Portwell

EUDA Panel PC

Slim , Fan-Free , Rugged , Touch

Ver. 210K

Rugged

■ CE/FCC Class B

Class B devices, which are suitable for use anywhere (including the home), must pass more stringent tests than Class A. EUDA has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. Class B indicates that the device's radio frequency (RF) emissions are very low so that they do not interfere with other devices. Class B products are intended for use in residential/domestic environments but may be used in non-residential/non-domestic environments as well.

■ IP65

IP Code, Ingress Protection Rating, classifies the degrees of protection provided against the intrusion of solid objects , dust, accidental contact, and water in electrical enclosures.

First Digit - IP6x

The first digit indicates the level of protection that the enclosure provides against access to hazardous parts (e.g., electrical conductors, moving parts) and the ingress of solid foreign objects.

Level 6	dust tight	No ingress of dust; complete protection against contact

Second Digit - IPx5

Protection of the equipment inside the enclosure against harmful ingress of water.

Level 5	water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effects.

■ Vibration & Shock

The vibration tests simulate the products experiencing vibrations during transportation, installation, and usage environments. The purpose is to verify the products' ability to withstand such vibration and any potential damages which might come up during these conditions.

■ 1.0G Random Operation

- 5~500Hz, X,Y.Z 3-axis, 30 min/axis
- 15G peak acceleration (11ms duration) / total 18 shocks

Slim

By leveraging Intel® low power technology, EUDA series makes the depth of industrial panel solution within 68mm. Both slim and rugged panel solution must be the first choice of the limited installation or maintenance space.

■ Compact

60 ~ 68mm in thickness

■ Light

4.8 ~ 8.3Kg

Shock & Vibration resistance

■ Space Saving

Well-fitted for factory machine cutout

19" EUDA Side View

■ Aluminum

Why EUDA designs in aluminum for front frame?

In terms of 'green' design, Aluminum is 100% recyclable with no downgrading of its qualities. The re-melting of aluminum requires little energy, only about 5 percent of the energy required to produce the primary metal initially is needed in the recycling process. Aluminum is a very light metal with a specific weight of 2.7 g/cm3, about a third that of steel. Aluminum naturally generates a protective oxide coating and is highly corrosion resistant. It is particularly useful for applications where protection and conservation are required. Aluminum is an excellent heat and electricity conductor and in relation to its weight is almost twice as good a conductor as copper.

Comparison of Aluminum, Molded Plastic and Steel			
Property	Aluminum	Molded Plastic	Steel
Strength to Weight Ratio	Very Good	Moderate	Good
Corrosion Resistance	Very Good	Very Good	Poor Coating for corrosion is concerned
Thermal Conductivity	Very Good	Poor	Very Good
Combustibility	Noncombustible	Emission of toxic fumes may occur when exposed to high temperature	Noncombustible

Fan-free

■ **Not only Fanless, but also Fan-free.**

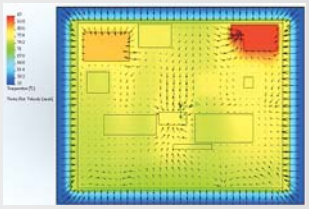
Advantages:

No more worry about
- Excessive power consumption
- Reliability of fans.
- Noise, dirt, aging and less effective of fans
- Disaster of fan failure due to wear of bearings, dirt deposition or clog on the blades may result in system overheating.

The MTBF of fans will never be constraint to your Panel PC system!

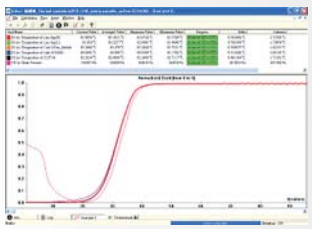
■ **Thermal Simulation & Test**

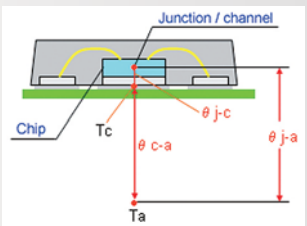
- Excessive temperatures can result in performance loss and, ultimately, component failures. For embedded systems that require high



availability and longevity, this can be disastrous. Consequently, cooling has become an important design consideration. Where designers choose to place components, airflow vents, pressurization, and heat sinks has a measurable effect on thermal management.

- To help improve the design's overall reliability and avoid costly redesigns, thermal management must be validated early in the design process so that any problems can be addressed before the hardware is built.

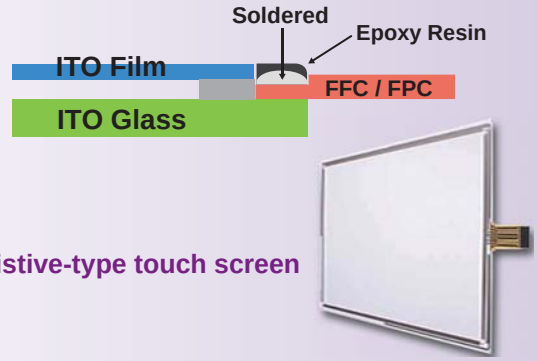




- Thermal simulation can be helpful in designing an optimal chassis cooling system. The ability to create a model environment that predicts airflow, temperature, and heat transfer and validates the thermal design can shorten design time significantly.

Touch

The Resistive Technology is applied on two layers with overlaying a hard-coated ITO on a conductive clear glass. These two layers are held apart by spacers (dots). When the flexible layer is touched and contacts the other layer that is set on the stable glass, the voltage is detected and measured from same voltage applied as an electrical field. The controller uses voltage measured from along the X-Y axis to calculate the position of the touch.



Resistive-type touch screen

5-wire Resistive type touch screens are generally more durable than 4-wire Resistive type. This type of screen is recommended for demanding industrial controls, building and restaurant systems, and other workplace applications.

■ **The advantages of 5-wire Resistive are**

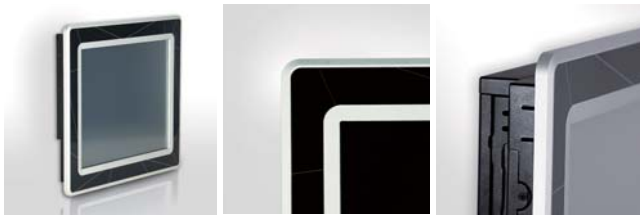
- High touch resolution
- Pressure sensitive, works with any stylus
- Not affected by dirt, dust, water, or light
- More durable then 4-wire Resistive
- More cost-effective than any other types of touch screens.

	Resistive (5-wire)	Capacitive (Projected)	Infra-red (IR)
Input	Fingernail, Gloved hand, Pen/Stylus, Solid material	Fingernail	Fingernail, Gloved hand
Accuracy Drift	+/- 0.5%	+/- 1.0%	+/- 2.0%
Cost-effective	★★	★	★
Advantages	Ease of integration, Best response time (~20ms), Higher reporting rate	Multi-touch, Anti-scratch, Vandal-proof	Ease of integration, Anti-scratch, Vandal-proof, Higher transmission rate
Most Applied Size	12" ~ 19"	Max. ~21", mostly < 10"	> 20"
Major Applications	Industrial Automation, POS, GPS	ATM, Gaming, Ticket Machine, Cell-Phone	DS, PID, Education, Kiosk, Ticket Machine, POS

Customizing YOUR Panel PC

How to distinguish your PPC from others?

- You can have your own custom-made corporate identity & logo.
- Not only the exclusive name-plate, but also the color of front bezel.
- Only with low MOQ, it's easy for you to have differentiation in project competition.



How to turn EUDA into YOUR ARTWORK NAME...

Step ❶ : Select Chassis Color. Standard silver, black or some other colors based on custom-made projects.

Step ❷ : Select Frame Artwork, standard or custom-made.

Step ❸ : Provide Logo, with .ai or .dwg file, pantone number, font and proportion.

Step ❹ : Confirm Frame Plate Sample. To confirm 2D drawing(.pdf) or 3D simulation for sample approval.

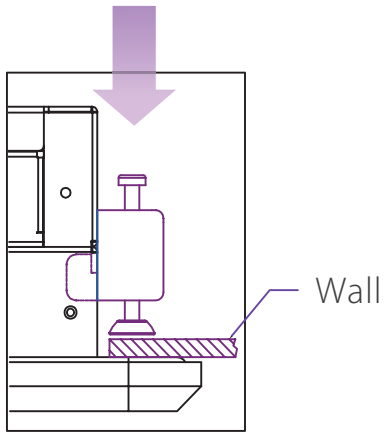
Step ❺ : Stick to Frame after confirmation of physical nameplate sample.

Step ❻ : Done for MP.

Planning YOUR Panel PC

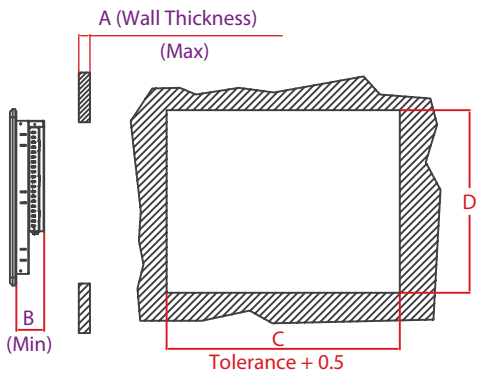
Besides VESA mount, 75x75 & 100x100, for Stand, Arm and Pole, what else EUDA can provide you?

For combining with automation machine, panel-mount kit and recommended cut-out dimension are clearly illustrated.



Mounting Kits Section

How to process Panel Mount (for Machine)?



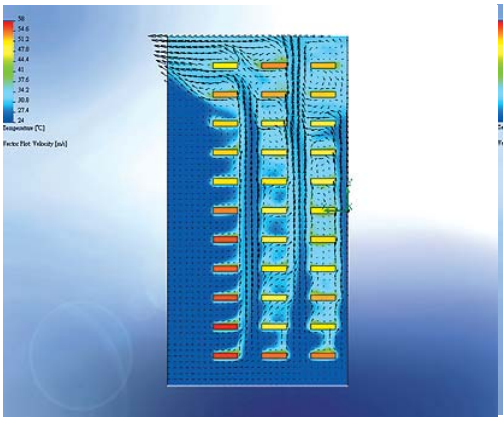
Step ❶ : Determine Cutout Dimension by Panel Size

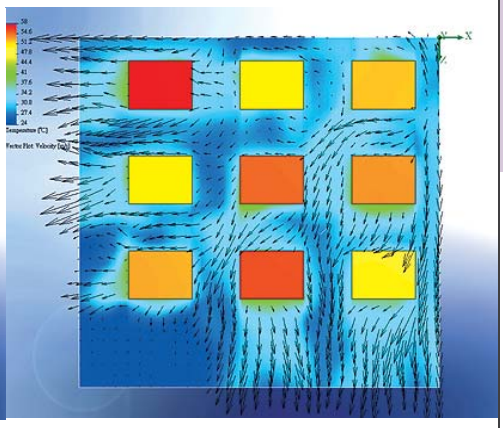
	A	B	C	D	Mounting Kits
EUDA-S1210	< 4.0mm	51mm	301mm	236mm	x 10
EUDA-S1510	< 5.0mm	52.8mm	351mm	281mm	x 12
EUDA-S1710	< 8.5mm	56.9mm	381mm	317mm	x 14
EUDA-S1910	< 8.5mm	57mm	421mm	349mm	x 14

Step ❷ : Hook Clip

Step ❸ : Screw the Clip tightly.(<1.5N)

To simulate systems placed in a 3 x 3 x3 m cubic space and take air flow open to surroundings into consideration, we may perform how the gap influence systems in case your project may need evaluation result.





Ventilation

Reserving 100~150mm space in each 3-axis for test of good ventilation

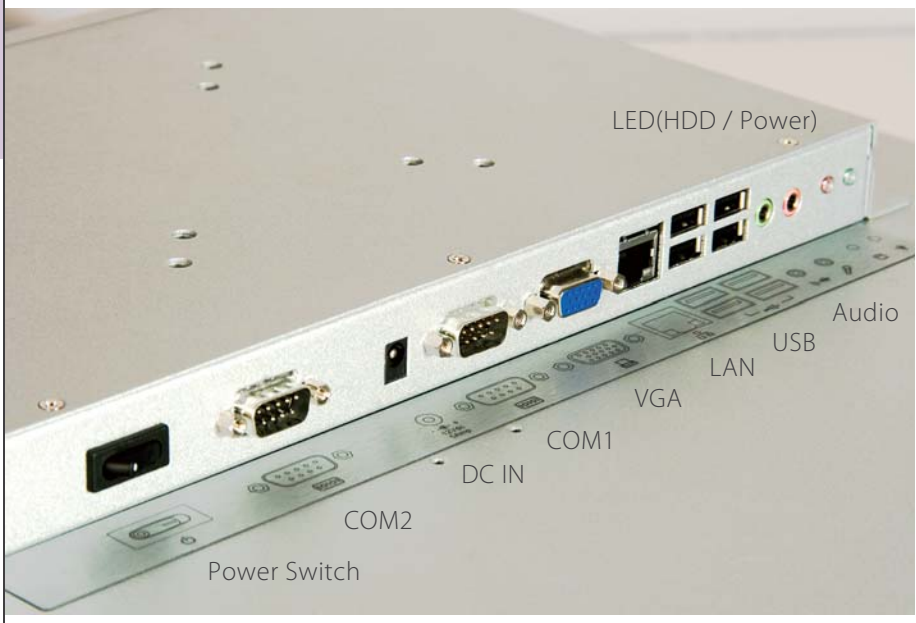
Utilizing YOUR Panel PC

How to install RAM, HDD and CF Card?

Just unscrew the top cover of the IPC chassis for RAM & HDD installation and unscrew the side-bracket for CF Card insertion.

Checking Accessories

Connecting IOs



Applying YOUR Panel PC

Designing in EUDA series, you may be focused on the Automation & Control segment.

EUDA can be as MMI / HMI tool for the major applications of

- Factory Automation
- Building Automation
- Home Automation
- Diary Farm Flow Control
- Hydraulic Control System
- Water management
- Packaging Machine
- Textile Machine
- Printing Machine
- Control for Energy Efficiency
- Food & Beverages industry
- Robot Industry
- Pharmaceutical FA
- Order-taking Machine
- Vending Machine
- Exhibition Kiosk
- Warehouse Management

Model Name	EUDA-S1210-0000-00	EUDA-S1510-0000-00	EUDA-S1710-0000-00	EUDA-S1910-0000-00
	Overall			
Weight	4.8KG	5.8KG	7.3KG	8.3KG
Dimension	343 x 278 x 61 mm	392 x 323 x 63 mm	421 x 358 x 67 mm	463 x 392 x 67 mm
Dimension (Carton)	470 x 385 x 190 mm	535 x 465 x 250 mm	545 x 480 x 255 mm	585 x 515 x 255 mm
	Display			
LCD Display	Size: 12.1″ Resolution: 800x600 Brightness: 400 cd/m2 Contrast Ratio: 600:1 Colors: 262K/16.2M RGB: 6-bit/8-bit LVDS Channel: Single Backlight MTBF: 50K hrs	Size: 15″ Resolution: 1024x768 Brightness: 350 cd/m2 Contrast Ratio: 700:1 Colors: 262K/16.2M RGB: 6-bit/8-bit LVDS Channel: Single Backlight MTBF: 50K hrs	Size: 17″ Resolution: 1280x1024 Brightness: 350 cd/m2 Contrast Ratio: 1000:1 Colors: 16.7M RGB: 6-bit+Hi-FRC data LVDS Channel: Dual Backlight MTBF: 50K hrs	Size: 19″ Resolution: 1280x1024 Brightness: 250 cd/m2 Contrast Ratio: 1000:1 Colors: 16.7M RGB: 6-bit+Hi-FRC data LVDS Channel: Dual Backlight MTBF: 50K hrs
Touch Screen	5-Wire Resistive type with durability up to 35,000,000 times			
	Electrical			
CPU	Intel® ATOM N270 1.6GHz processor			
Chipset	Intel® 945GSE + ICH7M			
BIOS	AWARD BIOS			
Memory	DDR2 SO-DIMM up to 2GB (Optional)			
Storage Device	2.5" SATA HDD (Optional)			
Soild State Disk	Compact Flash up to 32GB (Optional)			
VGA	Intel® GMA 950 Graphics			
Ethernet	Realtek Gigabit Ethernet			
LVDS	Dual Channel 18-bit / 24-bit Output			
Audio	Realtek High Definition Audio			
I/O	1x VGA port / 1x Gigabit Ethernet port / 4x USB 2.0 port 1x Line-out, 1x MIC port / 2x RS-232 (COM) port / 1x Compact Flash			
OS	Windows XP / XPE / CE6.0 / Windows 7 supported			
	Mechanical			
Front Bezel	10mm Aluminum frame for anti-corrosion & anodizing process for enhanced corrosion resistance			
Mounting	VESA Mount 75 x 75, 100 x 100 & Panel Mount ; Desktop Mount (Optional)			
Power Supply	DC12V (5A; 60W) Input / ESD (IEC-1000-4-2) ; Line Transient Surge (IEC-1000-4-5 Level 2)			
	Environmental			
Operation Temp.	0 ~ 50°C			
Storage Temp.	-20 ~80°C			
Relative Humidity	5 ~ 95%, non-condensing			
Operation Vibration	1.0G Random Operation, 5~500Hz (CF)			
Packaged Vibration	2.16G, 5~500Hz (CF)			
Shock	15G peak acceleration (11m sec. duration) / operation duration for 11 milli-sec. ; 3 times for each face (under operation condition)			
Drop	Packaged with Carton from 96.5cm (1-Corner, 3-Axis, 6-Face)			
	Approval			
Front Panel Protection	IP65 compliant Anti-dust @ 1N+10% test force for 8hrs; Anti-water @ 12.5 l/min+5% for 3 min. According to IEC 60529 Edition 2.1: 2001-02-IP6x (dust test) & IPx5 (water test)			
Certificate	CE/FCC Class B (10dB less noise than Class A ; less RF emission to human & less interference to device than Class A)			

Together in Electric Dream!

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