg	7.8 Kg	7 Kg
Weight (Kg)(G)	5.8 Kg	6.2 Kg	8.2 Kg	9.5 Kg	11.2 Kg	10.3 Kg
Power						
Power Supply	DC 12V ~ 24V input with 3-pin terminal block connector					
Consumption (Max)	32W(12V); 35W(24V)	29W(12V); 33W(24V)	30W(12V); 31W(24V)	38W(12V); 38W(24V)	34W(12V); 35W(24V)	42W(12V); 45W(24V)
Consumption (Min)	10W(12V); 11W(24V)	10W(12V); 11W(24V)	10W(12V); 11W(24V)	10W(12V); 11W(24V)	10W(12V); 11W(24V)	21W(12V); 22W(24V)
Environmental						
OP /Storage Temp	-25°C ~ 70°C / -40°C ~ 85°C (20°C ~ 90% non-condensing)					0°C ~ 50°C / -20°C ~ 60°C
Vibration	1.0G(SD/CF/SSD) and 0.5G(HDD) , Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6					
Shock	15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27					
Drop	Packaged with Carton 96.5cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard					
IP Protection	IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard					
Certificate	CE/FCC Class A					

Cut out Dimension

A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)

FUDA2 Single-Touch

	A (mm)	B (mm)	C (mm)	D (mm)	Mounting Kits (pcs)
FUDA2-S1011	<10.7	46.2	297	236	x 8
FUDA2-S1211	<10.9	49.2	326	265	x 12
FUDA2-S1511	<11.3	49.6	409	313	x 16
FUDA2-S1711	<12	52.6	420	358	x 16
FUDA2-S1911	<12	52.6	463	383	x 20
FUDA2-S1830	< 10.7	58.1	452	277	X 16

Quick Selection Guide

FUDA 10.4" / 12.1" / 15" / 17" / 19"

Model Name	FUDA-S1010	FUDA-S1210	FUDA-S1510	FUDA-S1710	FUDA-S1910
Display					
LCD Size	10.4"	12.1"	15"	17"	19"
Resolution	SVGA 800 x 600	SVGA 800 x 600	XGA 1024 x 768	SXGA 1280 x 1024	SXGA 1280 x 1024
Brightness	400 cd/m²	450 cd/m²	450 cd/m²	350 cd/m²	350 cd/m²
Contrast Ratio	700:1	700:1	700:1	1000:1	1000:1
Backlight	LED type	LED type	LED type	LED type	LED type
Touch Screen	5-Wire Resistive Single Touch (Projected Capacitive Multi-Touch by Project)				
System					
CPU+Chipset	Intel® Atom® Dual-core D2550 (1.86 GHz) + Intel® NM10				
Memory	DDR3 1066/1333 SO-DIMM up to 4GB				
BIOS	AMI				
Graphics	Intel® GMA 3650 Graphics				
LVDS	Single/ Dual Channel 18/24-bit				
LAN Chipset	Dual Intel® 82574L Gigabit Ethernet				
Audio	Realtek® High Definition Audio Codec				
Watchdog Timer	Programmable 1 ~ 255 sec				
Storage Device	1 x 2.5" SATA HDD/ SSD, 1 x Compact Flash II up to 64GB				
OS	Windows XP/ Windows 7(32 bit) /Linux™				
I/O Interface					
Series Port	2 x RS-232/422/485 (Expansion:default)				
Display	1 x DVI-I				
USB	2 x USB 2.0 ; 2 x USB2.0 (Expansion:default)				
Ethernet	2 x Gigabit Ethernet				
Others	N/A				
Expansion	2 x RS-232/422/485, 1 x RS-232 (Option 1) 1 x Line-out, 1 x RS-232/422/485, 2 x USB 2.0 (Option 2)				
Mechanical					
Dimesion(mm)(WxDxH)	314 x 253 x 44.2 mm	343 x 282 x 47.2 mm	425 x 330 x 49.6 mm	437 x 375 x 52.6 mm	480 x 400 x 52.6 mm
Mounting	VESA Mount 75 x 75, 100 x 100; Panel Mount				
Weight (Kg)(N)	3.2 Kg	4 Kg	5 Kg	6.5 Kg	7.5 Kg
Weight (Kg)(G)	5.5 Kg	5.7 Kg	7.9 Kg	8.5 Kg	10.9 Kg
Power					
Power Supply	DC 12V ~ 24V input with 3-pin terminal block connector				
Consumption (Max)	33.1W(12V); 34.3W(24V)	35W(12V); 36W(24V)	39.2W(12V); 40.0W(24V)	47.5W(12V); 48W(24V)	45.6W(12V); 46.3W(24V)
Consumption (Min)	7.1W(12V); 7.9W(24V)	7.1W(12V); 7.9W(24V)	7.3W(12V); 7.9W(24V)	7.3W(12V); 8.2W(24V)	7.3W(12V); 7.9W(24V)
Environmental					
OP /Storage Temp	0°C ~ 50°C; -20°C ~ 60°C (20°C ~ 90%, non-condensing)				
Vibration	1.0G(CF/SSD) and 0.5G(HDD) , Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6				
Shock	15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27				
Drop	Packaged with Carton 96.5cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard				
IP Protection	IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard				
Certificate	CE/FCC Class A				

Cut out Dimension

A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)

FUDA

	A (mm)	B (mm)	C (mm)	D (mm)	Mounting Kits (pcs)
FUDA-S1010	<6.5	40.2	297	236	x8
FUDA-S1210	<6.5	43.2	326	265	x12
FUDA-S1510	<7	43.6	409	313	x16
FUDA-S1710	<8	46.6	420	358	x16
FUDA-S1910	<8	46.6	463	383	x20

Quick Selection Guide

EUDA2 12.1" / 15" / 18.5"

Model Name	EUDA2-S1220	EUDA2-S1520	EUDA2-S1821
Display			
LCD Size	12.1"	15"	18.5"(16:9)
Resolution	SVGA 800 x 600	XGA 1024 x 768	1366X768
Brightness	450 cd/m^2	450 cd/m^2	300 cd/m^2
Contrast Ratio	700:1	700:1	1000:1
Backlight	LED type	LED type	LED type
Touch Screen	Projected Capacitive Multi-Touch (5-Wire Resistive Single Touch by Project)		
System			
CPU+Chipset	Intel® Atom® Dual-core D2550 (1.86 GHz) + Intel® NM10		
Memory	DDR3 1066/1333 SO-DIMM up to 4GB		
BIOS	AMI		
Graphics	Intel® GMA 3650 Graphics		
LVDS	Single/Dual Channel 18/24-bit		
LAN Chipset	Dual Intel® 82574L Gigabit Ethernet		
Audio	Realtek® High Definition Audio Codec		
Watchdog Timer	Programmable 1 ~ 255 sec		
Storage Device	1 x 2.5" SATA HDD/ SSD, 1 x Compact Flash II up to 64GB		
OS	Windows XP/ Windows 7(32 bit) /Linux™		
I/O Interface			
Series Port	2 x RS-232/422/485 (Expansion: default)		
Display	1 x DVI-I		
USB	2 x USB 2.0	2 x USB 2.0 ; 2 x USB 2.0 (Expansion:default)	
Ethernet	2 x Gigabit Ethernet		
Others	N/A		
Expansion	1 x Line out, 1x RS-232/422/485 (Option 1) 2 x USB 2.0, 1x Line out (Option 2)	2 x RS-232/422/485, 1 x RS-232 (Option 1) 1 x Line-out, 1 x RS-232/422/485, 2 x USB 2.0 (Option 2)	
Mechanical			
Dimesion(mm)(WxDxH)	309 x 244 x 46.8 mm	355 x 279 x 48.8 mm	467 x 293 x 57.7 mm
Mounting	VESA Mount 75 x 75, 100 x 100		VESA Mount; Panel Mount
Weight (Kg)(N)	3.8 Kg	4 Kg	6.8 Kg
Weight (Kg)(G)	5.8 Kg	7 Kg	9.7 Kg
Power			
Power Supply	DC 12V ~ 24V input with 3-pin terminal block connector		
Consumption (Max)	35W(12V);36W(24V)	39.2W(12V);40.0W(24V)	45.1W(12V);44.6W(24V)
Consumption (Min)	7.1W(12V);7.9W(24V)	7.3W(12V);7.9W(24V)	8.4W(12V);7.7W(24V)
Environmental			
OP /Storage Temp	0°C ~ 50°C; -20°C ~ 60°C (20°C ~ 90%, non-condensing)		
Vibration	1.0G(CF/SSD) and 0.5G(HDD) , Power on & 2.16G, Packaged; 5~500Hz, IEC 60068-2-6		
Shock	15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27		
Drop	Packaged with Carton 96.5cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard		
IP Protection	IP54 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard		IP65 (Front) / IP20 (Rear)
Certificate	CE/FCC Class A		

Cut out Dimension

A (MAX. Wall Thickness)
D (Tolorence ±1mm)
C (Tolorence ±1mm)
B (MIN. Thickness Behind Wall)
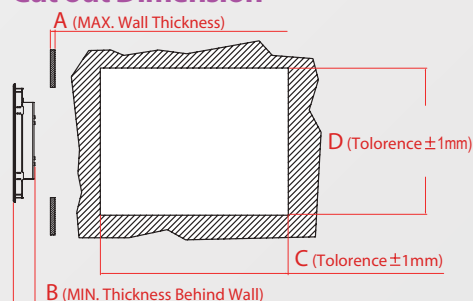
EUDA2

	A (mm)	B (mm)	C (mm)	D (mm)	Mounting Kits (pcs)
EUDA2-S1821	<9	51.7	452	277	x16

2x USB 2.0
HDD LED
2x GbE LAN
2x USB 2.0
Reset switch
57.7 mm
32.7 mm
2x RS-232/422/485
DVI-I Power LED
Power switch
DC in 12V ~ 24V
(3-pin Terminal Block)
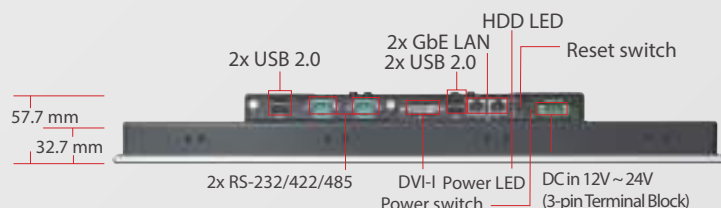
* The picture of EUDA2-S1821

Special Offers in Portwell

⬇ CFEX

CFEX is a new technology initiated by Portwell that adapting legacy CF type one with advanced pin definitions. This helps overcome reliability issues with standard commercial memory. CFEX also supports SATA 3.0, SPI and other extensions, and achieves a read speed of 100 to 120Mbyte/s and write speed of 45 to 75Mbyte/s. Compared with other CF devices, it falls in the same low-cost bracket as CF and CF SATA and is less expensive than CFast.

Compact Flexiblity for Embedded Extension

- Well planned interface of Compact system
- Extended for versatile Applications

Longevity, Stability, Reliability, Flexibility

Key consideration:
1. Embedded storage: CFEX can build embedded OS like CF with higher read/write speed.
2. Data storage: CFEX is simple to move data and is faster than CF.
3. Smart key & ID: System has to detect the CFEX to boot.
4. Card computing: We can use CFEX to build system on card and any system dock can work on it.

⬇ PET

Portwell Engineering Tool

PET is a set of routines, protocols, and tools for building software applications without knowing the hardware specifications. In response of the cloud computing future, Portwell also develops Smart PET, which is a new generation of PET with cloud access compatibility.

PET is a middle layer library called by upper layer program such as a user program or any GUI program to access the Portwell mainboard. PET provide a uniform interface to upper layer programs, so the upper layer programmers can access the system without knowing about the address, port, or even schematics of the hardware.

Key features of the PET:
- Provide all system information like bios version, drivers, and board model
- Monitor hardware status such as CPU or system temperature, 5 volt or12 volt value, fan
- Control hardware if needed like fan speed
- Include GPIO control in PET API function
- Get WDT, speaker, and also SMBus or I2C control protocols

Key features of the Smart PET
- Support all mainstream OSs at the same time in one package
- Design remote API users to access their remote system
- Provide a web interface for those who develop new web application
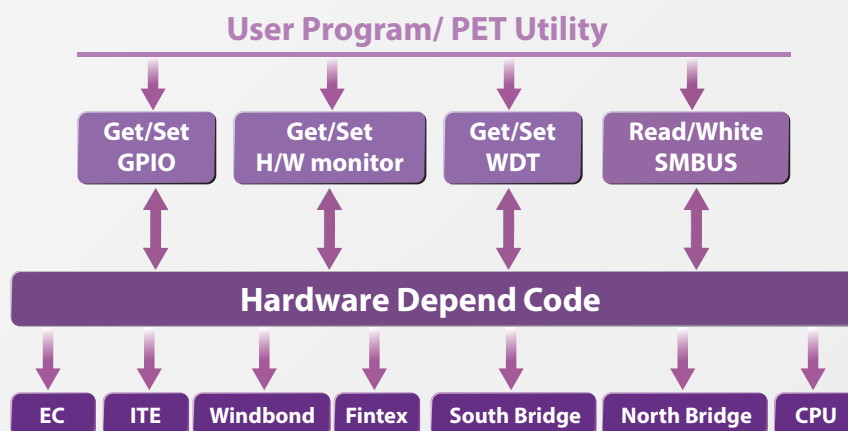
Completed Technical Service - In order to ensure that customers can get the right and speedy service from Portwell, we do offer the following services to meet your needs.

Logistics Service

It is not only for the scalable or world-grade customers, we offer the service to our partners who need the world-wide delivery to save time and expense.

Consulting Service

Our engineering experts provide a free service to discuss with you the projects or technologies that you need in a short period of time. Please visit Portwell web and click the button, then the on-line service will appear for you.

Product Service

We have the experienced product managers who can help you to get the right products in our list and also the related information to complete your solution.

Manufacturing Service

Portwell has the most advanced manufacturing facilities to produce the quality product for your application or business. Please pay a visit to our Portwell engine, you will know how best that we can do for you.

Design Service

If our existing products cannot meet your requirements, a customized design service can be initiated to build the exact products that you demand.

Further Contact

Both Portwell RDC & SIC are set for the completed service to our customers & Partners. Your any requirements or technical issues are welcome to contact us for further solution. Our service can be arranged in the following ways.

Web Service

Portwell already set up the contact for our technology service on the air. Please just visit our web on the internet and left the message for further contact by our people. Besides, you also can get the on-line consulting service via Skype or the phone if the immediate service is needed.

Extended Visits to PE

Some idea or issue is not easy to have the solution within short period of time. Portwell has the necessary facility and dormitory for customers or partners who need to stay with us for a period of time. Please contact us and our service people will give you the message for it.

Direct Contact

Portwell welcomes our customers to visit our Laboratory for the regulation test or design service. We believe that it is the fastest way to solve your questions and achieve the right solution. Just call or mail us; you will have the right service immediately.

Live Chat (Skype)

You can get the on-line consulting service via Skype if an immediate response is needed.

http://www.portwell.com.tw/support/LiveChat.php

Global Service (Telephone)

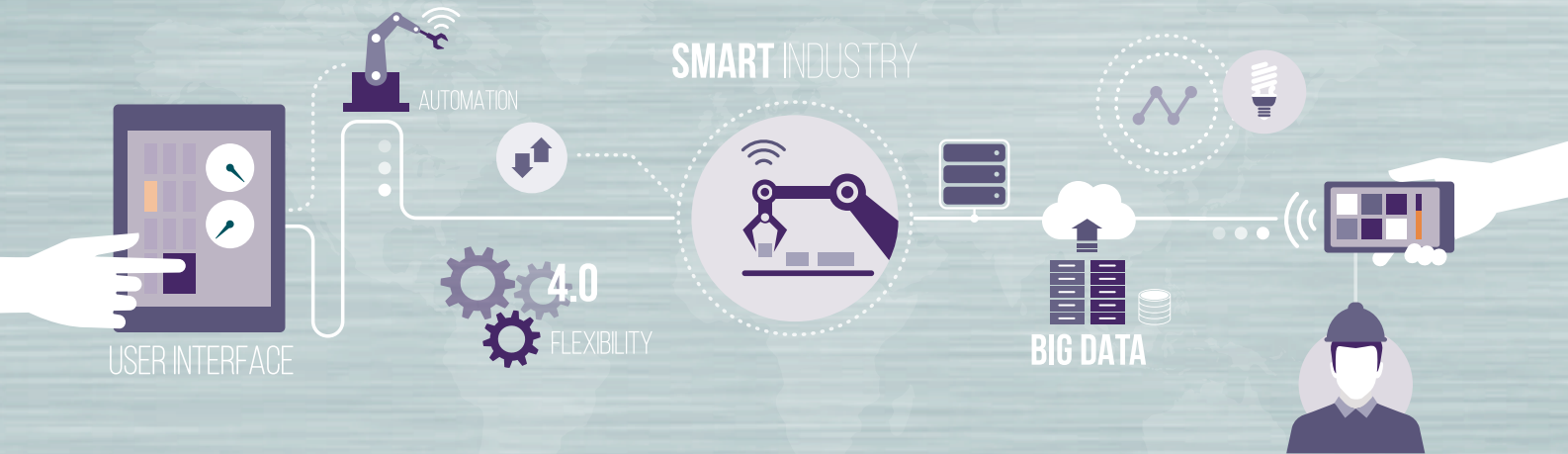In addition, you can get immediate support via telephone. Check the web site for phone numbers.

http://www.portwell.com.tw/contact/worldwide.html

E-Mail

Portwell's technical support department can be reached by e-mail as follows

TSD@portwell.com.tw

Smart Automation

SMART INDUSTRY

AUTOMATION

4.0 FLEXIBILITY

USER INTERFACE

BIG DATA

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