B. AFOLUX Vertical Application Panel PCs

AFOLUX all-in-one PPC series based on its integrated multi-functions design grows to include new vertical market applications, permitting extremely flexible integration into a wide variety of applications, such as: high performance KIOSK solution, entry level all-in-one POS Panel PC RFID solution and so on.

Retail Solutions

AFL-3 series
- Shinny black/white glossy surface
- Back IO design allows installation in minutes
- Rich connectivity and built-in CMOS camera and microphone

Page 1-46

AFL2D-12A(B) *Fanless*
- 12.1" Panel PC integrated with wide-angle, illumination 1D/2D Barcode scan module

Page 1-51

IMK-571R *Fanless* NEW
- 5.7" Panel PC integrated with wide-angle, illumination 1D/2D barcode engine
- Support PoE (Power Over Ethernet) agile deployment

Page 1-54

In-Wall Mount Solutions

AFL-4 series *Fanless*
- In-wall mounting design to have the system flush with the wall with no visible wall mount
- Changeable face plate and face plate skin sticker available to match diverse decoration styles
- One digital I/O (4 input/ 4 output)

Page 1-59

Fan-less Dual Core Solutions

AFL-5 series *Fanless*
- 17" fanless system integrated with Intel® GM45 chipset and 45nm mobile Core
- Optical drive for option

Page 1-70

Large Screen Solutions

AFL-6 series
- 42" FULL HD all-in-one Panel PCs with anti-scratch SAW touch panel
- Optical drive for option

Page 1-76

RFID Solutions

ACT series *Fanless* NEW
- Integrated RFID reader in front of the panel for MIFARE 13.56 MHz or EM 125 KHz RFID tag
- Built-in 300K pixel camera and microphone

Page 1-83

Selection Guide

Product Line	Platform	5.7" 640 x 480	8" 800 x 600	8.4" 800 x 600	Wide 10.2" 1024 x 600	12.1" 1024 x 768	15" 1024 x 768	17" 1280 x 1024	42" 1920 x 1080
Retail Solutions AFL-3 Series	Intel® 945G						AFL-315A	AFL-317A	
In-Wall Mount Solutions AFL-4 Series	Intel® 945GSE (ATOM)		AFL-408B-N270	AFL-408A-N270	AFL-W410A-N270	AFL-412A-N270	AFL-415A-N270 AFL-415AE-N270		
Fanless Dual Core Solutions AFL-5 Series	Intel® GM45							AFL-517A-GM45	
Large Screen Solutions AFL-6 Series	Intel® GM45								AFL-642AE-GM45
RFID Solutions ACT Series	Intel® 910GMLE			ACT-08A-9103					
	Intel® 945GSE (ATOM)		ACT-408A-N270 NEW	ACT-08A-N270		ACT-412A-N270 NEW			
	RMI Alchemy™ AU1250	ACT-457A-AU1250 NEW							

Note: Product model name "**E**" stands for economical model

Sidebar:
1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

Retail Solutions

AFOLUX-3 Series

15/17 inch Core™2 Duo Industrial KIOSK Panel PC

- **Sophisticated high reflection surface**
  Smooth and easy cleaning surface easily fits any kind of KIOSK enclosure
- **All-in-one highly integrated design**
  Multiple functions and connectors built in the one unit system fits all self service solutions and not only decreases maintenance time but also saves the space considerably
- **Versatile mounting solutions and back IO design allows installed in minutes**
  Faster installation into device such as KIOSK and ATM
- **IP 64 front panel compliance**
  System operation in a dusty or wet rigorous environment
- **IEI One Key Recovery solution allows you to create rapid OS backup and recovery**

AFL-315A/ AFL-317A

One Key Recovery F3 · iEi · symantec.

intel Core™2 Duo inside™   intel 945G EXPRESS CHIPSET

One fits All !

KIOSK Ready System

Easy to Installation

- **Light Weight**
  10.2 kg Only
- **Slim Type**
  82 mm ultra slim design
- **Smart Mechanism**
  Back IO design allows easy cable arrangement and installation

AFL-315AB / AFL-317AB

Powerful Computing

Manufactured with open system design, IEI AFOLUX KIOSK panel PC offers flexible configuration in space-saving form factor. It comes with:

- 15 inch 1024 x 768(XGA), 17 inch 1280 x 1024(SXGA) active matrix LCD touchscreen interface
- Powered by 1.8 GHz Intel® Dual Core Desktop Processor with 533/800/1066 MHz FSB and 512 KB cache, product provides DDR2 1GB of memory, expandable to 4GB
  For kiosk application, powerful computing is strongly required to deliver high computing power and multi-task performance.
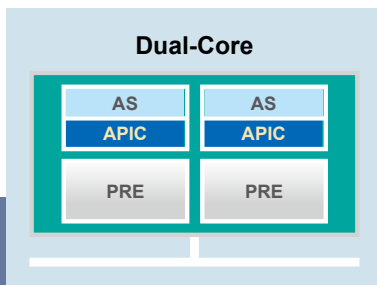
Process	CPU Number	clock speed	FSB	L2 Cache	TDP
Core™2 Duo	E6400	2.13G		2MB	
	E6320	1.86G	1066	4MB	
	E6300	1.86G		2MB	
	E4400	2G		2MB	65W
	E4300	1.8G	800	2MB	
Pentium® Dual Core	E2160	1.8G		1MB	
Celeron®	440	2.00G			
	430	1.8G	800	512K	35W
	420	1.6G			
Pentium® Ex	965	3.73G	1066		130W
	955	3.46G		2X2M	130W
Pentium® D	960	3.6G	800		130W
	950	3.4G			130W

Dual-Core

AS	AS
APIC	APIC
PRE	PRE

TDP 50%

AS = Architecture State (registers, flags, timestamp counter, etc.)
APIC = Advanced Programmable Interrupt Controller
PER = Processor Execution Resources (execution units, instruction decode, etc.)

All-in-One System

Typical KIOSK System

Display

Modem

IPC

Keyboard
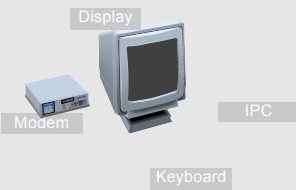
Seperate peripherals occupy the space and produce additainal purchase of proprietary cables for specific devices.

AFOLUX KIOSK PPC

Designed for style, performance, and state-of-the-art built-in functions in a single package

- **Space saving**
- **Cost saving**
- **No peripheral installation**
- **No cable installation**

AFL-315/AFL-317 KIOSK Ready System

WIN!!

All-in-one sysem with sophisticated appearance, ideal for third-party enclosure

Higher Performance, More Energy-Efficiency

Bluetooth®

A preinstalled Bluetooth module communicates with a wide range of electronic products from PDAs, cellular phones and printers, to barcode readers.

Wi Fi

The integrated PIFA antenna on the AFOLUX ensures an uninterrupted wireless connection. PIFA type antennas can receive high-quality, uniform signals in any location from all directions without any signal degradation or impedance and are the most efficient .

High Performance Multimedia

AFL-315A / 317A provides outstanding image quality and high performance, immersive multimedia play back. Users will experience revolutionary performance, unbelievable system responsiveness from the following enhanced multimedia features.

2MP AF Camera

IP-64 Speaker

External Audio

- Built-in 0.3 mega-pixel webcam with digital microphone (AFL-317A)
- Built-in 2.0 mega-pixel webcam with auto focus (AFL-315A)
- Built-in two 1.5W IP 64 water proof stereo speakers
- External audio (Line in, Line out, MIC in supported)

Dual Display

Equipped with VGA and DVI out interfaces allow second display connection to extend or duplicate your content, whether in advertising, inform or interact.

VGA

DVI

Independent Display

Mirror Display

Choosing any two from main screen, VGA or DVI as dual display targets.

Interview KIOSK

Check-in KIOSK in the airport

Multimedia Feature

The AFL-315A / 317A built-in CMOS camera module is specially designed and fabricated for KIOSK applications. The camera module combines a UXGA CMOS sensor with integrated lens to deliver high performance images quality. It has a USB2.0 High Speed interface and has the capability of transferring uncompressed data in UXGA mode at 15 fps and VGA mode at 30 fps.

AFL-315A

- XGA resolution image sensor
- Video resolution:
  1600x1200, 1280x1024, 1024x768, 800x600, 640x480, 352x288, 320x240, 176x144, 160x120.
- Frame rate:
  1600x1200@ 15 fps max, 640x480@ 30fps max.
- Video format:
  YUY2' MJPG' I240
- Max. image transfer rate:
  2M @ MJPG 15fps; 1.3M @ MJPG 15fps; VGA @ MJPG 30fps
- Auto white balance
- Auto exposure
- Auto gain control
- Auto Focus@ 10cm ~ infinity..
- High speed USB2.0 interface
- GA compliant

2MP AF Camera

Auto Focus

IP-64 Speaker

AFL-317A

- VGA resolution image sensor
- Video resolution: 640x480, 352x288, 320x240, 176x144, 160x120.
- Frame rate: 640x480@ 30fps max.
- Auto white balance
- Auto exposure
- Auto compensation
- Focus range of 25 cm to Infinity
- Flip Control Option
- High speed USB2.0 interface
- Storage Format of Image: AVI
- Storage Format of Photograph: BMP, JPEG
- Digital Microphone x 2

Note: Optional 1.3MP Camera with Digital Microphone Module
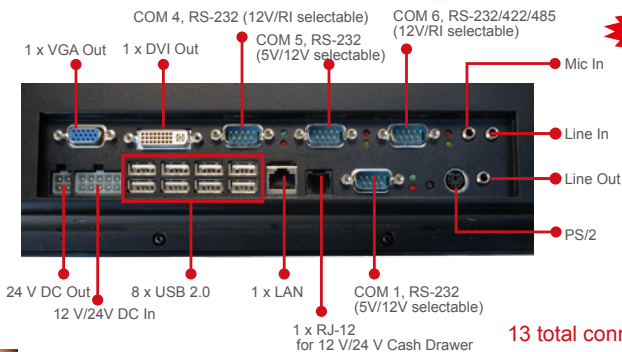
HR Employees / Job Applications Kiosk

Desk top KIOSK for employee fill out online forms and interview with managers

Adjustable Stand (STAND-B19)

Rich Connectivity

VESA mounting hole

Connector area

Removable bracket for quick HDD replacement

Power switch

Superior Connectivity

1 x VGA Out

1 x DVI Out

COM 4, RS-232 (12V/RI selectable)

COM 5, RS-232 (5V/12V selectable)

COM 6, RS-232/422/485 (12V/RI selectable)

Mic In

Line In

Line Out

PS/2

24 V DC Out

12 V/24V DC In

8 x USB 2.0

1 x LAN

1 x RJ-12 for 12 V/24 V Cash Drawer

COM 1, RS-232 (5V/12V selectable)

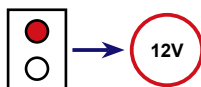13 total connectors to enhance system expansion capabilities

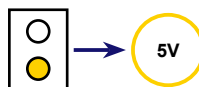# Four RS-232 with selectable 5V/12V/RI to connect to devices

LED indicator for identifying power status selected by jumper (Red:12V/Yellow:5V/Green: RI)
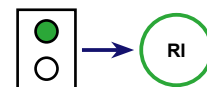
Indicator sparkle in read:
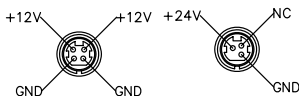RS-232 with 12V power setting

Indicator sparkle in yellow:
RS-232 with 5V power setting

Indicator sparkle in Green:
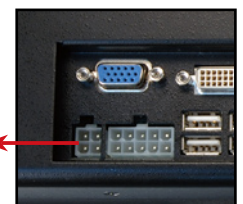RS-232 with Ring Indicator setting

12V

5V

RI

Power supply provides additional 12V and 24V power for peripheral power requirements

+12V   +12V   +24V   NC

GND   GND   GND

12V 24V

Extra 24V power Connector for peripheral power requirement

24V Thermal Printer

24V

Cash drawer port via RJ-12 with 12 V/24 V power

Equipped with a digital I/O RJ-12 12 V/24 V port that provides extension for peripherals such as a cash drawer device.

Pin	Assignment
1	Ground
2	CASH_1 (Digital Out Programmable)
3	Digital IN
4	+12 V / +24 V (Jumper Selection)
5	NC
6	Ground

Digital I/O control diagram

Super IO

GPO ACTION (OPEN/CLOSE) | GPI GET STATUS

Control Block

LOW LEVEL (Cash Drawer is Open) | LOW LEVEL (Cash Drawer is Open)
HIGH LEVEL (Cash Drawer is Closed) | HIGH LEVEL (Cash Drawer is Closed)

Cash Drawer

Cash Drawer Control

IEI ISMM cash drawer status monitoring

INTELLIGENT SYSTEM MANAGEMENT MODULE

IEI also provides a quick and easy tool (ISMM API) to develop specific application for your system.

Free API

Cash Drawer controlled by Digital IO + **Application Program** = **Self-development system program**

Easy Access to HDD and CF

Easy access storage drive bay design for quick, trouble-free storage installation
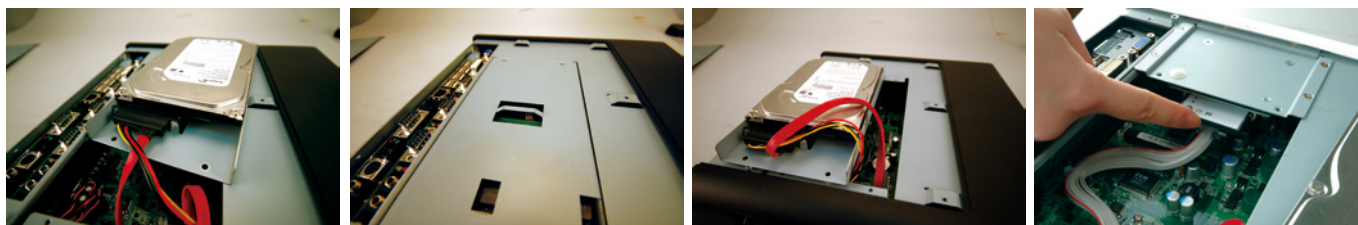
Easy HDD and CF Card Installation

Specifications

**AFL-315AB-945
AFL-317AB-945
(Black)**

**AFL-315AW-945
AFL-317AW-945
(White)**

LCD Size	15"	17"	**Brightness (cd/m²)**	350 or 250	300
Max Resolution	1024 x 768	1280 x 1024	**SSD**	CF Type II	
Contrast Ratio	700:1 or 600:1	800:1	**Watchdog Timer**	Software Programmable supports 1~255 sec. System reset	
LCD Color	262K or 16.7M	16.7M	**Audio**	AMP 1.5W+AMP 1.5W (Built-in Stereo Speakers)	
			Camera	2 Mega pixel with Autofocus	300K pixel with Digital Microphone
Pixel Pitch (mm)	0.297(H) x 0.297(V)	0.264(H) x 0.264(V)	**Expansion**	1 x PCIe mini card	
Viewing Angle (H-V)	140º / 125º or 160º / 160º	160º / 160º		1 x Mini PCI Interface (Wireless LAN 802.11 a/b/g Module)	
Backlight MTBF	50,000 hrs (40,000 hrs)			1 x Bluetooth module (USB interface, Bluetooth V2.0)	
SBC Model	AFLMB-9454		**HDD Drive Bay**	1 x 3.5" SATA HDD bay or 1 x 2.5" SATA HDD bay	
			ODD Drive Bay	N/A	1 x slim type ODD bay
CPU	Intel® Dual Core Desktop Processor(E2160) 1.8GHz or others		**Construction Material**	ABS + PC Plastic front frame	
Chipset	Intel® 945G		**Mounting**	Panel, Wall, Stand and Arm (VESA 100mm x 100mm)	
Memory	DDR2 1GB support up to 4GB		**Front Panel Color**	Black or White	
			Dimension (WxHxD) (mm)	363 x 322 x 80	400 x 380 x 107
I/O Ports and Switches	1 x 12V/24V DC Input Jack 1 x PS/2 3 x RS-232 COM port 1 x RS-232/422/485 COM port 1 x RJ-12, 12V/24V Cash Drawer Port 1 x RJ-45 for GbE LAN 8 x USB 2.0 1 x Power Switch 1 x Reset Button 1 x DVI port 1 x VGA port 1 x Line in, 1 x Line out, 1 x MIC in 1 x 24V DC Output Jack		**Operation Temperature (°C)**	0°C~45°C	
			Storate Temperature (°C)	-20°C~80°C	
			Net Weight	10.2 kg	13.4 kg
			IP Level (front panel)	IP 64	
			EMC	CE, FCC, CCC	
			Safety	UL, CB	
			Touch Screen	Resistive Type 5-Wire (touch controller IC is on board) or Capacitive type touch screen without CF slot	
			Power Adapter	ACE-D825AH: 252W Input: 90VAC~264VAC @ 50/60Hz Output:12VDC at 15A, 24VDC at 3A	
			Power Consumption	102 W	127 w

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
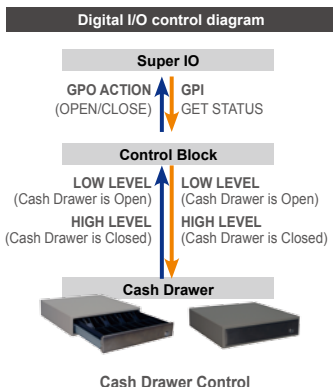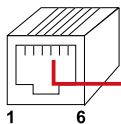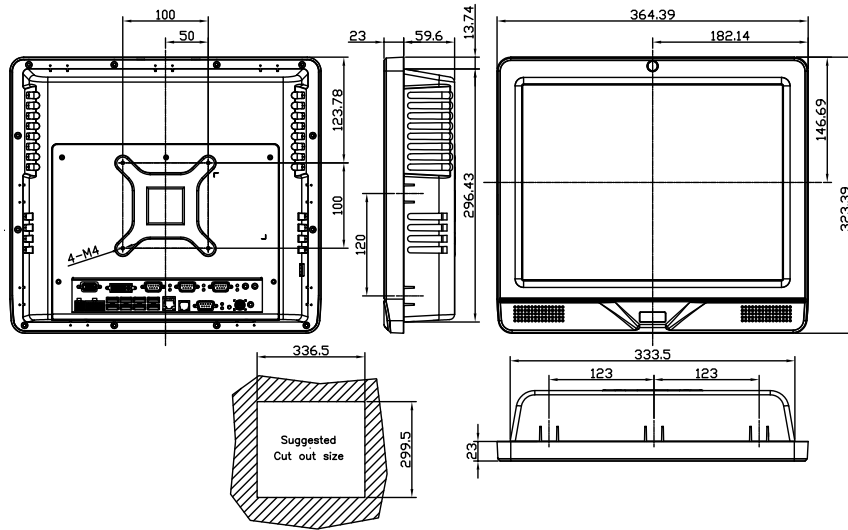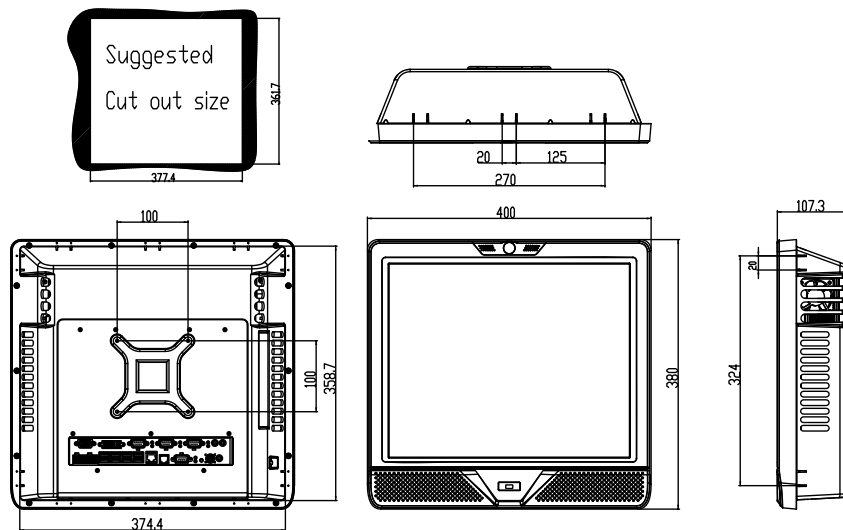Video Wall Controller

5
RISC-based Solutions

6
PACSmate Medical

7
Optional Peripherals

Dimensions (Unit: mm)

AFL-315A

AFL-317A

Ordering Information

AFL-315AB-945-E2160/WT-R/1GB-R11	15" 350cd/m² XGA panel PC w/ Dual-Core E2160 1.8GHz CPU,1GB DDR2 RAM,802.11 b/g wireless module,touch screen, 2MP Camera,Bluetooth,black color,R11,RoHS
AFL-315ABE-945-E2160/WT-R/1GB-R11	15" 250cd/m² XGA panel PC with Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM,802.11 b/g wireless module, touch screen, 2MP Camera, Blutooth, black color
AFL-315AW-945-E2160/WT-R/1GB-R11	15" 350cd/m² XGA panel PC w/ Dual-Core E2160 1.8GHz CPU,1GB DDR2 RAM,802.11 b/g wireless module,touch screen, 2MP Camera,Bluetooth,white color,R11,RoHS
AFL-315AWE-945-E2160/WT-R/1GB-R11	15" 250cd/m² XGA panel PC with Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM,802.11 b/g wireless module, touch screen, 2MP Camera, Blutooth, black colo
AFL-317AB-945-E2160/WT-R/1GB-R10	17" 300cd/m² SXGA panel PC w/ Dual-Core E2160 1.8GHz CPU,1GB DDR2 RAM, 802.11 a/b/g wireless module,touch screen, 300K pixel Camera with microphone, Bluetooth,black color
AFL-317AW-945-E2160/WT-R/1GB-R10	17" 300cd/m² SXGA panel PC w/ Dual-Core E2160 1.8GHz CPU,1GB DDR2 RAM, 802.11 a/b/g wireless module,touch screen, 300K pixel Camera with microphone, Bluetooth,white color

Note: Optional 1.3MP Camera with Digital Microphone Module

Options

Options	Model name
Panel mount kit	AFLPK-315 / AFLPK-317
Wall mount kit	AFLWK-19
Stand	STAND-210-R11
	STAND-A26
ARM	ARM-11-RS/ARM-31-RS

Packing List

1 x Power Cable
1 x Utility CD
1 x Screw Kit
1 x Touch Pen
1 x 252 W PSU

Retail Solutions

12.1" 1D/2D Barcode Scanner AFOLUX Panel PC

12.1" Fanless AFOLUX Panel PC with built-in 1D and 2D Barcode scan engine allowing customers/employees to access instant item information

IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Women's T-shirt
(Spring 2008) #123456
$35.00

ADD TO CART

Fanless | **Wireless** 802.11 b/g | **Bluetooth** | **Speakers** | **3.75G HSUPA** | **F3 One Key Recovery** iEi symantec.

50°/37.5° (H/V) Wide Scanning Area

Modularized 1D/2D Barcode Scanner

1D/2D Code Reading

● Accurately decodes all 1D and 2D codes, even wrinkled, damaged or poorly printed

● 1.3 mega-pixel CMOS sensor captures high resolution images for decoding

● 50°/37.5° (H/V) large scanning area

123456789

Technology	1D Code	2D Code
Read Condition	20 to 25 characters	100 to about 2,000 characters

Efficient Scanning Performance

● 50°/37.5° (H/V) wide scanning area reads twice the area of typical scanner
● Area-scanning features non-direction reading drive scanning performance
● 25mm-310mm scanning distance

123456789

No directional Limitation

123456789

Quick Install

Single 12V DC power Input for complete system.
Input: 90VAC~264VAC, 50/60Hz
Output: 12VDC

Extra 2 USB ports Connect to accessory devices.

Thermal Printer   Card Reader

Sidebar

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

1 Automation Panel Solutions

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6 PACSmate Medical

7 Optional Peripherals

Easy Deployment with VESA Mount

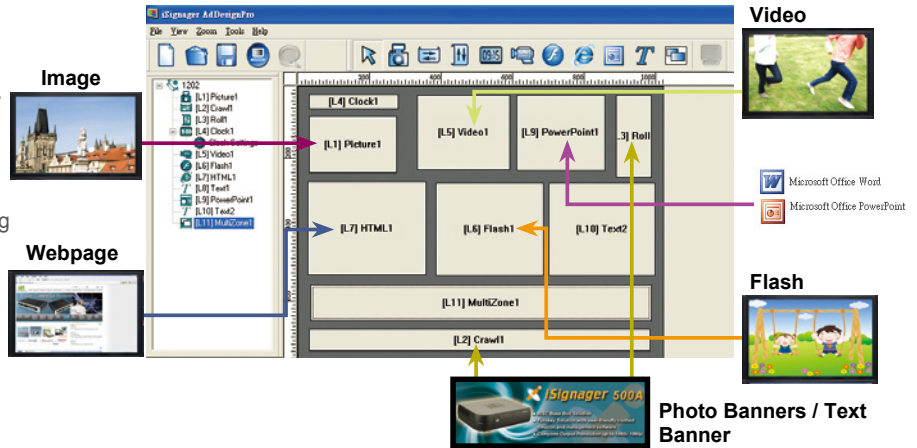## Price Checking / Promotion PPC

- Check price, obtain product related information
- Easy connections to USB devices, such as thermal printer and card reader
- Customer can access their loyalty card to see their accumulated credit and reward programs
- In DVD rental store, customers can watch movie preview by scanning DVD barcode
- Play multimedia video to attract attention of customers and make shopping more interesting
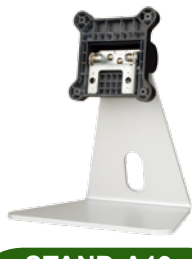
X86 based Digital Signager

With the IEI content design software, your can easily create multi-zone display contents..

- Multiple media zone display
- Multiple media format support, including flash, picture, video, html, text/ photo banner, and audio
- Support multi format content display in one media block
- Content preview function

Image

Webpage

Video

Microsoft Office Word
Microsoft Office PowerPoint

Flash

Photo Banners / Text Banner

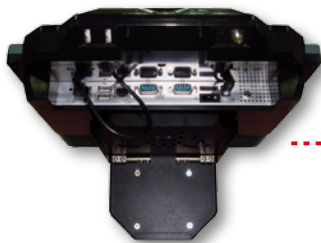# A. Desktop Stand

STAND-A19

B. Wall Mount

AFLWK-12

VESA 75mm / 75mm

25mm-310mm

C. VESA Standard Multi-mounting Stand

A VESA 75/100 Compliant with Height Adjustable

VESA 75mm / 100mm

VSTAND-A12

- 0° to 90° adjustable hinge design allows comfortable viewing
- Standard VESA 75/100 Compliance
- Heat dissipation holes designed
- Compact size easy to use and mount anywhere

C 0° to 90° adjustable hinge design

B Designed holes help to dissipate the system heat

Easily Mount On the Walls with Adjustable Hinge
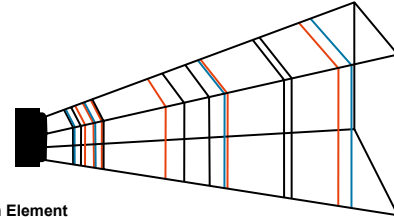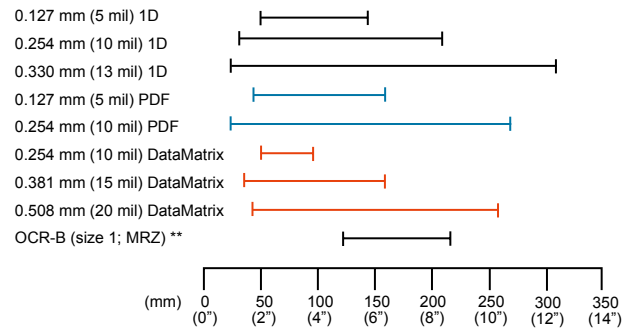
| 0° | 30° | 60° | Easily Mount On the Ceiling |

Scanner Specifications

Model Name		AFL2D-12-R11
Barcode Scanner	Image sensor	CMOS, 1.3 mega pixel
	Decode Capability	1D: Code 39, Code 93, Code 128, UPC/EAN/JAN, Code 2 of 5, Code 11, Codabar, MSI Plessey, GS1 DataBar, Telepen, Trioptic PDF: PDF417, MicroPDF417 2D: QR Code, Micro QR Code, Data Matrix, Aztec Code, Maxicode, Codablock, Composite Code, POSTNET, PLANET, UPU, Intelligent Mail, Canada Post, Australia Post, Japanese Post, Royal Mail RM4SCC, KIX Code *OCR: OCR-A, OCR-B, E-13B MICR *Note: Enable by purchasing decoding license
	Depth of Field*	25 mm – 310 mm, (1 - 12.2") for 100% UPC
	Minimum Element Width, 1D*	0.102 mm (4 mil)
	Minimum Element Width, 2D*	0.191 mm (7.5 mil), Data Matrix
	Resolution	1280 x 960 pixels
	Print Contrast	20% minimum reflectance difference
	Scan Pattern	Area
	Focal Point	100 mm (3.94") from the imager face
	View Angles	50°(horizontal), 37.5°(vertical)
I/O Ports and Switches		2 x USB Ports
		1 x Power Jack
Construction Material		ABS + PC Plastic
Dimension (WxHxD) (mm)		267.5 x 71.5 x 48.5
Operation Temperature (°C)		0°C ~40°C
Storage Temperature (°C)		-20°C ~70°C
Net Weight		0.2 Kg

Scan Ranges*

Bar Code Minimum Element

0.127 mm (5 mil) 1D
0.254 mm (10 mil) 1D
0.330 mm (13 mil) 1D
0.127 mm (5 mil) PDF
0.254 mm (10 mil) PDF
0.254 mm (10 mil) DataMatrix
0.381 mm (15 mil) DataMatrix
0.508 mm (20 mil) DataMatrix
OCR-B (size 1; MRZ) **

(mm)	0 (0")	50 (2")	100 (4")	150 (6")	200 (8")	250 (10")	300 (12")	350 (14")

Dimensions (Unit: mm)

AFL2D-12A

304 297 64.4 49 24.7 100 75

AFL2D-12B

304 297 70.9 55.5 51.2 100 75
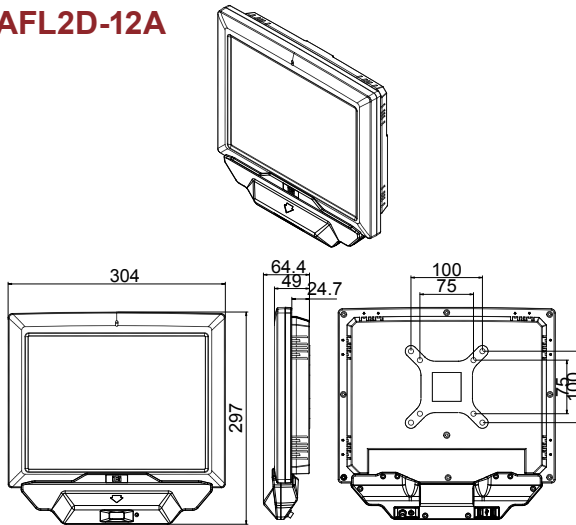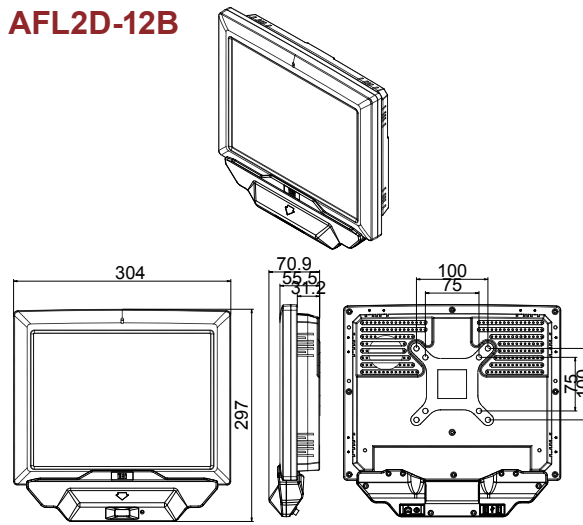
Ordering Information

Number	Description
AFL2D-12A-LX/WT-R/256MB/**(HSUPA01)-R20	12.1" 500 cd/m², XGA fanless panel PC with AMD LX-800 CPU, AT/ATX mode, 802.11b/g Wireless Module, Bluetooth Module, Touch screen and 256MB DDR RAM, 2D Barcode Scanner, R20, RoHS
AFL2D-12A-LX/WT-R/512MB/**(HSUPA01)-R20	12.1" 500 cd/m², XGA fanless panel PC with AMD LX-800 CPU, AT/ATX mode, 802.11b/g Wireless Module, Bluetooth Module, Touch screen and 512MB DDR RAM, 2D Barcode Scanner, R20, RoHS
AFL2D-12BS-LXPOS/WT-R/256MB-R20	12.1" 450 cd/m² SVGA fanless PPC with AMD Geode LX 800 CPU, 256MB DDR RAM, 802.11 b/g wireless module and touch screen, without STAND, 2D Barcode Scanner, R20, RoHS
AFL2D-12BX-LXPOS/WT-R/256MB-R20	12.1" 500 cd/m² XGA fanless PPC with AMD Geode LX 800 CPU, 256MB DDR RAM, 802.11 b/g wireless module and touch screen, without STAND, 2D Barcode Scanner, R20, RoHS
AFL2D-12A-N270/WT-R/1GB/**(HSUPA01)-R20	12.1" 500 cd/m², XGA fanless panel PC with Intel® Atom™ N270 1.6GHz,802.11b/g wireless module, bluetooth module, touch screen, 1GB DDR2 533, 2D Barcode Scanner, R20, RoHS

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals

Retail Solutions

IMK-571R MiniKiosk

Features

- **RMI Alchemy MAE multimedia platform with 5.7" VGA touch panel and stereo speaker**
- **Support PoE (Power Over Ethernet) agile deployment**
- **Wide-angle, illumination 1D/2D barcode engine**
- **Wired/unwired network connectivity support**
- **Default 2GB MiniSD for data storage**

NEW Mifare Reader Module

Interact with your customer

IEI R MiniKiosk is a space-saving device specially designed for slim front-end information access and customer interaction in your retail environment which is suitable for various applications. Now, no extra service and waiting is needed, customers can check the price, obtain product information through multimedia and even get a real-time promotion message by themselves through a simply scan of product barcode or convenient touch panel interface. This can greatly assist you to reduce unnecessary service effort, draw potential sales opportunity and maximize customer satisfaction and profit.

On-site information access

In addition to customer service, IMK-571R can also improve operation efficiency by enabling on-site employee easy access and update necessary product and inventory information.

Powerful hardware design in compact size

With compact size, PoE (Power-Over-Ethernet) power supply function and low thermal design, IMK-571R is the most cost-effective solution with easy deployment and maintenance for your IT staffs. Empowered by RMI Alchemy Au1250 microprocessor with MAE (Multimedia Acceleration Engine), IMK-571R achieves great performance in its versatile multimedia support including most available video and audio types (MPEG1/2/4, DivX and WMV9).

Easy data and program management

To support possibly volume of product data and video content, IMK-571R offers a default 2GB large capacity miniSD storage space and a variety of connectivity. You can manage your data, multimedia content and applications via embedded LAN, WLAN or RS-232 connection or even miniSD card.

Software development support

IMK-571R software development kit (SDK) includes most useful functions and makes software development easier and faster than ever. It includes comprehensive demonstration source code and document for most web application develop environment.

Maximize customer satisfaction and ROI

IMK-571R is not only a multimedia self-service device but means a brand new connection between you and your customers. Now you can talk to your customers, interact with them and even collect their behavior information just in this simple machine without spending extra on-the-spot service effort. IMK-571R provides customers a new, delightful shopping experience and improves their satisfaction and loyalty, and maximizes your business profit and ROI.

Applications

Self-service

- **Allow customer to check price, obtain product related information or even motivate them by providing promotion message**

Customer Loyalty program

- **Customer can access their loyalty card to see their accumulated credit and reward programs**

Advertising

- **Play multimedia video to attract attention of customers and make shopping more interesting**
- **In DVD rental store, customers can watch movie preview by scanning DVD barcode**

Production Line information

- **Operator can scan barcode on WIP carrier to get production information and update the production status**

IMK Runtime Demo

Main Menu

Product Inquiry

Access Control

Receipt Print

IMK Runtime Demo:
IMK Runtime Demo is a pre-installed application which helps user quick experience functions of IMK-571R

Product Inquiry:
In this mode, user can scan pre-defined product barcode and display relative product information, user can check barcode type here as well

Receipt Print:
Use Print button to print a receipt which is queried at product inquiry mode

Access Control:
Access control allows users to read magnetic card and display pre-defined personal information

IMK Merchandise Manager

IMK Merchandise Manager
IMK Merchandise Manager provides a friendly interface for administrator to maintain and manage product information on IMK-571R in the network

Find IMK-571R in your network
Use Find IMK-571R to search and list all available IMK-571R in the network. The select IMK-571R which want to upload or download product information file.

Upload/Download Product information File
When execute download command, IMK Merchandise will grab product information file from selected IMK-571R at previous step and generate local sub folders with different device names. Oppositely, when execute upload, IMK Merchandise will transfer product information file in sub folders named by the device name onto relative IMK-571R

Edit Product InformationFile
User can select and open product information file (*.xml) to edit. In editing mode, user can add, remove product items or edit product details and save the change after the editing is done. Then use 'Apply to all' to generate sub folders named by selected IMK-571R device names and imitate product information file with the edited content into the folders

IMK Web Configurator
IMK Web Configurator is a Web-based utility which allows users to access IMK-571R and modify the settings via web browser interface anytime, anywhere without any PC client application installed. It makes management of IMK-571R in the network very easy and convenient for IT administrator and minimize time and cost for system maintenance.

▪ System Setting: User can inquire system information and set up Ethernet and Wireless parameters in system setting Remote restart option allows users to restart the system once any abnormal circumstance occurs and a restart procedure is needed

▪ Barcode Setting: User can adjust universal barcode parameters and variable of various barcode types in barcode settings page, the available setting items in the page will auto change when a specific barcode type at left side is selected. User can also use 'Factory default' function to recover all settings to default when needed

1 Automation Panel Solutions · 2 All-in-One Touch POS · 3 Digital Signage · 4 Video Wall Controller · 5 RISC-based Solutions · 6 PACSmate Medical · 7 Optional Peripherals

1
Automation
Panel
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2
All-in-One
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3
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based
Solutions

6
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7
Optional
Peripherals

Barcode Capability

IMK-571R equips with leading scanner engine Metrologic IS4920. IS4920 is a decoded miniature area imaging scan engine designed to scan 1D and 2D bar codes. It features a mega pixel imaging sensor, a wide angle lens design, integrated illumination and aiming, and industrial leading decoding software and delivers a fast and aggressive scanning performance

Features	Benefits
Powered by Adaptus® Imaging Technology	Adaptus Imaging Technology delivers leading technologies and embodies Honeywell continuous commitment to providing superior data capture solutions
Point-and-Shoot Scanning Ease of Use:	Available in high visibility LED and laser aimer versions makes reading linear and full matrix codes quick and easy with industry-leading motion tolerance, low light sensitivity, and broad depth of reading Distances
Durable	Incorporate industrial grade image sensor technology and are designed with no moving parts, these imagers can withstand rugged applications
Decoding	Read all major linear, stacked linear, and matrix bar codes, as well as machine-readable OCR fonts, quickly and Easily
Fifth Generation Image Processing	Industry-leading image processing performance. In addition to reading bar codes well, these products also capture crisp digital images.
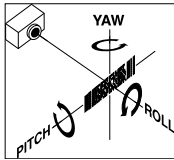
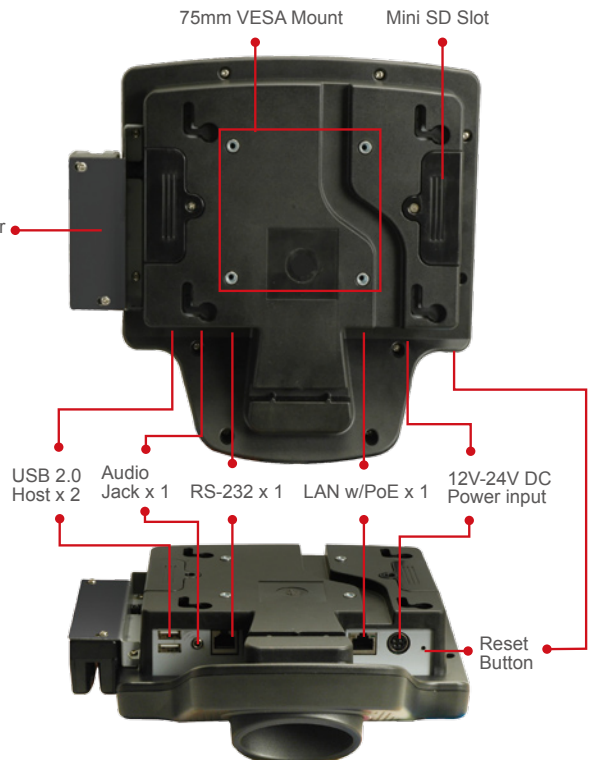| Barcode Reading Angles		
Pitch	Skew	Tilt
40° @ 0° tilt and 0° skew	40° @ 0° tilt and 0° pitch	360° @ 0° pitch and 10° skew

PS : The scanner may not operate under conditions of specular reflection: +/- 5° (assuming Pitch & Skew @ 0° tilt only)
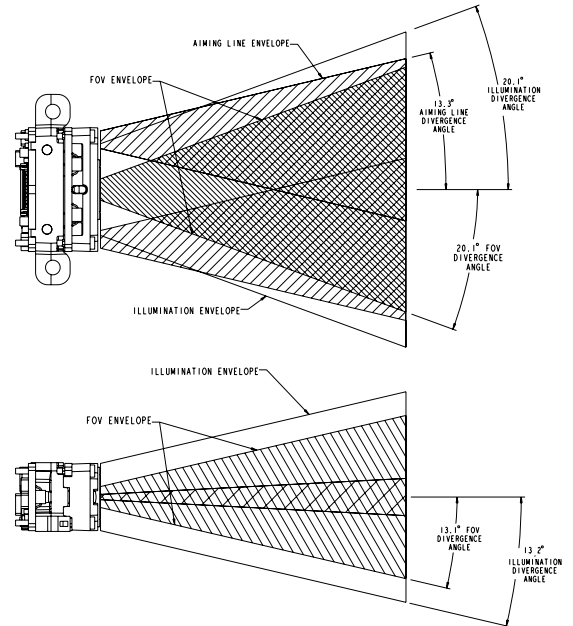
Window Size Diagram (Laser Aimer)

Bar Code Element Width			Depth of Field(In the Field of View)		
			Start (From Engine Face)	End (From Engine Face)	Total
1D(Code 39)	.203 mm	8 mil	89 mm (3.5")	193 mm (7.6")	104 mm (3.1")
	.254 mm	10 mil	81 mm (3.2")	234 mm (9.2")	153 mm (6")
	.381 mm	15 mil	53 mm (2.1")	325 mm (12.8")	272 mm (10.7")
PDF417	.168 mm	6.6 mil	114 mm (4.5")	159 mm (6.25")	45 mm (1.75")
	.254 mm	10 mil	79 mm (3.1")	229 mm (9.0")	150 mm (5.9")
Data Matrix	.381 mm	15 mil	58 mm (2.3")	259 mm (10.2")	201 mm (7.9")

IMK-571R in a glance

Wifi Antenna

Power LED

MSR/SCR Extension Connector (Optional)

Function keys

Stereo Speaker

1D/2D Barcode Scanner

75mm VESA Mount   Mini SD Slot

USB 2.0 Host x 2   Audio Jack x 1   RS-232 x 1   LAN w/PoE x 1   12V-24V DC Power input

Reset Button

Wall Mount

Requires no cut out in the wall surface.It mounts directly on the existing wall or desk.
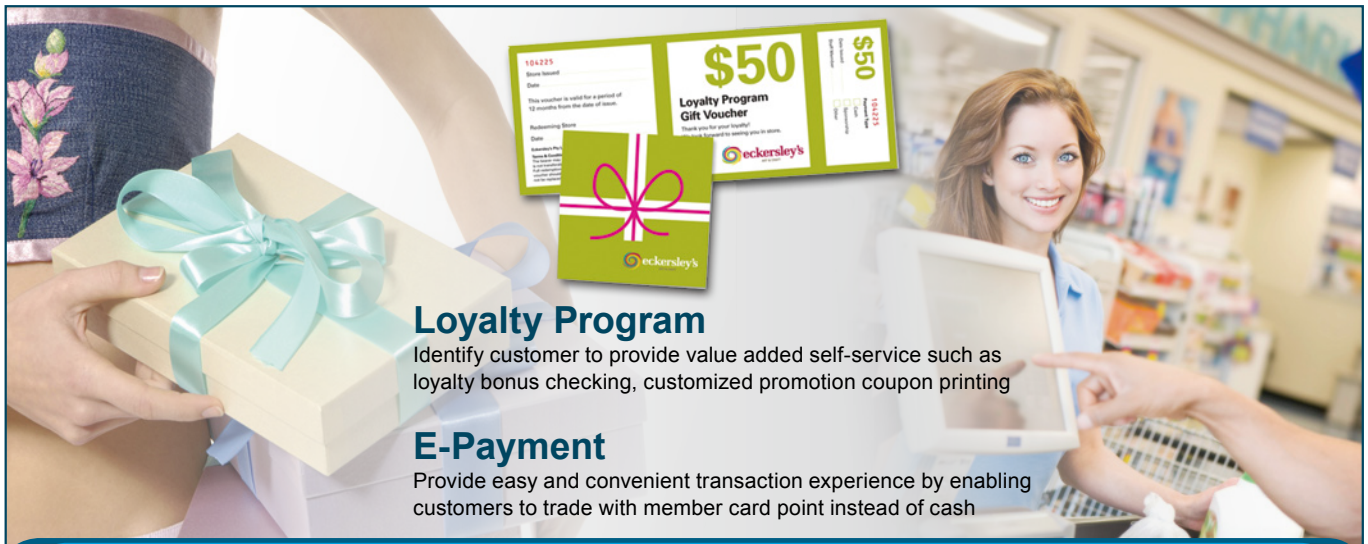
Loyalty Program

Identify customer to provide value added self-service such as loyalty bonus checking, customized promotion coupon printing

E-Payment

Provide easy and convenient transaction experience by enabling customers to trade with member card point instead of cash

Identification / payment Card Empowered Models

IMK-571R-CE5/MIFARE/-R10

RFID Reader Feature

● ISO14443A (MIFARE) UID (Read Only) and block date Read/Write
● Reading Distance : 3-5cm (Card dependent)
● Support up to 115.2Kbps data rate
● PWR, ACT LED Indicators

NEW Mifare Reader Module

IMK-571R-CE5/MSR/-R10

Magnetic Card Reader Feature

● Reading Track : ISO1,2,3 (IATA, ABA, THRIFT, MINTS)
● Card Standard : ANSI, ISO, ABA
● Beeper Reading Indicator

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6 PACSmate Medical

7 Optional Peripherals
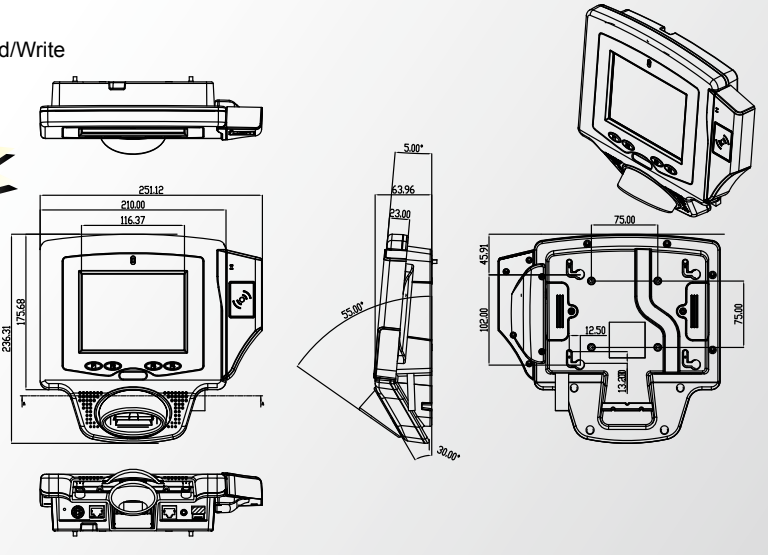
1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
Video Wall Controller

5
RISC-based Solutions

6
PACSmate Medical

7
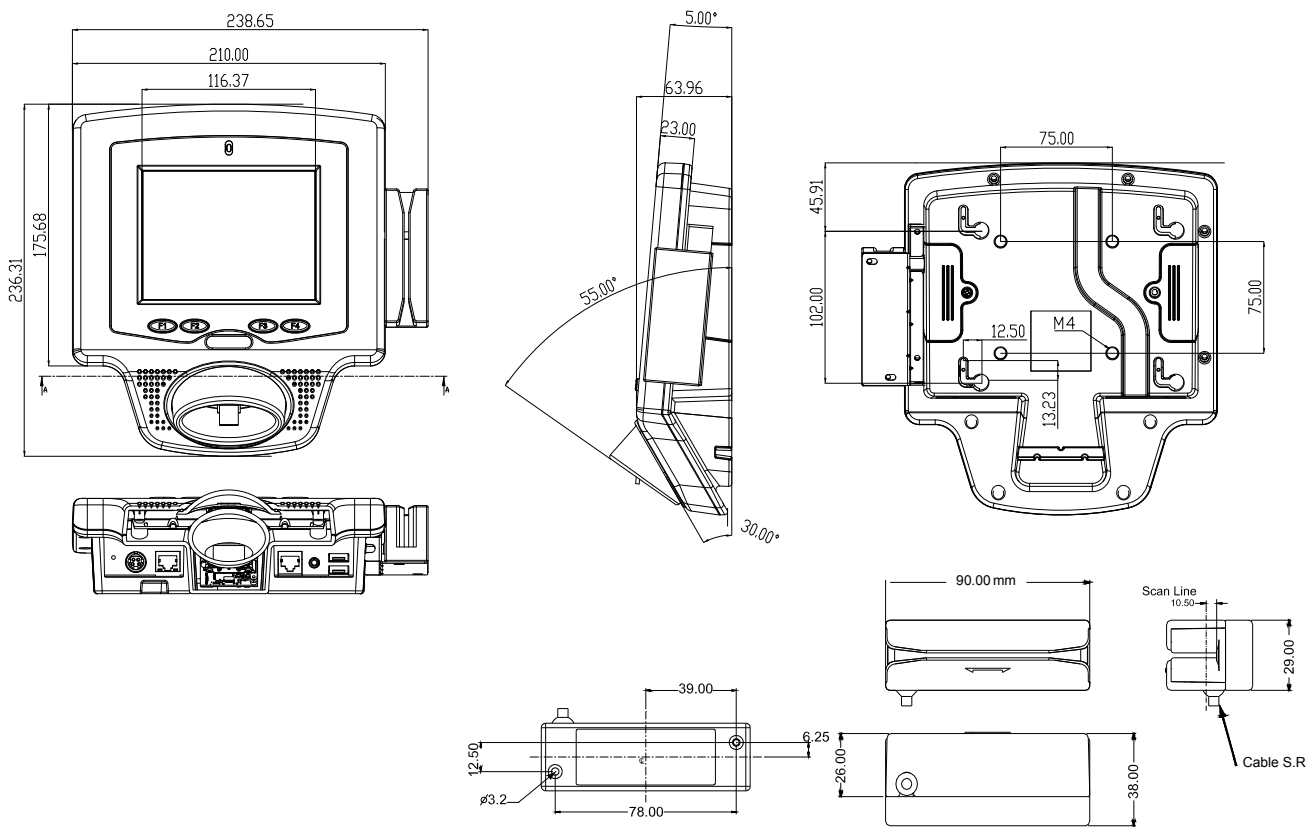Optional Peripherals

Dimensions (Unit: mm)

Specifications

Model	IMK-571R MiniKiosk
Core System	• RMI Alchemy AU1250 500MHz CPU • 2MB NOR Flash for bootloader • 256MB DDR2 • miniSD slot with default 2GB miniSD memory card for OS and user data/program • Watch Dog Timer
Display	• 5.7" VGA TFT Touch panel LCD with LED backlight • Resistive Type 4-Wire Touch Screen
Data input and display	• Power LED • Function keys x 4 • 1D/2D barcode scanner • Reset button x 1 • MSR (IMK-571R-CE5/MSR-R10 Only)

Connectivity	• 10/100Mbps Ethernet with onboard POE design • Built-in WiFi 802.11 b/g • RS-232 x 1 • USB host Rev. 2.0 x 2 • Stereo Audio Jack x 1 • Stereo Speaker x 2
Physical Specification	• Operation Temperature : 0°C-50°C • Humidity : 5%-90% RH
Power	• 1 x 12-24V DC Power Input • 8W Power Consumption
OS	• Windows® CE 5.0 • Built-in web server • Built-in RDC (Remote Desktop Connection) Thin Client support • SDK for eMbedded Visual C++
Utility	• IMK Web Configurator • IMK Remote Management Tool • IMK Merchandise Manager
Demo	• IMK Runtime Demo Application

Ordering Information

Part Number	Description
IMK-571R-CE5/-R10	RISC-BASED MINI KIOSK PANEL PC, ALCHEMY AU1250 CPU, 5.7" TFT TOUCH PANEL, HONEYWELL IT5180 1D/2D BARCODE SCANNER, WIFI B/G, ON BOARD POE, W/O MAGNETIC STRIPE READER, WINCE5.0, RoHS
IMK-571R-CE5/MSR/-R10	RISC-BASED MINI KIOSK PANEL PC, ALCHEMY AU1250 CPU, 5.7" TFT TOUCH PANEL, HONEYWELL IT5180 1D/2D BARCODE SCANNER, WIFI B/G, ON BOARD POE, W/ MAGNETIC STRIPE READER, WINCE5.0, RoHS
IMK-571R-CE5/MIFARE/-R10	RISC-BASED MINI KIOSK PANEL PC, ALCHEMY AU1250 CPU, 5.7" TFT TOUCH PANEL, HONEYWELL IT5180 1D/2D BARCODE SCANNER, MIFARE 13.56MHz RFID READER, WIFI B/G, ON BOARD POE, W/O MAGNETIC STRIPE READER, WINCE5.0, RoHS
7Z000-MIFARES50-RS	RFID PROXIMITY, CARD, 13.56MHZ, ISO14443A; MIFARE-S50; SIZE:85.6X 54X 0.76MM, PVC SURFACE; RoHS
AFLWK-12	VESA 75 wall mount kit

Packing List

1 x IMK-571R	1 x Utility CD includes SDK, utilities, and technical document
1 x 9-pin RS-232 cable	1 x Touch pen
1 x Screw kit	

In-Wall Mount Solutions

AFOLUX_4 Series

The fanless AFL-4xxx series with streamlined design based on the Intel® Atom™ processor is designed in flexible options to match your diverse style.

- **Fanless**
  An on-board 1.6GHz Intel® Atom™ N270 CPU ensures low power requiements. Metal casting design housing replaces the fan as it helps the dissipate heat.
- **Changeable Faceplate/Sticker Skin**
  Multiple faceplate/skin sticker available to match diverse decoration styles
- **Easy In-wall in minutes**
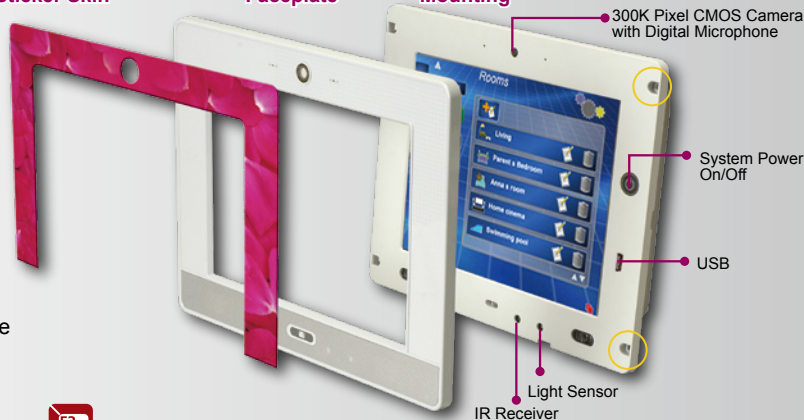 In-wall mounting just three simple steps: cut-out the panel , screw on and put on the faceplate
- **VESA Mounting Compliant**
- **IEI One Key Recovery solution allows you to create rapid OS backup and recovery**
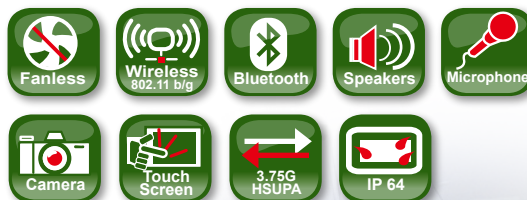
Changeable Faceplate Sticker Skin

Changeable Faceplate

Easy In-Wall Mounting

300K Pixel CMOS Camera with Digital Microphone

System Power On/Off

USB

Light Sensor

IR Receiver

F3 One Key Recovery
iEi symantec.

intel inside

WiFi CERTIFIED

Bluetooth®

Features

- 8" ~ 15" TFT LCD with resistive touch screen.
- Fanless system with Intel® Atom™ process N270 1.6GHz CPU
- Changeable faceplate and sticker skin
- In-wall mechanism design allows easy to installation in minutes
- Build-in CMOS camera with digital microphone and two 1.5W speakers for multimedia applications
- Enabling easier access to the internet through a HSUPA network (Optional)
- Buit-in bluetooth technology rids systems of cables and allows wireless connection to peripheral devices like head phones, keyboard and mouse
- VESA-mountable for flexibility in mounting and deployment
- Ambient light sensor detects ambient light for automated screen adjustments to optimize viewing.
- IP63 front panel compliant
- One Digital I/O (4 input/ 4 output)
- Windows XP Embedded/Windows CE/Linux (Debian 2.6.26) Support

| Fanless | Wireless 802.11 b/g | Bluetooth | Speakers | Microphone |
| Camera | Touch Screen | 3.75G HSUPA | IP 64 |

Ambient Light Sensor

System On/Off

Volume Up/ Down

LCD On/Off

Ambient Light Sensor On/Off

Brightness UP/Down

OSD Function with IR Remote Control

AFL-4xxx series built in the ambient light sensor in front of the panel to automatically detect the amount of light in the viewing environment and auto-adjusts the brightness of the screen.

Benefits:
- Avoid eye strained and tried, to provide comfortable viewing
- Power consumption saving
- Extend lamp lifetime

Day: Higher Ambient Luminance

Night: Lower Ambient Luminance

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
Video Wall Controller

5
RISC-based Solutions

6
PACSmate Medical

7
Optional Peripherals

Easy In-wall Installation in Minutes

AFL-4xxx series was not only increases flexibility of versatile patterns of the faceplate, but also ease of installation.
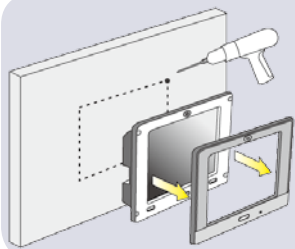
(A) Cut Out the Panel

Select the position on the panel to mount the flat panel PC. Cut out a section from the panel that corresponds to the rear panel dimensions.

(B) Screw On
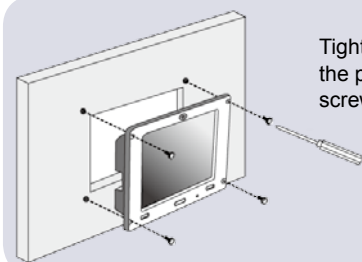
Tighten the screws that pass through the panel mounting holes until the screws are firmly secured to the panel.

(D) Changeable faceplate sticker skin
(Customize by order)
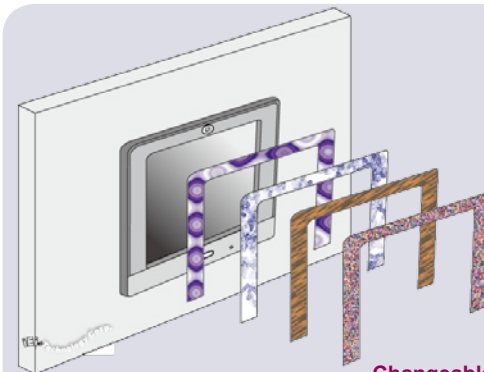
Changeable Faceplate in Gray/White/Black Color

Gray   White   Black

(C) Put on the Faceplate

Screwless Faceplate
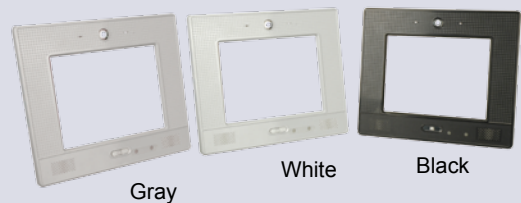
Versatile Faceplate Sticker Skin Patterns Enhance your Design Style!

• **Stylish**
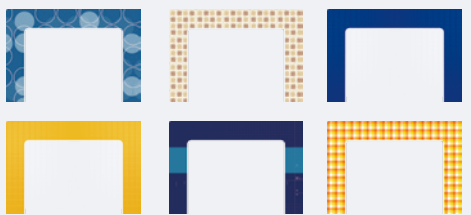
• **Photo Frame**
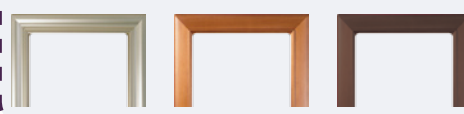
• **Wooden**

• **Traditional Chinese**

What are we going after?

Various Applications

A. Controlling your digital home !

Features:

- Changeful face plate suitable for various in-wall environments
- Simple and attractive appearance
- Local information and services
- Advertising possibilities
- X86 architecture easy to integrate new services
- Built-in IR receiver implements the remote control capability

Industrial Controller

Access Control Terminal

AFL-4xxx Series

VITO-2070

ACT-08A

(((HSUPA Wireless	(((IR	Ethernet Wireless LAN
		Digital Input/Output
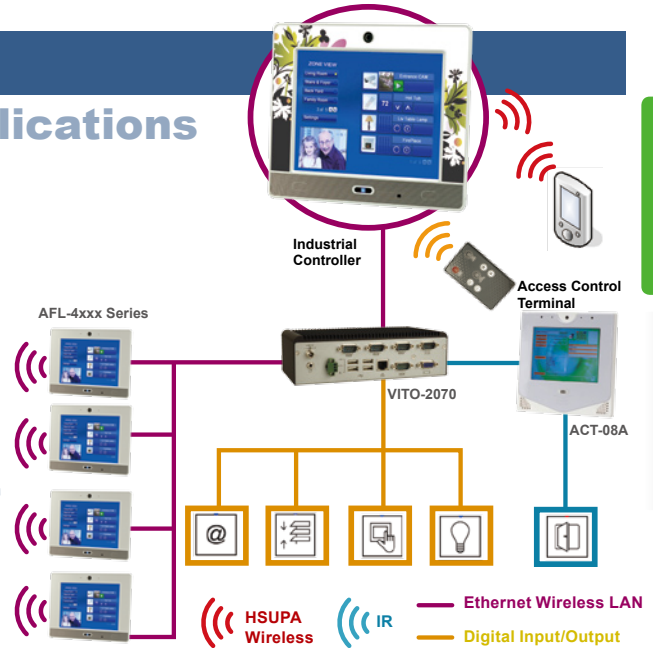
Designing a Home Automation System

Audio Control
Telephone annoucement and music from one room can follow you down the hall and into the kitchen.

Security
- Control the lighting, in the event of alarm or fire.
- View and record surveillance video

Lighting Control
Lighting set by schedule, time of day.

Energy Management
- Lights turn off when leaving the home.
- Settings restore automatically when returning home, saving energy.

B. Building Automation

Features:

- Rich I/O interface for easy peripheral integration in any location.
- Uninterrupted network connection ensures real-time data and information transmission.

HVAC

CCD Camera

Industrial Controller

VITO-2070

Industrial Controller

Lighting

Access

Occupancy

VITO-1000

Irrigation

300K pixel Camera up to VGA resolution (640 x 480)

Digital Microphone

Two 1.5W Speakers

C. Conferencing
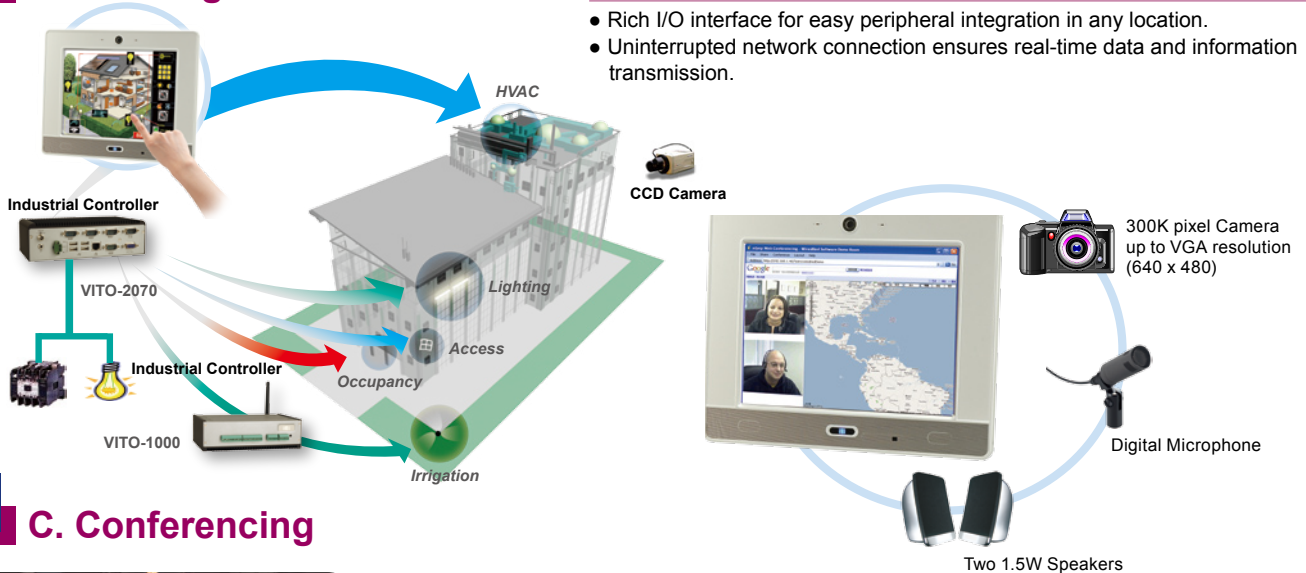
- Lighting
- Projector Controlling
- Access Control
- Air Conditioning

Features:

- Trouble-free video conferencing with integrated audio/video hardware and wireless connection.
- Equipped with a digital I/O with to remotely control the device on and off.

VGA Port
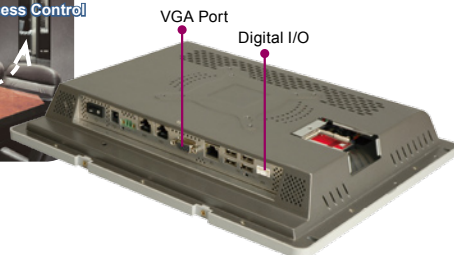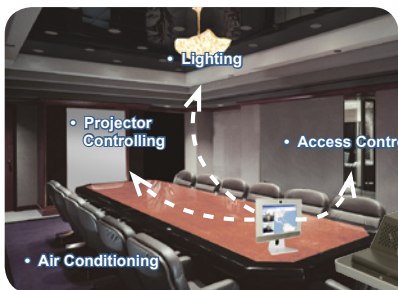
Digital I/O

Digital IO Control Diagram

	Super IO	
GPI (Get Status)	↑ ↓	GPO Action (Open / Close)
	Control Block	
Low Level High Level	↑ ↓	Low Level High Level

Sidebar

1 Automation Panel Solutions

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IEI Quick Mounting Technology

● In-wall Mounting

Self-drilling screws
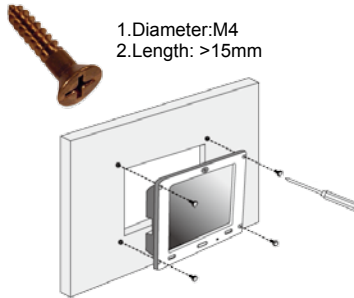
1. Diameter: M4
2. Length: >15mm

● Wall Mount
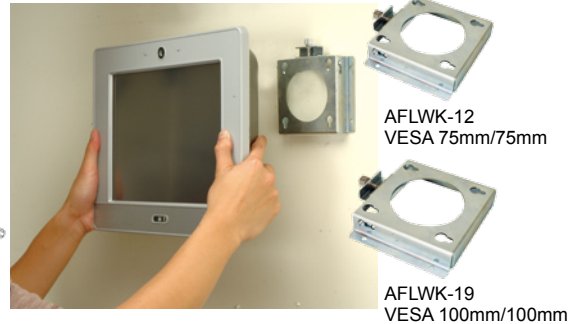
AFLWK-12
VESA 75mm/75mm

AFLWK-19
VESA 100mm/100mm

● Desktop Stand

Easy Stand

STAND-A08
(For 8" and 8.4" PPC)

STAND-A12
(For 10" and 12" PPC)

STAND-A19
(For 15" PPC)
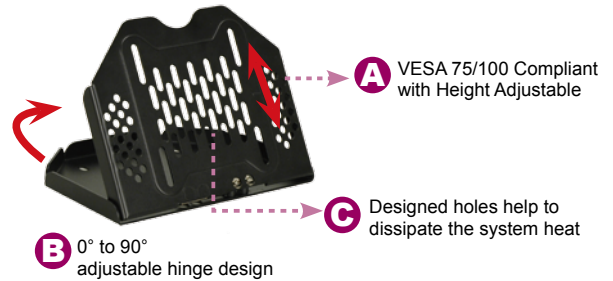
Comfortable Stand

Portrait/Landscape

Height Adjustment(13 cm)

STAND-B19
(For 15" AFL Series)

Right/Left Pan (270°)

Forward & Back Tilt(+25°/-5°)

● V-Stand

A VESA 75/100 Compliant with Height Adjustable

C Designed holes help to dissipate the system heat

B 0° to 90° adjustable hinge design

Features:

- 0° to 90° adjustable hinge design allows comfortable viewing
- Standard VESA 75/100 Compliance
- Heat dissipation holes designed
- Compact size easy to use and mount anywhere

VSTAND-A10
(For 8"~10.4" AFL Series)

VSTAND-A12
(For 12.1" AFL Series)

The Benefits

A **One fits all solution**

V-Stand is designed to be compact and tilt adjustable. Provides mobility and ergonomic comfort to fit common wall and ceiling mounting situations.

Wall Mounting

Ceiling Mounting

Back office POS system

Car PC

B **0° to 90° adjustability**

Change the angle of the stand from 0° to 90° to reach almost any point with ergonomic features for comfortable viewing.
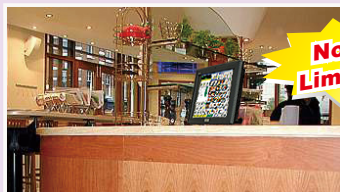
No Hinge Limitation !

POS system

C **Space saving and easy to install**

1: Tighten the screws in the rear of the AFOLUX PPC VESA mounting holes

Compact size provides mobility

2: Select the position to mount stand kit

3: Plug in the system to operate

AFL-408A-N270
8.4" SVGA Fanless In-Wall Panel PC

AFL-408B-N270
8.0" SVGA Fanless In-Wall Panel PC

## AFL-W410A-N270
Wide 10.2" SVGA Fanless In-Wall Panel PC

1 Automation Panel Solutions
2 All-in-One Touch POS
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7 Optional Peripherals

F3 One Key Recovery iEi symantec.

Features
- 8" ~ 15" TFT LCD with resistive touch screen.
- Fanless system with Intel® Atom™ process N270 1.6GHz CPU
- Changeable faceplate and sticker skin
- In-wall mechanism design allows easy to installation in minutes
- Build-in CMOS camera with digital microphone and two 1.5W speakers for multimedia applications (Optional)
- Enabling easier access to the internet through a HSUPA network (Optional)
- Buit-in bluetooth technology rids systems of cables and allows wireless connection to peripheral devices like head phones, keyboard and mouse
- VESA-mountable for flexibility in mounting and deployment
- Ambient light sensor detects ambient light for automated screen adjustments to optimize viewing.
- One Digital I/O (4 input/4 output) (Optional)
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Specifications

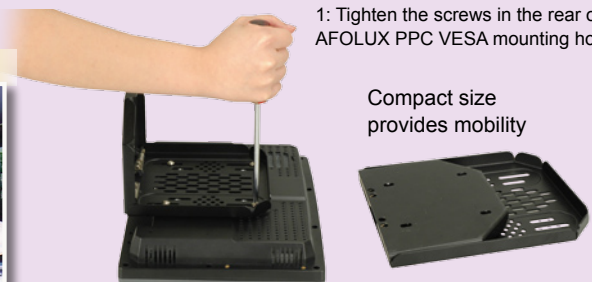Economical Version / Economical Version

	Model	AFL-408A-N270-R20	AFL-408B-N270-R20	AFL-W410A-N270-R20
Display	LCD Size	8.4"	8.0"	10.2"
	Max Resolution	800 * 600	800 * 600	1024 * 600
	Brightness (cd/m²)	450	250	400
	Contrast Ratio	600 : 1	500 : 1	400 : 1
	LCD Color	262K	262K	262K
	Pixel Pitch (mm)	0.213(H) x 0.213(V)	0.2025(H) x 0.2025(V)	0.2175(H) x 0.2175(V)
	Viewing Angle (H-V)	160° / 140°	140° / 130°	140° / 110°
	Backlight MTBF (hrs)	50000	30000	40000
Motherboard	CPU	Intel® Atom™ process N270 1.6GHz CPU	Intel® Atom™ process N270 1.6GHz CPU	Intel® Atom™ process N270 1.6GHz CPU
	Chipset	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M
	RAM	Supports one 400MHz or 533MHz DDRII SO-DIMM (2GB Max.)		
I/O Ports and Switches		1 x RJ-45 for RS-232 COM Port 1 x RJ-45 for RS-232/422/485 COM port 1 x RJ-45 for Giga LAN 5 x USB 2.0 (4 in the rear, 1 in front panel) 2 x Power Switch (Inside Fornt Panel & Rear cover) 1 x Reset Button 1 x DIO (4in / 4out) 1 x Terminal block for 10~28VDC Input 1 x VGA Port 1 x Power Jack	1 x RJ-45 for RS-232 COM Port 1 x RJ-45 for RS-232/422/485 COM port 1 x RJ-45 for Giga LAN 5 x USB 2.0 (4 in the rear, 1 in front panel) 2 x Power Switch (Inside Fornt Panel & Rear cover) 1 x Reset Button 1 x Terminal block for 10~28VDC Input 1 x VGA Port 1 x Power Jack	1 x RJ-45 for RS-232 COM Port 1 x RJ-45 for RS-232/422/485 COM port 1 x RJ-45 for Giga LAN 5 x USB 2.0 (4 in the rear, 1 in front panel) 2 x Power Switch (Inside Fornt Panel & Rear cover) 1 x Reset Button 1 x DIO (4in / 4out) 1 x Terminal block for 10~28VDC Input 1 x VGA Port 1 x Power Jack
Driver Bay	SSD	CF TypeII	CF TypeII	CF TypeII
	HSUPA Mobile Solution(Optional)	N/A	N/A	1 x HSUPA Mobile Module (USB Interface)
Other Function	Watchdog Timer	Software programmable supports 1~255 sec. System reset		
	Audio	AMP 1.5W + 1.5W (Internal Speaker)		
	WiFi	1 x Wireless Lan 802.11 b/g Module (internal Mini PCIe interface)		
	Bluetooth	1 x Bluetooth Function (internal USB interface, Bluetooth V2.0)	N/A	N/A
	Webcam and Digital Microphone	1 x 300K pixel Camera with Digital Microphone (internal USB interface)	N/A	N/A
	Remote Control	1 x Remote Controller (LCD On/Off; System Power On/Off; Volume; Brightness)		
	LED Function	1 x Power ON/OFF LED on Front Panel		
Physical	Construction Material	ABS + PC Plastic front frame		
	LED Function	1 x Power ON/OFF LED on Front Panel		
	Mounting	Panel, Wall VESA 75mm x 75mm / 100mm x 100mm		
	Front Panel Color	Black (Black U) / White (Apple white) Gray (422C)	Black (Black U) / White (Apple white) Gray (422C)	Black (Black U) / White (Apple white) Gray (422C)
	Dimension (WxHxD) (mm)	263.2 x 221.2 x 54.4	263.2 x 221.2 x 54.4	313.83 x 222.13 x 52.5
Environment	Operation Temperature (°C)	-10°C ~50°C	-10°C ~50°C	-10°C ~50°C
	Storage Temperature (°C)	-20°C ~60°C	-20°C ~60°C	-20°C ~60°C
	Net Weight	0.8 Kg	0.8 Kg	1.5 Kg
	IP Level	IP63	IP63	IP63
	EMC	CE, FCC, CCC	CE, FCC, CCC	CE, FCC, CCC
	Safety	CB	CB	CB
Touch Screen		Resistive Type 4-Wire (Touch controller IC is on board)	Resistive Type 5-Wire (Touch controller IC is on board)	Resistive Type 5-Wire (Touch controller IC is on board)
Power Adapter		P/N: 63000-FSP036RAB608-RS / 36W Power Adapter / Input: 90VAC~264VAC, 50/60Hz / Output: 12VDC		
Power Requirement		10~28VDC	10~28VDC	10~28VDC
Power Consumption		25W	25W	28W

AFL-412A-N270 — 12.1" XGA Fanless In-Wall Panel PC
AFL-415A-N270 — 15" XGA Fanless In-Wall Panel PC
AFL-415AE-N270 — 15" XGA Economical Fanless In-Wall Panel PC

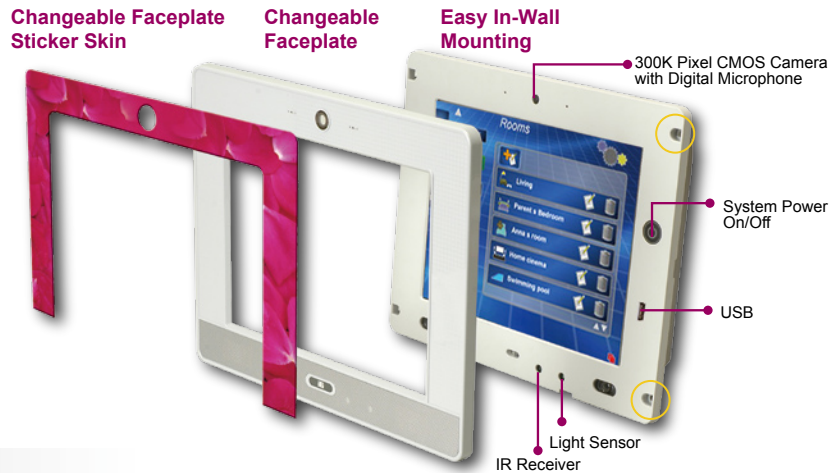**1** Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
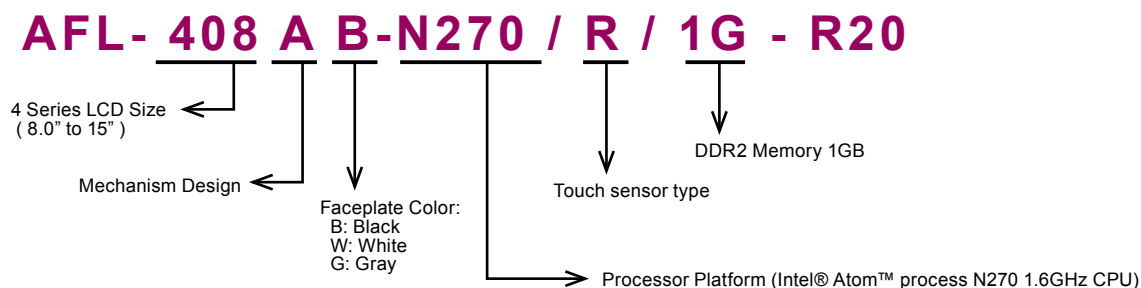**4** Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

Changeable Faceplate Sticker Skin   Changeable Faceplate   Easy In-Wall Mounting

300K Pixel CMOS Camera with Digital Microphone
System Power On/Off
USB
Light Sensor
IR Receiver

Specifications

Model		AFL-412A-N270-R20	AFL-415A-N270-R20	AFL-415AE-N270-R20
Display	LCD Size	12.1"	15"	15
	Max Resolution	1024 * 768	1024 x 768	1024 x 768
	Brightness (cd/m²)	500	350	250
	Contrast Ratio	700 : 1	700 : 1	600 : 1
	LCD Color	262K	262K	16.2M
	Pixel Pitch (mm)	0.3075(H) x 0.3075(V)	0.297(H) x 0.297(V)	0.297(H) x 0.297(V)
	Viewing Angle (H-V)	160° / 160°	140° / 125°	160° / 160°
	Backlight MTBF (hrs)	50000	50000	40000
Motherboard	CPU	Intel® Atom™ process N270 1.6GHz CPU	Intel® Atom™ process N270 1.6GHz CPU	Intel® Atom™ process N270 1.6GHz CPU
	Chipset	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M
	RAM	Supports one 400MHz or 533MHz DDRII SO-DIMM (2GB Max.)		
I/O Ports and Switches		1 x RJ-45 for RS-232 COM Port 1 x RJ-45 for RS-232/422/485 COM port 1 x RJ-45 for Giga LAN 5 x USB 2.0 (4 in the rear, 1 in front panel) 2 x Power Switch (Inside Fornt Panel & Rear cover) 1 x Reset Button 1 x DIO (4in / 4out) 1 x Terminal block for 10~28VDC Input 1 x VGA Port 1 x Power Jack	1 x RJ-45 for RS-232 COM Port 1 x RJ-45 for RS-232/422/485 COM port 1 x RJ-45 for Giga LAN 5 x USB 2.0 (4 in the rear, 1 in front panel) 2 x Power Switch (Inside Fornt Panel & Rear cover) 1 x Reset Button 1 x DIO (4in / 4out) 1 x Terminal block for 10~28VDC Input 1 x VGA Port 1 x Power Jack	1 x RJ-45 for RS-232 COM Port 1 x RJ-45 for RS-232/422/485 COM port 1 x RJ-45 for Giga LAN 5 x USB 2.0 (4 in the rear, 1 in front panel) 2 x Power Switch (Inside Fornt Panel & Rear cover) 1 x Reset Button 1 x DIO (4in / 4out) 1 x Terminal block for 10~28VDC Input 1 x VGA Port 1 x Power Jack
Driver Bay	HDD Drive Bay	1 x 2.5 SATA HDD bay or Option HSUPA Module	1 x 2.5 SATA HDD bay or Option HSUPA Module	1 x 2.5 SATA HDD bay or Option HSUPA Module
	SSD	CF TypeII	CF TypeII	CF TypeII
	HSUPA Mobile Solution (Optional)	1 x HSUPA Mobile Module (USB Interface)	1 x HSUPA Mobile Module (USB Interface)	1 x HSUPA Mobile Module (USB Interface)
Other Function	Watchdog Timer	Software programmable supports 1~255 sec. System reset		
	Audio	AMP 1.5W + 1.5W (internal speaker)	AMP 3W + 3W (internal speaker)	AMP 3W + 3W (internal speaker)
	WiFi	1 x Wireless Lan 802.11 b/g/n Module (internal Mini PCIe interface)		
	Bluetooth	1 x Bluetooth Function (internal USB interface, Bluetooth V2.0)		
	Webcam and Digital Microphone	1 x 300K pixel Camera with Digital Microphone (internal USB interface)		
	Remote Control	1 x Remote Controller (LCD On/Off; System Power On/Off; Volume; Brightness)		
	LED Function	1 x Power ON/OFF LED on Front Panel	1 x Power ON/OFF LED on Front Panel	1 x Power ON/OFF LED on Front Panel
Physical	Construction Material	ABS + PC Plastic front frame	ABS + PC Plastic front frame	ABS + PC Plastic front frame
	LED Function	1 x Power ON/OFF LED on Front Panel	1 x Power ON/OFF LED on Front Panel	1 x Power ON/OFF LED on Front Panel
	Mounting	Panel, Wall VESA 75mm x 75mm / 100mm x 100mm		
	Front Panel Color	Black (Black U) / White (Apple white) / Gray (422C)		
	Dimension (WxHxD) (mm)	339 x 276 x 51.6	385.7 x 330.7 x 55.5	385.7 x 330.7 x 55.5
Environment	Operation Temperature (°C)	0°C ~40°C with 2.5 SATA HDD / -10°C ~50°C with CF Card or SATA interface 2.5 SSD HDD		
	Storage Temperature (°C)	-20°C ~60°C	-20°C ~60°C	-20°C ~60°C
	Net Weight	1.8 Kg		
	IP Level	IP63	IP63	IP63
	EMC	CE, FCC, CCC	CE, FCC, CCC	CE, FCC, CCC
	Safety	CB	CB	CB
Touch Screen				
Power Adapter		P/N: 63000-FSP050DBAB1405-RS 50W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC	P/N: 63000-FSP060DBAB1553-RS 60W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC	P/N: 63000-FSP060DBAB1553-RS 60W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC
Power Requirement		10~28VDC	10~28VDC	10~28VDC
Power Consumption		32W	49W	49W

AFL-4xxx In-wall PPC Product Line Naming Rule

AFL- 408 A B-N270 / R / 1G - R20

4 Series LCD Size
(8.0" to 15")

Mechanism Design

Faceplate Color:
B: Black
W: White
G: Gray

Processor Platform (Intel® Atom™ process N270 1.6GHz CPU)

Touch sensor type

DDR2 Memory 1GB

Ordering Information

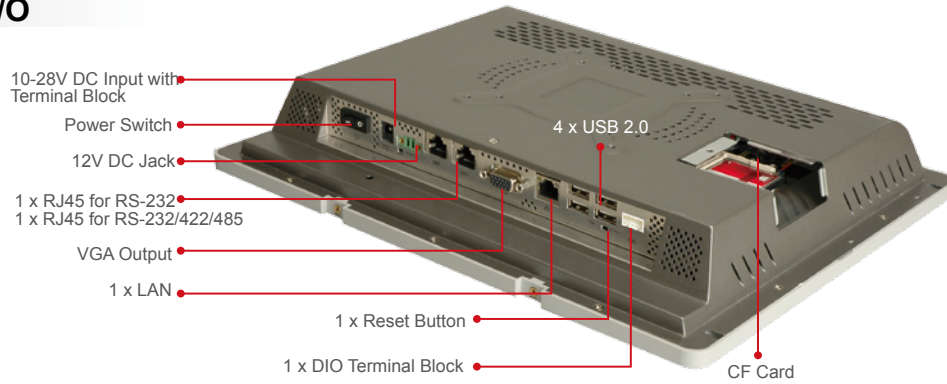| Model		Description
8"	AFL-408BB-N270/R/1G-R20	8.0" 250 cd/m², 800x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Touch screen and 10-28VDC Wide Range, Black color, R20, RoHS
	AFL-408BW-N270/R/1G-R20	8.0" 250 cd/m², 800x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Touch screen and 10-28VDC Wide Range, White Color, R20, RoHS
	AFL-408BG-N270/R/1G-R20	8.0" 250 cd/m², 800x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Touch screen and 10-28VDC Wide Range, Gray Color, R11, RoHS
8.4"	AFL-408AB-N270/R/1G-R20	8.4" 450 cd/m², 800x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, Black color, R20, RoHS
	AFL-408AW-N270/R/1G-R20	8.4" 450 cd/m², 800x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, White Color, R20, RoHS
	AFL-408AG-N270/R/1G-R20	8.4" 450 cd/m², 800x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, Gray Color, R20, RoHS
10.2"	AFL-W410AB-N270/R/1G-R20	10.2" 400 cd/m², 1024x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Touch screen and 10-28VDC Wide Range, Black color, R20, RoHS
	AFL-W410AW-N270/R/1G-R20	10.2" 400 cd/m², 1024x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Touch screen and 10-28VDC Wide Range, White Color, R20, RoHS
	AFL-W410AG-N270/R/1G-R20	10.2" 400 cd/m², 1024x600 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Touch screen and 10-28VDC Wide Range, Gray Color, R20, RoHS
12.1"	AFL-412AB-N270/R/1G-R20	12.1" 500 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, Black color, R20, RoHS
	AFL-412AW-N270/R/1G-R20	12.1" 500 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, White color, R20, RoHS
	AFL-412AG-N270/R/1G-R20	12.1" 500 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, Gray color, R20, RoHS
15"	AFL-415AB-N270/R/1G-R20	15" 350 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, Black color, R20, RoHS
	AFL-415AW-N270/R/1G-R20	15" 350 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, White color, R20, RoHS
	AFL-415AG-N270/R/1G-R20	15" 350 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, Gray color, R20, RoHS
15"	AFL-415AEB-N270/R/1G-R20	15" 250 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, Black color, R11, RoHS
	AFL-415AEW-N270/R/1G-R20	15" 250 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, White color, R11, RoHS
	AFL-415AEG-N270/R/1G-R20	15" 250 cd/m², 1024x768 fanless In-Wall panel PC with Intel® Atom™ N270 1.6G CPU, 1GB DDR2 RAM, AT/ATX mode, 802.11b/g Wireless, Bluetooth, 300K Pixel Camera W/Microphone, Touch screen and 10-28VDC Wide Range, Gray color, R20, RoHS

Side tab navigation:
1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

Fully Integrated I/O

10-28V DC Input with Terminal Block
Power Switch
12V DC Jack
1 x RJ45 for RS-232
1 x RJ45 for RS-232/422/485
VGA Output
1 x LAN
1 x Reset Button
1 x DIO Terminal Block
4 x USB 2.0
CF Card

ISMM Support Functions

	Voltage	Fan	Smart Fan	Temprature	DIO	WDT	Beep	Cash Drawer
AFL-408A-N270	V			V	V	V	V	V
AFL-408B-N270								
AFL-W410A-N270	V			V	V	V	V	V
AFL-412A-N270	V			V	V	V	V	V
AFL-415A-N270	V			V	V	V	V	V
AFL-415AE-N270								

Options

Model	AFL-408A-N270	AFL-408B-N270	AFL-W410A-N270	AFL-412A-N270	AFL-415A-N270	AFL-415AE-N270
Wall mounting kit	AFLWK-12				AFLWK-19	
ARM	ARM-11-RS / ARM-31-RS					
Stand	STAND-A08 / STAND-100-RS		STAND-A12 / STAND-100-RS		STAND-A19, STAND-B19, STAND-210-R11 STAND-A19, STAND-B19, STAND-210-R11	
VSTAND	VSTAND-A10			VSTAND-A12	N/A	N/A
9~30VDC to 12VDC converter module	IDD-930160-KIT				N/A	N/A
OS	OS: Win CE 5.0 (128 MB CF card)	AFLCF-408A-N270-CE-R10		AFLCF-W410-N270-CE	AFLCF-412-N270-CE	AFLCF-415-N270-CE-R10	
	OS: Win CE 6.0 (128 MB CF card)	AFLCF-408A-N270-CE060-R10		AFLCF-W410-N270-CE060	AFLCF-412-N270-CE060	AFLCF-415A-N270-CE060-R10	
	OS: Win XPE (1 GB CF card)	AFLCF-408A-N270-XPE-R10		AFLCF-W410-N270-XPE	AFLCF-412-N270-XPE	AFLCF-415A-N270-XPE-R10	
	OS: Linux (2 GB CF card)	AFLCF-408A-N270-LNX-R10		AFLCF-W410-N270-LNX-R10	AFLCF-412-N270-LNX-R10	AFLCF-415A-N270-LNX-R10	
DC 12V Input UPS	AUPS-A10-R10				AUPS-B10-R10	
DC 9~36V Input UPS	AUPS-A20-R10				AUPS-B20-R10	
Faceplate (Black Color)	AFLFP-408A-B-R10	AFLFP-408B-B-R10	AFLFP-W410A-B-R10	AFLFP-412A-B-R10	AFLFP-415A-B-R10	
Faceplate (White Color)	AFLFP-408A-W-R10	AFLFP-408B-W-R10	AFLFP-W410A-W-R10	AFLFP-412A-W-R10	AFLFP-415A-W-R10	
Faceplate (Gray Color)	AFLFP-408A-G-R10	AFLFP-408B-G-R10	AFLFP-W410A-G-R10	AFLFP-412A-G-R10	AFLFP-415A-G-R10	
In-Wall Cage (Options)	AFLIWC-408-R10	AFLIWC-408-R10	AFLIWC-W410-R10	AFLIWC-412-R10	AFLIWC-415-R10	AFLIWC-415-R10

Note: Win CE application without digital microphone function

Packing List

Item	P/N	Q'ty	Specifications
Screws	44233-030081-RS	4	M3; φ8mm
Power Adapter	63000-FSP036RAB608-RS 63000-FSP050DBAB1405-RS 63000-FSP060DBAB1553-RS	1	90 ~ 264V 12v; 36W / 50W / 60W
Power Cable	32000-000002-RS	1	1750mm, European Standard
User's Manual CD ROM	7B000-000087-RS	1	
Touch Pen	XTR104-0002-RS	1	
Remote Control Unit	72000-8T00320ICP05G-RS	1	

Removable Faceplate:

AFLFP-4xxx-G-R10

AFLFP-4xxx-W-R10

AFLFP-4xxx-B-R10

Gray Color

White Color

Black Color

In-Wall Cage

Remove appropriate electrical conduit knockouts prior to installation of the cage.

Electrical Knockouts of Wall Cage

1

Automation Panel Solutions

2

All-in-One Touch POS

3

Digital Signage

4

Video Wall Controller

5

RISC-based Solutions

6

PACSmate Medical

7

Optional Peripherals

● AFLIWC-408A/B-R10

● AFLIWC-W410A-R10
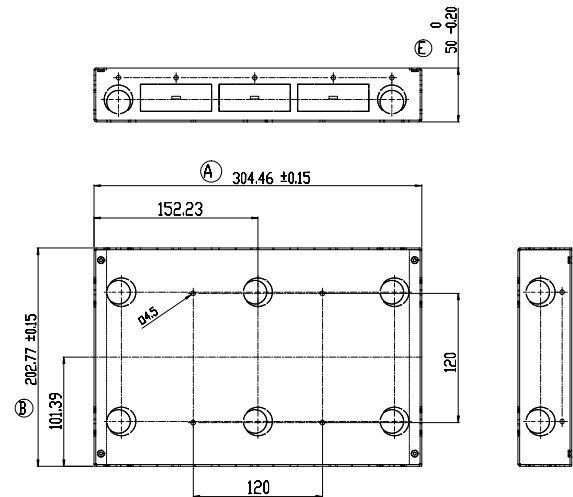
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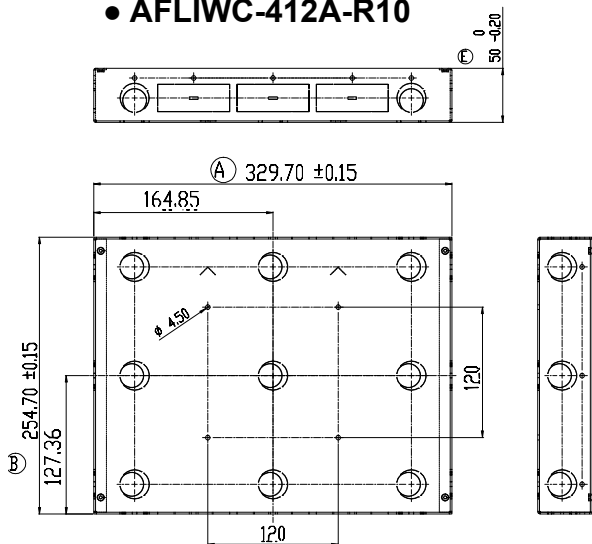
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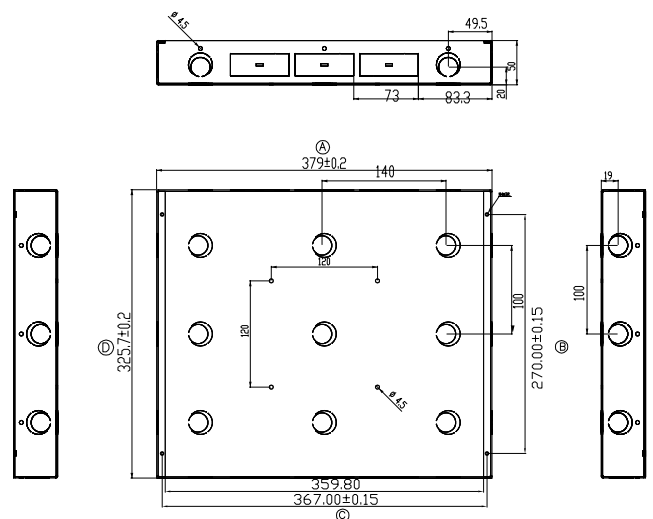
Dimensions (Unit: mm)

● AFL-408A-N270

● AFL-408B-N270

● AFL-W410A-N270

Faceplate

Sidebar navigation:

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

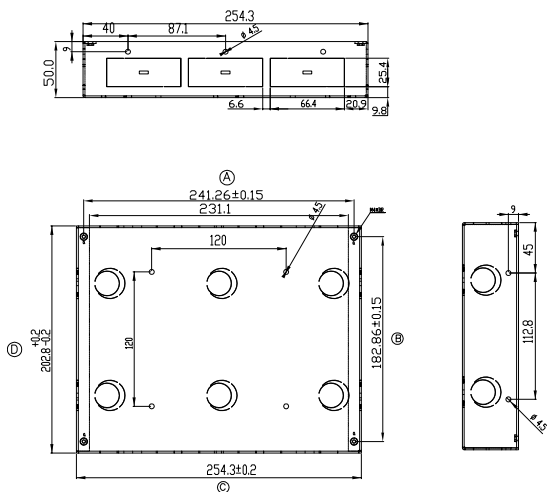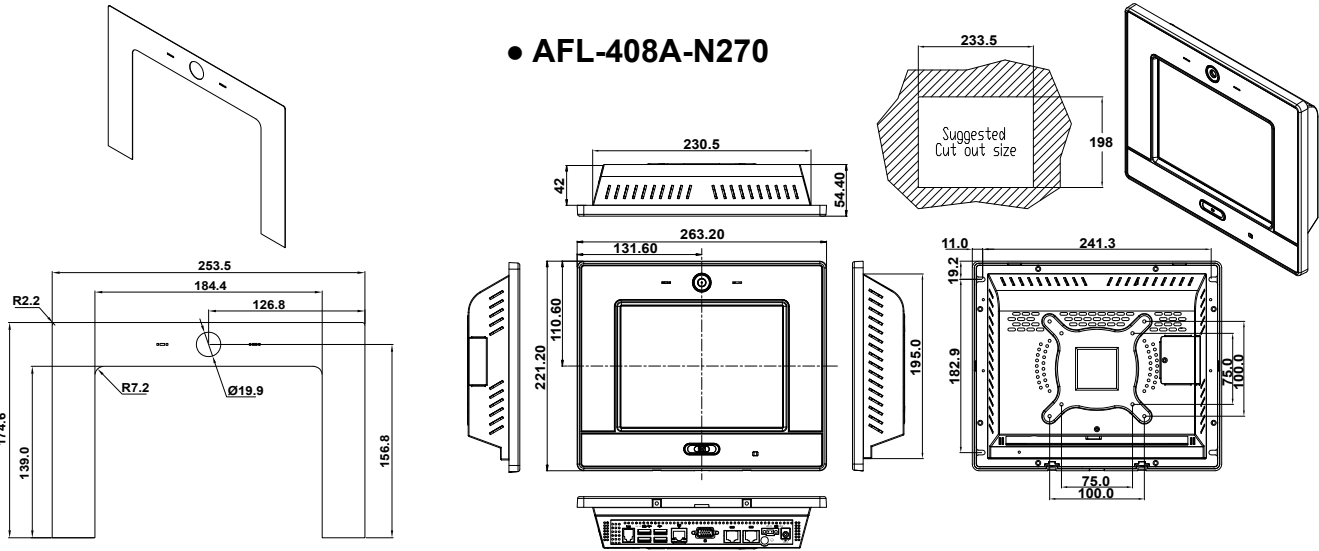*6* PACSmate Medical
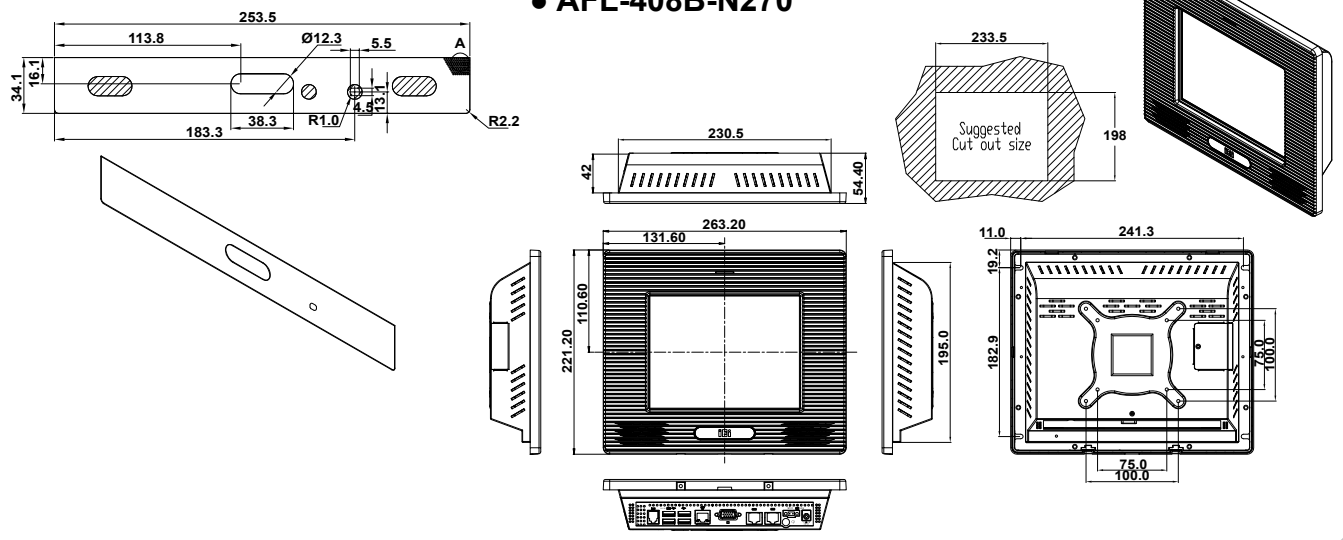
7 Optional Peripherals

Dimensions (Unit: mm)

● AFL-412A-N270
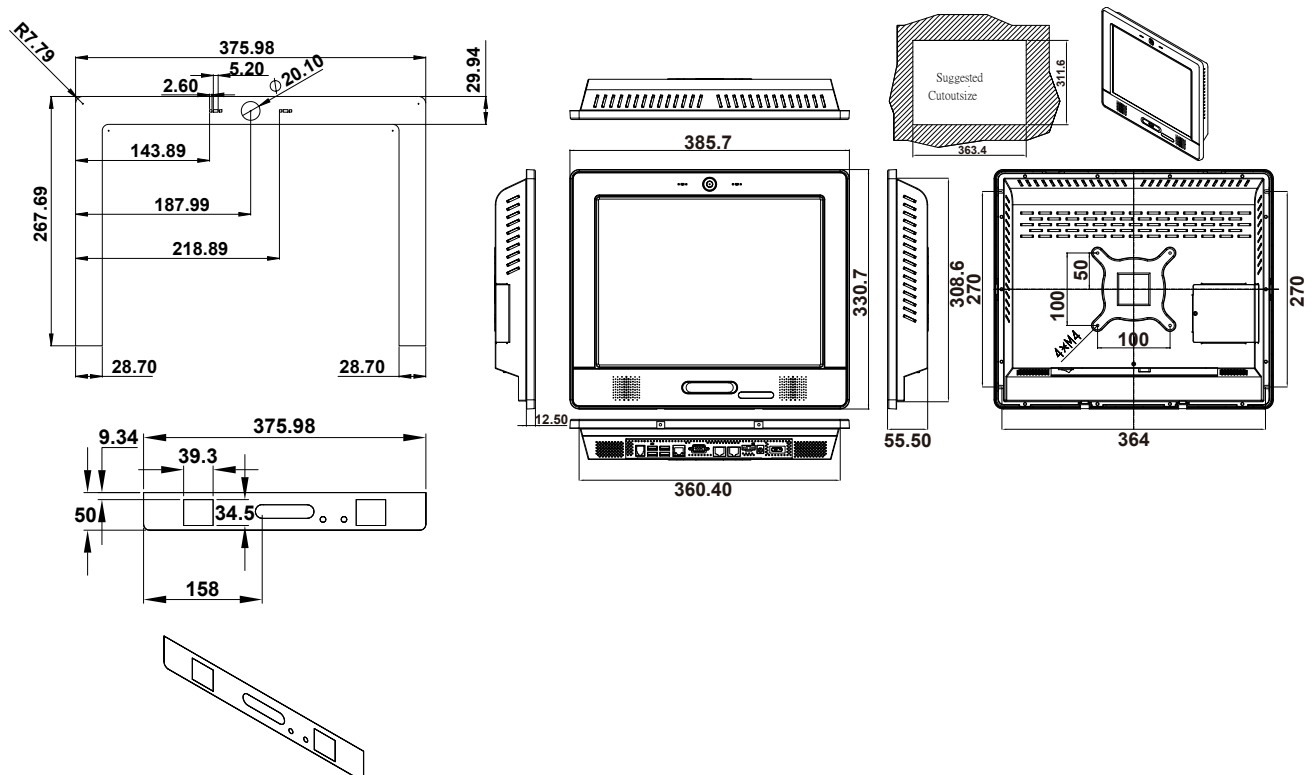
Faceplate

329.5
35　259.5
19.9
194.8　227.7
125.2
164.7

329.5
151.75
R6.2
17.5
35.8
R1.00

304.6
40.4　51.6
307.5
Suggested
Cut out size
250

339
169.5
136.6
276
247.3
227

119.7　100
75
24.5
86.5
75
100
317

● AFL-415A-N270/AFL-415AE-N270

R7.79
375.98
5.20　φ20.10
2.60
29.94
143.89
187.99
218.89
267.69
28.70　28.70

375.98
9.34
39.3
50
34.5
158

385.7
330.7
308.6
270
12.50
55.50
360.40

Suggested
Cutoutsize
363.4
311.6

50
100
100
4xM4
364
270

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals

Fanless Dual Core Solutions

AFOLUX_5 Series

Fanless

Features

- 17" TFT LCD with Intel® GM45 chipset and 45nm mobile Core™2 Duo processor support
- High performance fanless design with optical drive
- Built-in 802.11 b/g/n Wireless LAN connection
- Built-in Bluetooth module
- Built-in HDMI and Display Port for digital dual display option.
- Built-in HSUPA module for mobile connection
- One compact flash slot for embedded applications.
- IP 64 compliant front panel with touch screen function.
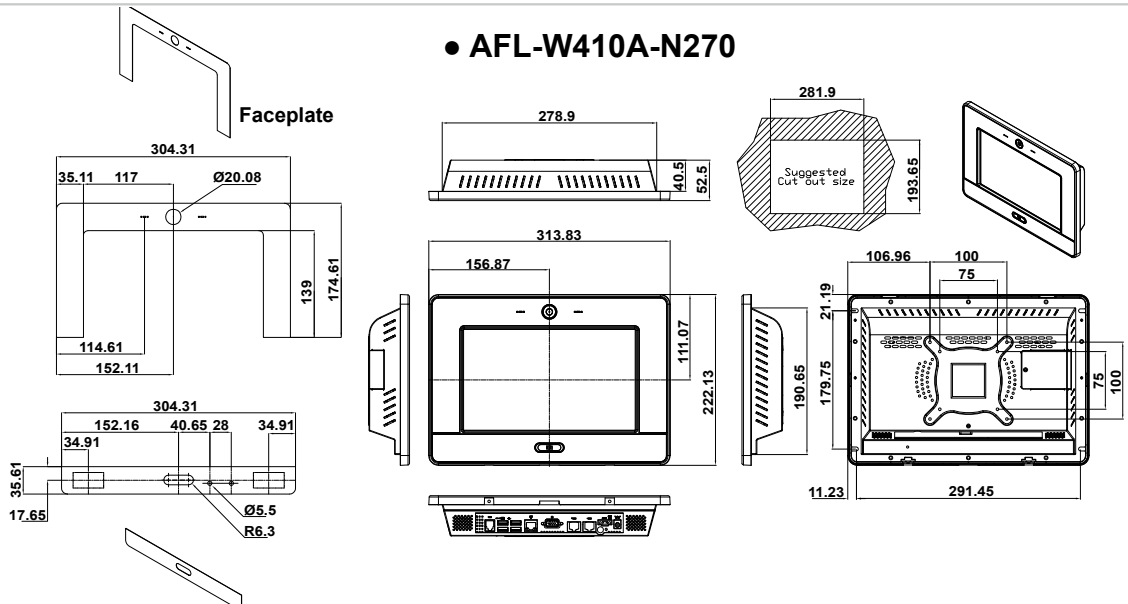- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

HDMI
DisplayPort

F3 **One Key Recovery** iEi ◆ symantec.

AFL-517A-GM45

Mobile Power Grade Fanless Panel PC

Fanless Dual Core Performance up to 2.53 GHz

45nm Penryn VS **65nm Merom Performance**
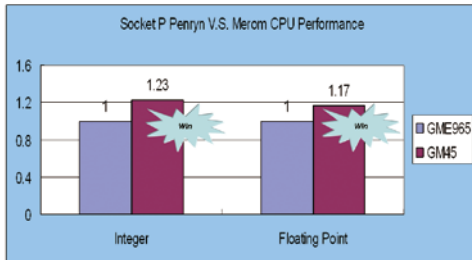
Socket P Penryn V.S. Merom CPU Performance

	Integer	Floating Point
GME965	1	1
GM45	1.23	1.17

Dual-core computing architecture bring the necessary power to address performance-hungry applications like imaging and gaming powered by Intel® Core™ 2 Duo processors and the Intel® GM45 chipset.

• Intel® Core™ 2 Duo T7500 (2.2 GHz, 800 MHz FSB) w/ GME965 Chipset and 667 MHz DDR2
• Intel® Core™ 2 Duo processor (Penryn) (2.53 GHz, 1066MHz FSB) w/ GM45 Chipset and 667 MHz DDR2
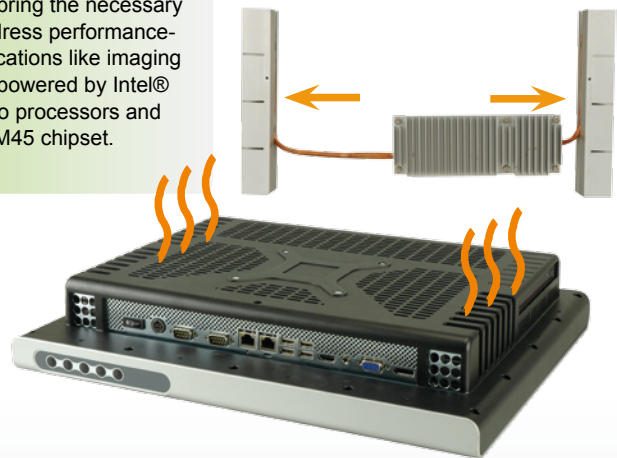
Superior Silent Heat Dissipation

Good aerodynamics
Unique heat sink design for AFL-517A mechanism allows air to easily flow rapidly through the cooler and reach all the cooling fins.

Applications:

Medical Image Terminal   Industrial Automation   Network Security   Transportation   Interactive Kiosk   Digital Signage   POS   Gaming

Mobile Intel® GM45 Solution

Performance Leadership

- Penryn on 45nm process
- Large L2 Cache and Faster FSB (6M, 1066MHz)
- Introduces DDRII Support (800/1067)
- Enhanced Graphics Engine (Gen 5)

Increased Integration

- Support for High Definition decode in H/W
- Integrated DisplayPort & HDMI/HDCP
- Integrated TPM and Packet Filtering

Unmatched Efficiency

- Deep Power Down Technology (w/ C6 state)
- Thermal compatibility with Santa Rosa
- Smaller Form Factor

Information

KIOSK

Digital Signage

New Platform Solution

Generation	Pentium® M		Core™ Duo / Solo		Core™2 Duo	
Process	130 nm	90 nm	65 nm			45 nm
FSB	400 MHz	533 MHz / 400 MHz	677 MHz / 533 MHz		800 MHz / 667 MHz	1066 MHz / 800 MHz
Architecture	Banias Socket 479	Dothan Socket 479	Dothan Socket M	Merom Napa Refresh Socket M	Merom Santa Rosa Socket P	Penryn Socket P
TDP	24.5 W	21 W	31 W	34 W	35 W	35 W
Platform	852GM / 855GM	915GME	945GME		GME965	GME45

IEI Penryn Solution

- Panel PC / AFL-517A / 519A
- COM Express / ICE-GM45A
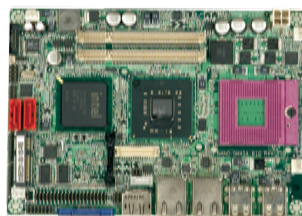
Half Size PICOe-GM45A

epic NANO / NANO-GM45A

Sidebar navigation:

1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

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5
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6
PACSmate Medical

7
Optional Peripherals

Mobile Power Grade Fanless Panel PC

• Mobile Chipset Transition

	Year2006	Year2007	Year2008~9
Chipset Code Name	Mobile Intel®945GME/ICH7M	Mobile Intel®GME965/ICH8M	Mobile Intel®GM45/ICH9M
TDP	7W Max	9.5~13.5W	9~12W
Process	90nm	90nm	65nm
FSB	533/667MHz	667/800MHz	800/1066MHz
System Memory	4G Max	4G Max	8G Max
iAMT	Intel® AMT 1.0	Intel® AMT 2.5	Intel® AMT 4.0
Integrated Graphic Core	3.5th Generation	4th Generation	5th Generation
New Display Interface	-	-	Display Port HDMI/HDCP
Microsoft DirectX	DirectX 9.0	DirectX 9.0	DirectX 10.0
OpenGL Support	OpenGL 1.4	OpenGL 1.5	OpenGL 2

Format	Decoding Stage	GME965	GM45
MPEG2 (DVD)	HW Motion Comp	V	V
	Inverse DC Transform	V	V
	Variable Length Decode	V	V
VC-1 (WMV9)	HW Motion Comp + In Loop Deblocking	V	V
	Inverse Transform		V
	Variable Length Decode		V
AVC (H.264) (HD DVD)	HW Motion Comp + In Loop Deblocking	V	V
	Inverse Transform		V
	Variable Length Decode		V

3DMark2006

• Mobile Intel® GM45 Processor

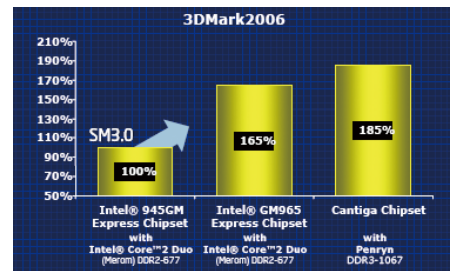| Mobile CPU Transition	Year2006	Year2007	Year2008~9
Platform	Merom-Napa Reflash	Merom-Santa Rosa	Penryn-Montevina
SKUs	Intel® Core™2 Duo Intel® Core™2 Duo LV Intel® Celeron®M	Intel® Core™2 Duo Intel® Core™2 Duo LV Intel® Celeron®M	Intel® Core™2 Duo Intel® Core™2 Duo LV Intel® Core™2 Duo ULV Intel® Celeron®M Intel® Celeron®M ULV
Process	65nm	65nm	45nm
Cache	2MB, 4MB	2MB, 4MB	Up to 6MB
FSB	667MHz	800MHz	1066MHz
DDR	DDR2 533/667	DDR2 667/800	DDR2 667/800
Package	Mobile Socket-M, 35mm	Mobile Socket-M, 35mm Mobile Socket-P, 35mm	Mobile Socket-P, 35mm
TDP	34W Standard Voltage 17W Low Voltage 9W Ultra Low Voltage	35W Standard Voltage 17W Low Voltage	35W Standard Voltage 15W Low Voltage5. 5W Ultra-Low Voltage Single Core

• Performance Upgrades

■ Intel™ Core™ 2 Duo T7500 (2.2 GHz, 800 MHz FSB) w/ GME965 Chipset and 667 MHz DDR2
■ Intel® Core™ 2 Duo processor (Penryn) (2.53 GHz, 1066 MHz FSB) w/ Cantiga Chipset and 667 MHz DDR2

23% Better Integer Performance
17% Better Floating Point Performance
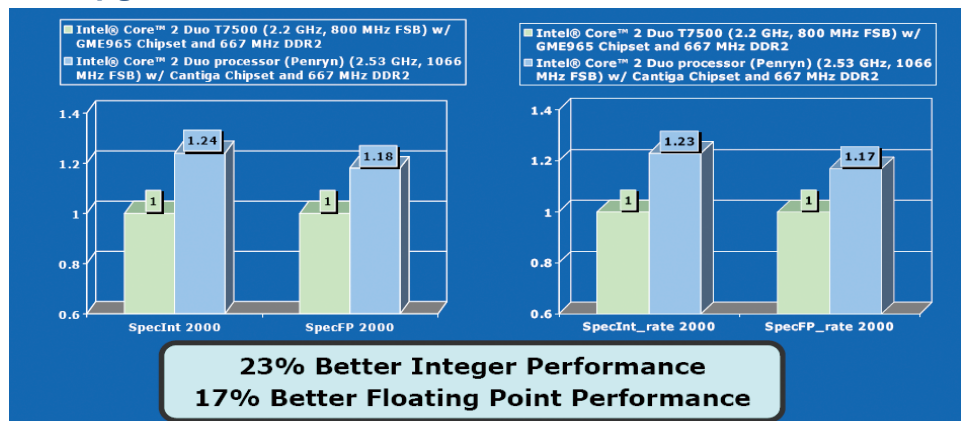
New HDMI / DisplayPort Choice
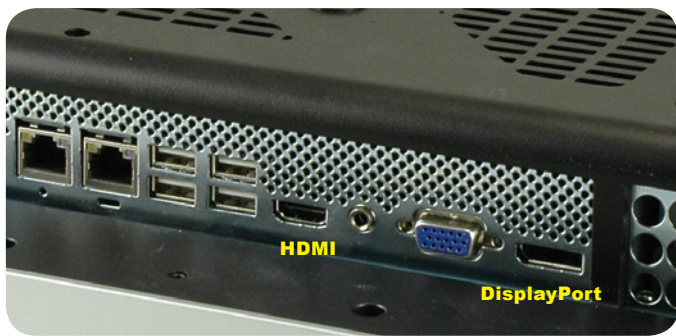
HDMI

DisplayPort

HDMI
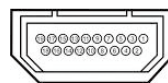
DisplayPort

DisplayPort is a digital display interface standard put forth by the Video Electronics Standards Association (VESA). It defines a new license-free, royalty-free, digital audio/video interconnect, intended to be used primarily between a computer and its display monitor, or a computer and a home theater system.

● DisplayPort on projector

● DisplayPort on monitor
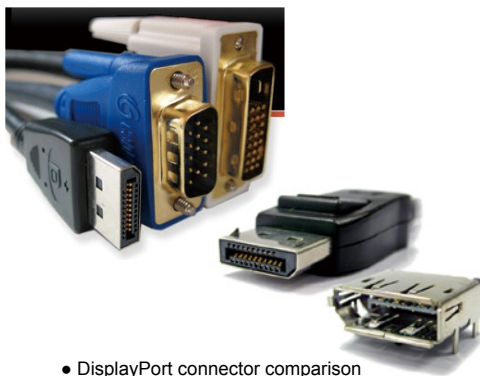
● DisplayPort connector comparison

● DisplayPort to DVI

● DisplayPort to HDMI

802.11 b/g/n ready with invisible antenna

The AFL 5 series features high speed WiFi 802.11 b/g/n protocol which builds on previous 802.11 standards by adding multiple-input multiple-output (MIMO) and 40 MHz operation to the physical (PHY) layer. MIMO uses multiple transmitter and receiver antennas to improve performance. The 40 MHz operation uses wider bands, compared to 20 MHz bands in previous 802. protocols operation, to support higher data rates. Wider bandwidth channels are cost effective and easily accomplished with moderate increases in digital signal processing.

	802.11a	802.11b	802.11g	802.11n
Data Rate (Mbps)	54	11	54	540
Range (Radius Indoor)	35 Meters	38 Meters	38 Meters	70 Meters
Range (Radius Outdoor)	120 Meters	140 Meters	140 Meters	250 Meters
Radio Frequency	5.15 GHz to 5.85 GHz	2.4 GHz to 2.5 GHz	2.4 GHz to 2.5 GHz	2.4 GHz or 5.0 GHz

27 times faster data transfer rate compare 802.11b

Saving cable & installation fees

802.11 b/g/n ready with invisible antenna

Applications:

● **Medical**

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

17" SXGA Fanless Dual Core Panel PC

AFL-517A-GM45

Intel® Core™2 Duo T9400 2.53GHz Processor (max.)
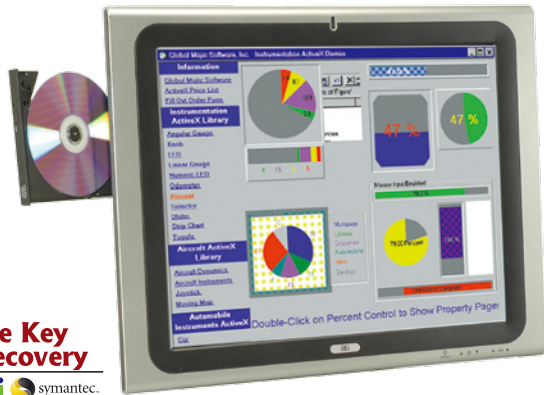
F3 One Key Recovery
iEi Symantec.

Features

- 17" TFT LCD with Intel® GM45 chipset and 45nm mobile Core™ 2 Duo processor support
- High performance fanless design with optical drive
- Built-in 802.11 b/g/n Wireless LAN connection
- Built-in Bluetooth module
- Built-in HDMI and Display Port for digital dual display option.
- Built-in HSUPA module for mobile connection
- One compact flash slot for embedded applications.
- IP 64 compliant front panel with touch screen function.
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)
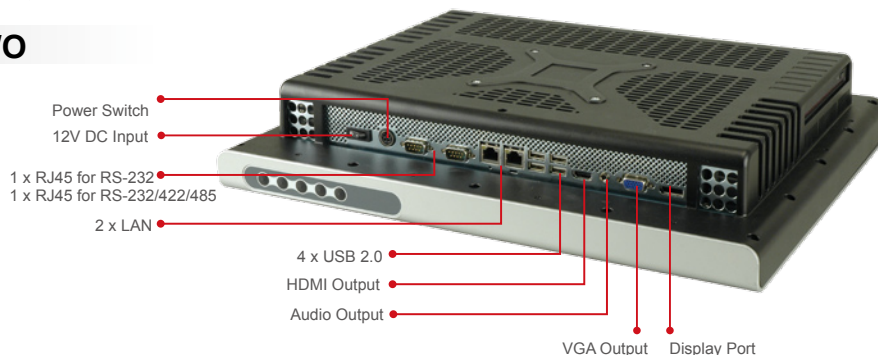
Specifications

Model		AFL-517A-GM45-R10
Display	LCD Size	17"
	Max Resolution	1280 x 1024
	Brightness (cd/m²)	300
	Contrast Ratio	800 : 1
	LCD Color	16.7M
	Pixel Pitch (mm)	0.264(H) x 0.264(V)
	Viewing Angle (H-V)	160º / 160º
	Backlight MTBF (hrs)	50000
Motherboard	CPU	Intel® Core™2 Duo T9400 2.53GHz Processor (max.)
	Chipset	Intel® GM45 Chipset + ICH9M
	RAM	Supports two 2.0GB 667MHz or 800MHz DDR2 SO-DIMM (System max. 4.0GB)
I/O Ports		1 x RS-232 COM Port 1 x RS-232/422/485 COM port 2 x Giga LAN 4 x USB 2.0 1 x Power Switch 1 x Reset Button 1 x VGA port 1 x Audio port 1 x HDMI port 1 x Display port
Drive Bay	SSD	CF TypeII
	HDD	1 x 2.5" SATA HDD bay
	CD-ROM	1 x Slim Type CD-ROM bay
	HSUPA Mobile Solution (Optional)	1 x HSUPA Mobile Module (USB Interface)

Other Features	Watchdog Timer	Software programmable supports 1~255 sec. System reset
	Audio	AMP 3W + AMP 3W
	Extension	1 x Wireless Lan Module (Mini PCIe Interface, 802.11 b/g /n LAN Module)
		1 x Bluetooth Module (USB Interface, Bluetooth V2.0)
	Membrane Keypad	OSD Keypad below the Front Panel
	LED Function	1 x Power ON/OFF LED on Front Panel
Physical	Construction Material	ABS + PC Plastic front frame
	Mounting	Panel, Wall, Rack, Stand and Arm (VESA 100mm x 100mm)
	Front Panel Color	Sliver (877U) & Gray (ABSA2037)
	Dimension (WxHxD) (mm)	428 x 350 x 79
Environment	Operation Temperature (°C)	0°C ~40°C With HDD
		0°C ~45°C with CF card or SATA interface 2.5" SSD HDD
	Storage Temperature (°C)	-20°C ~60°C
	Net Weight	7.5 Kg
	IP Level	IP64
	EMC	CE, FCC, CCC
	Safety	CB
Touch Screen		Resistive Type 5-Wire (Touch controller IC is on board)
Power Adapter		Power: 150W Input: 90VAC~264VAC, 50/60Hz Output: 12VDC
Power Requirement		12VDC
Power Consumption		108W

CDRW-DVD Combo Drive Specifications

The drive is able to write CD-R/RW discs and also can perform as a regular DVD-ROM drive.

Drive Type	Internal Slim CD-RW/DVD Combo Drive	
Data Transfer Rate	Write: CD-R: 24X / CD-RW: 24X	Read: DVD-ROM: 8X / CD-ROM: 24X
Interface	SATA	
Buffer Memory	2MB	

Fully Integrated I/O

Power Switch
12V DC Input
1 x RJ45 for RS-232
1 x RJ45 for RS-232/422/485
2 x LAN
4 x USB 2.0
HDMI Output
Audio Output
VGA Output   Display Port

Dimensions (Unit: mm)
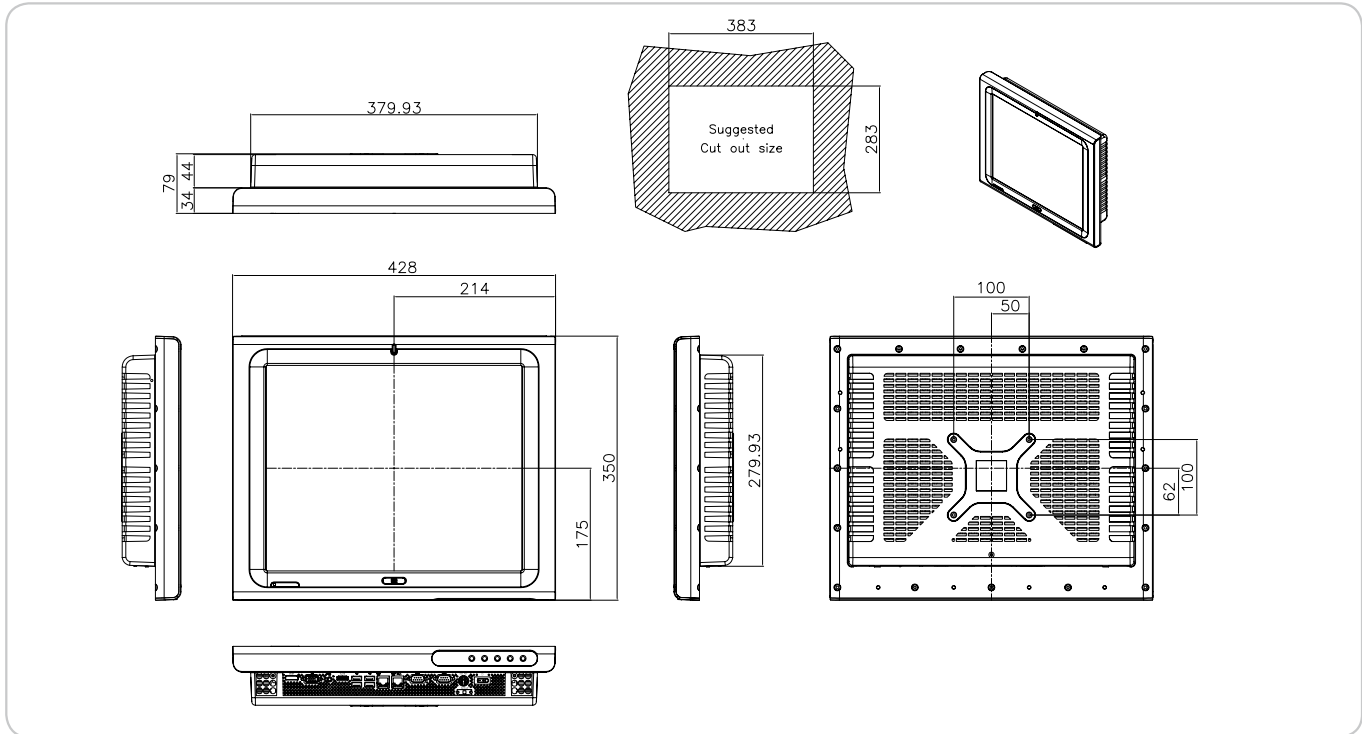
Ordering Information

Model	Description
AFL-517A-GM45-T9400/WT-R/OD/2GB/ **(HU01)-R10	17" 300cd/m² SXGA panel PC with Intel® Core™2 Duo 2.53GHz CPU,2GB DDR2 RAM,802.11 b/g/n WiFi,touch screen,Bluetooth, DVD-COMBO, RoHS
AFL-517A-GM45-P8400/WT-R/OD/2GB/ **(HU01)-R10	17" 300cd/m² SXGA panel PC with Intel® Core™2 Duo 2.26GHz CPU,2GB DDR2 RAM,802.11 b/g/n WiFi,touch screen,Bluetooth, DVD-COMBO, RoHS
AFL-517A-GM45-CM575/WT-R/OD/1GB/ **(HU01)-R10	17" 300cd/m² SXGA panel PC with Intel® Celeron® M 2.0GHz CPU,1GB DDR2 RAM,802.11 b/g/n WiFi,touch screen,Bluetooth, DVD-COMBO, RoHS

ISMM Support Functions

	Voltage	Fan	Smart Fan	Temprature	DIO	WDT	Beep	Cash Drawer
AFL-517A-GM45-R10	V	V	V	V		V	V	

Options

Options	Model name
Panel mount kit	AFLPK-517A
Wall mount kit	AFLWK-19
ARM	ARM-11-RS / ARM-31-RS
Stand	STAND-A19 / STAND-B19 STAND-210-R11
OS WIN CE 5.0 (128 MB CF card)	N/A
WIN CE 6.0 (128 MB CF card)	N/A
WIN XPE (1 GB CF card)	AFLCF-517A-GM45-XPE-R10
Hybrid Card Reader	AFLP-17AMSI-U
Magnetic Stripe Reader	AFLP-17AMSR-U
DC 12V Input UPS	AUPS-B10-R10
DC 9~36V Input UPS	AUPS-B20-R10

Packing List

Item	P/N	Q'ty	Specifications
Screws	44233-030081-RS	4	M3; φ8mm
Power Adapter	63000-FSP150AHAN1808-RS	1	90 ~ 264V 12v; 96W
Power Cable	32000-000002-RS	1	1750mm, European Standard
User's Manual CD ROM	7B000-000087-RS	1	
Touch Pen	XTR104-0002-RS	1	

Side navigation

1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

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Large Screen Solutions

AFOLUX_6 Series

AFL-642AE-GM45

SAW Touch Screen

Features

- WiFi 802.11b/g/n connection
- Built-in two speakers
- Built-in Bluetooth technology rids systems of cables and allows wireless connection to peripheral devices like headphones, printers, barcode readers or game controllers
- The Ambient Light Sensor helps conserve energy
- VESA-mountable for flexibility in mounting and deployment
- SAW touch screen with durable glass construction is perfect for healthcare, retail and hospitability applications (Optional)
- 42" tempered glass with AR(anti-reflection) coating (Optional)
- Ease of use OSD control below the front panel
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

F3 One Key Recovery — iEi symantec.

Bluetooth | **WiFi CERTIFIED** | **HSUPA** | **Integrated Audio** | **Touch Screen** | **IP 64**

42" Anti-reflective tempered glass increases legibility in high-ambient light environment (For Tempered Glass Protection Models)

AFOLUX tempered glass series use 4 layer hard coating to reduce the sunlight reflected from the surface of the panel, increases contrast ratio and image readability even when used in outdoors.

- Reduced intensity of reflected light
- No image distortion
- Higher contrast
- Wider viewing angles
- Colors are more vibrant

Conventional

With AR Coating

Behavior of Light Reflected by LCD Screen

Glare form External Light Source — Reduced Reflection of Light

Most of the External Light is Absorbed by the LCD Screen

AR coating (2 layers)
Tempered Glass
AR coating (2 layers)

	Conventional Monitor	AR Coatin Tempered Glass Models	
Transmission	90%	96±3%	**Win!**
Reflection	9%	Less than 3%	**Win!**

7H Stronger Protection

(For Tempered Glass Protection Models)

The IEI AFOLUX tempered glass monitor's strictly tested 7H hardness is stronger than the conventional panel and therefore is able to protect the screen from damage. It offers protection in a wide variety of applications.

Hardness Test (JIS-K5600)
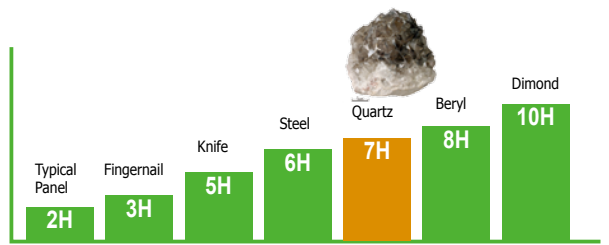
Typical Panel **2H** | Fingernail **3H** | Knife **5H** | Steel **6H** | Quartz **7H** | Beryl **8H** | Dimond **10H**

MOH's Hardness Rating

Solid SAW Touch Panel

Scratch Proof

Touch Screen Technology

	Resistive	Surface Capacitive	SAW
Sensing method	Hand or stylus	Hand	Hand or Gloved Hand
Sensing Medium	ITO film or glass	ITO glass	Glass
Transmittance degree	80%~90%	90% above	92% above **WIN!**
Touch accuracy	Good	Normal	Excellent **WIN!**
# of touches in lifetime (mn)	35	200	100
Strength	Waterproof, dirt-proof	Fireproof, dirt-proof, not easily scratches, Long life	Fireproof, high reliability, not easily scratches, Long life
Weakness	Easily scratched	Easily affected by EMI	-

Durable SAW touch screen made of pure glass construction

Wireless Connection

Some of the current and emerging applications that are driving the need for 802.11n are Voice over IP (VoIP), streaming video and music, gaming, and network attached storage.

Up to 540 Mbps

	802.11b	802.11g	802.11n
Data Rate (Mbps)	11	54	540
Range (Radius Indoor)	38 Meters	38 Meters	70 Meters
Range (Radius Outdoor)	140 Meters	140 Meters	250 Meters
Radio Frequency	2.4 GHz to 2.5 GHz	2.4 GHz to 2.5 GHz	2.4 GHz or 5 GHz

802.11a

Access to email, instant image and the Internet

802.11b/g

Streaming music Streaming video

802.11n

VoIP /Gaming /NAS

Video On Demand (VOD)

TV News

Sports Event

Compares the time it would take to transfer a 30-minute video file. At the best data transfer rate, it would take 42 minutes to copy the file using 802.11b, and less than a minute with a 802.11n.

50 times faster than 802.11b
10 times faster than 802.11g

802.11n	44 Seconds
802.11g	10 minutes
802.11b	42 minutes
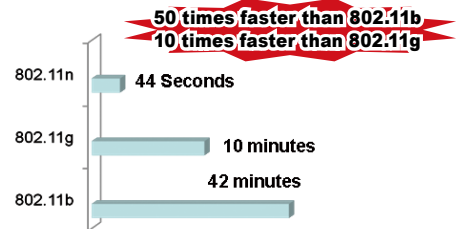
Bluetooth

Do wires still inconvenience you when you try to connect peripherals to your system? The Bluetooth module integrated into the AFOLUX all-in-one panel PC transmits information between peripheral devices through a complete Bluetooth network.

Push Marketing

AFOLUX PPC being used as an advertising unit to send the promotion content via Bluetooth technology

Bluetooth Speakers

Bluetooth enabled cell phone

Music

Content

Audience receives content and music via Bluetooth technology

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1 **Automation Panel Solutions**

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

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6 PACSmate Medical

7 Optional Peripherals

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User-Friendly Interface
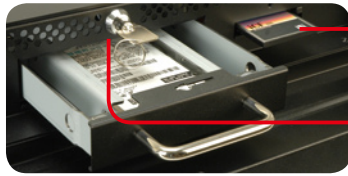
● **User-accessible CF**
CF slot on the bottom panel, making installing and replacing CF cards easy.

● **Lockable HDD Drive**
(For 42" AFOLUX PPC)

Selectable AT/ATX Mode
Easily select the AT/ATX power mode with an easily accessed switch.

● AT Mode
Automatic start when power connected, easy to control multiple Panel PCs from a single point.

● ATX Mode
Power management function turns the system to standby mode to save power when the Panel PC is not used
Remote control via Network

Intelligent Light Sensor

Intelligent adjusts the screen brightness to mach the ambient light. If the ambient light is very bright, the sensor increases the screen's brightness; conversely, if the PPC is used in a darkened room, the display is dimmed.

Typical Monitor
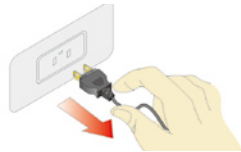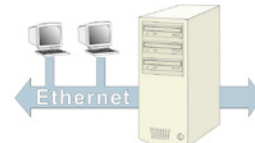
With Intelligent Light Sensor

● **Reduces cost of operation by reducing the power usage**
● **Extends backlight life**
● **Provides comfortable viewing**

OSD Adjustment with Remote Control

For convenience, AFL-26AE/642AE series is especially designed with OSD keypad below the front panel allowing fast volume and brightness adjustment.

● Volume Adjustment
● Brightness Adjustment
● Auto Adjustment
● LCD On/Off
● OSD Lock Function
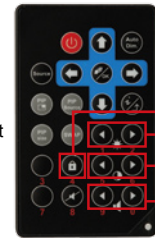
OSD Lock
Brightness
Volume Adjustment
Volume

CD/DVD/Blu-ray Drive Bay provides extra storage capacity

There two options for disk drives in AFL-6 series:

A. Slim Type CD-RW/DVD Combo Drive

For convenience, AFL-26AE/642AE series is especially designed with OSD keypad below the front panel allowing fast volume and brightness adjustment. The drive is able to write CD-R/RW discs and also can perform as a regular DVD-ROM drive.

Drive Type	Internal Slim CD-RW/DVD Combo Drive	
Data Transfer Rate	Write: CD-R: 24X / CD-RW: 24X	Read: DVD-ROM: 8X / CD-ROM: 24X
Interface	SATA	
Buffer Memory	2MB	

B. High Capacity Full HD Storage Medium-Blu-ray (Only for Intel GM45 Platform)

● Full HD high-definition media playback
● More than five times the storage capacity of traditional DVDs
● Backwards compatible with DVD/CD

	Blu-ray **WIN!**	DVD
Laser wavelength	405 nm (blue-violet laser)	650 nm (red laser)
Storage capacity (single side) *High Storage Capacity*	25 GB per layer *x 5* 50 GB both layer	4.7 GB per layer 8.5 GB both layer
Numerical aperture, NA	0.85	0.60
Protection Layer	0.1mm	0.6mm
Raw data transfer *Higher data transfer rate*	36.0Mbps 53.95Mbit/s (1.5x)	11.08 Mbit/s 10.08 Mbit/s
Mandatory video codecs	MPEG-2 MPEG-4 AVCVC-1	MPEG-2
Video resolution (maximum) *Full HD*	1920×1080 *x 6*	* 720 x 480 (NTSC) 720 x 576 (PAL)

* NTSC mean in USA and Canada or PAL mean in Europe, Australia and New Zealand.

Wireless Connection

1 Automation Panel Solutions
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Building, Airport, Road Surveillance System Storage Media

IP Camera

Access Point

Blu-ray, DVD, CD-RW (Backup)

2.5" Accessible SATA HDD
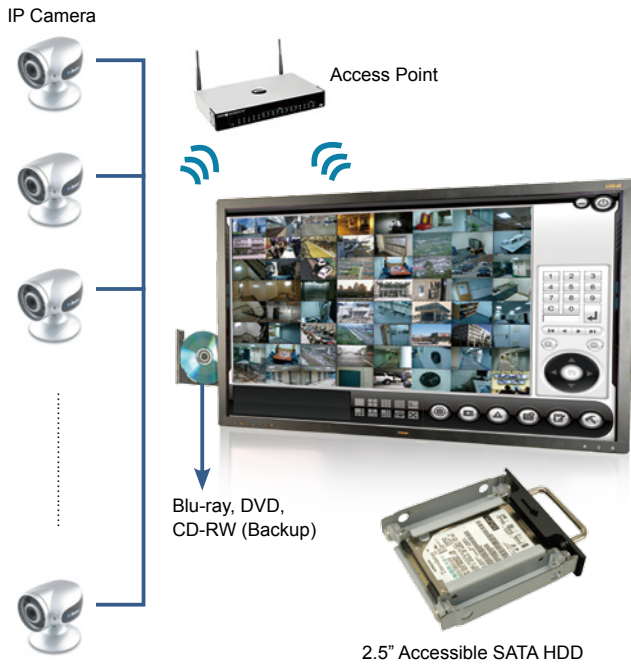
Blu-ray vs. DVD Capacity

Single-layer DVD disc
- **4.7 GB of data**
- Average two-hour standard-definition video

Single-layer Blu-ray disc
- **27 GB of data**
- More than 13 hours of standard video
- More than two hours of high-definition video

Double-layer Blu-ray disc
- **54 GB of data** — WIN!
- More than 20 hours of standard video — WIN!
- 9 hours of high-definition video — WIN!

10 20 30 40 50 GB

The most Powerful x86 architecture Digital Signage System

AFL-26AE/642AE GM45 systems with Intel's 4500MHD HD graphics core, which makes sure you are getting the best graphics possible. It also has Blu-Ray video playback, you could encode and decode many video formats and etc thanks to ClearVideo technology.

FULL HD Blu-ray Disc → **GM45 Chipset hardware based decoding for Blu-ray content** → **FULL HD LCD**

DVD Disc 720 x 480 (NTSC) 720 x 576 (PAL)

Blu-ray Disc — Full HD — WIN!

	Content Format				Compatibility	Interactivity	Real Time Information	ImageQuality
	Video Formant Support	Graphics Format Support	Others					
RISC-based Digital Signage	Fewer	Fewer	-	Dual Mirror Display	Confined to specific program	-	-	Normal
X86-based Digital Signage (WIN!)	More	More (HTML,TIFF, RAW, Flash, Dynamic GIF)	Windows Media, Powerpoint	Dual Independent Display	Compatible with Windows based application program	Built-in touchscreen and bluetooth draw your customers in and keeps them involved	Wireless /HSUPA	3D comb filter and noise reduction technology enhance more crystal-clear picture

IEI Quick Mounting Technology

Install Anywhere

● Lift Stand

Stand-A26

Comfortable Stand

STAND-A26   Portrait/Landscape   Height Adjustment (12.7 cm)   Forward & Back Tilt (30°)

● Wall Arms

ARM-50

● Wall Mounts

WK-80

● Ceiling Mounts

CEILMT-135

● Mobile Mounts

Stand-M100

	STAND-A26-R10	**ARM-50**	**WK-80**	**CEILMT-135**	**STAND-M100**
Weight Capacity	7.3–16.3 kg	< 50 Kg	< 80 Kg	< 135 Kg	< 100 Kg
Monitor Swivel	0 °	20 °	0 °	20 °	0 °
Swivel (Left / Right)	0 °	360 °	0 °	180 °	0 °
Pivot (Up / Down)	+25°/-5	45 °	0 °	20 °	0 °
Mounting	VESA 75mm x 75mm VESA 100mm x 100mm VESA 200mm x 100mm VESA 200mm x 200mm	VESA 75mm x 75mm VESA 100mm x 100mm VESA 200mm x 100mm VESA 200mm x 200mm	VESA 75mm x 75mm VESA 100mm x 100mm VESA 200mm x 100mm VESA 200mm x 200mm	VESA 400mm x 200mm VESA 400mm x 400mm	VESA 100mm x 100mm VESA 200mm x 100mm VESA 200mm x 200mm VESA 400mm x 200mm VESA 400mm x 400mm

Large Size 42" FULL HD AFOLUX Panel PCs

AFL-642AE-GM45

Intel® Core™2 Duo T9400 2.53GHz
Processor (max.)

Features

- WiFi 802.11b/g/n connection
- Built-in two speakers
- Built-in Bluetooth technology rids systems of cables and allows wireless connection to peripheral devices like headphones, printers, barcode readers or game controllers
- The Ambient Light Sensor helps conserve energy
- VESA-mountable for flexibility in mounting and deployment
- SAW touch screen with durable glass construction is perfect for healthcare, retail and hospitality applications (Optional)
- 42" tempered glass with AR(anti-reflection) coating (Optional)
- Ease of use OSD control below the front panel
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Specifications

Model		AFL-642AE-GM45
LCD Size		42"
Max Resolution		1920 x 1080
Brightness (cd/m²)		450
Contrast Ratio		4000:1
LCD Color		16.7M
Pixel Pitch (mm)		0.4845(H) x 0.4845(V)
Viewing Angle (H-V)		178° / 178°
Backlight MTBF (hrs)		50000
SBC Model		AFLMB2-GM45-R10
CPU		Celeron® M575 2.0GHz / Core™2 Duo P8400 2.26GHz
Chipset		Mobile Intel® GM45
RAM		Supports two 2GB (Maximum) 533MHz/667MHz DDRII SO-DIMM
I/O Ports and Switches		1 x RS-232 COM Port 1 x RS-232/422/485 COM port 2 x RJ-45 for Giga LAN 4 x USB 2.0 1 x Power Switch 1 x Reset Button **1 x HDMI Port** 1 x Audio Port 1 x VGA Port
Drive Bay	SSD	CF TypeII
	ODD	CD/DVD Combo Drive Blu-Ray Drive (Optional)
	HSUPA	1 x HSUPA Mobile Module (USB Interface)
Watchdog Timer		Software programmable supports 1~255 sec. System reset
Audio		AMP 5W + 5W
Extension		1 x Wireless 802.11 b/g/n Lan Module (Mini PCIe Interface) 1 x Bluetooth Module (USB Interface)
HDD Drive Bay		1 x 2.5" SATA HDD bay
HSUPA Mobile Solution (Optional)		1 x HSUPA Mobile Module (USB Interface)
Construction Material		Metal front frame
OSD function		1. OSD Keypad below the Front Panel 2. Remote Control for OSD Function
LED Function		1 x Power ON/OFF LED on Front Panel
Mounting		Wall, Stand and Arm / VESA 400mm x 200mm
Front Panel Color		Black C
Dimension (WxHxD) (mm)		1026 x 626 x 127
Operation Temperature (°C)		0°C ~40°C With HDD 0°C ~45°C With CF Card or SATA interface 2.5" SSD HDD
Storage Temperature (°C)		-20°C ~60°C
Net Weight		35 Kg
IP Level		IP64
Touch Screen		Surface Accoustic Wave Type (optional)
Power Requirement		100VAC~240VAC, 50/60Hz
Power Consumption		260W

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Wireless Antenna

OSD Keypad
(OSD Lock, Brightness, Volume, Auto, LCD On/Off)

VESA Mounting Hole   AT/ATX Switch

Speaker

CF Slot

HDD Drive

VGA

Line-out

AC Input

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

1 x External SATA or
1 x HDMI (GM45 Systems)

2 x GbE   4 x USB2.0
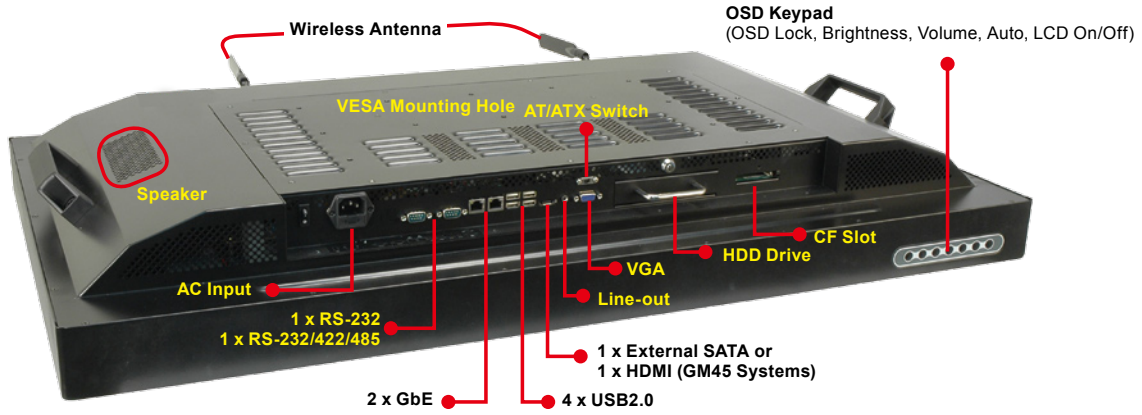
Naming Rule

AFL-642 AE-GM45-T9400/W T-S/OD/2G/HU01-R10

| A | B | C | D | E | F | G | H |

A: Display Size
42=42" FULL HD (1920 x 1080)

B: Mechanism Design

C: Chipset/CPU Code

D: WiFi 802.11 b/g/n

E: LCD Protection
T-S=SAW (Surface Acoustic Wave) Touch Screen
Empty=Tempered GlasA: Display Size

F: Optical Disk Drive (For GM45 Systems)
OD=CD/DVD COMBO   BD=BLU-RAY ROM

G: Memory Capacity
1G=1GB DDR2 RAM   2G=2GB DDR2 RAM

H: HSUPA Connection

Ordering Information

Model		Description
SAW Touch Panel	AFL-642AE-GM45-CM575/WT-S/*(OD)/1G/**(HU01)-R20	42" 450cd/m² 1920 x 1080 panel PC with Celeron® M 575 2.0GHz CPU, 1GB DDR2 RAM, 802.11 b/g/n wireless module, SAW touch screen, Bluetooth, RoHS
	AFL-642AE-GM45-P8400/WT-S/*(OD)/2G/**(HU01)-R20	42" 450cd/m² 1920 x 1080 panel PC with Core™2 Duo P8400 2.26GHz CPU, 2GB DDR2 RAM, 802.11 b/g/n wireless module
	AFL-642AE-GM45-T9400/WT-S/*(OD)/2G/**(HU01)-R20	42" 450cd/m² 1920 x 1080 panel PC with Core™2 Duo T9400 2.53GHz CPU, 2GB DDR2 RAM, 802.11 b/g/n wireless module
Anti-Reflective Tempered Glass Protection	AFL-642AE-GM45-CM575/W/*(OD)/1G/**(HU01)-R20	42" 450cd/m² 1920 x 1080 panel PC with Celeron® M 575 2.0GHz CPU, 1GB DDR2 RAM, 802.11 b/g/n wireless module, Bluetooth, RoHS
	AFL-642AE-GM45-P8400/W/*(OD)/2G/**(HU01)-R20	42" 450cd/m² 1920 x 1080 panel PC with Core™2 Duo P8400 2.26GHz CPU, 2GB DDR2 RAM, 802.11 b/g/n wireless module, Bluetooth, RoHS
	AFL-642AE-GM45-T9400/W/*(OD)/2G/**(HU01)-R20	42" 450cd/m² 1920 x 1080 panel PC with Core™2 Duo T9400 2.53GHz CPU, 2GB DDR2 RAM, 802.11 b/g/n wireless module, Bluetooth, RoHS

* OD=CD/DVD COMBO, BD=BLU-RAY ROM

Packing List

Item	P/N	Q'ty	Remark
IR Remote Controller	7Z000-8T00322ICP01G-RS	1	
Power Cord	32000-000002-RS	1	Length:1830mm
Antennas	32500-004000-RS	2	For 42" AFOLUX PPC
User's Manual CD-ROM		1	

Optional Mounting Kits

Mounting Kits		Model
WALL MOUNTS		WK-80
WALL ARMS		ARM-50
Stand	**Desktop**	N/A
	Mobile	STAND-M100
Ceiling Mount Kit		CEILMT135

AFL-642AE
Dimensions (Unit: mm)
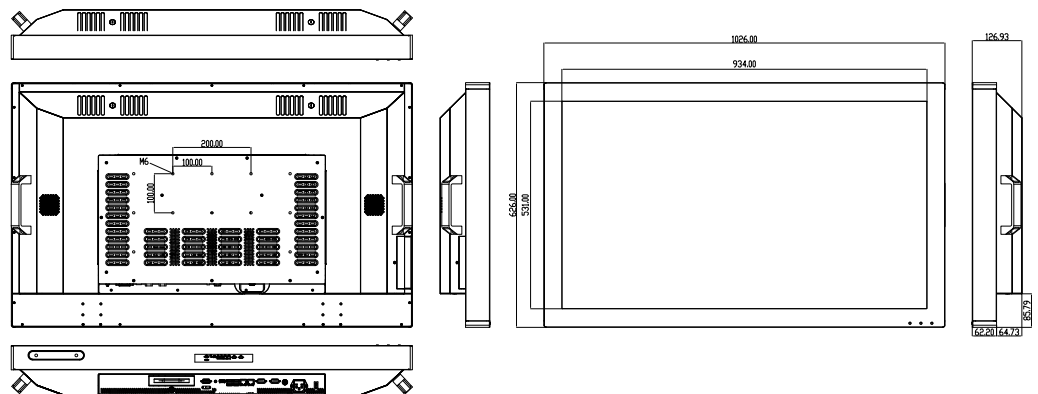
AFOLUX_*ACT Series*

RFID Solutions

The ACT series integrated with the RFID technology are the complete access control and security systems for commercial, residential, industrial, financial, education and government institutions.

Home Automation

Video/audio Communication

Digital Signage

Kevin HU
ICP Electronics, Inc.
Business Development Dept.
Senior Officer
kevinhu@icpems.com
0938125484

NO. AA 456748579

Identification

Reliable

- Meets MIL-STD 810F testing procedures
- Sealed against water and dust intrusion (IP64 Front Panel)
- Fanless system design decrease downtime, reduce the need for on-site support

Wireless

- 802.11 b/g WLAN
- Bluetooth® 2.1
- HSUPA (Optional for ACT-412A)

Innovative

- Built-in RFID reader, works with EM or Mifare cards and tags
- In-wall mounting design
- Intuitive touch panel for easy operation

Flexible

- Built-in webcam and microphone can be used as an intercom through the LAN connection or an biometric access control system based on facial and voice recognition
- Computer architecture under Windows operating system enables system developers to easily integrate versatile applications

ACT Family

NEW

ACT-457A
5.7" RISC-based EM/ Mifare Access Control Terminal

NEW

ACT-408A
8" EM/Mifare Access Control Terminal

ACT-08A
8.4" SVGA Intelligent Access Control Terminal

NEW

Digital I/O Interface!

ACT-412A
12.1" EM/Mifare Access Control Terminal

Model		ACT-457A	ACT-408A	ACT-08A	ACT-412A
LCD Spec.	Size	5.7"	8"	8.4"	12.1"
	Resolution	640 x 480	800 x 600	800 x 600	1024 x 768
	Brightness	400 cd/m²	250 cd/m²	400 cd/m²	400 cd/m²
CPU		Alchemy AU1250 500MHz	Intel® Atom™ process N270 1.6GHz CPU	Intel® Celeron® M processor (1.0GHz) with 512KBL2 Cache	Intel® Atom™ process N270 1.6GHz CPU
				Intel® Atom™ process N270 1.6GHz CPU	
Special Features		●In wall mounting mechanism-Built in open door relay, alarm relay and exit button input ●Preinstall Windows® CE5.0 operating system in the 1GB SD Card	●In wall mounting mechanism-Built-in open door relay, alarm relay and exit button input ●Reader tamper proof detection function ●Able to connect external Wiegand 26 slave reader	Entry Level	●In wall mounting mechanism ●2 DI and 2 DO provide device control applications

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals
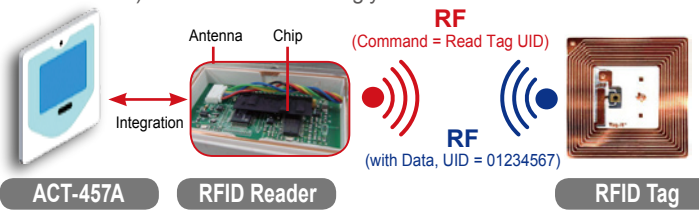
ACT Series General Features

Integrated RFID Technology

Since RFID technology uses radio frequency as data transmission intermediary, it can be classified by at what frequency band the RFID system adopts since different frequency will results in different physical attributes as well.

ACT-457A supports LF/HF Dual Modes!

Low Frequency (125-134KHz) **High Frequency (13.56MHz)** **Ultra High Frequency (860-960MHz)** **Microwave (2.45GHz)**

| 100KHz | 1MHz | 100MHz | 1GHz | 5GHz |

	Low Frequency (125KHz)	High Frequency (13.56MHz)			UHF (860-960MHz)
		ISO14443	ISO15693	Felica (NFC)	
Data rate	Up to 16kbps	Up to 106kbps *Faster!*	Up to 53kbps	Up to 424kbps	Up to 640kbps
Reading Distance	0-200cm	0-10cm *Long Distance!*	0-150cm	0-10cm	300-800cm
Memory R/O	48/64 bits	64 bits	64 bits	64 bits	64 bits
Memory R/W	2048/1024 bits	512-4096 bits *High Capacity!*	Max 2048 bits	N/A	Max 4096 bits
Interfe-rence Liquid	Low	Mid	Mid	Mid	High
Interfe-rence Metal	High	High	High	High	High
Interfe-rence RF	Very Low	Low	Low	Low	High
Security	32 bits Password	High (AB Keys)	Low	High (AB Keys)	32bits Kill/Access PW

RFID Identification in Access Market

The ACT-457A RFID operating system contains RFID tags, Reader Antenna, Reader and Software (operation system, middleware, applications). When a command is generated by application, reader encodes the command (we say to read tag UID for example) and transmits it with RF format. Tag in RF coverage range then receives RF, turns it into energy, decodes the command and response (return its UID '01234567') in RF format accordingly.

Antenna Chip

RF (Command = Read Tag UID)

RF (with Data, UID = 01234567)

Integration

ACT-457A **RFID Reader** **RFID Tag**

RFID in Access Market Advantages:

● **High Security**
  Each RFID tag contains an integrated chip with a unique permanent identification (UID) number burned-in during the manufacturing process and make counterfeiting difficult.
● **High Efficiency**
  Multiple tags can be read in parallel; no line of sight reading
● **High Durability**
  Less subject to environmental damage

IEI RFID Software Development Kit

A COM Port Settings and Activation Area
Allows the user to select the serial port used by the to communicate with the RFID reader module.

B Commands Area
Shows various request options for user to select.

C Data Input Area
The data input area is where the user enters block number, key, key data, and other information required by certain commands.

D Raw Data Display Area
Shows all communication logs and responses of the executed commands.

E EM Card ID Display Area
Displays the EM card ID when the EM card is detected.

F Mifare Card ID Display Area
Displays the Mifare card ID when the Mifare card is detected.

G Error Code Display Area
Shows the error message when an error occurs.
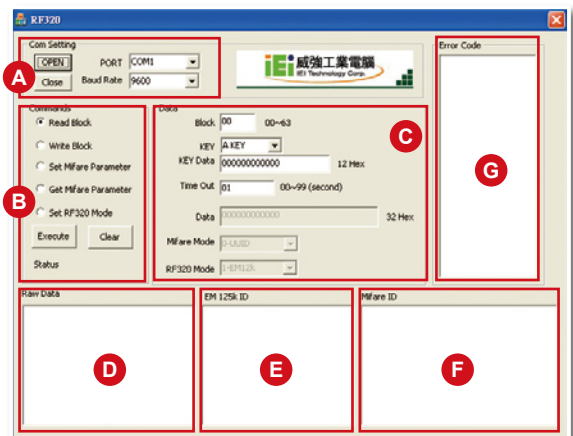
Video/Audio Hardware Device Ready for Third-party Integration

ACT-412A is unsurpassed in functionality with built-in 3W speakers and microphone for bi-direction voice communication or voice message, 300K pixel web-camera for real-time image/video access and capture or facial identification. The ACT-412A offers the unique opportunity for third-party hardware integration.

Low Light Function

300K pixel Camera up to VGA resolution (640 x 480)

Microphone

3W Speakers

Face Recognition
The digital camera captures the image of a person's face and compares facial contours and other facial features with those stored in a database.

Voice Recognition
The microphone captures the voice of a person and compares the signature frequencies with those stored in a database.

High quality hands-free speakerphone
Talk with visitors while they wait outside.

Access allowed

# Tough System Design Ideal for In and Outdoor Applications

The housing of the ACT terminal is hard plastic with IP64 front panel protection. With anti-shock, anti-vibration shields and extended temperature -10ºC~50ºC system design is secured against vandalism and protected against extreme environmental conditions.

Waterproof Testing
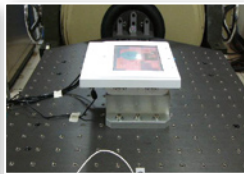
Vibration/Shock Testing
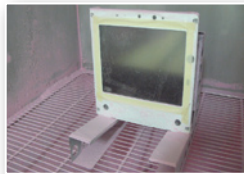
Dustproof

Vibration
Follow MIL-STD-810F 514.5C-1

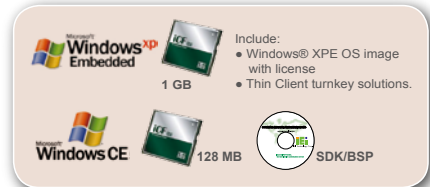### Shock
1. Operating Shock Half-Sine Wave Shock
   3G: 11ms, 3 shocks per axis: Vertical / Transverse / Longitudinal.
2. Non-Operation Shock Half-Sine Wave Shock
   10G: 11ms, 3 shocks per axis: Vertical / Transverse / Longitudinal.

Windows® Environment for Easy and Fast 3rd Party Integration

Windows® CE 6.0 and Windows® XP Embedded operating system are able to integrate with other application to create a complete solution.

LED only for display of time and card number.

WIN!

19:00 **Time**
122334455 **Card Number**

Windows XP Embedded 1 GB

Windows CE 128 MB

Include:
● Windows® XPE OS image with license
● Thin Client turnkey solutions.

SDK/BSP

This pre-built IEI standard OS image comprises all necessary peripheral drivers, library and API (Application Programming Interface) for accessing peripherals, and standard Windows application software and development support.

Windows Applications

File Viewer   **Wordpad**   **WMP**   **Internet Explorer**   **Virtual Network Computing**
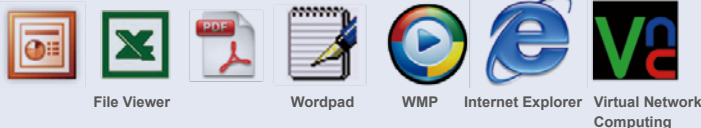
Application Development Support

● Win32 (C/C++)
● MFC (C++)
● NET Compact Framework (C# and VB .NET)
● ATL (Active Template Library)
● COM and DCOM
● XML
● JScript 5.6

Networking
● Standard Modem Support for Dial Up
● Networking
● Network Utilities (IpConfig, Ping, Route)
● TCP/IP, TCP/IPv6
● Windows Networking API/Redirector (SMB/CIFS)
● Winsock Support
● FTP Server, Web Server (HTTPD), Telnet Server

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
Video Wall Controller

5
RISC-based Solutions

6
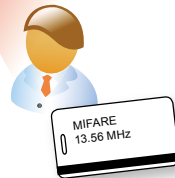PACSmate Medical

7
Optional Peripherals

Applications

1
Automation Panel Solutions

2
All-in-One Touch POS

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6
PACSmate Medical

7
Optional Peripherals

Cashless Payment System in Vending Machine

We Offer:

- Mifare card/tag reading capability for payment
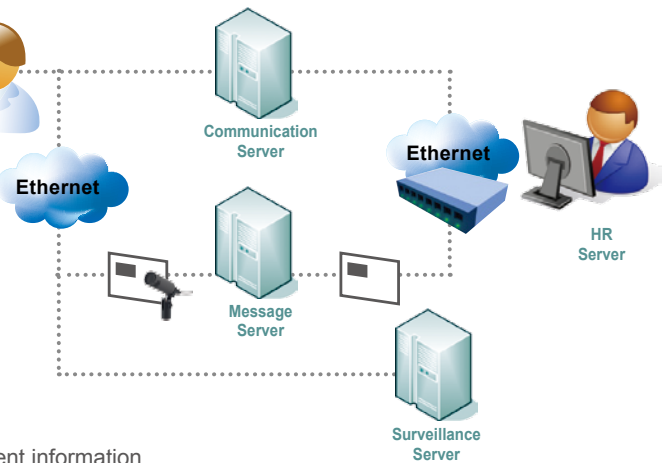- Real-time information/product advertising update via LAN

MIFARE
13.56 MHz

Membership Management

Communication Server

Ethernet

Ethernet

HR Server

Message Server

Surveillance Server

We Offer:

- Proximity EM card/tag reading capability to control access to areas and resources in a given physical facility
- 5.7" large color TFT LCD shows the visitor information, delivers event information
- Interactive touch panel allows users access the information by fully interface display, all operation can be done on the touch screen directly
- Sleek frame and in-wall mounting match ever location

RFID Automated Parking Control System

RS-232

RS- 422/485

PLC

Automatic Barrier

MIFARE
13.56 MHz

MIFARE Card

Access Control

USB
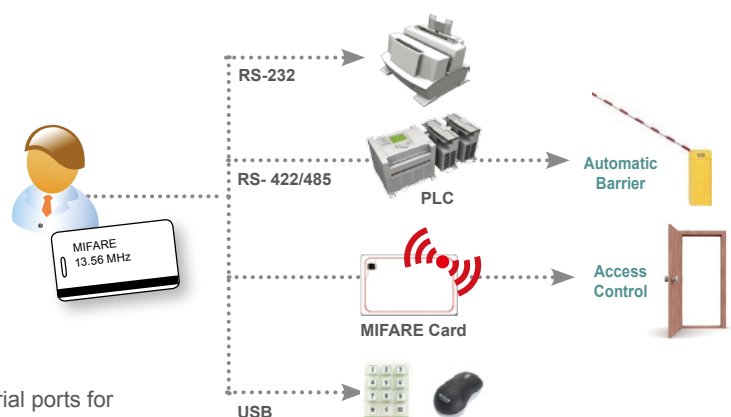
We Offer:

- **Serial port for Data Transmission**
  We provide Two independent RS-232 and RS-422/485 serial ports for connecting data acquisition equipment and many other serial devices .

Access Control Door System

The two-in-one EM/MIFARE compliant RFID reader installed in the ACT-08A x86 based panel PC supports sophisticated security applications. Advanced third-party voice and face recognition software can be integrated with the embedded camera and microphone to enable the development of complete security systems to protect restricted environments in banks, government buildings and other sensitive areas.

5cm ≈10 cm(max)

300K pixel Camera up to VGA resolution (640)

Microphone

MIFARE/EM Card

Speakers

We Offer

● **x86 architecture that is easy for system integrator application development**

●**Bluetooth Connectivity**
Bluetooth infrastructure eliminates the use of wires or line-of sight.

● **Face Recognition**
The digital camera captures the image of a person's face and compares facial contours and other facial features with those stored in a database in a few seconds.

● **Voice Recognition**
The microphone captures the voice of a person and compares the signature frequencies with those stored in a database.

● **High quality hands-free speakerphone**
Talk with visitors while they wait outside.

Welcome to the meeting

Healthcare Solutions

The ACT-08A with Radio Frequency Identification (RFID) technology applied in hospitals and healthcare facilities can identify and track patients, objects, and assets, and can speed up or eliminates many manual operations in checking and processing patients.
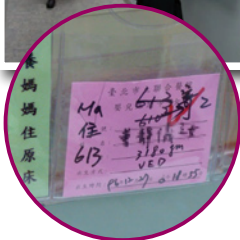
● **Medication Tracking System**
Monitoring the entire flow of medication use, from shipment to administration, helps prevent medical mistakes.

● **Asset Tracking**
Attaching an RFID tag to each piece of equipment and strategically locating ACT-08A readers throughout the area of operations where the hardware is used.

Mobile POI

WiFi CERTIFIED

● **Family Access Control to Babies in Neonatal Care**
After authorization, families have the ability to view details about their babies on the ACT-08A outside the baby care room.

Patient Tracking

Wireless Access Point

● **AUPS-A10/A20 Optional Uninterruptible Power Systems**

We Offer

● **Compact Fanless System**

● **Optional Uninterruptible Power System**
Protecting your ACT-08A from damage in medical environments is critically important. Uninterruptible power supplies reduces the risk of losing valuable data when power failures occur.

Wristband (with space to insert small paper card tag)

1
Automation Panel Solutions

2
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3
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4
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5
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6
PACSmate Medical

7
Optional Peripherals

1
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2
All-in-One Touch POS

3
Digital Signage

4
Video Wall Controller

5
RISC-based Solutions

6
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7
Optional Peripherals

ACT-457A 5.7" RISC-based RFID Access Control Terminal

NEW

CMOS Digital Camera with Microphone

Features:

- Integrated with RMI Alchemy™ AU1250 500MHz media processor provides hardware decode for MPE1/2/4, DivX and WMV9
- Dual 125KHz-EM/13.56MHz-Mifare RFID reading capacity
- 5.7" TFT touch color screen, fully interface display, all operation can be done on the touch screen directly
- Built in open door relay, alarm relay and exit button input.
- Built-in 2W speaker & microphone for bi-direction voice communication or voice message
- 300K pixel web-camera for real-time image/video access and capture or facial identification
- Windows® CE5.0 operating system support
- IP64 Front panel watertight and dustproof is the perfect solution for harsh environments
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

MIFARE 13.56 MHz

EM 125 KHz

F3 One Key Recovery iEi symantec.

MPEG1 MPEG2 MPEG4 WMV9 DivX MPEG4 MIPS TECHNOLOGIES

## Low Power, High Multimedia Performance

Integrated with RMI Alchemy™ technology to enable users to play DVD quality video efficiently at full-frame rates with low power consumption. The integrated MAE (Media Acceleration Engine) supports common digital video media including MPEG1, 2, 4, DivX, and WMV9, and delivers full D1 resolution without the need for a DSP or specialized coding.

6.2W Only

MPEG1 MPEG2 MPEG4 WMV9 DivX MPEG4 MIPS TECHNOLOGIES

RMI Raza Microelectronics, Inc.

RMI Alchemy Au1250™ Processor

Provides high resolution MPEG-4 codec on the chip

MPEG-2   **MPEG-4**

Multi Video/Audio Format Support Table			
Format	Stream Type	Audio Format	Supported Bit Rates
MPEG-1	System	MPEG	8 Mbps
MPEG-2	Program	MPEG	10 Mbps
	Transport	MPEG	8 Mbps
WMV9	Unencrypted only	WMA	2.5 Mbps
	CBR w/o filters, 720x480	WMA	2.5 Mbps
	VBR w/o filters, 720x480	WMA	2.5 Mbps
DivX	Unencrypted only/ no subtitles - V3.11	MP3/AAC/MPEG	4 Mbps
	V4	MP3/AAC/MPEG	4 Mbps
	V5	MP3/AAC/MPEG	4 Mbps
MPEG-4 MP4 ISO/EIC 14496-2.	Advanced Simple Profile – level 5	AAC	3 Mbps
MPEG-4 AVI	Advanced Simple Profile – level 5	MP3, AC-3	4 Mbps

In-Wall Mount

Using an in-wall mounting box allows you to achieve breath taking "picture frame" style installations.

Match your Decoration Style!
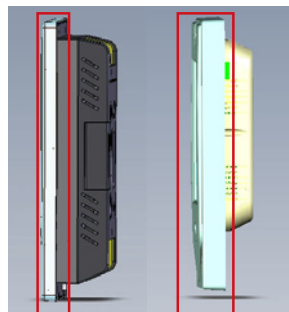
1cm Thick Only!   **Before**

System On/Off   USB 2.0

In-wall Mounting Holes   **Removable Faceplate**

How a Relay Switch Works in ACT-457A?

ACT-457A is built-in two relay output controls which are electromechanical switches operated by a flow of electricity in one circuit and controlling the flow of electricity in another circuit.

When the electromagnet is energized, it exerts a force on the armature that overcomes the pull of the spring and moves the contact so as to either complete or break a circuit. When the electromagnet is de-energized, the contact returns to its original position.

● Normal Close Example:

Relay normaly closed means that in its normal state the relay is closed. So when energized it will open and break the circuit.
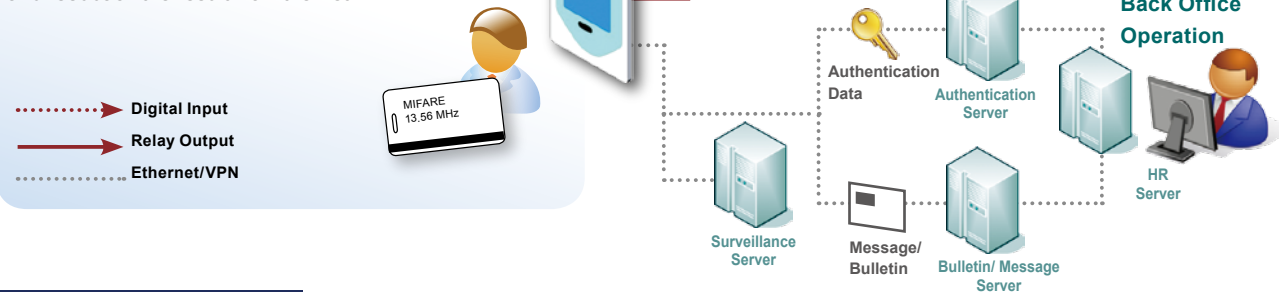

Magnetic Door Lock

Normal Close Pole

Max
120VAC 12A
240VAC 10A
28VDC 10A

Magnet

Normal Close Pole

Magnet

● Normal Open Example:

When the relay is normally open, there will be no connection between the two wires until the relay receives a signal (outside source to energize relay) to close. Simply put, an open relay is the same as a light switch that is turned off, and will always be off until told to turn on.

Alarm

Normal Open Pole

Normal Open Pole
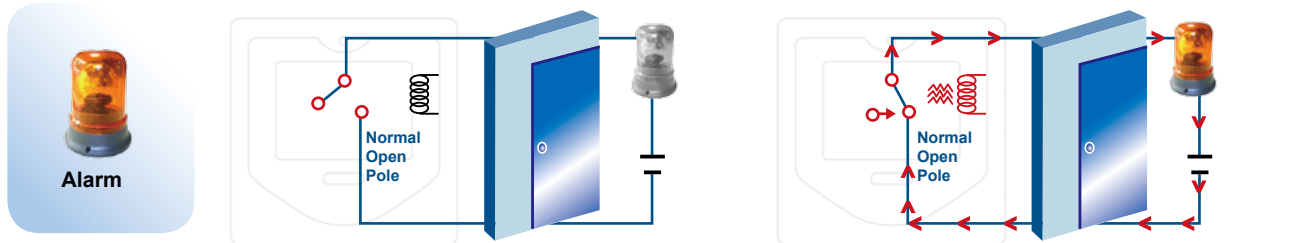
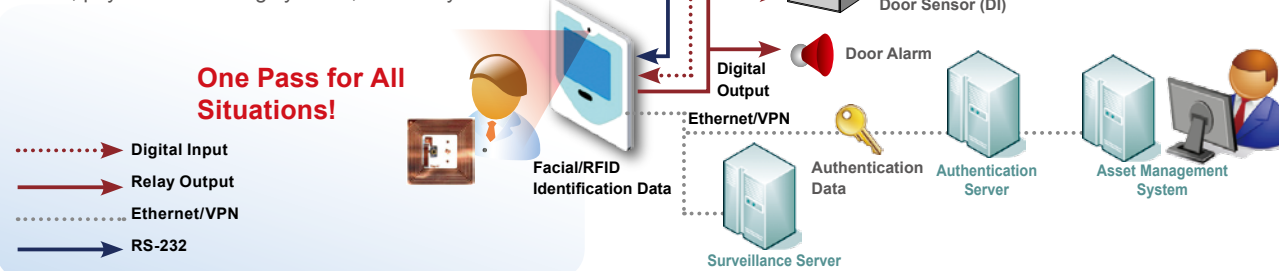## EM Application Access Control

User is identified by RFID sensor, and then the personal access information will be automatically stored and backup at surveillance server. At the same time, Identification data will be sent to back-end system to process. Authentication server will compare with valid list and feedback the result via Ethernet.

········▶ Digital Input
━━━━▶ Relay Output
········ Ethernet/VPN

MIFARE 13.56 MHz

Exit Button
Door Sensor
Door Lock
Alarm

Front Door

Back Office Operation

Authentication Data
Authentication Server
HR Server
Surveillance Server
Message/ Bulletin
Bulletin/ Message Server

Mifare Application Restrict Assets

What is MIFARE®?
MIFARE is a contact-less smart card technology owned by Philips. The MIFARE technology is based on ISO 14443A operating at a frequency of 13.56 MHz. Its application segments are ranging from the identification, access control, payment and billing systems, and many more.

One Pass for All Situations!

········▶ Digital Input
━━━━▶ Relay Output
········ Ethernet/VPN
━━━━▶ RS-232

RS-232
Digital Input
Digital Output
Ethernet/VPN

Multiple I/O Controller
Public Safe Deposit Box / Mailbox
Safe Door Lock (DO/ Door Sensor (DI)
Door Alarm
Facial/RFID Identification Data
Authentication Data
Authentication Server
Asset Management System
Surveillance Server

Sidebar:
1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

Remote Management Tool

IEI RMT enables remote management of several distributed ACT terminals at the same time via network. You can quickly access distributed ACT terminals from anywhere in the world and control/resolve issues remotely!

Remote Screen

Remote Office

Network

Site 1

Site 2

Site n
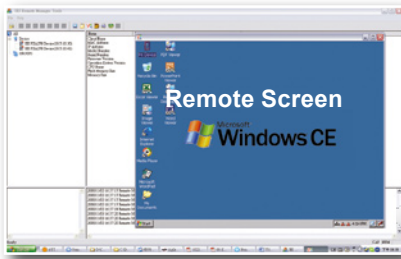
IEI RMT Tool

Input the range of IP address on the Internet, the management system will automatically scan the distributed ACT terminals in allowed range.

Web-based Configurator

Allows users to access ACT-457A and modify the settings via web browser interface anytime, anywhere without any PC client application installed. It makes management of ACT-457A in the network very easy and convenient for IT administrator and minimize time and cost for system maintenance.
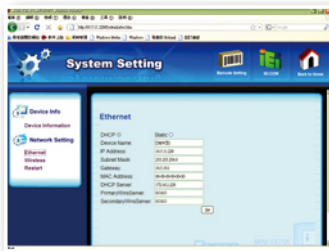
System Setting

User can inquire system information and set up Ethernet and Wireless parameters in system setting Remote restart option allows users to restart the system once any abnormal circumstance occurs and a restart procedure is needed.

Runtime DEMO

ACT Runtime Demo is a pre-installed application which helps user quick experience functions of ACT-457A

300K Pixel CMOS Camera
In video camera window, user can preview video from camera. Capture and Open function enable user to capture preview image, save as bitmap file and open it immediately.
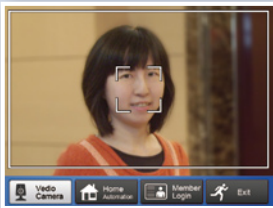
Access Control by Smart Card or Exit Button
In home automation page, user can open the magnetic door by press exit button or read sample RFID card.

Member Login
User can experience RFID reading function in the member login page. When sample card is read, application will identify and display personnel information on the screen. User can edit the valid XML member list file with PC based utility IEI provides and upload to the ACT-457A

Kevin HU
ICP Electronics, Inc.
Business Development Dept.
Senior Officer
kevinhu@icpems.com
0938125484

NO. AA 456748579

Alarm
When user press light button on the screen, the lights on the screen will enable(represented the access door alarm is activated)
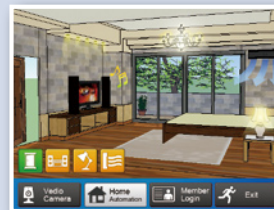
I/O Interface

Preinstalled 1GB SD Card with CE5.0 Image

1GB SD Card
Microsoft **Windows CE 5.0**

8-pin relay output
10/100 LAN
5-pin digital input
Top Side
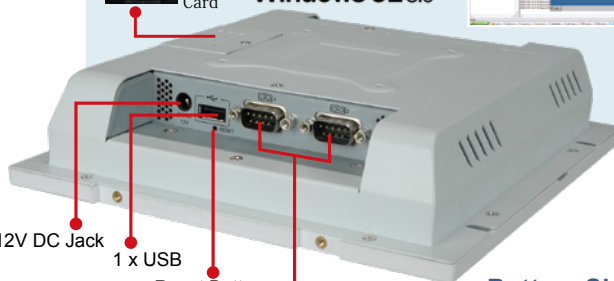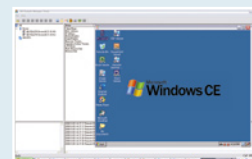
1 x 12V DC Jack
1 x USB
Reset Button
1 x RS-232
1 x RS-422/485
Bottom Side

Digital Input/Relay Output Pin Definition

Relay Output

Pin	Assignment
1	+12V
2	Ground
3	Relay Output-1 (For Electronic Lock Common)
4	Relay Output-1 (For Electronic Lock Normal Close)
5	Relay Output-1 (For Electronic Lock Normal Open)
6	Relay Output-2 (For Alarm Normal Open)
7	Relay Output-2 (For Alarm Normal Close)
8	Relay Output-2 (For Alarm Common)

2 Relay Output
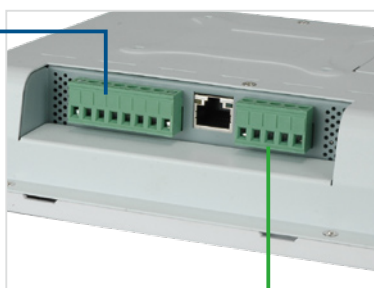
5.7" 4-wire Resistive touch panel
300K CMOS Camera
Power LED
Power Switch
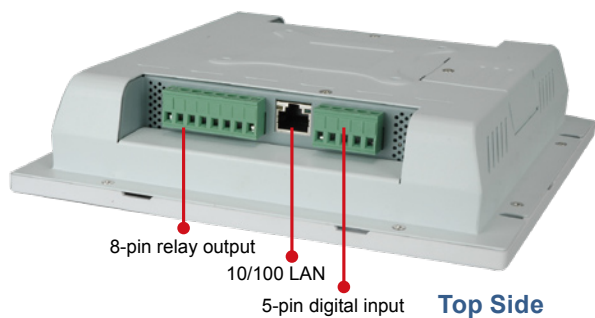USB 2.0
2W Speaker x2

Digital Signal Input

Pin	Assignment
1	Digital Signal Input-1 (For Exit Button)
2	Ground
3	Digital Signal Input-2 (For Door Sensor)
4	Ground
5	Ground
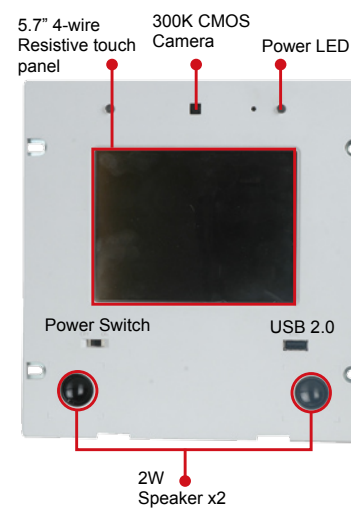
ACT-457A
Dimensions (Unit: mm)

15.3
176.6
13
70.1
189.1
132
75
4-M4
ø5
75
184.7

207.1
215.1

52.7
12.8

179.6
192.1
Suggested Cut out size

1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals
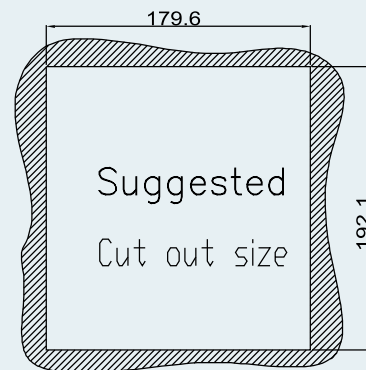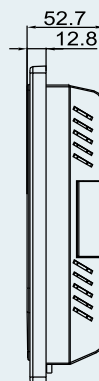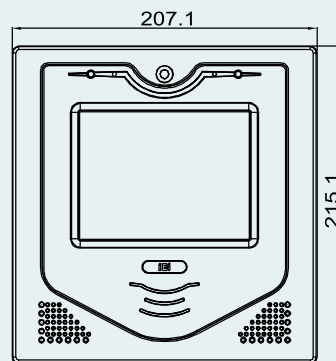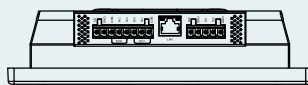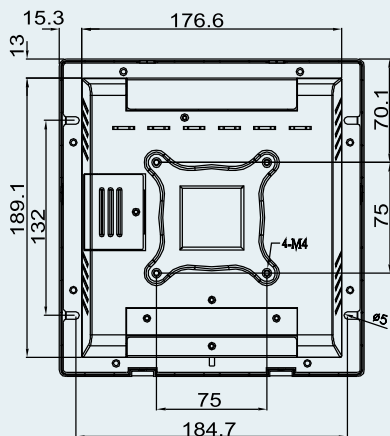
ACT-457A Specifications

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals

Model		ACT-457A-AU1250
Display	LCD Size	5.7"
	Max Resolution	640 x 480
	Brightness (cd/m²)	400
	Contrast Ratio	300 : 1
	LCD Color	262K
	Pixel Pitch (mm)	0.06(H) x 0.18(V)
	Viewing Angle (H-V)	140°/100°
	Backlight MTBF (hrs)	50000 (LED Backlight)
Motherboard	CPU	Alchemy AU1250 500MHz
	Bootloader Storage	2MB
	RAM	256MB DDR2 SDRAM
	OS/Program Storage	1GB SD Card for WIN CE 5.0 OS and User Program
I/O Ports		1 x RS-232 COM Port
		1 x RS-422/485 COM Port
		1 x RJ-45 for 10/100Mbps Ethernet
		2 x USB 2.0
		1 x Power Jack
		1 x Reset Button
		1 x 5 Pin Terminal Block for Signal Input 2 x Digital Input * 3 x GND
		1 x 8 Pin Terminal Block for Relay Output 2 Relay (One NC and one NO contacts for Alarm, One NC and one NO contacts for Lock) 1 x 12V 1A max. output (for Door control) 1 x GND

RFID Module	Working Frequency	EM 125KHz and MIFARE 13.56MHz
	Reading Range	5 cm (Under 13.56MHz)/1~3 cm (Under 125KHz)
Drive Bay	SSD	Mini SD Card
Other Features	Watchdog Timer	Software programmable supports 1~255 sec. System reset
	Audio	AMP 2W + 2W
	Extension	Webcam & Mic Function
	LED Function	1 x Power ON/OFF LED on Front Panel
Physical	Construction Material	ABS + PC Plastic front frame
	Mounting	Panel, Wall, VESA 75mm x 75mm
	Front Panel Color	Blue & White
	Net Weight	0.7Kg
	Dimension (WxHxD) (mm)	215 x 207 x 52.7
Environment	Operation Temperature (°C)	-10°C ~60°C
	Storage Temperature (°C)	-20°C ~70°C
	IP Level	IP64
	EMC	CE, FCC, CCC
	Safety	CB
Touch Screen		Resistive Type 4-Wire
Power Adapter		P/N: 63000-FSP0481AD101C-RS Power: 48W Input: 90VAC~264VAC, 50/60Hz Output: 12VDC
Power Requirement		12V DC-IN
Power Consumption		9W , Maximum 21W (include Max 12V@1A internal Power output)

*Low level(0): 2V MAX., High level (1): +4~+50V

Relay Specifications

Contact rating	12A 120VAC, 10A 240VAC, 10A 28VDC
Max. switching voltage	240VAC, 60VDC
Max. switching current	12A
Min. switching load	10mmA 5VDC

Packing List

Item	P/N	Q'ty	Specifications
SELF DRILL OVAL HEAD SCREW	44233-030081-RS	4	M3*8;T24
Power Cord	32000-000002-RS	1	1830MM; European Power Cord
Power Adapter	63000-FSP0481AD101C-RS (48W Power Adapter)	1	VAC: 90V~264V; 50W; 1500MM
Touch Pen	XTR104-0002-RS	1	
Utility CD			

Utility CD includes:
- ● **ACT-457A User Manual**
- ● **ACT-457A DEMO AP (w/ Source code)**
- ● **ACT-457A SDK**
  - ▪ IEI MIPS Windows CE standard SDK
  - ▪ Record application development guide
  - ▪ Camera application development guide
  - ▪ DI/DO application development guide
  - ▪ RFID configuration guide
- ● **IEI Utilities**
  - ▪ ACT Remote Management Tool
  - ▪ ACT Web-based Configurator

Ordering Information

Model	Description
ACT-457A-AU1250/T-R/256MB-R10	5.7" 400cd/m² VGA fanless panel PC with Alchemy AU1250 500Mhz, touch screen, 0.3M camera, MIFARE & EM RFID module, door control, 256MB DDR2, ROHS

*Preinstalled 1 GB SD Crad with CE5.0 image

AFOLUX **ACT** *Series*

ACT-408A   8" EM/Mifare Access Control Terminal

Features:

- Intel® Atom™ processor N270 1.6 GHz CPU for ultra low voltage fan-less support
- Dual 125KHz-EM/13.56MHz-Mifare RFID reading capacity
- 8" TFT touch color screen, fully interface display, all operation can be done on the touch screen directly
- Built-in open door relay, alarm relay and exit button input
- Reader tamper proof detection function
- Able to connect external Wiegand 26 slave reader
- Built-in 3W speaker & microphone for bi-direction voice communication or voice message
- 300K pixel web-camera for real-time image/video access and capture or facial identification
- 802.11 b/g wireless connection
- Advanced in-wall mounting mechanism design
- IP64 Front panel watertight and dustproof is the perfect solution for harsh environments
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

NEW

Connect Second Reader via WIEGAND

ACT-408A (Outside)

Wiegand Reader (Inside)
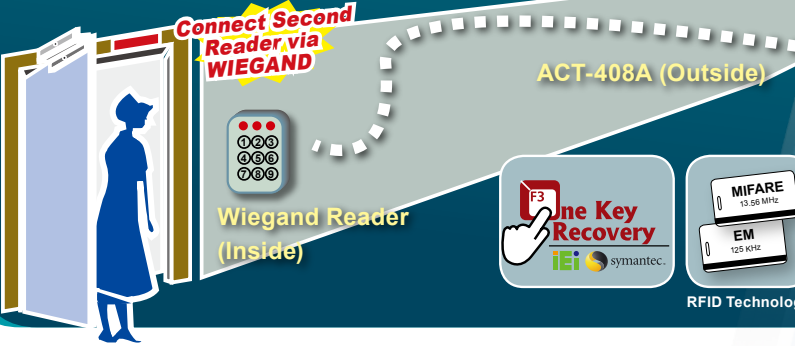
One Key Recovery iEi ❂ symantec.

MIFARE 13.56 MHz / EM 125 KHz	2 Relay Output	Wiegand 26	Wi-Fi CERTIFIED b/g
RFID Technology	**Access Control**	**Slave Reader**	

Windows® Based Terminal easy for Application Development

Low Power Intel® Atom™ CPU Inside

The ACT-408A integrated with the 45 nm Intel® Atom™ processor N270 has a 1.60 GHz clock speed and a 533 MHz FSB with a 512 KB L2 cache. The Intel® Atom™ is interfaced through the 533 MHz FSB to an Intel® 945GSE graphics memory controller hub (GMCH) which is in turn interfaced through a high-speed direct media interface (DMI) to an Intel® Mobil ICH7-M I/O controller hub (ICH).

Intel® Atom™ processor N270 Inside

Processor	Intel® Atom™ N270 1.6G
Chipset	Intel® 945GSE / ICH7M
Memory	Supports one 2GB (maximum) 400MHz or 533MHz DDR2 SO-DIMM

In-Wall Mount

Using an in-wall mounting box allows you to achieve breath taking "picture frame" style installations.

Match your Decoration Style!

System On/Off

In-wall Mounting Holes

USB 2.0

Removable Faceplate

Electrical Knockouts of Wall Cage

1cm Thick Only!   **Before**

Sidebar
1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

Wiegand 26 Slave Reader Connection

ACT-408A remains an Wiegand communications bus interface allowing physical entrance control via a standard Wiegand 26 protocol through the slave reader. Its remarkable advantage is that it can match with most of the access controllers on the market.

WIEGAND

NEW

WIEGAND Card Reader

● **High reliability**
Snow, rain, extreme temperatures, radio frequency interference or external magnetic fields will not affect a Wiegand-based reader.

● **100 Meter Long Distance Transmission**

The Bottom of the ACT-408A

+12V/ +5V	GND	W0	W1	OK	ERR	BUZ	GND

Extending communications with the WIEGAND protocol

This wiegand format consists of a parity bit, 8-bit facility code, 16-bit user ID, and parity bit, for a total of 26 bits.

P	F	F	F	F	F	F	F	F	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	P

Facility Code — User ID

Access Control Management

Place the ACT-408A outside the door to play the advertising to attract people's attention, and identify the personal information by RFID technology. Via the Wiegand interface, connecting the slave reader inside the door, swiping the card when people leave. Dual identification for use ensure higher security level.
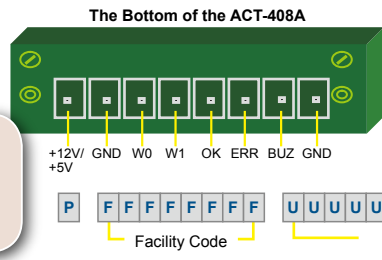
Database

Ethernet

Relay Output

Door Lock

Wiegan 26

ACT-408A (Outside)

Wiegand Reader (Inside)
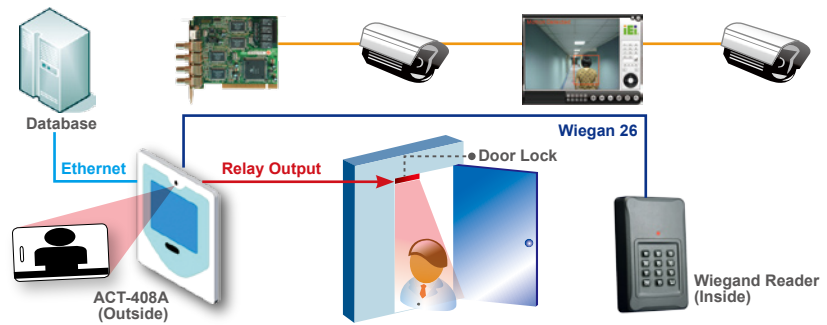
We Provide:

● Send out warning message by relay output
● Anti-tamper function: the alarm will activate if the ACT-408A or slave reader is destroyed

2 NC/NO Relay Output

ACT-408A is built-in two relay output controls which are electromechanical switches operated by a flow of electricity in one circuit and controlling the flow of electricity in another circuit. When the electromagnet is energized, it exerts a force on the armature that overcomes the pull of the spring and moves the contact so as to either complete or break a circuit. When the electromagnet is de-energized, the contact returns to its original position.

1. Normal Close Example:

Relay normaly closed means that in its normal state the relay is closed. So when energized it will open and break the circuit.

Magnetic Door Lock

Normal Close Pole

Max
120VAC 12A
240VAC 10A
28VDC 10A

Magnet

Normal Close Pole
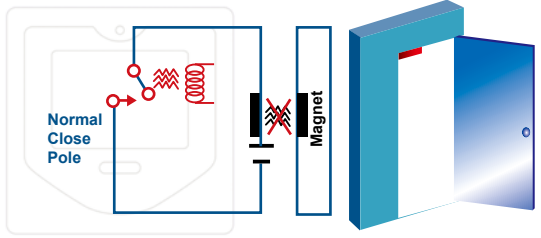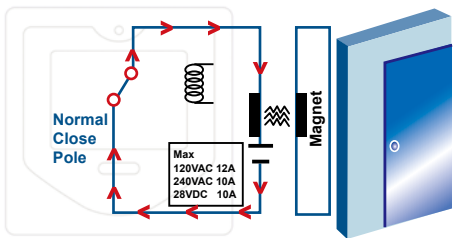
Magnet

Electric Lock Type		
Electromagnetic Lock	**Electric Bolt Lock**	**Electric Strike Lock**
Fail Secure/Fail Safe		
Fail Secure/Fail Safe	Fail Secure	Fail Secure/Fail Safe

Magnet

C Common	NO Normally Open	NC Normally Clsed
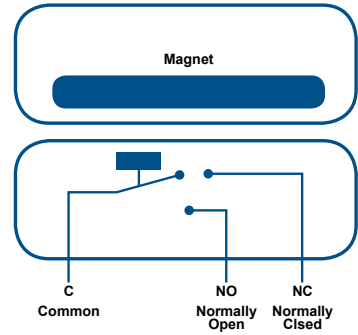
* Fail Secure: Unlocked When Energized
* Fail Safe: Locked When Energized

2. Normal Open Example:

When the relay is normally open, there will be no connection between the two wires until the relay receives a signal (outside source to energize relay) to close. Simply put, an open relay is the same as a light switch that is turned off, and will always be off until told to turn on.

Alarm

Normal Open Pole

Normal Open Pole
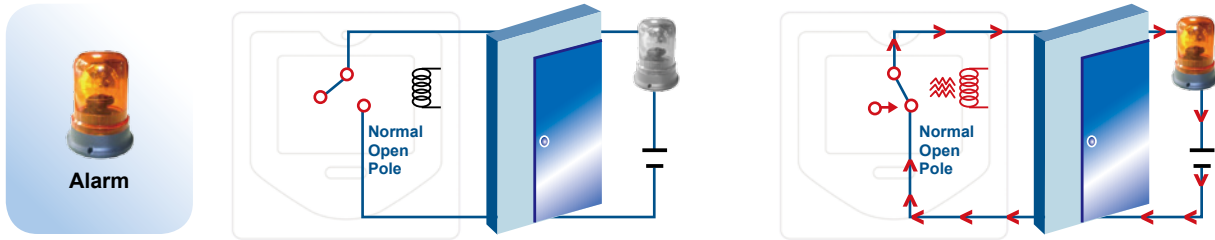
Elevator Security Management

To improve security level in the elevator, ACT-408A with the RFID technology integrates with elevator control system and has the ability to connect to the second reader, allows double security check from the ground to other floors, restrict access to elevators form the ground floor, so only authorized people can be allowed to enter in, fit in to hospitals, office buildings and apartments.

We Provide:

- The ACT-408A equipped with Intel® Atom™ performance grade processor has the ability to run multimedia files and shows information, advertising and other messages via Ethernet.
- The main system located in front of the elevator to perform access control on the building
- The inside reader limits accessible floors for authorized people

Elevator

Wiegan Proximity Reader (Inside)

Database

Ethernet

Alarm

Alarm

ACT-408A (Outside)

Wiegan 26

ACT-408A
Dimensions (Unit: mm)

In-Wall Cage
Dimensions (Unit: mm)

Automation Panel Solutions **1**

All-in-One Touch POS **2**

Digital Signage **3**

Video Wall Controller **4**

RISC-based Solutions **5**

PACSmate Medical **6**

Optional Peripherals **7**

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals
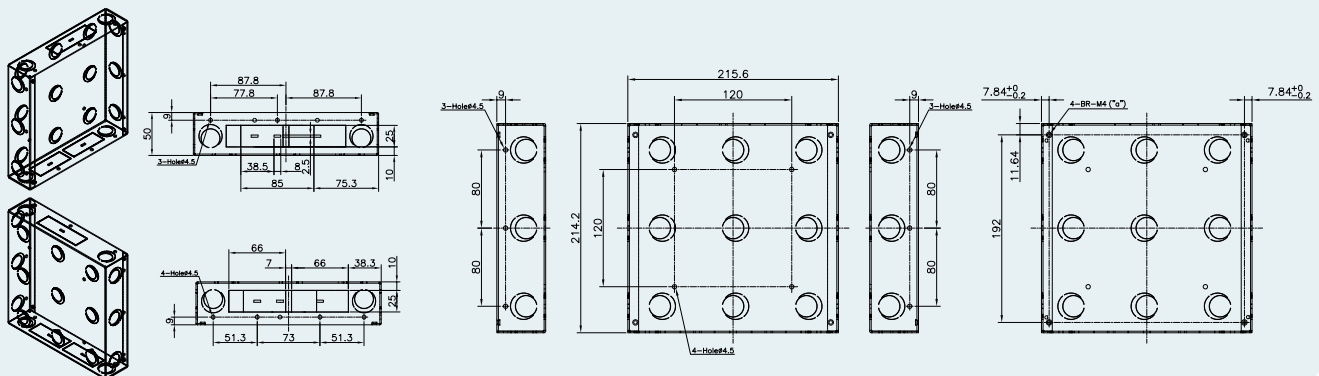
I/O Interface

▶ Top Side

Relay Output

Pin	Assignment
1	+12V Output
2	Ground
3	Relay Output-1 (For Electronic Lock Common)
4	Relay Output-1 (For Electronic Lock Normal Close)
5	Relay Output-1 (For Electronic Lock Normal Open)
6	Relay Output-2 (For Alarm Normal Open)
7	Relay Output-2 (For Alarm Normal Close)
8	Relay Output-2 (For Alarm Common)
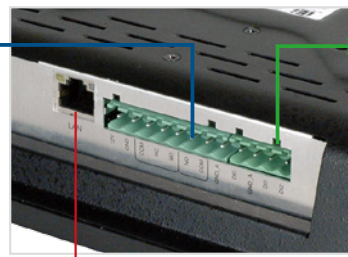
Digital Signal Input

Pin	Assignment
1	Digital Signal Input-1 (For Exit Button)
2	Ground
3	Digital Signal Input-2 (For Tamper Sensor)
4	Digital Signal Input-3 (For Door Sensor)

RJ-45 Giga LAN

▶ Bottom Side

Wiegand Slave Reader Port

Pin	Assignment
1	+12V/+5V output
2	Ground
3	Reader Data input
4	Reader Clock input
5	Reader LED Output for Valid Card
6	Reader LED Output for Invalid Card
7	Alarm
8	Ground

CF Type II Slot

USB2.0
RS-232/422/485 Port
RS-232 Port
12V DC Jack

ACT-408A Specifications

Model		ACT-408A-N270
Display	LCD Size	8"
	Max Resolution	800 x 600
	Brightness (cd/m²)	250
	Contrast Ratio	500:1
	LCD Color	262K
	Pixel Pitch (mm)	0.2025(H) x 0.2025(V)
	Viewing Angle (H-V)	140º/130º
	Backlight MTBF (hrs)	30000
Motherboard	SBC Model	ACTMB4-945GSE-N270-R10
	CPU	Intel® Atom™ process N270 1.6GHz CPU
	Chipset	Intel® 945GSE + ICH7M
	RAM	Supports one 400MHz or 533MHz DDRII SO-DIMM (2GB Max.)
I/O Ports		1 x RJ-45 for RS-232 COM Port 1 x RJ-45 for RS-232/422/485 COM port 1 x RJ-45 for Giga LAN 3 x USB 2.0 (2 in the rear, 1 in front on the panel) 1 x Power Switch 1 x 12V DC Jack 1 x 4 Pin Terminal Block for Signal Input 3 Sensor (Door Sensor x 1, Exit Button x 1, Tamper Sensor x 1) 1 x GND 1 x 8 Pin Terminal Block for Relay Output 6 Relay (Electronic Lock x 3, Alarm x 3) 1 x 12V 1A max. output (for Door control) 1 x GND 1 x 8 Pin Terminal Block for Wiegand Reader 5 Input/Output (Card Reader Data input x 1, Card Reader Clock x 1, Card Reader Indicator x 2, Card Reader Alarm x 1) 1 x 5V/12V output 2 x GND
RFID Module	Working Frequency	EM 125KHz and MIFARE 13.56MHz
	Reading Range	5 cm (Under 13.56MHz) / 1~3 cm (Under 125KHz)

Drive Bay	SSD	CF TypeII
Other Features	Watchdog Timer	Software programmable supports 1~255 sec. System reset
	Audio	AMP 3W + 3W (internal speaker)
	Wireless	1 x Wireless Lan 802.11 b/g Module (internal PCIe mini card interface)
	Webcam and Microphone	1 x Webcam with low light function & Mic Function
	LED Indicator	1 x Power On/Off LED on Front Panel
Physical	Construction Front Panel	ABS + PC Plastic front frame
	Mounting	In-Wall, Wall, Stand and Arm VESA 75mm x 75mm / 100mm x 100mm
	Front Panel Color	Silver
	Net Weight (Kg)	1.69
	Dimension (WxHxD) (mm)	225 x 236.5 x 52.5
Environment	Operation Temperature (°C)	-10°C ~ 50°C
	Storage Temperayure (°C)	-25°C ~ 60°C
	IP Level	IP64 Front Panel
	EMC	CE / FCC / CCC
	Safety	CB
Touch Screen		Resistive Type 5-Wire (Touch controller IC is on board)
Power Adapter		P/N: 63000-FSP0601AD101C746-RS 60W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC
Power Requirement		12VDC
Power Consumption		38W

Packing List

Item	P/N	Q'ty	Specifications
Touch Pen	XTR104-0002-RS	1	
Power Adapter	63000-FSP0601AD101C746-RS	1	60W, 90VAC~264VAC, 50/60Hz
Power Cord	32000-000002-RS	1	European Power Cord, 1830mm
Screw Kit		1	
Utility CD-ROM		1	

Options

Item	P/N
Wall Mounting Kit	AFLWK-12
ARM	ARM-11-RS / ARM-31-RS
STAND	STAND-C12 / STAND-B08 / STAND-100-RS/ VSTAND-A12
OS	ACTCF-408-N270-XPE-R10
	ACTCF-408-N270-CE060-R10
In-Wall Cage	ACTIWC-408-R10

Ordering Information

Model	Description
ACT-408A-N270/WT-R/1GB-R10	8" 250cd/m² SVGA fanless panel PC with Intel® Atom™ N270 1.6GHz, 802.11b/g wireless module, touch screen, 0.3M camera with digital Mic, MIFARE & EM RFID module, support WIEGAND 26, door control, 1GB DDR2 533, RoHS

AFOLUX **ACT Series**

ACT-08A

8.4" SVGA Intelligent Access Control Terminal

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions
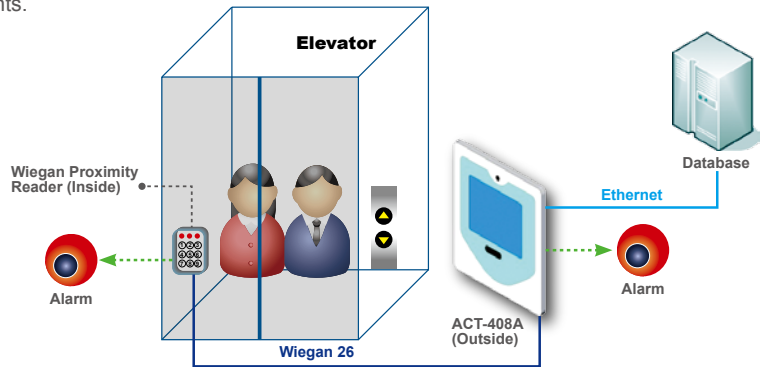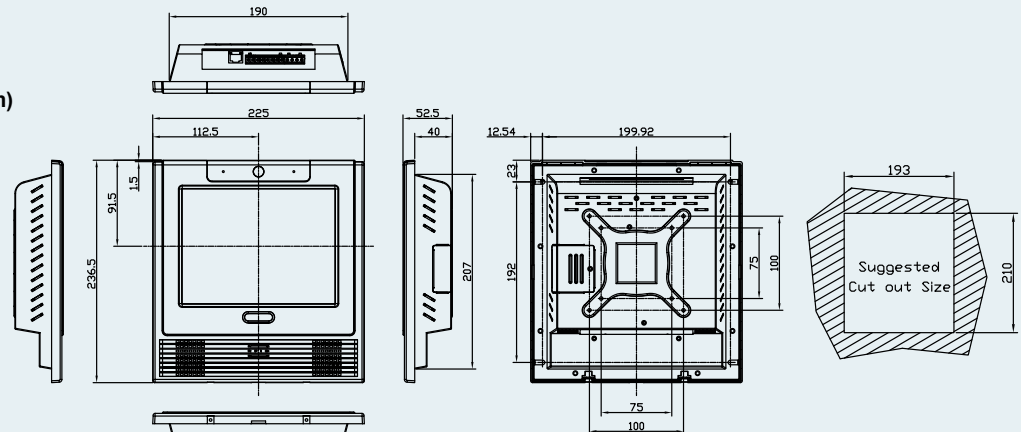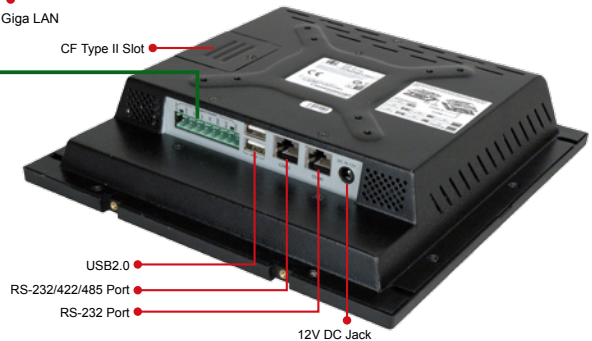
6
PACSmate
Medical

7
Optional
Peripherals

Features:

- 8.4" TFT-LCD with Resistive Touch Screen

  8.4" SVGA (800x 600) 400 nits high brightness LCD monitor with robust 4-wire resistive touch screen emables the most convenient access and control

- Fanless 1.0 GHz Intel® Celeron® M processor with 512 KB L2 cache/ 1.0 GHz ULV VIA Eden/ Intel® Atom™ N270 1.6GHz processor

- Integrated RFID Reader in front of the Panel

  For MIFARE 13.56 MHz or EM 125 KHz RFID tag

- 300K pixel Camera up to VGA resolution (640 x 480)

  (Optional 1.3MP Camera with Microphone Module)

- Built-in microphone

- Wireless Connection 802.11 b/g wireless LAN Module

  (internal PCIe mini card interface)

- One CF Type II Slot

- Mounting Panel, Wall, Stand and Arm mounting Compliance

  (VESA 75 mm x 75 mm)

- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Microphone

Digital Camera

8.4" 400 nits High Brightness Touch Panel

IP 64 ABS/PC Enclosure

RFID Reader   Speaker

F3 **O**ne Key **Recovery** iEi symantec.
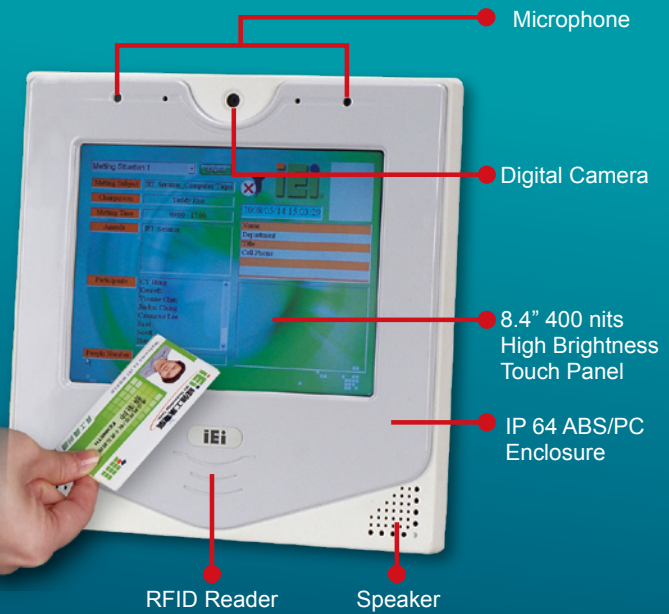
Complete Solutions for You

A. ACT-08A-9103

► **8.4" SVGA High Performance Access Control Terminal**

(intel) **Celeron M** inside™

Embedded High Computing Performance
The slim Intel® 910GMLE powered ACT-08A-9103 is a high-performance, low-power information access control terminal. The ACT-08A-9103 is ideal for processing-intensive applications that require superior computing performance.
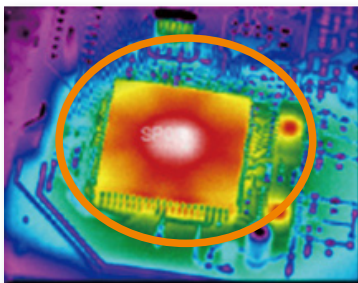
With low power consumption benefit, BGA type enhances thermal performance and system stabilities significantly.

Processor	Intel® Celeron® M 1.0 GHz/ 512k Cache
Chipset	Intel® 910GMLE
Memory	one 200-pin 2GB (maximum) DDR2 SO-DIMM

B. ACT-08A-N270

► **Extremely Low Power Consumption**

(intel) **inside™**

The 45 nm Intel® Atom™ processor N270 has a 1.60 GHz clock speed and a 533 MHz FSB with a 512 KB L2 cache. The Intel ® Atom™ is interfaced through the 533 MHz FSB to an Intel® 945GSE graphics memory controller hub (GMCH) which is in turn interfaced through a high-speed direct media interface (DMI) to an Intel® Mobil ICH7-M I/O controller hub (ICH).
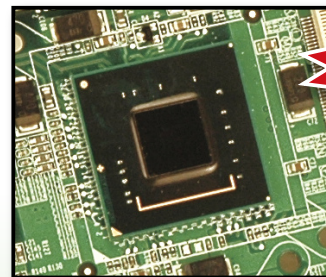
CPU TDP 2.5W Only

We Offer

Processor	Intel® Atom™ N270 1.6G
Chipset	Intel® 945GSE / ICH7M
Memory	Supports one 2GB (maximum) 400MHz or 533MHz DDR2 SO-DIMM

Specifications

Model	ACT-08A-9103	ACT-08A-N270
LCD Size	8.4"	
Max Resolution	800 x 600	
Brightness (cd/m²)	400	
Contrast Ratio	500 : 1	
LCD Color	262K	
Pixel Pitch (mm)	0.213 (H) x 0.213 (V)	
Viewing Angle (H-V)	120º / 100º	
Backlight MTBF	50000hrs	
SBC Model	AFLMB-9103-R10	AFLMB-N270-R10
CPU	Intel® Celeron® M processor (1.0GHz) with 512KBL2 Cache	Intel® Atom™ N270 (1.6GHz)
Chipset	Intel® 910GMLE	Intel® 945GSE + ICH7M
RAM	One DDRII SO-DIMM Up to 2GB	One DDRII SO-DIMM Up to 2GB
I/O Ports	1 x RS232 COM Port 1 x RS232 or 422/485 COM Port 1 x Giga LAN 4 x USB 2.0 1 x external SATA 1 x Power Switch 1 x Reset Button 1 x Power Jack	1 x RS232 COM Port 1 x RS232 or 422/485 COM Port 2 x Giga LAN 2 x USB 2.0 1 x Power Switch 1 x Reset Button 1 x Power Jack
SSD	CF Type II	
Audio	AMP 1.5W + AMP 1.5W (Internal speaker)	
Extension	1 x Wireless Lan Module (802.11 b/g) (internal PCIe mini card interface)	1 x Wireless Lan Module (802.11 b/g) (internal PCIe mini card interface)
Camera	300K pixel Camera	
RFID	MIFARE (13.56MHz) & EM (125KHz) RFID Reader	
Construction Front Panel	ABS + PC Plastic front frame	
Contruction Chassis	Aluminum Chassis	
Power Adapter	60W Power Adapter	48W Power Adapter
LED Function	1 x LED on Front Panel for Power ON/OFF	
Mounting	Panel, Wall, Stand and Arm mounting (VESA 75 x 75mm)	
Color	Blue and White	
Dimension (WxHxD) (mm)	251.72 mm x 244.69 mm x 53.3 mm	
Operation Temperature (ºC)	0ºC ~ 45ºC	-10ºC ~ 50ºC
N/G Weight	1.1 kg	
IP Level	IP64	
Safety & EMI	CE / FCC / CB / CCC	
Power Consumption	48W	35W

Options

	ACT-08A-9103	ACT-08A-N270
Panel Mounting Kit	AFLPK-08	
Wall Mounting Kit	AFLWK-12	
ARM	ARM-11-RS / ARM-31-RS	
STAND	STAND-B08 / STAND-100-RS	
OS Win XPE	ACTCF-08-9103-XPE	ACTCF-08-N270-XPE-R10
OS Win CE6.0	ACTCF-08-9103-CE060	ACTCF-08-N270-CE060-R10

Note: Win CE application without digital microphone function

Ordering Information

Part No.	Description
ACT-08A-N270/ WT-R/1GB-R10	8.4" 400cd/m² SVGA fanless panel PC with Intel® Atom™ N270 1.6GHz CPU, 1GB DDR2 RAM, 802.11 b/g wireless module, MIFARE & EM RFID module, touch screen, RoHS
ACT-08A-9103-10G/WT-R/1GB	8.4" 400cd/m² SVGA fanless panel PC with Celeron M 1GHz 512KB cache CPU, 1GB DDR2 RAM, 802.11 b/g wireless module, MIFARE & EM RFID module, touch screen, RoHS

ACT-08A
Dimensions (Unit: mm)
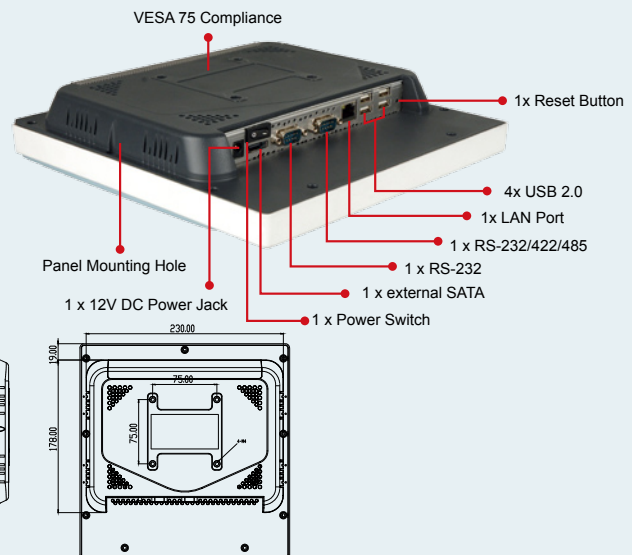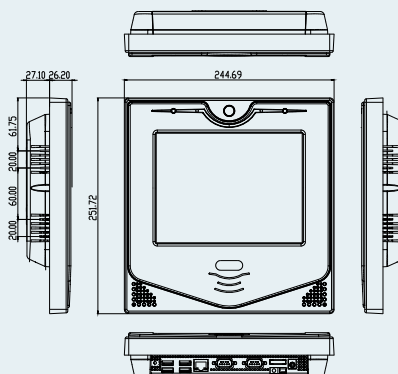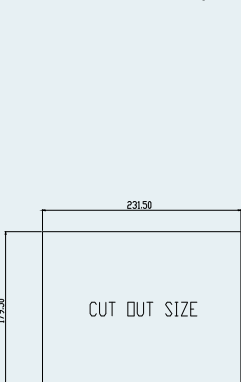
VESA 75 Compliance

1x Reset Button

4x USB 2.0

1x LAN Port

1 x RS-232/422/485

1 x RS-232

1 x external SATA

1 x Power Switch

Panel Mounting Hole

1 x 12V DC Power Jack

231.50

179.50

CUT OUT SIZE

27.10 26.20

61.75

20.00

60.00

60.00

20.00

244.69

251.72

230.00

19.00

178.00

75.00

75.00

AFOLUX ACT Series

ACT-412A

NEW

12.1" EM/Mifare Access Control Terminal

CMOS Camera with Low Light Function

Features:

- Intel® Atom™ processor N270 1.6 GHz CPU for ultra low voltage fan-less support
- Dual 125KHz-EM/13.56MHz-Mifare RFID reading capacity
- 12.1" TFT touch color screen, fully interface display, all operation can be done on the touch screen directly
- 2 DI and 2 DO provide device control applications
- Built-in 3W speaker & microphone for bi-direction voice communication or voice message
- 300K pixel web-camera for real-time image/video access and capture or facial identification
- 802.11 b/g wireless connection
- Integrated Bluetooth V2.0 connection
- Advanced in-wall mounting mechanism design
- Optional high speed 3.75G broadband connectivity
- IP64 Front panel watertight and dustproof is the perfect solution for harsh environments
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

iEi

Digital Input & Output

| Relay Board | Lighting | Motion/Smoke Detector | Alarm |

F3 One Key Recovery
iEi **symantec.**

Intel® Atom™ processor N270 Inside

Extremely Low Power Consumption

The 45 nm Intel® Atom™ processor N270 has a 1.60 GHz clock speed and a 533 MHz FSB with a 512 KB L2 cache. The Intel® Atom™ is interfaced through the 533 MHz FSB to an Intel® 945GSE graphics memory controller hub (GMCH) which is in turn interfaced through a high-speed direct media interface (DMI) to an Intel® Mobil ICH7-M I/O controller hub (ICH).

intel inside

Processor	Intel® Atom™ N270 1.6G
Chipset	Intel® 945GSE / ICH7M
Memory	Supports one 2GB (maximum) 400MHz or 533MHz DDR2 SO-DIMM

In-Wall Mount

Using an in-wall mounting box allows you to achieve breath taking "picture frame" style installations.

Match your Decoration Style!

In-wall Mounting Holes

- - ● System On/Off
- - ● USB 2.0

Removable Faceplate

Electrical Knockouts of Wall Cage

1cm Thick Only! **Before**

Side navigation

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller
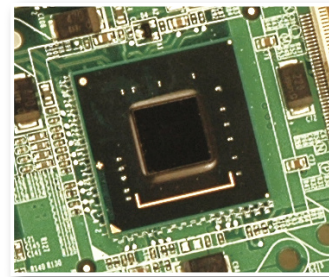
5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Digital I/O Controls

The ACT-412A features its 4 channel DI/DO (2 inputs plus 2 outputs) with screw terminals design making for quick interfacing. Digital input/output (DIO) devices enable direct control of equipments, and are used in a wide variety of applications from factory automation, machine control, to home automation. You can control motors, heaters, valves, lamps and so on under the ACT-412A DIO interface.

4 Channel DI and DO

Digital Output

+5V   GND   DO0   DO1   DI0   DI1
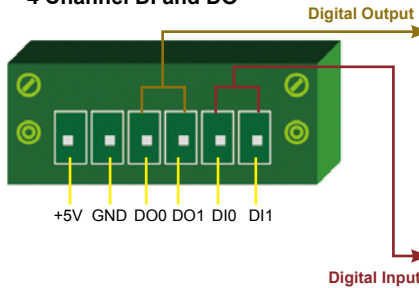
Digital Input

What is Digital I/O

Digital output pin provides a means of turning something on or off.

Digital inputs has two state, a high and low, is capable of accepting a digital signal

Control Units

Relay Board   DOOR

Lighting   Curtain

Door Sensor   Exit Button
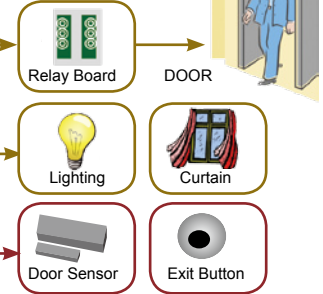
Mobile/Backup 3.75G Wireless Connection (For Option)

HSUPA (High speed uplink packet access) is a 3G mobile telephony protocol with up-link speeds up to 5.76Mbit/s. The improvement helps the efficiency of VoIP and multimedia file uploading, reducing the working time consuming, while mobile connecting.

VOIP

HSUPA
- Backup LAN
- Mobile wireless solution for the location where don't have the access point or LAN support

GSM Generation	Uplink/Downlink Speed
2G-GSM	9.6Kbps-14.4Kbps
2.5G-GPRS	9.6Kbs-115Kbps
2.75G-EDGE	384Kbps
3G-WCDMA	64Kbps/2Mbps (Indoor)
	384Kbps (Outdoor)
3.5G-HSDPA	384Kbps/14.4Mbps (Max)
3.75G-HSUPA	**5.76Mbps**/14.4Mbps

Home Automation

We Provide:

- 2 digital input and 2 digital output interface for diverse device controls such as lighting, air conditioning and other electronic devices on and off.
- Bluetooth V2.0/WLAN technology allows remote control for viewing surveillance video or adjust the temperature before returning home.
- This is an intuitive touch screen interface which can be operated using the fingertips. This system allows users to switch lights on and off, adjust brightness, and more.
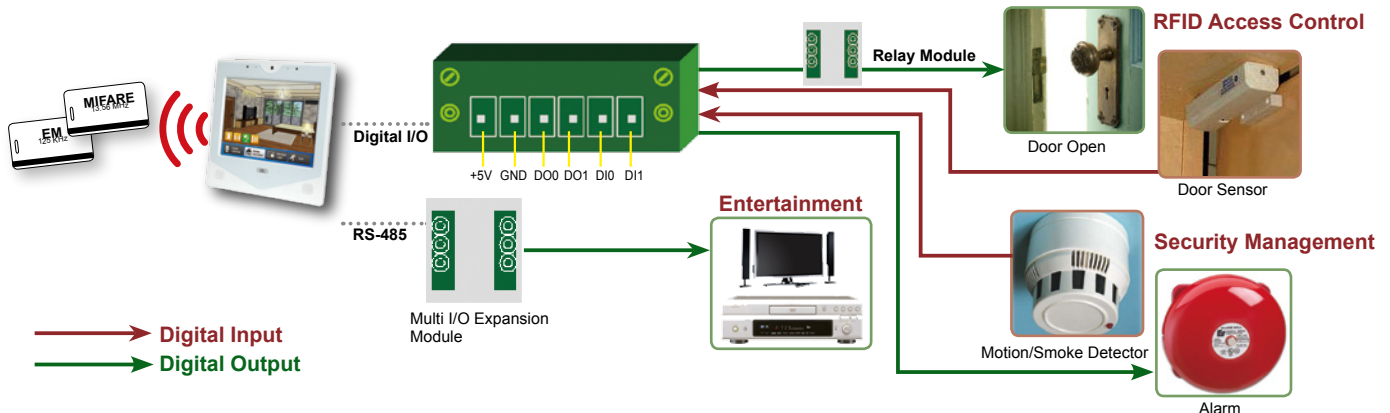
MIFARE 13.56 MHz
EM 125 KHz

Digital I/O

+5V   GND   DO0   DO1   DI0   DI1

RS-485

Multi I/O Expansion Module

Relay Module

RFID Access Control

Door Open

Door Sensor

Entertainment

Security Management

Motion/Smoke Detector

Alarm

→ **Digital Input**
→ **Digital Output**

Boardroom Management

In the luxury hotel or commercial environments, you can book the meeting room on the web , and all the reservations can be displayed in the ACT-412A system on the front door of every meeting room and the system has the capability to identify personal information. Integrated with software can be used as appointment booking or meeting room booking system.

Data Receiver

Meeting Room Management

| RFID Identification | Voice Recognition | Face Recognition |

ROOM A   **ROOM B**   **ROOM C**

Appointment/Log In

Web/Database Server

Lighting

Air Conditioner

→ **Digital Input**
→ **Digital Output**

Emergency Room Management

Place the RFID system ACT-412A in the emergency room, to read the personal information from the individual patient. The medical staffs can monitor the status and location of each individual ER patient and reducing waiting time to manage the rapidly changing care environment.
● Calculate the numbers of patients in the emergency room
● Actively give the nurses name list of waiting for a long time

Emergency Department A   **Emergency Department B**   **Emergency Department C**

RS-485

We Provide:
● X86 system architecture and Windows environment easy for application development
● RS-485 data transmission extends distances to up to 1.2 km

ACT-412A
Dimensions (Unit: mm)

286.5

283.50

Suggested Cut out size

288

40.95
52

311.83

155.91

11.05
9.55

18.03

105.91

100
75

274.05

285.05

313.23

165.22

75
100

126.89

9.85

292.13

In-Wall Cage
Dimensions (Unit: mm)

54.36 73 73 54.36

27.47
51.70

27.47

100 54.77 100

5.20

10.7B

27.47

M4xP0.7(BR from this side)x4

46.33

292.65
274.05

120

100

100

100

100

100

9.18

120

295.26
305.66

54.36 73 73 54.36

24.23
51.70

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions
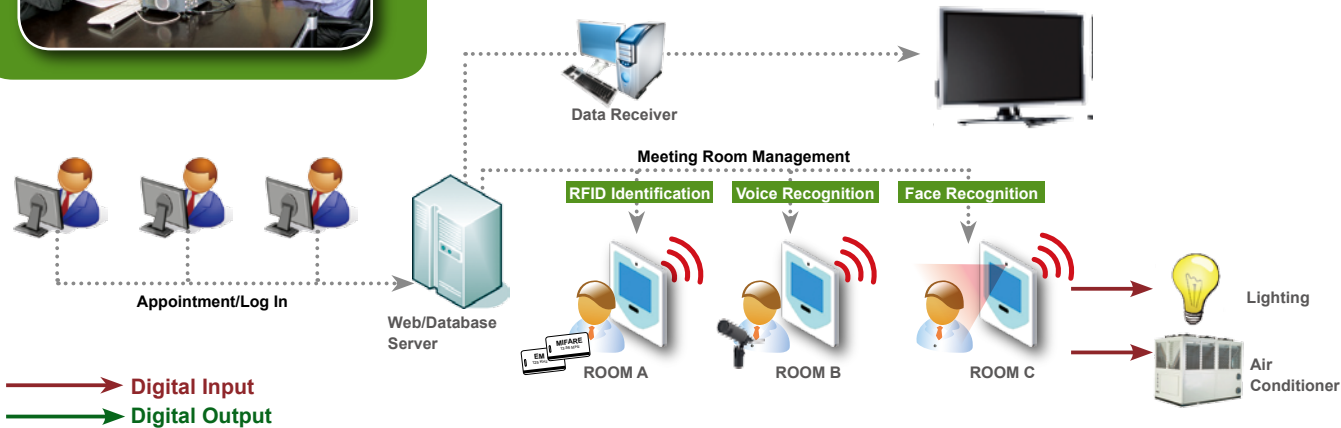
6 PACSmate Medical

7 Optional Peripherals

I/O Interface

Digital I/O
(2 Input / 2 Output)
Power Switch
12V DC Jack
RS-232
External SATA

CF Type II Slot
RJ-45 Giga LAN
Audio Line-out
Reset Button
USB 2.0
RS-232/422/485

GND DO1 DI1
+5V DO0 DI0

ACT-412A Specifications

Model		ACT-412A-N270
Display	LCD Size	12.1"
	Max Resolution	1024 x 768
	Brightness (cd/m²)	400
	Contrast Ratio	450 : 1
	LCD Color	262K
	Pixel Pitch (mm)	0.213mm (H) x 0.213mm (V)
	Viewing Angle (H-V)	120° / 100°
	Backlight MTBF (hrs)	50000
Motherboard	SBC Model	AFLMB-945GSE-N270-R10
	CPU	Intel® Atom™ process N270 1.6GHz CPU
	Chipset	Intel® 945GSE + ICH7M
	RAM	Supports one 400MHz or 533MHz DDRII SO-DIMM (2GB Max.)
I/O Ports		1 x RS-232 COM Port
		1 x RS-232/422/485 COM port
		2 x Giga LAN
		3 x USB 2.0 (2 in the rar, 1 in front of the panel)
		1 x Power Switch
		1 x Reset Button
		1 x 12V DC Jack
		1 x Audio Line-out
		1 x External SATA
		1 x 6 Pin Terminal Block for Digital I/O
		2 x Digital Input 2 x Digital Output
		1 x +5V 1 x GND
RFID Module	Working Frequency	EM 125KHz and MIFARE 13.56MHz
	Reading Range	5 cm (Under 13.56MHz)/1~3 cm (Under 125KHz)
Drive Bay	SSD	CF TypeII
	HDD	1x 2.5" SATA HDD or optional HSUPA module
	HSUPA (Optional)	1 x HSUPA mobile module supports GSM 850, EGSM 900, DCS 1800 &1900

Other Features	Watchdog Timer	Software programmable supports 1~255 sec. System reset
	Audio	AMP 3W + 3W (internal speaker)
	Wirless	1 x Wireless Lan 802.11 b/g Module (internal PCIe mini card interface)
	Bluetooth	1 x Bluetooth Function (internal USB interface, Bluetooth V2.0)
	Webcam and Micropone	1 x Webcam with low light function & Mic Function
	LED Indicator	1 x Power On/Off LED on Front Panel
Physical	Construction Front Panel	ABS + PC Plastic front frame
	Mounting	In-Wall, Wall, Stand and Arm VESA 75mm x 75mm / 100mm x 100mm
	Front Panel Color	Blue and White
	Net Weight	2.8 kg
	Dimension (WxHxD) (mm)	312 x 314 x 52
Environment	Operation Temperature (°C)	-10°C ~50°C
	Storage Temperayure (°C)	-25°C ~ 65°C
	EMC	CE / FCC / CCC
	Safety	CB
Touch Screen		Resistive Type 5-Wire (Touch controller IC is on board)
Power Adapter		P/N: 63000-FSP0481AD101C-RS 48W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC
Power Requirement		12VDC
Power Consumption		39W

Packing List

Item	P/N	Q'ty	Specifications
Touch Pen	XTR104-0002-RS	1	
Mini Jumper	33100-000033-RS	10	
External SATA Cable	32000-094100-RS	1	
Power Adapter	63000-FSP0481AD101C-RS (48W Power Adapter)	1	48W, 90VAC~264VAC, 50/60Hz
Power Cord	32000-000002-RS	1	European Power Cord, 1830mm
Screw Kit		1	
Utility CD-ROM		1	

Options

Item		P/N
ARM		ARM-11-RS / ARM-31-RS
STAND		STAND-C19 / STAND-A19
OS	Win CE6.0	ACTCF-412-N270-CE060-R10
	LINUX	ACTCF-412-N270-LNX-R10
	Win XPE	ACTCF-412-N270-XPE-R10
In-Wall Cage		ACTIWC-412-R10
Wall Mounting		AFLWK-12

Ordering Information

Model	Description
ACT-412A-N270/WT-R/1GB/**(HU01)-R10	12.1" 400cd/m² XGA fanless panel PC with Intel® N270 1.6GHz,802.11b/g wireless module,touch screen, MIFARE & ME RFID module,1GB DDR2 533,RoHS

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
Video Wall Controller

5
RISC-based Solutions

6
PACSmate Medical

7
Optional Peripherals

Heavy Industrial Panel PCs

IEI's rugged industrial panel PCs (PPC) all have reliable IP 65 aluminum front panels are suitable for the demands of harsh industrial environments. Powerful Intel® Core™ 2 Duo, Pentium® 4 and Pentium® M processor and AMD low power processor are integrated onto a wide range of feature-rich IEI embedded motherboards that drive the IEI industrial PPCs. Multi I/O and expansion capabilities enables you to interface your system with many external devices.

High Brightness   **Expansion Slot**   **IP65/IP67 Compliant**

A. Industrial Aluminum Panel PCs

Compact Size
Compact size with fanless design

Slim Type
Robust Fanless/Mobile Dual Core PPCs

High Performance
Desktop Dual Core form factor with multiple expansion interfaces (PCI express/PCI / PCIe mini)

Flexible Expansion
Embedded form factor with multiple expansion interfaces (PCMCIA/PCI/ mini PCI(mini PCIe)/Express Card)

Product Line	27-series	37-series			51-series		53-series	
Platform	AMD LX800	Intel® 852GM	Intel® 945GME	Intel® 945GSE (ATOM)	Intel® 852GME	Intel® 945G	Intel® 855GME	Intel® 910GMLE
Expansion Slot	1 x Mini PCI (Wireless LAN Module)	N/A	1 x PCIe mini (Wireless LAN Module)	1 x PCIe mini (Wireless LAN Module)	1 x PCI	1 x PCI/1 x PCIe x4 (PCIe x1 signal) 1 x PCIe mini (Wireless LAN Module)	1 x PCI 1 x PCMCIA 1 x mini PCI (Wireless LAN Module)	1 x Express Card 1 x PCI 1 x PCIe mni (Wireless LAN Module)
Wireless	802.11 b/g (10.4"/12.1" Optional)	N/A	802.11 b/g Optional	802.11 b/g Optional	N/A	N/A	802.11 b/g Optional	802.11 b/g Optional
Models								
6.5" 640 x 480	PPC-2706GS							
8.4" 800 x 600	PPC-2708GHS	PPC-3708GHS/8522	PPC-3708GHS/9452	PPC-3708A/N270 *Fanless*				
10.4" 800 x 600	PPC-2710GHS *Fanless*	PPC-3710GHS/8522	PPC-3710GHS/9452	PPC-3710A/N270 *Fanless*				
12.1" 1024 x 768	PPC-2712GS *Fanless*	PPC-3712GXS/8522	PPC-3712GXS/9452	PPC-3712A/N270 *Fanless* PPC-3712BA/N270/890A *Fanless* PPC-3712BT/N270/709TX				
15" 1024 x 768					PPC-5150GS	PPC-5150A	PPC-5350GS/A300	PPC-5350GS/A311
17" 1280 x 1024					PPC-5170GS	PPC-5170A		
19" 1280 x 1024					PPC-5190GS	PPC-5190A		

B. Industrial Vertical Application Panel PCs

Fanless

Full IP67
Up to 1 meter of submersion

UPS Backup
40~60 mins smart battery backup

Invisible WiFi Antenna

SILORPC-12A 12.1" Full IP67 PPC   **UPC-12A** 12.1" UPS PPC   **WIDS-515A/517A** 15"/17" Wireless panel mount PPC

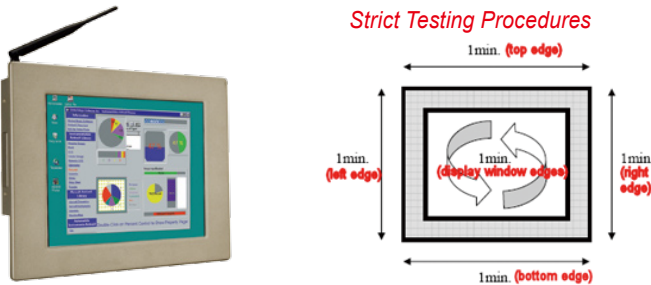| Product Line	LCD Size		Platform	Expansion Slot	Wireless	Models
SAILORPC Series	12.1"	1024 x 768	Intel® 945GSE (ATOM)	N/A	802.11 b/g/n	SAILOR-12A(SR)
UPC Series	12.1"	1024 x 768	Intel® 910GMLE	1 x PCI/PCIex1	802.11 b/g/n	UPC-12A(H)/910
			Intel® GM45			UPC-12A(H)/GM45
WIDS Series	15"	1024 x 768	Intel® 945G	1 x PCI/PCIex1	802.11 b/g/n	WIDS-515A
	17"	1280 x 1024				WIDS-517A

Feature 1 / IP65/IP67 Waterproof Panel PCs

The IP (ingress protection) rating system is an international standard for classifying the degrees of protection from solid objects and liquids afforded by electrical equipment and enclosures. IEI waterproof laboratory was found to have the facilities, equipment and personnel needed to conduct the waterproof tests and fully witnessed by UL International. All of the industrial panel PC products designed to be rugged, ideal for any industrial environment where dust and drizzle is encountered.
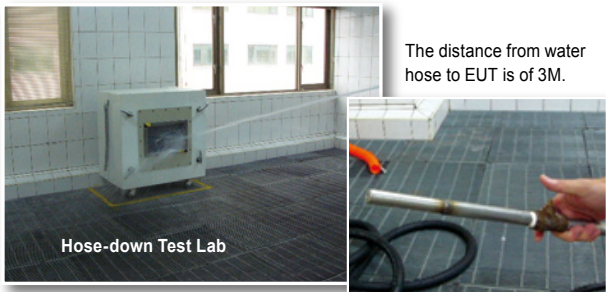
IP65 Front Panel Compliant

[IP65] Dust-Tight

[IP65] Protected against water sprayed from all directions

Strict Testing Procedures

1min. (top edge)

1min. (left edge) 1min. (display window edge) 1min. (right edge)

1min. (bottom edge)

	Water Flown Rate	Hose Diameter
IP64	10.0L/min	0.5mm
IP65	12.5L/min	6.3mm
IP66	100L/min	12.5mm
UL50	246L/min	25.4mm

The distance from water hose to EUT is of 3M.

Hose-down Test Lab

NEMA Enclosure Rating and IP Rating

NEMA (National Electrical Manufacturers Association) sets the industry standards in the USA for electrical equipment enclosures. The European Standards are determined by the Institute of Petroleum and are sometimes referred to as Ingress Protection (IP) numbers. The standards are listed below.

- IP Classification – addresses the European market
- NEMA Classification – addresses the American market

Full IP67 Sealed

[IP67] Dust-Tight

[IP67] Temporary immersion under water 1m

IP67 Waterproof M12 Connectors

SAILORPC-12A

Waterproof OSD Keypad

Up to 1m of submersion

Testing Procedures
Protected against the effects of temporary immersion between 15 cm and 1m. Duration of test 30 minutes

Table of NEMA Enclosure Rating and Comparison to IP Code	
Enclosure Type Number IEC	**Enclosure Classification Designation**
1	IP 10
2	IP 11
3	IP 54
3R	IP 14
3S	IP 54
4 and 4X	IP 56
5	IP 52
6	IP 67
12	IP 52
13	IP 54

Feature 2 / Rigorous Vibration and Shock Testing

IEI rugged industrial Panel PCs follows the strict environmental testing procedures performed to ensure the panel PCcan withstand the relatively infrequent, non-repetitive shocks or transient vibration encountered in handling, transportation and service environments.
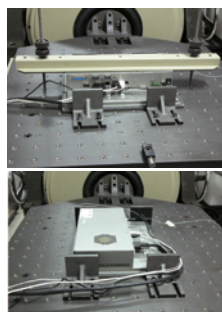
1. Vibration Testing Specifications
- **Testing Standard:** MIL-STD-810F 514.5C-1
- **Operating Random Vibration Mode**
  10-500 Hz, 60min/axis. ,Equivalent to Z:1.04 Grms X:0.204 Grms Y:0.74 Grms
- **Non-Operating Sine Mode**
  5~17Hz, 0.1" double amplitude displacement
  17~640Hz, 1.5G acceleration peak to

2. Shock Testing Specifications
- **Testing Standard:** IEC68-2-27
- **Operating Shock Half-Sine Wave Shock**
  3G acceleration part to part (11ms)
- **Non-Operation Shock Half-Sine Wave Shock**
  10G acceleration part to part (11ms)

Anti-Shock Kits

HDD with Anti-shock buffer rubber enhances protection performance.
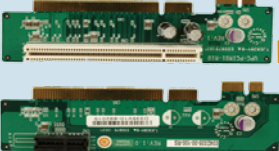
Sidebar tabs:
1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

Feature 3 / Versatile Expansion Interface

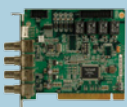The industrial PPC with various kinds of expansion interfaces with the flexibility of functions enhancement and the ease of system integration.

	1. PCI Slot	2. PCIe x 1 Slot	3. PCIe mini	4. PCMCIA	5. Express Card
Various Expansion Interface					NEW!
Applications	- Capture card - Wireless card - Serial card	- Video Grap - FireWire hics Card	- Wireless USB-3G broadband wireless-WiFi-GSM	- TV tuners - WLAN/WWAN/Smart Card/SATA - Bluetooth device - Memory Card Adapter	- TV tuners - WLAN/WWAN/Smart Card/SATA - Bluetooth device - Memory Card Adapter
Solution Models	PPC-51xxGS PPC-51xxA WIDS-51xA PPC-5350GS/A300 PPC-5350GS/A311	PPC-51xxA WIDS-51xA	PPC-27xxGS PPC-37xxGS/9452 PPC-37xxA/N270 PPC-5350GS/A311	PPC-5350GS/A300	PPC-5350/A311

PCI/PCIe External Expansion Slot

• PCI Riser

• PCI e x 1 Riser (Optional)

Internal PCIe mini Slot

Wireless PCIe mini Card

External Express Card Slot

Feature 4 / User Friendly Interface

1. User-accessible CF
PPC has a CF slot on the bottom panel that makes installing and replacing CF cards easy.

2. Securing Your CF Card
PPC has a CF slot on the bottom panel A security door on the PPC protects the CF card from being stolen in public places.

3. Lockable Power Cord
Power plug lock keeps power cable securely in place.

4. CMOS Reset button
The CMOS reset button forces the BIOS to be reset to its default values for the following reasons:
- ---Fast BIOS updating
- ---Hard device conflicts slows down or disrupts system operation
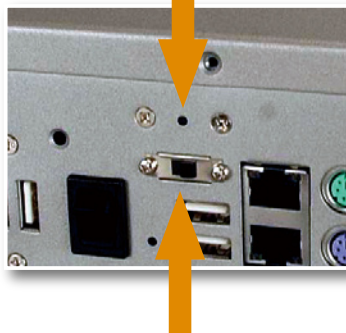
Restoring default system settings!
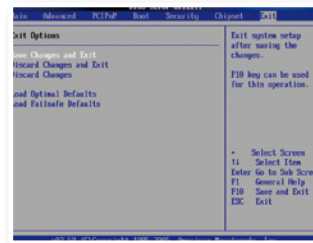
5. Selectable AT/ATX mode switch
Easily select the AT or ATX power mode with an easily accessed switch.

Production Line

AT

AT power mode allows multiple panel PCs automatically start when the central power unit is connected.

General Ticketing Machine (GTM)

ATX

The ATX power mode allows the panel PCs to be turned on/off remotely via network.

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Industrial Vertical Application Panel PCs Selection Guide

Full IP67 — Up to 1 meter of submersion
UPS Backup 40 ~ 60 mins smart battery backup
Invisible WiFi Antenna

Fanless

Model		SAILOR-12A(SR)-N270	UPC-12A(H)/910	UPC-12AH/GM45	WIDS-515A/9455	WIDS-517A/9455
Display	LCD Size	12.1"	12.1"		15"	17"
	Max Resolution	1024 x 768	1024 x 768		1024 x 768	1280 x 1024
	Brightness (cd/m²)	400 (1000)	450 (1000)		350	300
	Contrast Ratio	500 : 1 (700 : 1)	700 : 1		700 : 1	800 : 1
	LCD Color	262K	262K		16.2M	16.7M
	Pixel Pitch (mm)	0.240 (H) x 0.240 (V)	0.240 (H) x 0.240 (V)		0.297 (H) x 0.297 (V)	0.264 (H) x 0.264 (V)
	Viewing Angle (V-H)	120°/140° (120°/130°)	160°/160° (120°/130°)		125°/140°	140°/140°
	Backlight MTBF (hrs)	60000 (50000)	50000		50000	50000
Motherboard	SBC Model	SAILORMB-945GSE-N270-R10	UPCMB-9102-R10	UPCMB-GM45-R10	POS-9455-R11	
	CPU	Intel® Atom™ process N270 1.6GHz CPU	Intel® Celeron® M processor 1.0GHz with 512KB L2 Cache	Intel® Celeron M 575 2.0Ghz CPU / Intel® Core 2 Duo P8400 2.26 GHz CPU / Intel® Core 2 Duo T9400 2.53GHz CPU	LGA 775 Intel® Core™2 Duo / Celeron® D with a 533/800/ 1066 MHz FSB	
	Chipset	Intel® 945GSE + ICH7M	Intel® 910GMLE + ICH6M	Intel® GM45+ICH9M	Intel® 945G + ICH7R	
	RAM	Supports one 400/533MHz DDRII SO-DIMM (2GB Max.)	Supports two 400/533MHz DDRII SO-DIMM (4GB Max.)	Supports two 667/800 MHz DDRII SO-DIMM (4GB Max.)	Supports two 667 MHz DDRII SO-DIMM (4GB Max.)	
I/O Ports and Switches		1 x 5pin M12 connector for POWER Adapter 1 x 8pin M12 connector for two USB 1 x 5pin M12 connector for CAN bus and Audio line out 1 x 8pin M12 connector for UART RS-232/422/485 1 x 8pin M12 connector for UART RS-232 1 x 8pin M12 connector for GbE LAN	3 x RS-232 COM Port 1 x RS-232/422/485 COM Port 2 x RJ-45 for Giga LAN 6 x USB 2.0 (2 waterproof USBs in front Panel) 1 x VGA Port 1 x Power Switch 1 x Audio Jack (Lin-out, Mic-in) 1 x Reset Button 1 x COMS Clear Button 1 x 9~28VDC Power Jack 1 x Power Mode Switch (Battery or DC input) 1 x 9~28VDC Power Input Terminal Block 1 x Networking UPS Management Port by RJ-45 Ethernet 1 x Remote COM port by RJ-45 connector 1 x UPS Remote Power Switch (2 pin terminal block)		4 x RS-232 COM Port 2 x RJ-45 for Giga LAN 1 x RS-232/422/485 COM Port 3 x Audio (Lin-in, Line-out,MIC-in) 6 x USB 2.0 (2 waterproof USB in the front of the panel) 1 x CMOS reset button 2 x PS/2 (KB/MS) 1 x AT/ATX switch 1 x LPT 1 x USB switch 1 x VGA Port	
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD Bay	1 x 2.5" SATA HDD Bay		1 x 2.5" SATA HDD Bay With anti-shook	
	SSD	CF Type II				
	CD-ROM Driver Bay	N/A	N/A		Slim Type CD-ROM Bay	
Extension Slot		1 x Wireless Lan Module (802.11 b/g/n) (internal Mini PCIe interface)	1 x Wireless Lan Module (802.11 b/g/n) (internal Mini PCIe interface) 1 x PCI Slot	1 x Wireless Lan Module (802.11 b/g/n) (internal Mini PCIe interface) 1 x PCI Slot 1 x PCIe by 1 Slot (Option)	1 x Wireless Lan Module (802.11 b/g/n) (internal Mini PCIe interface) 1 x PCI Slot 1 x PCIe by 1 Slot (Option)	
Physical	Construction Front Panel	Aluminum				
	Construction Chasis	Aluminum	Aluminum		Heavy-duty Steel	
	Mounting	Panel, Wall, Rack, Stand and Arm, VESA 100mm x 100mm	Panel, Wall, Rack, Stand and Arm, VESA 100mm x 100mm		Panel, Wall, Rack, Stand and Arm, VESA 100mm x 100mm	
	Front Panel Color	Silver (8403C)	Orange (Pantone151C)		Silver (Pantone 8001C)	
	Dimension (WxHxD) (mm)	345.3 x 300.4 x 77	335 x 280 x 119		410 x 329 x 124.5	451.98 x 375.96 x 123
	Net Gross Weight	4.2 Kg / 5.3 Kg	5.8 Kg / 6.9 Kg		7 Kg /11 Kg	8 Kg / 12 Kg
Environment	Operation Temperature	-10°C ~50°C	-10°C ~55°C		-10°C ~50°C	
	Storage Temperature	-20°C ~60°C	-20°C ~60°C		-20°C ~60°C	
	Vibration	5~17Hz, 0.1" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak				
	Shoock	10G acceleration part to part (11ms)				
Touch Screen		Resistive Type 5-Wire with RS-232 interface				
Power Supply		Power Adapter - P/N: 63000-CLG60121C-RS - 60W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC - M12 waterproof connector 5P	Power Adapter - P/N: 63000-FSP096AHB-RS - 96W Power Adapter - Input: 90VAC~264VAC,50/60Hz - Output: 12VDC		AC Input ATX Power Supply - P/N: ACE-A618A-RS - 180W Power Supply - Input: 90 ~ 264VAC @ 50/60Hz - Output (max.) : 3.3V@14A, 5V@16A, 12V@14A, -12V@0.5A DC Input ATX Power Supply - 200W, - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC @ 50/60Hz Output (max.) : 3.3V@12A, 5V@12A, 12V@15.4A, -12V@0.5A	AC Input ATX Power Supply - P/N: ACE-A622A-RS - 220W Power Supply - Input: 90 ~ 264VAC @ 50/60Hz - Output (max.) : 3.3V@14A, 5V@16A, 12V@14A, -12V@0.8A DC Input ATX Power Supply - 200W, - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC @ 50/60Hz Output (max.) : 3.3V@12A, 5V@12A, 12V@15.4A, -12V@0.5A
Power Requirement		9~28VDC	9~28VDC		90 ~ 264VAC or 24VDC	
Front Panel Protection		IP67 Compliant	IP65 Compliant		IP65 Compliant	
Certificate		Meets CE, FCC, CB , CCC				
Battery	Capacity	N/A	14.8V, 3800 mAH		N/A	
	UPS run-time	N/A	50~60 mins	30~40 mins	N/A	

PPC-27 Series Selection Guide

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

		AMD Geode LX800 Platform			
Model		**PPC-2706GS**	**PPC-2708GHS**	**PPC-2710GHS**	**PPC-2712GS**
Display	LCD Size	6.5"	8.4"	10.4"	12.1"
	Max Resolution	640(W) x 480(H)	800(W) x 600(H)	800(W) x 600(H)	1024(W) x 768(H)
	Brightness (cd/m²)	500	400	400	450
	Contrast Ratio	450:1	400:1	400:1	700:1
	LCD Color	262K	262K	262K	262K
	Pixel Pitch (mm)	0.069(W) x 0.207(H)	0.213(H) x 0.213(V)	0.264(H) x 0.264(V)	0.240(H) x 0.240(V)
	Viewing Angle (V-H)	120°/140°	100°/120°	100°/120°	160°/160°
	Backlight MTBF (hrs)	30,000	50,000	50,000	50,000
Motherboard	SBC Model	WAFER-LX-800	WAFER-LX-800	AFLMB-LX-800	AFLMB-LX-800
	CPU	AMD Geode LX800 500MHz processor			
	Chipset	AMD Geode LX800 + AMD CS5536			
	RAM	Supports one 333/400MHz DDR SO-DIMM (1GB Max.)			
I/O Ports and Switches		1 x RS-232 COM Port	2 x RS-232 COM Port (One optional for Touch Screen)	2 x RS-232 COM Port	2 x RS-232 COM Port
		2 x USB Port	2 x USB Port	2 x RJ-45 for 10/100Mbps LAN	2 x RJ-45 for 10/100Mbps LAN
		1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	2 x USB 2.0	4 x USB 2.0
		2 x RJ-45 for 10/100Mbps LAN	2 x RJ-45 for 10/100Mbps LAN	1 x VGA Port	1 x VGA Port
		1 X VGA out	1 X VGA out	1 x Audio (Line-out)	1 x Audio (Line-out)
		1 x Audio (Line-out)	1 x Audio (Line-in, Line-out, MIC-in)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)
		1 x 12VDC input Power Jack	1 x 12VDC input Power Jack	1 x 12VDC input Power Jack	1 x 12VDC input Power Jack
		1 x Power Switch	1 x Power Switch	1 x Power Switch	1 x Power Switch
				1 x Reset Button	1 x Reset Button
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD Bay			
	SSD	CF Type II			
	CD-ROM Driver Bay	N/A			
Extension Slot		N/A	N/A	1 x Wireless Lan 802.11 b/g Module (internal Mini PCI interface)	1 x Wireless Lan 802.11 b/g Module (internal Mini PCI interface)
Physical	Construction Front Panel	Aluminum			
	Construction Chasis	Heavy-duty Steel			
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm			
	Front Panel Color	Silver (Pantone 8001C)			
	Dimensions (WxHxD) (mm)	183 x 143 x 62.6	244 x 178 x 67	311.5 x 242 x 58	340 x 260 x 66
	Net Gross Weight	1.4 Kg / 3.4 Kg	2.2 Kg / 4.4 Kg	2.8 Kg / 5.5 Kg	2.8 Kg / 5.7 Kg
Environment	Operation Temperature (°C)	-10°C ~50°C			
	Storage Temperature (°C)	-20°C ~60°C			
	Vibration	5~17Hz, 0.1" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak			
	Shoock	10G acceleration part to part (11ms)			
Touch Screen		Resistive Type 4-Wire with RS-232 interface	Resistive Type 4-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface
Power Supply		P/N: 63000-FSP060DBAB1552-RS 60W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC	P/N: 63000-FSP060DBAB1552-RS 60W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC"	P/N: 63000-FSP050DBAB1405-RS 48W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC	P/N: 63000-FSP050DBAB1405-RS 48W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC

PPC-37 Series Selection Guide

		Intel® 852GM Platform			Intel® 945GM Platform		
Model		PPC-3708GHS/8522	PPC-3710GHS/8522	PPC-3712GS/8522	PPC-3708GHS/9452	PPC-3710GHS/9452	PPC-3712GXS/9452
Display	LCD Size	8.4"	10.4"	12.1"	8.4"	10.4"	12.1"
	Max Resolution	800(W) x 600(H)	800(W) x 600(H)	1024(W) x 768(H)	800(W) x 600(H)	800(W) x 600(H)	1024(W) x 768(H)
	Brightness (cd/m²)	400	400	450	400	400	450
	Contrast Ratio	400 : 1	400 : 1	700 : 1	400 : 1	400 : 1	700 : 1
	LCD Color	262K	262K	262K	262K	262K	262K
	Pixel Pitch (mm)	0.213(H) x 0.213(V)	0.264(H) x 0.264(V)	0.240(H) x 0.240(V)	0.213(H) x 0.213(V)	0.264(H) x 0.264(V)	0.240(H) x 0.240(V)
	Viewing Angle (V-H)	100° / 120°	100° / 120°	160° / 160°	100° / 120°	100° / 120°	160° / 160°
	Backlight MTBF (hrs)	50,000	50,000	50,000	50,000	50,000	50,000
Motherboard	SBC Model	NANO-8522	NANO-8522	NANO-8522	NANO-9452	NANO-9452	NANO-9452
	CPU	Socket 479 2.1GHz (max.) Intel® Pentium® M / Celeron® M with 400 MHz 1 GHz or 600 MHz Intel® Celeron® zero cache CPU			Socket M Intel® Core™2 Duo, Core Duo, Core Solo with 667MHz FSB Intel® Celeron® M 533MHz FSB		
	Chipset	Intel® 852GM + ICH4			Intel® 945GM + ICH7M		Intel® 945GM + ICH7M
	RAM	Supports one 266/200MHz DDR SO-DIMM (1GB Max.)			Supports one 400/533/667 MHz DDRII SO-DIMM (1GB Max.)		
I/O Ports and Switches		2 x RS-232 COM Port	2 x RS-232 COM Port	3 x RS-232 COM Port (One optional for Touch Screen)	2 x RS-232 COM Port	2 x RS-232 COM Port	2 x RS-232 COM Port
		1 x RS-232 COM Port(Alternative to RS-422/485)			1 x RS-232 COM Port(Alternative to RS-422/485)		
		1 x RJ-45 for LAN Port	1 x RJ-45 for LAN Port	1 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port
		4 x USB 2.0	4 x USB 2.0	4 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0
		1 x VGA Port	1 x VGA Port	1 x VGA Port	1 x VGA Port	1 x VGA Port	1 x VGA Port
		1 x Audio (Line-in, Line-out, MIC-in)			1 x Audio (Line-in, Line-out, MIC-in)		
		1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)
		1 x 12VDC input Power Jack		1 x LPT	1 x 12VDC input Power Jack		
		1 x Power Switch	1 x Power Switch	1 x 12VDC input Power Jack	1 x Power Switch	1 x Power Switch	1 x Power Switch
		1 x 9~36VDV input Terminal block (Optional)		1 x Power Switch	1 x 9~36VDV input Terminal block (Optional)		
		1 x 9~36VDV input Terminal block (Optional)					
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD Bay			1 x 2.5" SATA/IDE HDD bay with anti-shook		1 x 2.5" SATA/IDE HDD bay with anti-shook
	SSD	CF Type II					
	CD-ROM Driver Bay	N/A		Slim Type CD-ROM Bay	N/A		Slim Type CD-ROM Bay
Extension Slot		N/A			1 x Wireless Lan 802.11 b/g Module (internal Mini PCIe interface)		
Physical	Construction Front Panel	Aluminum					
	Construction Chasis	Heavy-duty Steel					
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm					
	Front Panel Color	Silver (Pantone 8001C)					
	Dimension (WxHxD) (mm)	243.57 x 78 x 75.2	311.5 x 242 x 77.8	340 x 260 x 73.4	243.57 x 78 x 75.2	311.5 x 242 x 77.8	340 x 260 x 73.4
	Net Gross Weight	2.2 Kg / 4.4 Kg	3.4 Kg / 5.8 Kg	6 Kg / 8 Kg	2.2 Kg / 4.4 Kg	3.4 Kg / 5.8 Kg	6 Kg / 8 Kg
Environment	Operation Temperature (°C)	-10°C ~50°C					
	Storage Temperature (°C)	-20°C ~60°C					
	Vibration	5~17Hz, 0.1" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak					
	Shoock	10G acceleration part to part (11ms)					
Touch Screen		Resistive Type 4-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface	Resistive Type 4-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface
Power Supply		For BGA Model - P/N: 63000-FSP060DBAB1554-RS - 60W Power Adapter - Input: 90VAC~264VAC,50/60Hz - Output: 12VDC For Socket Model - P/N: 63000-FSP084DMBA1308-RS - 84W Power Adapter - Input: 90VAC~264VAC,50/60Hz - Output: 12VDC			Power Adapter - P/N: 63000-FSP084DMBA1308-RS - 84W Power Adapter - Input: 90VAC~264VAC,50/60Hz - Output: 12VDC"		

PPC-37 Series Selection Guide

		Intel® Atom™ Platform			
Model		**PPC-3708A/N270**	**PPC-3710A/N270**	**PPC-3712A/N270**	**PPC-3712B/N270**
Display	LCD Size	8.4"	10.4"	12.1"	12.1"
	Max Resolution	800(W) x 600(H)	800(W) x 600(H)	1024(W) x 768(H)	1024(W) x 768(H)
	Brightness (cd/m²)	400	400	450	450
	Contrast Ratio	400 : 1	400 : 1	700 : 1	700 : 1
	LCD Color	262K	262K	262K	262K
	Pixel Pitch (mm)	0.213(H) x 0.213(V)	0.264(H) x 0.264(V)	0.240(H) x 0.240(V)	0.240(H) x 0.240(V)
	Viewing Angle (V-H)	100° / 120°	100° / 120°	160° / 160°	160° / 160°
	Backlight MTBF (hrs)	50,000			
Motherboard	SBC Model	NANO-945GSE-N270			
	CPU	Intel® Atom™ process N270 1.6GHz CPU			
	Chipset	Intel® 945GSE + ICH7M			
	RAM	Supports one 400/533MHz DDRII SO-DIMM (2GB Max.)			
I/O Ports and Switches		2 x RS-232 COM Port	2 x RS-232 COM Port	2 x RS-232 COM Port	2 x RS-232 COM Port
		1 x RS-232 COM Port(Alternative to RS-422/485)			
		2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port
		2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	4 x USB 2.0
		1 x VGA Port	1 x VGA Port	1 x VGA Port	1 x VGA Port
		1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)
		1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)
		1 x 12VDC input Power Jack	1 x 12VDC input Power Jack	1 x 12VDC input Power Jack	
		1 x Power Switch	1 x Power Switch	1 x Power Switch	
		1 x 9~36VDV input Terminal block (Optional)	1 x 9~36VDV input Terminal block (Optional)	1 x 9~36VDV input Terminal block (Optional)	
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD Bay With anti-shook			
	SSD	CF Type II			
	CD-ROM Driver Bay	N/A	N/A	Slim Type CD-ROM Bay	Slim Type CD-ROM Bay
Extension Slot		1 x Wireless Lan 802.11 b/g Module (internal Mini PCIe interface)			
Physical	Construction Front Panel	Aluminum			
	Construction Chasis	Heavy-duty Steel			
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm			
	Front Panel Color	Silver (Pantone 8001C)			
	Dimension (WxHxD) (mm)	243.57 x 78 x 75.2	311.5 x 242 x 77.8	340 x 260 x 73.4	340 x 260 x 73.4
	Net Gross Weight	2.2 Kg / 4.4 Kg	3.4 Kg / 5.8 Kg	6 Kg / 8 Kg	6.2 Kg / 8.2 Kg
Environment	Operation Temperature (°C)	-10°C ~50°C			
	Storage Temperature (°C)	-20°C ~60°C			
	Vibration	"5~17Hz, 0.1"" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak"			
	Shoock	10G acceleration part to part (11ms)			
Touch Screen		Resistive Type 4-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface	Resistive Type 5-Wire with RS-232 interface
Power Supply			Power Adapter - P/N: 63000-FSP060DBAB1554-RS - 60W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC"		For AT AC Input Model: - P/N: ACE-890A-RS - 86W Power Supply - Input: 90VAC ~ 264VAC - Output: 12VDC" For ATX DC Input Model: - P/N: ACE-709TX-RS - 90W Power Supply - Input: 36VDC ~ 72VDC - Output: 12VDC

PPC-51 Series Selection Guide
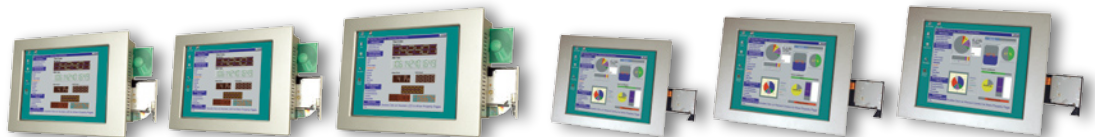
		Intel® 852GM Platform			Intel® 945G Platform		
Model		**PPC-5150G**	**PPC-5170G**	**PPC-5190G**	**PPC-5150A**	**PPC-5170A**	**PPC-5190A**
Display	LCD Size	15"	17"	19"	15"	17"	19"
	Max Resolution	1024(W) x 768(H)	1280(W) x 1024(H)	1280(W) x 1024(H)	1024(W) x 768(H)	1280(W) x 1024(H)	1280(W) x 1024(H)
	Brightness (cd/m²)	350	300	300	350	300	300
	Contrast Ratio	700 : 1	800 : 1	700 : 1	700 : 1	800 : 1	700 : 1
	LCD Color	16.2M	16.7M	16.7M	16.2M	16.7M	16.7M
	Pixel Pitch (mm)	0.297(H) x 0.297(V)	0.264(H) x 0.264(V)	0.294(H) x 0.294(V)	0.297(H) x 0.297(V)	0.264(H) x 0.264(V)	0.294(H) x 0.294(V)
	Viewing Angle (V-H)	125° / 140°	160° / 160°	160° / 170°	125° / 140°	160° / 160°	160° / 170°
	Backlight MTBF (hrs)	50,000					
Motherboard	SBC Model	POS-8520			POS-9455		
	CPU	Socket 478 Intel® Pentium® 4, Celeron M with 533MHz(max.) FSB			LGA 775 Socket with Intel® Core™2 Duo, Celeron® D with 533/800/1066 MHz		
	Chipset	Intel 852GME + ICH5			Intel® 945G + ICH7R		
	RAM	Supports two 266/333MHz DDR DIMM (4GB Max.)			Supports two 400/533/667MHz DDRII DIMM (4GB Max.)		
I/O Ports and Switches		4 x RS-232 COM Port	4 x RS-232 COM Port	4 x RS-232 COM Port	4 x RS-232 COM Port	4 x RS-232 COM Port	4 x RS-232 COM Port
		1 x RS-232/422/485 Port	1 x RS-232/422/485 Port	1 x RS-232/422/485 Port	1 x RS-232/422/485 Port	1 x RS-232/422/485 Port	1 x RS-232/422/485 Port
		2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port
		4 x USB 2.0	4 x USB 2.0	6 x USB 2.0	4 x USB 2.0	4 x USB 2.0	6 x USB 2.0
		1 x VGA Port	1 x VGA Port	1 x VGA Port	1 x VGA Port	1 x VGA Port	1 x VGA Port
		1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)
		1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)
		1 x Power Switch	1 x Power Switch	1 x Power Switch	1 x Power Switch	1 x Power Switch	1 x Power Switch
		1 x PCI Slot	1 x PCI Slot	1 x PCI Slot	1 x AT / ATX Switch	1 x AT / ATX Switch	1 x AT / ATX Switch
		1 X LPT			1 x PCI Slot	1 x PCI Slot	1 x PCI Slot
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD bay with anti-shock (or two 2.5" SATA/IDE HDD bay without anti-shock)					
	SSD	CF Type II					
	CD-ROM Driver Bay	Slim Type CD-ROM Bay					
Extension Slot		1 x PCI slot			1 x PCI slot 1 x PCIe mini card		
Physical	Construction Front Panel	Aluminum					
	Construction Chasis	Heavy-duty Steel					
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm					
	Front Panel Color	Silver (Pantone 8001C)					
	Dimension (WxHxD) (mm)	410 x 309 x 110.5	452 x 356 x 115	483 x 399 x 115.2	410 x 309 x 110.5	452 x 356 x 115	483 x 399 x 115.2
	Net Gross Weight	7 Kg / 11 Kg	8 Kg / 12 Kg	12.6 Kg / 18.2 Kg	7 Kg / 11 Kg	8 Kg / 12 Kg	12.6 Kg / 18.2 Kg
Environment	Operation Temperature (°C)	-10°C ~50°C					
	Storage Temperature (°C)	-20°C ~60°C					
	Vibration	5~17Hz, 0.1"" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak					
	Shoock	10G acceleration part to part (11ms)					
Touch Screen		Resistive Type 5-Wire with RS-232 interface					
Power Supply	ATX AC-Input	AC Input ATX Power Supply - P/N: ACE-4518AP-RS - 180W Power Supply - Input: 90VAC~240VAC, 50/60Hz - Output(max.): 3.3A@16.8A, 5V@12A, 12V@10A, -12V@0.8A			AC Input ATX Power Supply - P/N: ACE-A618A-RS - 180W Power Supply - Input: 90VAC~264VAC, 50/60Hz - Output(max.): 3.3A@14A, 5V@16A, 12V@14A, -12V@0.5A	AC Input ATX Power Supply - P/N: ACE-A622A-RS - 220W Power Supply - Input: 90VAC~264VAC, 50/60Hz - Output(max.): 3.3A@14A, 5V@16A, 12V@10A, -12V@0.8A	
	ATX DC-Input	DC Input ATX Power Supply - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@12A, 5V@12A, 12V@15.4A, -12V@0.5A					

PPC-53 Series Selection Guide

1

Automation
Panel
Solutions

2

All-in-One
Touch POS

3

Digital
Signage

4

Video Wall
Controller

5

RISC-
based
Solutions

6

PACSmate
Medical

7

Optional
Peripherals

		Intel® 855GME Platform	Intel® 910GMLE Platform
Model		**PPC-5350GS/A300**	**PPC-5350GS/A311**
Display	LCD Size	15"	
	Max Resolution	1024(W) x 768(H)	
	Brightness (cd/m²)	350	
	Contrast Ratio	700 : 1	
	LCD Color	16.2M	
	Pixel Pitch (mm)	0.297(H) x 0.297(V)	
	Viewing Angle (V-H)	125° / 140°	
	Backlight MTBF (hrs)	50,000	
Motherboard	SBC Model	A300	A311
	CPU	Socket 479 Intel® Pentium® 4, Celeron® M with 400MHz(max.) FSB1 GHz ULV Intel® Celeron® zero cache CPU	Socket 479 Intel® Pentium® M, Celeron® M with 400/533MHz(max.) FSB1 GHz ULV Intel® Celeron® zero cache CPU
	Chipset	Intel 855GME + ICH4	910GMLE + ICH6M
	RAM	Supports two 266/333MHz DDR DIMM (2GB Max.)	Supports two 400/533MHz DDRII DIMM (2GB Max.)
I/O Ports and Switches		5 x RS-232 COM Port	5 x RS-232 COM Port
		2 x RJ-45 for LAN Port	2 x RJ-45 for LAN Port
		4 x USB 2.0	4 x USB 2.0
		1 x VGA Port	1 x VGA Port
		1 x Audio (Line-in, Line-out, MIC-in)	1 x Audio (Line-in, Line-out, MIC-in)
		1 x PS/2 (KB/MS)	1 x PS/2 (KB/MS)
		1 x Power Switch	1 x Power Switch
		1 x AT / ATX Switch	1 x AT / ATX Switch
		1 x DVI port	1 x DVI port
		1 x PCI Slot	1 x PCI Slot
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD bay with anti-shook	
	SSD	CF Type II	
	CD-ROM Driver Bay	Slim Type CD-ROM Bay	
Extension Slot		1 x PCI slot	1 x PCI slot 1 x PCIe mini card
Physical	Construction Front Panel	Aluminum	
	Construction Chasis	Heavy-duty Steel	
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm	
	Front Panel Color	Silver (Pantone 8001C)	
	Dimension (WxHxD) (mm)	410 x 309 x 110.5	
	Net Gross Weight	8 Kg / 12 Kg	7 Kg / 11 Kg
Environment	Operation Temperature (°C)	-10°C ~50°C	
	Storage Temperature (°C)	-20°C ~60°C	
	Vibration	5~17Hz, 0.1" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak	
	Shoock	10G acceleration part to part (11ms)	
Touch Screen		Resistive Type 5-Wire with RS-232 interface	
Power Supply	ATX AC-Input	AC Input ATX Power Supply - P/N: ACE-4518AP-RS - 180W Power Supply - Input: 90VAC~240VAC, 50/60Hz - Output(max.): 3.3A@16.8A, 5V@12A, 12V@10A, -12V@0.8A	
	ATX DC-Input	DC Input ATX Power Supply - P/N: ACE-815C-RS - 100W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@4A, 5V@13A, 12V@2.5A, -12V@0.3A	

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions
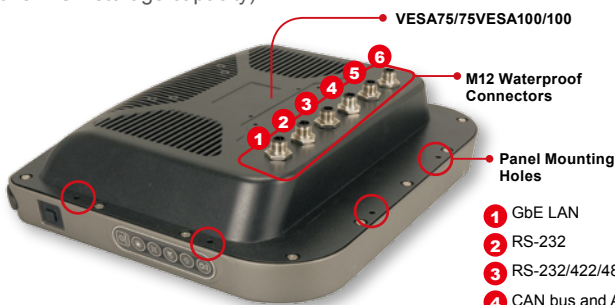
6 PACSmate Medical

7 Optional Peripherals

SAILORPC-12A

12.1" Full IP67 Panel PC

The rugged SAILORPC-12A panel PC based on Intel's Atom processor is designed in a very robust and waterproof (IP 67/NEMA 6) in aluminum housing. Withstanding even the highest demands of all-day field use, and protected against shock and vibration permitting extremely flexible integration into a wide variety of applications, such as: avionics, military, marine, mining, industrial...etc.

Full IP67 Up to 1 meter of submersion

Fanless

Wireless 802.11 b/g

IP 67 Front Panel

Sunlight Readable

CAN-Bus automotiv applications

F3 **One Key Recovery** iEi symantec.

BC AWARD
COMPUTEX TAIPEI 2009
BEST CHOICE

Features:

- 12.1" 1000 nits super high brightness TFT LCD available
- IP67 (NEMA 6) fully-enclosed aluminum die casting enclosure and IP67 waterproof lockable I/O
- Fanless system integrated with Intel® Atom™ N270 1.6G processor for ultra Low voltage
- Supports one 2.0 GB (max.) 400/533 MHz MHz DDR2 SO-DIMM
- Built-in internal WiFi antenna supports 802.11 b/g/n high standard
- One Compact Flash® Type II socket
- CAN-Bus interface for automotive applications
- Ambient light sensor detects ambient light for automated screen adjustments to optimize viewing. (Advanced Deep Dimming to Black for sunlight readable model)
- Touch Screen
- Standard VESA 75/100 compliance
- Panel mounting support
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)
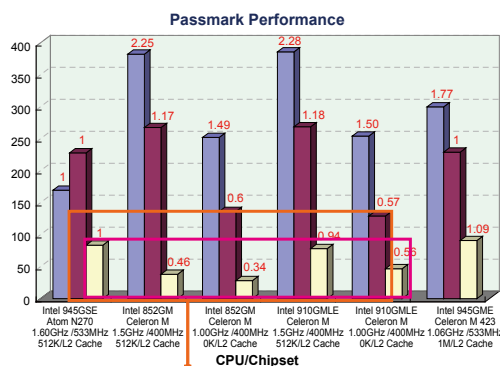
Invisible Antenna Inside

Ambient Light Sensor

System Power On/Off

VESA75/75VESA100/100

M12 Waterproof Connectors

Panel Mounting Holes

1 GbE LAN
2 RS-232
3 RS-232/422/485
4 CAN bus and Audio line out
5 Two USBs
6 POWER Adapter

OSD Adjustment:
- LCD On/Off
- Brightness Up
- Brightness Down
- Speaker Volume Up
- Speaker Volume Down
- Ambient Light Sensor On/Off

Rugged Panel PC with Fanless Intel® Atom™ Processor

Passmark Performance

Intel 945GSE Atom N270 1.60GHz /533MHz 512K/L2 Cache

Intel 852GM Celeron M 1.5GHz /400MHz 512K/L2 Cache

Intel 852GM Celeron M 1.00GHz /400MHz 0K/L2 Cache

Intel 910GMLE Celeron M 1.5GHz /400MHz 512K/L2 Cache

Intel 910GMLE Celeron M 1.00GHz /400MHz 0K/L2 Cache

Intel 945GME Celeron M 423 1.06GHz /533MHz 1M/L2 Cache

CPU/Chipset

The fanless intelligent display computer, SAILOR-12A, is using 45 nm Intel® Atom™ processor with up to 1.6 GHz frequency and can be used in harsh and safety-critical applications in transport, avionics, engineering or industrial automation.

Better graphic performance is excellent for:kiosk, self-service terminal, and digital signage applications.

Out Door Control System   National Park Guiding System   Zoo Guide

Evaluating 3D mark performance with different generation CPU and chipset combination, Intel® Atom™ processor is the best solution for low power consumption and better graphic performance choice.

IP67 Fully-Enclosed Design

The SAILORPC-A12 is designed by front sealing and test in the certified house chamber under UL's witnessed Test Data Program (TDP). IEI is following the IP67 standard testing procedures, This full IP67 touch monitor provides full IP67 protection including connectors, cables and Touch.

[IP67] Dust-Tight

First Digit — The first digit indicates the level of protection that the enclosure provides against access to hazardous parts

Level		Effective Against
6		No ingress of dust; complete protection against contact

[IP67] Temporary immersion under water 1m

Second Digit — Protection of the equipment inside the enclosure against harmful ingress of water

Level		Effective Against
6		Water projected in powerful jets against the enclosure form any direction shall have no harmful effects
7		Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1m of submersion)

Sealing enclosure with all sides of IP67 !

- External Waterproof Rubber
- Waterproof OSD Keypad
- Sealed Back Cover
- IP67 Connectors
- Internal Waterproof Rubber

IPX7 Test

• Test for protection against Water

Protected against the effects of temporary immersion between 15 cm and 1m. Duration of test 30 minutes

Up to 1m of submersion

• Air Flow Test

Air pressure measurement is used as the IP67 test method, the air flow tester is capable of detecting leaks in product and evaluates the pass/fail status of the watertight system.

IP6X Test

• Test for protection against Dust

Automation Panel Solutions 1
All-in-One Touch POS 2
Digital Signage 3
Video Wall Controller 4
RISC-based Solutions 5
PACSmate Medical 6
Optional Peripherals 7

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
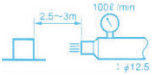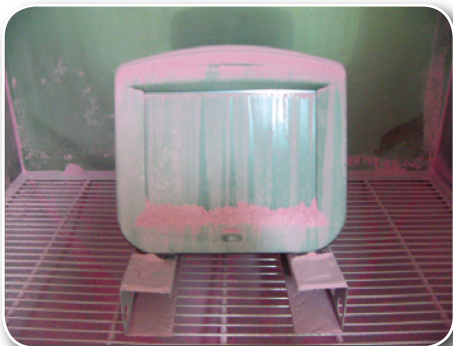Video Wall Controller

5
RISC-based Solutions

6
PACSmate Medical

7
Optional Peripherals

Sunlight Readable

• Super High Brightness
SAILORPC-12ASR (Sunlight Readable Model) has greatly improved luminance through edge lighting to achievesuper high brightness (up to 1000 cd/m²).

• Low Reflection through AR (Anti-Reflection) Technology
Outdoor applications in daylight or other bright environments require technology that can suppress surface reflection. SAILORPC-12ASR sunlight readable model offer special AR (anti-reflection) surface treatment to prevent reflection, which ensures excellent visibility in daylight conditions.

Sunlight

Sunlight Readable

Low Reflection

Reduced Reflection of Light

Super High Brightness: 1000 nits
High Contrast: 700:1
Wide Viewing Angle: 60/60 (R/L) 45/75 (U/D)

• Ambient Light Sensor
The SAILORPC-12A built in the ambient light sensor in front of the panel to automatically detect the amount of light in the viewing environment and auto-adjusts the brightness of the screen.

Benefits:
- Avoid eye strained and tried, to provide comfortable viewing
- Power consumption saving
- Extend lamp lifetime

Day Mode: Adjust to maximum 1000 nits Sunlight Readable automatically

Panel brightness auto-adjustment depends on the ambient light amount to save the system power

Night Mode: Adjust to acceptable brightness automatically in a insufficient light ambient

Uninterrupted Wireless Connection

The SAILORPC-12A series featuring high speed WiFi IEEE 802. n protocol which builds on previous 802. standards by adding multiple-input multiple-output (MIMO) and 40 MHz operation to the physical (PHY) layer. MIMO uses multiple transmitter and receiver antennas to improve the system performance.

802.11 b/g/n ready with invisible antenna

27 times faster data transfer rate compared to 802.11b

| Protocol	Freq.	Thru.	Data	Range indoor	Range outdoor
802.11	(GHz)	(Mbit/s)	(Mbit/s)	(m)	(m)
a	5 GHz	23	54 Mbit/s	~35	~120
b	2.4 GHz	4.3	11 Mbit/s	~38	~140
g	2.4 GHz	19	54 Mbit/s	~38	~140
n	5 GHz and/ or 2.4 GHz	74	300 Mbit/s (2 streams)	~70	~250

802.11b/g Wi-Fi, which gives you up to broadband-speed browsing and connectivity, compared to traditional wired LAN.
The benefits here:
• Simple configuration
• Without hinders worker movement
• Without lessens man-hour productivity
• Without additional purchase of proprietary cables for specific devices
• Without the barrier to space

Benefit
* Half the size of Mini-PCI
* Higher bandwidth interface
* Rigid mechanical spec.
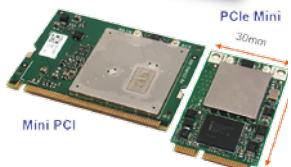
PCIe Mini
30mm
Mini PCI

802.11a — Access to email, instant image and the Internet

802.11b/g — Streaming music Streaming video

802.11n — VoIP /Gaming /NAS

CAN-Bus Automotive Applications

The SAILORPC-12A is equipped with automotive applied CAN-Bus interface. The Control Area Network (CAN) is a serial bus system, originally developed by Bosch for use in automobiles, and now is increasingly being used for control in industrial and automotive applications

Controller Area Network

• 1Mb/s data rate
• High reliability bus
• CAN is an open standard with many variants
• Is capable of providing real-time communication.

CAN in cars and truck engine
• Networking controllers for engine timing, transmission, chassis and brakes.
• Networking components of chassis electronics and electronics which make the vehicle more comfortable. Examples of such multiplex applications are lighting control, air-conditioning, central locking and seat and mirror adjustment.

CAN-Bus automotive applications

Via M12 Connector

Lighting Air Conditioning Engine Cluster Brake Locks Windows

Other Application Fields:

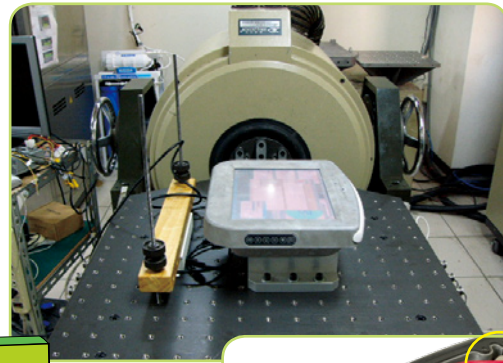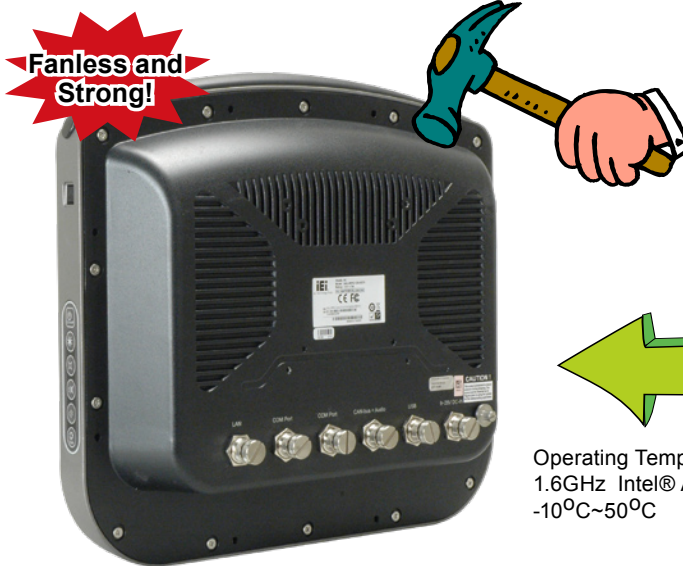# Reliable Die-Casting Aluminum Chassis

These ruggedized LCD products are also designed for high reliability, shock and vibration tolerance, survival of high temperature, and corrosive environments. External materials like dust/ water can be very destructive to any type of equipment over time.

● Fanless and Completely Sealed Strong Housing
Sealed housing strictly avoids the water invasion and the rugged die-cast aluminum enclosure helps the need for using a fan as a heat dissipation device to minimize the troublesome overheating problem.

● Rigorous Shock/Vibration Test
Compliant with MIL-STD-810F shock and vibration protection, as well as offering IP67 water and dust proof front panel protection.

Fanless and Strong!

Operating Temperature: With on-board 1.6GHz Intel® Atom™ Processor N270 -10°C~50°C

HDD install with Anti-shock buffer rubber enhances protection performance.

Sidebar: 1 Automation Panel Solutions; 2 All-in-One Touch POS; 3 Digital Signage; 4 Video Wall Controller; 5 RISC-based Solutions; 6 PACSmate Medical; 7 Optional Peripherals

Dedicated Applications

● High Brightness Marine Panel PC

CAN-Bus Transmission

Day

Night

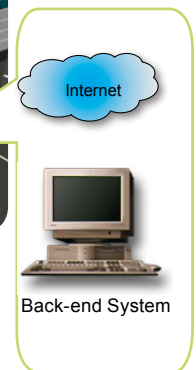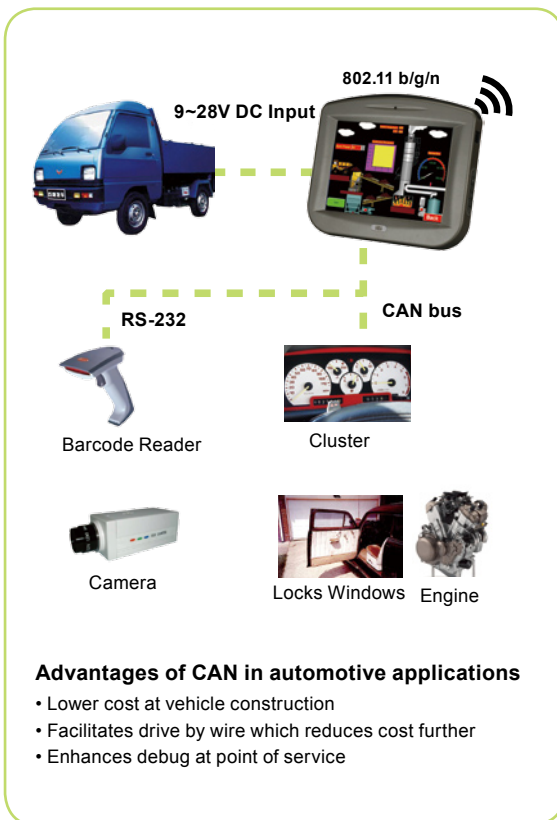Radar   SONAR

Advanced Deep Dimming to Black

1000 nits Sunlight Readable !

0%~100% brightness control for Navigation Safety !

We Offer:
- Transflective technology super high brightness 1000 nits enhance visibility
- Intel® ATOM Platform, Fanless Design
- Dimming keypad control backlight brightness from nearly 0% to 100%
- Ease of use front panel OSD control
- Enhanced shock and vibration resistance
- Touch Screen Capable
- Panel mounting support

● Logistics and Warehousing

Line-out → Speaker

COM → PLC

802.11 b/g/n

9~28V DC Input

RS-232

CAN bus

Barcode Reader   Cluster

Camera   Locks Windows   Engine

Internet

Lift Truck   **802.11 b/g/n**

9~28V DC Input

Back-end System

Advantages of CAN in automotive applications
- Lower cost at vehicle construction
- Facilitates drive by wire which reduces cost further
- Enhances debug at point of service

We Offer:
- Wireless functions can also be implemented via a PCIe mini card slot in
- combination with an internal antenna.
- Designed for automotive applications featuring built in CAN-Bus interface

Sidebar navigation:
1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

Specifications

Model		SAILORPC-12A-N270	SAILORPC-12ASR-N270
Display	LCD Size	12.1"	
	Max Resolution	1024 * 768	
	Brightness (cd/m2)	400	1000
	Contrast Ratio	500:1	700:1
	LCD Color	262K	262K
	Pixel Pitch (mm)	0.240(H) x 0.240(V)	0.240(H) x 0.240(V)
	Viewing Angle (H-V)	160º/160º	130º/120º
	Backlight MTBF (hrs)	50000	60000
Motherboard	SBC Model	SAILORMB-ATOM-R10	
	CPU	Intel® Atom™ process N270 1.6GHz CPU	
	Chipset	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M
	RAM	Supports one 400/533MHz DDRII SO-DIMM(2GB Max.)	
I/O Ports and Switches		1 x 5pin M12 connector for POWER Adapter	
		1 x 8pin M12 connector for two USB	
		1 x 5pin M12 connector for CAN bus and Audio line out	
		1 x 8pin M12 connector for UART RS-232/422/485	
		1 x 8pin M12 connector for UART RS-232	
		1 x 8pin M12 connector for GbE LAN	
Driver Bay	HDD Driver Bay	1 x 2.5" SATA HDD Bay	
	SSD	CF Type II	
Extension Slot		1 x Wireless Lan Module (802.11 b/g/n) (internal PCIe mini card interface)	
Physical	Construction Front Panel	Aluminum	
	Construction Chasis	Heavy-duty Steel	
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm	
	Front Panel Color	Silver (Pantone 8403C)	
	Dimension (WxHxD) (mm)	345.3 x 300.4 x 77	
	Net Gross Weight	4.2 Kg / 5.3 Kg	
Environment	Operation Temperature (°C)	-10°C ~50°C	-10°C ~50°C
	Storage Temperature (°C)	-20°C ~70°C	-20°C ~70°C
	Vibration	5~17Hz, 0.1"" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak	
	Shoock	10G acceleration part to part (11ms)	
Touch Screen		Resistive Type 5-Wire with RS-232 interface	
Power Supply		Power Adapter - P/N: 63000-CLG60121C-RS - Input: 90VAC~264VAC, 50/60Hz - M12 waterproof connector 5P / - 60W Power Adapter - Output: 12VDC	
Power Requirement		9~28VDC	
Front Panel Protection		IP67 Compliant	
Power Consumption		33W	51W
Certificate		Meets CE, FCC, CB , CCC	

Sunlight Readable

SAILORPC-12A
Dimensions (Unit: mm)

1 — Automation Panel Solutions
2 — All-in-One Touch POS
3 — Digital Signage
4 — Video Wall Controller
5 — RISC-based Solutions
6 — PACSmate Medical
7 — Optional Peripherals

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Packing List

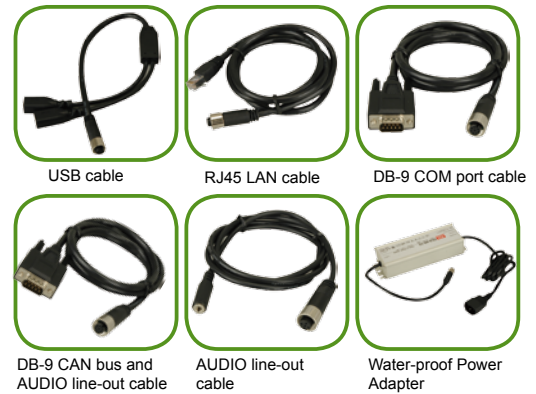| Item	Part Number	Q'ty	Specifications
Panel mount screws Pack	44013-030041-RS	1	
Power cable	32000-127500-RS	1	2000mm;16AWG; (A) terminal block connector; (B) M12 Waterproof connector
Utilities CD	7B000-000087-RS	1	
Touch Pen	XTR104-0002-RS	1	

Options

Model	SAILORPC-12A(SR)-N270
Wall mounting kit	AFLWK-12
"Rack mounting kit"	SAILORRK-12
ARM	ARM-11-RS / ARM-31-RS
Stand	STAND-A12 / STAND-100-RS

(B)

(A)
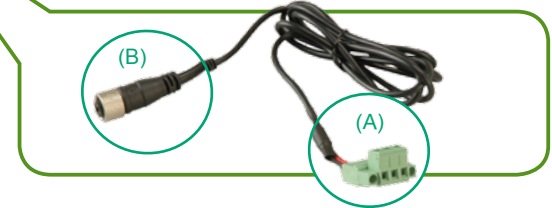
Optional cables and adapter

Item	Part Number
USB cable	CB-M12USB02-R10
RJ45 LAN cable	CB-M12RJ45-R10
DB-9 COM port cable	CB-M12COM-R10
DB-9 CAN bus and AUDIO line-out cable	CB-M12ACAN-R10
AUDIO line-out cable	CB-M12AUDIO-R10
Water-proof Power Adapter	63000-CLG6012IC-RS

USB cable   RJ45 LAN cable   DB-9 COM port cable

DB-9 CAN bus and AUDIO line-out cable   AUDIO line-out cable   Water-proof Power Adapter

Ordering Information

Brightness	OS	Part Number	Description
400 NITS	CE 6.0	SAILORPC-12A-N270/WT-R/1G/1G-CE6-R10	12.1" 400 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 1GB compact flash with Windows CE 6.0 operaintg system
	XPE	SAILORPC-12A-N270/WT-R/1G/4G-XPE-R10	12.1" 400 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 4GB compact flash with Windows XP Embedded operaintg system
		SAILORPC-12A-N270/WT-R/1G/80G-XPE-R10	12.1" 400 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 80GB SATA HDD with Windows XP Embedded operaintg system
	LINUX	SAILORPC-12A-N270/WT-R/1G/4G-LNX-R10	12.1" 400 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 4GB compact flash with LINUX operaintg system
		SAILORPC-12A-N270/WT-R/1G/80G-LNX-R10	12.1" 400 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 80GB SATA HDD with LINUX operaintg system
1000 NITS	CE 6.0	SAILORPC-12ASR-N270/WT-R/1G/1G-CE6-R10	12.1" 1000 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 1GB compact flash with Windows CE 6.0 operaintg system
	XPE	SAILORPC-12ASR-N270/WT-R/1G/4G-XPE-R10	12.1" 1000 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 4GB compact flash with Windows XP Embedded operaintg system
		SAILORPC-12ASR-N270/WT-R/1G/80G-XPE-R10	12.1" 1000 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 80GB SATA HDD with Windows XP Embedded operaintg system
	LINUX	SAILORPC-12ASR-N270/WT-R/1G/4G-LNX-R10	12.1" 1000 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 4GB compact flash with LINUX operaintg system
		SAILORPC-12ASR-N270/WT-R/1G/80G-LNX-R10	12.1" 1000 cd/m² IP67 panel PC with Intel® Atom™ N270 CPU 1.6GHz, 802.11 b/g/n wireless module,touch screen,1GB DDR2 553 MHz, M12 connectors and 80GB SATA HDD with LINUX operaintg system

UPC-12A

12.1" Aluminum UPS Panel PC with Smart Battery Backup

Rugged Aluminum Die-casting Body!

UPC-12A, a revolutionary model featuring smart battery technology, which allows users to monitor and manage battery's status directly through IEI unique user interface. The UPC-12A boasts a 12.1-inch XGA LCD screen with sunlight-readable 1000 nits options. The UPC-12A series equipped with battery pack provides emergency power when the main power source is not available, eliminating the risk of main power shutdown suddenly, permitting extremely flexible integration into a wide variety of applications:

- **Lift Truck System**
- **ATM**
- **Medical Cart**
- **Order Pick Cart**
- **Warehousing and distribution**

Smart battery backup provides emergency power (14.8V, 3800 mAH)

Waterproof USB Cover

| Smart Battery | Sunlight Readable | wireless 802.11 b/g/n | Touch Screen | Light Sensor | PCI/PCIe Expansion Capability | IP 65 Front Panel | F3 One Key Recovery IEI symantec. |

Features:

- 12.1" all-in-one PPC with touch technology
- 1000 nits sunlight readable panel available
- Powerful all-in-one panel PC
  - Intel® GM45 chipset and 45nm mobile Core™2 Duo processor support
  - An onboard ULV Intel® Celeron® M 1GHz plus 512K with Intel® 910GMLE chipset support
- Battery backup power protects your productivity from the constant threat of power outages and lost data
- Ambient light sensor detects ambient light for automated screen adjustments to optimize viewing. (0%~100% brightness control for sunlight readable version)

- Dual Gigabit Ethernet to allocate reduce the network collision and crash, or virus infection
- Remote power On/Off switch
- 802.11 b/g/n Wi-Fi support
- PCI expansion slot for adding more capacity (Optional PCI express expansion interface)
- One Compact Flash® Type II socket
- Standard VESA 75/100 mounting
- Robust die-casting aluminum chassis
- IP 65 compliant aluminum front panel compliant
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

UPS Panel PC Applications

Benefits:

- Provides power for certain period of time after a power fail has occurred.
- Continue to provide stable power to equipment during line sags & spikes.
- Absorb power surges & transients.
- Smooth out noisy power sources.

A. Mobile System Solution

Providing backup power for the data sensitive part of movable equipment, allowing charging and battery replacement of the primary power without shutting down the data terminal.

B. Power Bank Solution

Acts as power input regulator to prevent unstable power input damage and avoid protect against unexpected power loss.

C. Other Relative Applications

Production Line

Power Fail

With UPS Protection
The IEI Smart Battery is immediately enabled when power failed, and provides stable power so the operator can save important system parameter.

Blue Screen

Without UPS Protection
System shuts down or hangs-up suddenly and all data is lost because no backup power is available.

Sidebar navigation:

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals

A. Smart Battery Backup

Protect your productivity from power outages and data lost

1. Rechargeable Battery

Battery Pack: BAT-LI-4S2P3800A
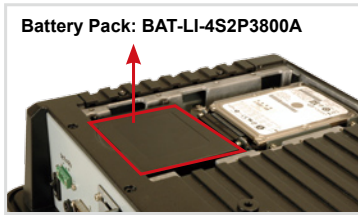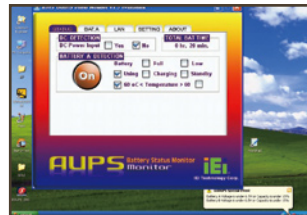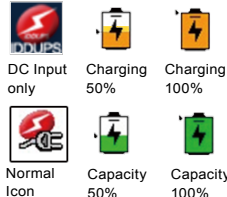
The UPC series is equipped with rechargeable "smart battery" which can supply voltage to systems up to 60 minutes without any external power supply.

Platform	Smart Battery Run-time
Intel®910GMLE	40~60 mins
Intel®GM45	40 mins

2. Battery Monitoring Utility

- Battery detection
- Battery capacity status
- Battery charge
- DC Input Indicator
- Battery Indicator
- Temperature warning
- Low battery alarm
- Connection port status

DC Input only

Charging 50%

Charging 100%

Normal Icon

Capacity 50%

Capacity 100%

3. Temporary Mobile System

COM 1
BATT/UPS   AT/ATX

UPC Battery Mode

BATT / UPS	AT / ATX

Under the battery mode, the UPC system can boot by power switch while the UPS battery supplies the main power to the unit as a temporary mobile system.

Protection

Automatic self-test	Battery self-test ensures early detection of a battery that needs to be replaced.
Back Up Power	An Back-UPS instantly switches your computer to emergency battery backup power and allows you to work through brief power outages

Convenience

Audible Alarms	Proactively notifies you of changing battery under 10% capacity.
Automatic self-test	User friendly graphical interface.

Manageability

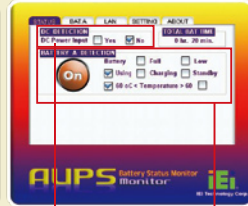| Software	This ensures real time monitoring and networking remote management Network based power management Internet ready monitoring

Manageability

LAN CONFIGURATION
• LAN shows system IP Address information

AUPS STATUS
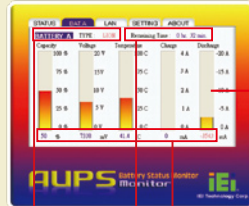• STATUS shows DC / Battery power input detection

ABOUT
• shows AUPS Utility information

BATTERY STATUS
• BAT.A shows Battery status real time monitoring

SETTING
• SETTING shows Connection Detection port

DC Input Detection

Battery Status Detection

Battery usage remaining time

Battery Type

Real time information updating

Battery capacity bar

Auto-Scan Connection port

System shuts down condition by battery capacity setting

Auto Shutdown

Network Based Power Management and Monitoring

The UPC series carries with smart battery software utility and application program for user to monitor the battery real time status and remotely control system power on/off from anywhere and anytime through network. Remote management software allows users to use static IP or DHCP for remote management.

Multiple Systems Power Control

The remote management software utility and application program allows users to easily get the status of the UPC and to control the UPC power functions form anywhere with an internet connection.

Network Remote Management Software

REMOTE LAN

UPC 1
.
.
UPC N

REMOTE LAN
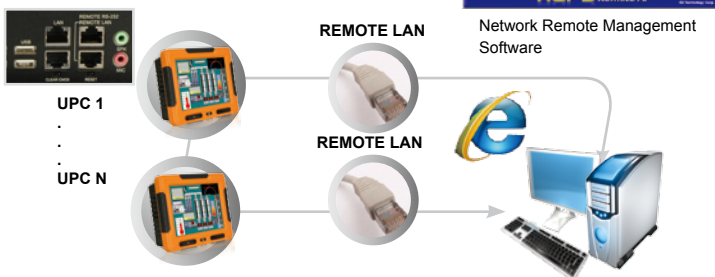
UPC Network Remote Management

Battery Capacity Status
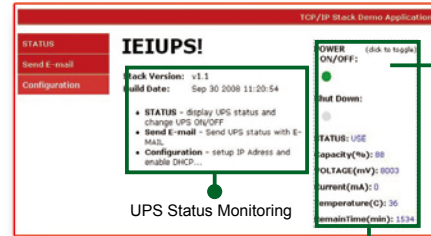
Power On/OFF

UPS Status Monitoring

Email Status Report

Remote control DC output ON/ OFF via web interface.

B. Powerful Computing

The powerful UPC-12A are designed for embedded performance grade applications. Featuring an Intel® GM45/910GMLE provides total compatibility in a wide variety of high performance end lower power industrial control applications.

Intel® GM45

The UPC-xxA seires integrated with the 45nm next generation Intel® Core™2 Duo processor family (Penrym) which extends leadership in performance and energy efficiency for low power embedded applications.

Performance Leadership
• Penryn on 45nm process
• Large L2 Cache and Faster FSB (6M, 1066MHz)

Increased Integration
• Support for High Definition Decoder in H/W

Format	Decoding Stage	GME965	GM45
MPEG2 (DVD)	HW Motion Comp	v	v
	Inverse DC Transform	v	v
	Variable Length Decode	v	v
VC-1 (WMV9)	HW Motion Comp + In Loop Deblocking	v	v
	Inverse Transform		v
	Variable Length Decode		v
AVC (H.264) (HD DVD)	HW Motion Comp + In Loop Deblocking	v	v
	Inverse Transform		v
	Variable Length Decode		v

Intel® 910GMLE

Embedded Low Power

Intel® Celeron® M 1GHz plus 512K cache with Intel® 910GMLE chipset
Offers the best combination of high performance computing features with the lowest power dissipation, ideal for industrial automation applications.

Good Aerodynamics!

The pressure between the heat sink and the heat source must be high for easily flow for good thermal transfer.

For performance-oriented users, socket type allows customers to easily upgrade processors from Celeron® M 2.0GHz to Core™2 Extreme 2.53GHz.

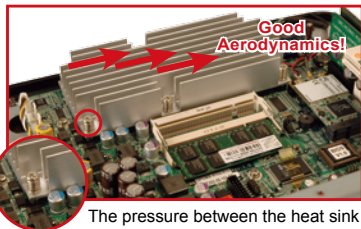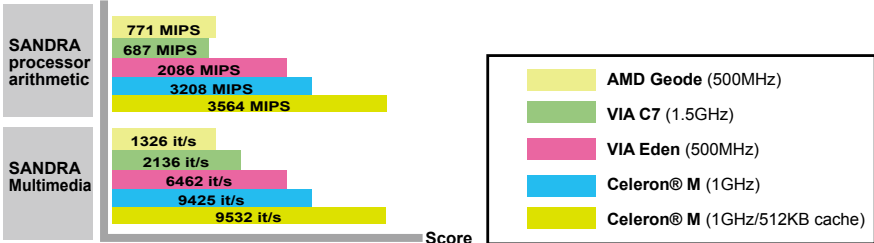| Package Type		Brand Name	Code Name	CPU No.	Clock Speed	FSB (MHz)	L2	TDP	Chipset
Socket P	45nm	Core™2 Extreme	Penryn (Montevina)	QX9300	2.53G	1066	12M	45W	GM45
				X9100	3.06G		6M	44W	
		Core™2 Quad		Q9100	2.26G		12M	45W	
				Q9000	2.0G		6M	45W	
		Core™2 Duo		T9900 (PGA/BGA)	3.06G		6M	35W	
				T9800 (PGA/BGA)	2.93G		6M	35W	
				T9600 (PGA/BGA)	2.8G		6M	35W	
				T9550 (PGA/BGA)	2.66G		6M	35W	
				T9400 (PGA/BGA)	2.53G		6M	35W	
				P9600 (PGA/BGA)	2.66G		6M	25W	
				P9500	2.53G		6M	25W	
				P8800 (PGA/BGA)	2.66G		3M	25W	
				P8700 (PGA/BGA)	2.53G		3M	25W	
				P8600 (PGA/BGA)	2.4G		3M	25W	
				P8400 (PGA/BGA)	2.26G		3M	25W	
		Core™2 Extreme	Penryn (Santa Rosa Reflash)	X9000	2.8G	800	6M	44W	
		Core™2 Duo		T9500 (PGA/BGA)	2.6G		6M	35W	
				T9300 (PGA/BGA)	2.5G		6M	35W	
				T8300 (PGA/BGA)	2.4G		3M	35W	
				T8100 (PGA/BGA)	2.1G		3M	35W	
	65nm	Meron (Santa Rosa)		T7500 (PGA/BGA)	2.2G		4M	35W	
		Celeron®	Meron (Montevina)	575	2.0G	667	1M	31W	

Millitary

Millitary Application:
• Powerful PC with super high brightness LCD Screens for demanding military applications
• Touch Screen Capable
• Integrated Intel® Core 2™ Duo CPU with high performance graphics speeds up to 533 MHz improve graphics and 3D rendering performance, enable high-definition video playback. for graphic intensive applications (i.e. mapping, simulation)

Comparison of CPU Performance Benchmark-SANDRA
(Higher index values are better)

SANDRA processor arithmetic
- 771 MIPS
- 687 MIPS
- 2086 MIPS
- 3208 MIPS
- 3564 MIPS

SANDRA Multimedia
- 1326 it/s
- 2136 it/s
- 6462 it/s
- 9425 it/s
- 9532 it/s

Score

- AMD Geode (500MHz)
- VIA C7 (1.5GHz)
- VIA Eden (500MHz)
- Celeron® M (1GHz)
- Celeron® M (1GHz/512KB cache)

Selectable AT/ATX Power Mode

Convenient External Switch in the Rear

• AT Power Mode
The AT power option allows multiple systems to be powered on directly by turning on the power supply. A room of computers can be controlled by a central power switch, so all systems are turned on and off by a central switch. This power mode is best suited for multiple computers where constant connectivity is not necessary, as the computers cannot be accessed or turned on remotely.

System On   System Off

UPC switch settings
BATT / UPS	**AT** / ATX

Benefits:
● Automatic start when power connected

• ATX Power Mode
The ATX power option allows systems to be powered on and off remotely over a network. Systems must be plugged in all the time, but they can be turned on from a "soft-off" using software that sends the appropriate signal over the network connections. Individual PCs can be turned on at the same time. The always-on ability allows complete remote administration, reducing technician visits to only when there are hardware issues.

System On   System Off

UPC switch settings
BATT / UPS	AT / **ATX**

Benefits:
● Power Management: Turn the system to standby mode to save power when the PPC is not used.
● Remote Control: The standby function on the ATX mode power supply allows the PPC to be turned on/off remotely via network.

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

1
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C. Flexible Expansion Interface (PCI/PCIe/PCIe mini Expansion Interface)

UPC series provide many expansion interfaces including one standard 32-bit PCI slot for various PCI add-on card, and one PCIe mini card socket for a small form factor extender such as wireless module.
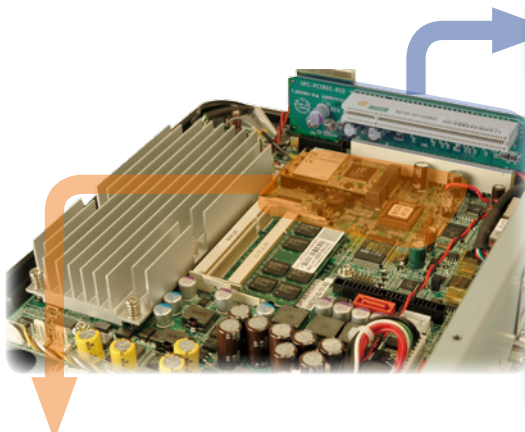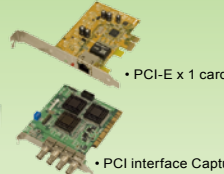
1. PCI/Optional PCIex1 Expansion Slot

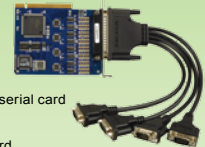**Anti-vibration Riser**
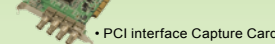Tightly secured riser card design.
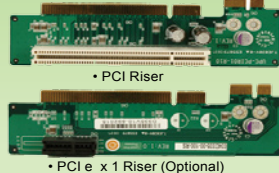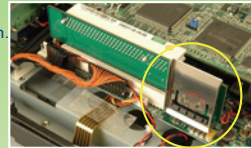
• PCI Riser

• PCI e x 1 Riser (Optional)

• PCI-E x 1 card

• PCI serial card

• PCI interface Capture Card

2. PCIe mini slot for 802.11b/g/n wireless module

The UPC series featuring high speed WiFi IEEE 802.11 n protocol which builds on previous 802.11 standards by adding multiple-input multiple-output (MIMO) and 40 MHz operation to the physical (PHY) layer. MIMO uses multiple transmitter and receiver antennas to improve the system performance. The 40 MHz operation uses wider bands, compared to 20 MHz bands in previous 802.11 operation, to support higher data rates. Wider bandwidth channels are cost effective and easily accomplished with moderate increases in digital signal processing.

27 times faster data transfer rate compared to 802.11b

Protocol 802.11	Freq. (GHz)	Thru. (Mbit/s)	Data (Mbit/s)	Range indoor (m)	Range outdoor (m)
a	5 GHz	23	54 Mbit/s	~35	~120
b	2.4 GHz	4.3	11 Mbit/s	~38	~140
g	2.4 GHz	19	54 Mbit/s	~38	~140
n	5 GHz and/ or 2.4 GHz	74	300 Mbit/s (2 streams)	~70	~250

The UPC System Features
• Invisible antenna delivers 802.11n wirelessnetwork connectivity
• Wireless IEEE 802.11 b/g/n module with PCI Express Mini-Card interface

D. Sunlight Readable

Sunlight Readable *Win!* **Regular Brightness**

• 1000 nits Super High Brightness
The UPC-12AH series has greatly improved luminance through edge lighting to achieve super high brightness

• Low Reflection through AR (Anti-Reflection) Technology
Outdoor applications in daylight or other bright environments require technology that can suppress surface reflection. The UPC-12AH sunlight readable model offers special AR (anti-reflection) surface treatment to prevent reflection, which ensures excellent visibility in daylight conditions.

Super high brightness: 1000 nits
High contrast: 700:1
Wide viewing angel: 60/60 (R/L) 45/75 (U/D)

E. Ambient Light Sensor

Advanced Deep Dimming to Black !

Night
For power saving and navigation safety

Day
1000 nits Sunlight Readable

Ambient Light Sensor provides Comfortable Viewing and Power Saving
Atuo-detects the amount of light in the viewing environment and auto-adjusts the brightness of the screen.
• Avoid eye strained and tried, to provide comfortable viewing
• Power consumption saving
• Extend lamp lifetime
• Extends backlight life
Note: Fully Dimmable Controls (for UPC-xxAH model)

F. Rugged Design

The UPC series ultra-rugged design survives the continuous shocks and jolts of a forklift. Engineered with a tough, anti-vibration and IP65 front panel dust and water rating.

Robust Die-Cast Aluminum Enclosure

A rugged die-cast aluminum enclosure helps the need for using a fan as a heat dissipation device to minimize the troublesome overheating problem.
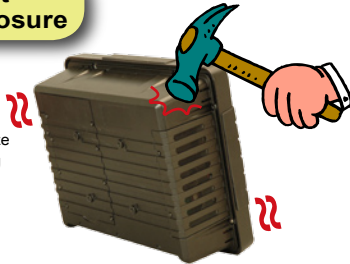
Rigorous Shock/ Vibration Test
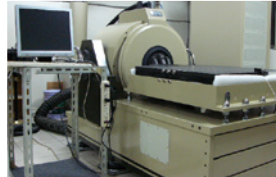
Compliant with MIL-STD-810F shock and vibration protection, as well as offering IP65 water and dust proof front panel protection.

HDD install with Anti-shock buffer rubber enhances protection performance.

Dismantleable Fan Module for Easy Maintenance

Applications

1. Lift Truck PPC

Lift truck mounted with UPC-12A, just as with barcode scanners, enable real-time data collection which allows operators to accomplish traditional warehouse tasks – faster – thus reducing labor costs.

Up to 540 Mbps

Battery Management Software

12V/24V DC Output

Lead-acid Battery

Back-end System

RS-422/485

RS-232

We Offer:
- 9~28V DC Input for Mobile Application.
- WiFi 802.11 b/g/n
  802.11b/g Wi-Fi, which gives you up to broadband-speed browsing and connectivity while moving, compared to traditional wired LAN. Without hinders worker movement and lessens man-hour productivity.

2. Power Bank

We Offer:
- Redundant Power Protection
  As the redundant power supply, in the event of the main power source failing or running out, the UPC unit is able to power the load to provide greater reliability.
- Wide Range 9V~28VDC Input
  The UPC series provides wide range +9~+28VDC power input for regulator function to prevent unstable power input damage, also avoid unexpectedly power lost.
- Rechargeable temporary battery pack
- Providing up to 60 minuets uninterrupted operation time for external battery change or relocation data back up.
- Reduce Risk of Losing Valuable Data as Continuous System Operation
- VESA Compliance Easy to Employ

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Fully I/O and User Friendly Interface

● **LED Indicator**
(Power LED/HDD Status/Charging/Discharging/Light Sensor)

● **Membrane Keypad Control**
LCD On/Off; Brightness Up/Down;
Volume Up/Down; Auto Dimming On/Off;
Battery Low Beeper (under 10% batter
capacity beeper on/off)

● **Waterproof front USB**
Designed for industrial use, UPC waterproof front USB cover is based around the standard USB interface, with USB Ver.2 performance offering data transfer up to 480Mbs.

1 9~28VDC Input
2 Power Switch
3 DC 12V Power Jack
4 3 x RS-232 COM, 1 x RS-232/422/485 COM
5 User-accessible CF
6 4 x USB2.0
7 1 x PCI Expansion Slot
(Optional PCIex1 expansion)

8 2 x RJ-45 Giga LAN
9 Remote RS-232, Remote LAN
10 Clear cmos
11 Reset
12 Line-out
13 Mic-in
14 Remote DC On/Off
15 VGA Output

Specifications

Model		12.1" Regular Brightness		12.1" Sunlight Readable	
		UPC-12A/910	**UPC-12A/GM45**	**UPC-12AH/910**	**UPC-12AH/GM45**
Display	LCD Size	12.1"		12.1"	
	Max Resolution	1024 x 768		1024 x 768	
	Brightness (cd/m²)	450		1000	
	Contrast Ratio	700:1		500:1	
	LCD Color	262k		262k	
	Pixel Pitch (mm)	0.240(H) x 0.240(V)		0.240(H) x 0.240(V)	
	Viewing Angle (H-V)	150o/150o		120o/120o	
	Backlight MTBF	50000hrs		50000hrs	
Motherboard	CPU	Intel® Celeron® M processor 1.0GHz with 512KBL2 Cache	Intel® Core™2 Duo P8400 2.26GHz Intel® Celeron® M 575 2.0GHz Intel® Core™2 Duo T9400 2.53GHz	Intel® Celeron® M processor 1.0GHz with 512KBL2 Cache	Intel® Core™2 Duo P8400 2.26GHz Intel® Celeron® M 575 2.0GHz Intel® Core™2 Duo T9400 2.53GHz
	Chipset	Intel® 910GMLE + ICH6M	Intel® GM45 Chipset + ICH9M	Intel® 910GMLE + ICH6M	Intel® GM45 Chipset + ICH9M
	RAM	two DDRII SO-DIMM Up to 4GB			
I/O		3 x RS-232 COM 1 x RS-232/422/485 COM 2 x RJ-45 Giga LAN 6 x USB 2.0 (2 waterproof USBs in front of the panel) 1 x VGA 1 x Power Switch 2 x Audio Jack (Line-out, Mic-in) 1 x Reset Button		1 x COMS Clear Button 1 x 9~28VDC Power Jack 1 x Power Mode Switch (Battery or DC input) 1 x 9~28VDC Power Input Terminal Block 1 x Networking UPS Management Port by RJ-45 Ethernet 1 x Remote COM port by RJ-45 connector 1 x UPS Remote Power Switch (2 pin terminal block)	
Expansion		1 x PCI, 1 x PCIex1 (Optional), 1 x PCIe mini (Wireless LAN Module)			
LED Indicator		Power LED / HDD Status / Charging / Discharging / Light Sensor			
Membrane Keypad		LCD On/Off; Brightness Up/Down; Volume Up/Down; Auto Dimming On/Off; Battery Low Beeper (under 10% batter capacity beeper on/off)			
Drive Bay	SSD	CF Type II			
	HDD	1 x 2.5" SATA HDD bay			
Battery	Capacity	14.8V, 3800 mAH			
	UPS run-time	60 mins	40 mins / 50 mins / 40 mins	50 mins	40 mins / 30 mins / 40 mins
Physical	Construction Material	Aluminum Die-casting			
	Mounting	VESA 100 mm x100 mm			
	Front Panel Color	Orange (Pantone 151C)			
	Dimension (WxHxD) (mm)	335 x 280 x 119			
Environment	Operation Temperature (ºC)	-10°C~55°C			
	Storage Temperature (ºC)	-20°C~70°C			
	Net/Gross Weight	5.8 Kg / 6.9 Kg			
	IP Level	IP65 Front Panel Compliant			
	Safety & EMC	CE / FCC / CCC / CB			
Touch Screen		Resistive Type 5-Wire (Touch controller IC is on board)			
Power Requirement		9~28VDC			
Power Consumption		56W	63W / 60W / 65W	64W	73W / 70W / 74W

*note: Battery normal operating temperature 0°C~45°C

UPC-12A
Dimensions (Unit: mm)

Ordering Information

Part Number			Description
12.1"	**Regular Brightness**	UPC-12A/910-CM373/WT-R/1GB-R10	12.1" 450 cd/m² XGA panel PC with Intel® Celeron® M 1.0GHz/512KB CPU, 100W UPS with 14.8V, 3800mAH, 1GB DDR2 RAM and touch screen, 802.11 b/g/n wireless
		UPC-12A/GM45-CM575/WT-R/1GB-R10	12.1" 450cd/m² XGA panel PC with Intel® Celeron® M 575 2GHz CPU , 100W UPS with 14.8V, 3800mAH, 1GB DDR2 RAM and touch screen, 802.11 b/g/n wireless
		UPC-12A/GM45-P8400/WT-R/2GB-R10	12.1" 450cd/m² XGA panel PC with Intel® Core™2 Duo P8400 2.26GHz CPU, 100W UPS with 14.8V, 3800mAH, 2GB DDR2 RAM and touch screen, 802.11 b/g/n wireless
		UPC-12A/GM45-T9400/WT-R/2GB-R10	12.1" 450cd/m² XGA panel PC with Intel® Core™2 Duo T9400 2.53GHz CPU, 100W UPS with 14.8V, 3800mAH, 2GB DDR2 RAM and touch screen, 802.11 b/g/n wireless
	Sunlight Readable	UPC-12AH/910-CM373/WT-R/1GB-R10	12.1" 1000 cd/m² XGA panel PC with Intel® Celeron® M 1.0GHz/512KB CPU, 100W UPS with 14.8V, 3800mAH, 1GB DDR2 RAM and touch screen, 802.11 b/g/n wireless
		UPC-12AH/GM45-CM575/WT-R/1GB-R10	12.1" 1000 cd/m² XGA panel PC with Intel® Celeron® M 575 2GHz CPU , 100W UPS with 14.8V, 3800mAH, 1GB DDR2 RAM and touch screen, 802.11 b/g/n wireless
		UPC-12AH/GM45-P8400/WT-R/2GB-R10	12.1" 1000 cd/m² XGA panel PC with Intel® Core™2 Duo P8400 2.26GHz CPU, 100W UPS with 14.8V, 3800mAH,2GB DDR2 RAM and touch screen, 802.11 b/g/n wireless
		UPC-12AH/GM45-T9400/WT-R/2GB-R10	12.1" 1000 cd/m² XGA panel PC with Intel® Core™2 Duo T7500 2.2GHz CPU, 100W UPS with 14.8V, 3800mAH, 2GB DDR2 RAM and touch screen, 802.11 b/g/n wireless

Options

Model	UPC-12A-910	UPC-12A-GM45	UPC-12AH-GM45
Panel mounting kit	UPCPK-12		
Wall mounting kit	AFLWK-19		
Rack mounting kit	UPCRK-12		
ARM	ARM-11-RS / ARM-31-RS		
Stand	STAND-A19 / STAND-B19 / STAND-210-R11		
OS: Win CE 6.0	UPCCF-12-910-CE060-R10	N/A	N/A
OS: Win XPE	UPCCF-12-910-XPE-R10	UPCCF-12-GM45-XPE-R10	UPCCF-12-GM45-XPE-R10
Battery Pack	BAT-LI-4S2P3800A (14.8V, 3800mAH)		
PCIe x 1 Riser Card	034D335-00-100-RS		

Packing List

Item	Part Number	Q'ty	Specification
Screws Pack	44003-050501-RS	4	M5; 5mm
RJ45 to DB9 COM port cable	32000-089201-RS	1	
Power Adpater	63000-FSP096AHB-RS	1	90~264V AC; 12V DC; 96W
Power Cord	32000-000002-RS	1	1750mm; European Standard
Utilities CD	7B000-000087-RS	1	
Touch Pen	XTR104-0002-RS	1	-
WiFi 802.11 b/g/n PCIe mini card	7F900-Q802XKN-RS		
Smart battery pack	BAT-LI-4S2P3800A		Lithium ion Battery 4S2P, 3800mAh, FOR UPC Series

Screws Pack   **Smart battery PACK**   **RJ45 to DB9 COM port cable for UPS remote management**

802.11 b/g/n PCIe mini wireless card   **Utilities CD**   **Touch Pen**

Note: Suggest to connect DC input constantly. Battery will be drained after 14 hours.

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

WIDS-515A/517A

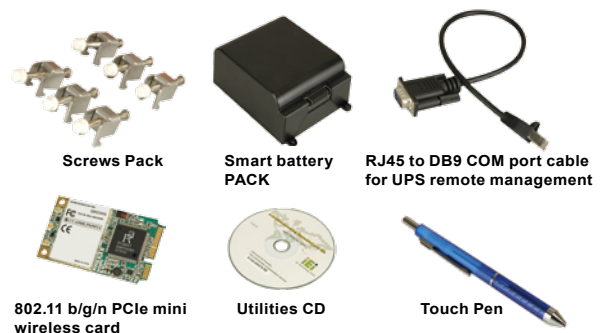## 15"/17" Wireless Panel Mount Panel PC

WiFi antenna

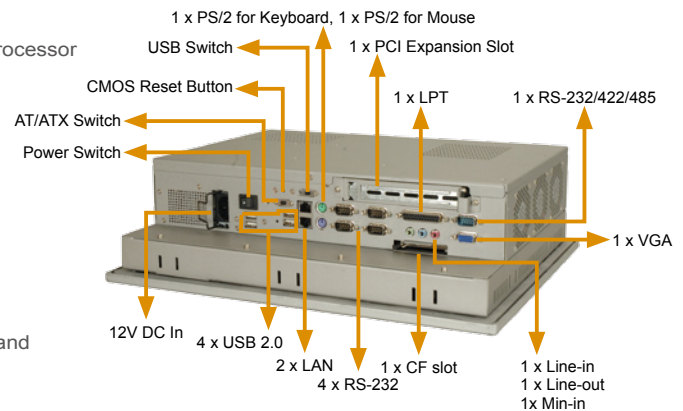**WiFi Advanced Model**

The WIDS series featuring high speed WiFi IEEE 802.11n protocol which builds on previous 802.11 standards by adding multiple-input multiple-output (MIMO) and 40 MHz operation to the physical (PHY) layer. MIMO uses multiple transmitter and receiver antennas to improve the system performance. The 40 MHz operation uses wider bands, compared to 20 MHz bands in previous 802.11 operation, to support higher data rates. Wider bandwidth channels are cost effective and easily accomplished with moderate increases in digital signal processing.

F3 One Key Recovery
iEi ● symantec.

2 USB with waterproof cover
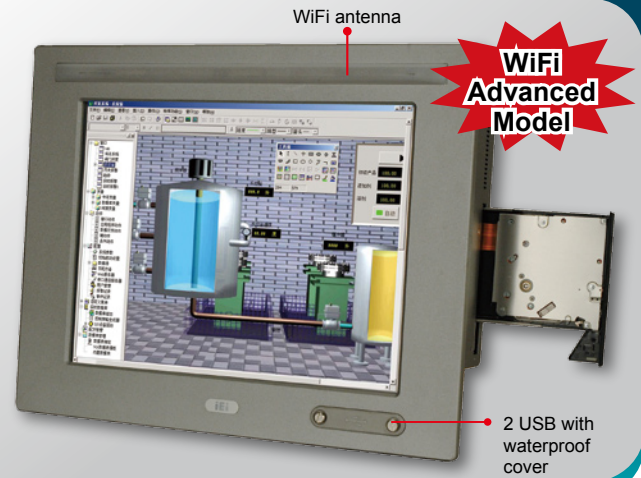
Features

- LGA 775 Intel® Core™2 Duo / Celeron® D FSB 533/800/1066 MHz processor
- Supports two 2.0 GB (max.) 667 MHz DDR2 DIMM
- Dual Gigabit Ethernet support
- Built-in invisible WiFi module supports 802.11 a/b/g/n
- Additional PCI expansion slot capacity
  (Optional PCIe x4 slot with PCIe x1 expansion slot capacity)
- Lockable power connector to ensure secure power cable connection
- Easily accessible external AT/ATX mode selection switch
- External CMOS reset button for fast system recovery
- One Compact Flash® Type II socket
- IP 65 compliant aluminum front panel
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

1 x PS/2 for Keyboard, 1 x PS/2 for Mouse
USB Switch
1 x PCI Expansion Slot
CMOS Reset Button
1 x LPT
1 x RS-232/422/485
AT/ATX Switch
Power Switch
1 x VGA
12V DC In
4 x USB 2.0
2 x LAN
4 x RS-232
1 x CF slot
1 x Line-in
1 x Line-out
1x Min-in

Specifications

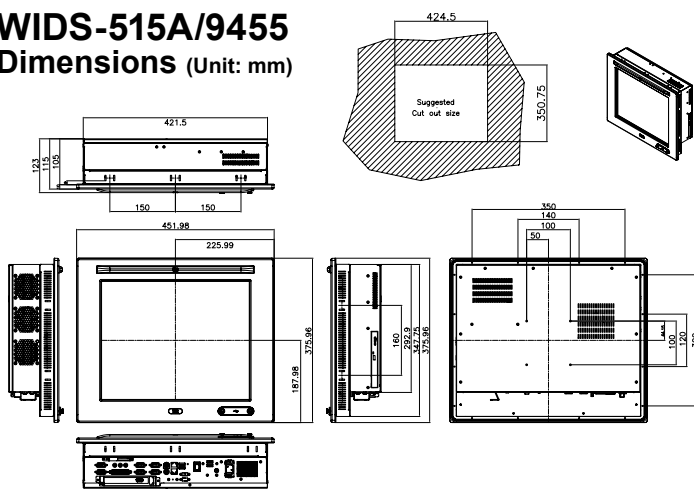| Model	WIDS-515A / 9455	WIDS-517A / 9455
LCD	Resolution :1024x768 (XGA) Brightness : 350 cd/m² Contrast Ratio : 700:1 Viewing Angle (H-V):140/125 Backlight MTBF : 50,000 hrs	Resolution :1280x1024 (SXGA) Brightness : 300 cd/m² Contrast Ratio : 800:1 Viewing Angle (H-V):140/140 Backlight MTBF : 50,000 hrs
CPU	LGA 775 Intel® Core™2 Duo / Celeron® D with a 533/800/ 1066 MHz FSB	
Chipset	Intel® 945G + ICH7R	
Memory	2 x 2 GB (max.) DDR2 667 MHz DIMM (system max. 4 GB)	
VGA	Intel® 945G supports dual display	
SSD	One CF Type II socket	
Drive Bay	1 x 2.5" SATA II HDD bays with anti-shock	
	1 x Slim Type CD-ROM bay	
Ethernet	2 x PCIe GbE controllers	
Audio	HD Audio Codec with Realtek ALC883	
I/O	1 x RS-232/422/485 4 x RS-232 6 x USB 2.0 (2 waterproof USB in the front of the panel) 2 x PS/2 (KB/MS) 1 x LPT 1 x VGA out	2 x LAN 3 x Audio (Lin-in, Line-out,MIC-in) 1 x CMOS reset button 1 x AT/ATX switch 1 x USB switch
Expansion Slot	One PCI, One Mini-PCIe (for Wireless 802.11 b/g/n module), One PCIe x1 slot (Optional)	
Touch Screen	5-wire resistive type with RS-232 interface	
Operating Temperature	0°C~ 50°C	
Storage Temperature	-20°C ~ 60°C	
Vibration	-5~17Hz 0.1" double amplitude displacement, 17~640 Hz 1.5G acceleration peak to peak	
Shock	10G acceleration peak to peak. (11 ms)	
Relative Humidity	5%~ 95% @ 60°C, non-condensing	
Net / Gross Weight	7 kg /11 kg	8 kg / 12 kg
Dimensions (W x H x D)	410 mm x 329 mm x 124.5 mm	451.98 mm x 375.96 mm x 123 mm
Power Supply	ATX AC-input	AC Input ATX Power Supply 180W, ACE-A618A-RS - Input: 90 ~ 264VAC @ 50/60Hz - Output (max.) : 3.3V@14A, 5V@16A, 12V@14A, -12V@0.5A	AC Input ATX Power Supply 220W, ACE-A622A-RS - Input: 90 ~ 264VAC @ 50/60Hz - Output (max.) : 3.3V@14A, 5V@16A, 12V@10A,- 12V@0.8A
	ATX DC-input	DC Input ATX Power Supply- 200W, ACE-4520C-RS- Input: 24VDC @ 50/60Hz- Output (max.) : 3.3V@12A, 5V@12A, 12V@15.4A, -12V@0.5A	
Front Panel Protection	IP 65 compliant	
Certificate	Meets CE, FCC	

1 Automation Panel Solutions
2 All-in-One Touch POS
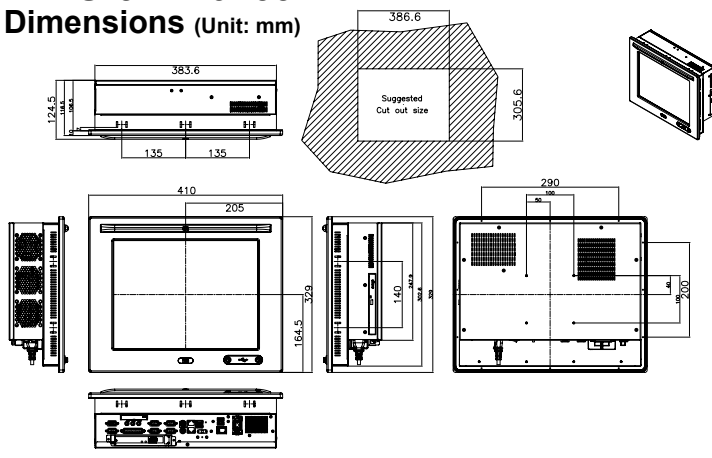3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
7 Optional Peripherals

WIDS-515A/9455
Dimensions (Unit: mm)

424.5
350.75
421.5
123 115 100
150 150
451.98
225.99
350
140
100
50
375.96
187.98
375.96
160
292.9
147.75
100
120
300

WIDS-517A/9455
Dimensions (Unit: mm)

386.6
305.6
383.6
124.5
135 135
410
205
329
164.5
140
290
100
50
200

WiFi 802.11 a /b/g/n WLAN Networking

802.11 a/b/g/n ready with invisible antenna

27 times faster data transfer rate compared to 802.11b

Protocol	Freq.	Thru.	Data	Range indoor	Range outdoor
802.11	**(GHz)**	**(Mbit/s)**	**(Mbit/s)**	**(m)**	**(m)**
a	5 GHz	23	54 Mbit/s	~35	~120
b	2.4 GHz	4.3	11 Mbit/s	~38	~140
g	2.4 GHz	19	54 Mbit/s	~38	~140
n	5 GHz and/or 2.4 GHz	74	300 Mbit/s (2 streams)	~70	~250

IP 65 Security Front USB Port

Designed for industrial use, WIDS waterproof front USB cover is based around the standard USB interface, with USB Ver.2 performance offering data transfer up to 480Mbs.

Front USB function switch allow user to enable or disable the front USB port function. Depends on application and security demands, the system administrator can easily make decision to release the front USB port or not.

USB Switch

Packing List

Part Number	Description	Amount
19600-000078-RS	Screw Kit	1
PK-170M	Panel Mounting Kit	1
WK-190MS-R10	Wall Mounting Kit	1
32000-000002-RS	Power Cord	1
33100-000079-RS	Jumper Pack	1
	User Manual & Driver CD	1

Options

Part Number	Description
19Z00-000112-RS	IDE CD-ROM Installation Kit (W/O IDE Cable)
32200-000045-RS	40cm CD-ROM IDE Cable
41019-0393C0-00-RS	IDE HDD Bracket
32200-000037-RS	25cm HDD IDE Cable
134D270-00-102-RS	PCIe x4 slot with PCIe x1 Signal Riser Card

IQ Mounting Options

LCD Size	15" Panel PC	17" Panel PC
Panel Mount Kit	PK-170M	
Wall Mount Kit	WK-190MS-R10	
Rack Mount Kits	WIDSRK-150MS-R10	WIDSRK-170MS-R10
Stand	STAND-210-R11	
ARM	ARM-31-RS	

Ordering Information

▼15" XGA Touch Panel PC

Power Type	Part Number	Description
AC	WIDS-515A/9455-E2160/A618A/WT-R/1GB	15" 350 cd/m² XGA Panel PC with POS-9455, Pentium Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, 802.11 b/g/n wireless module, Silver color, PSU ACE-A618A, touch screen, RoHS
DC	WIDS-515A/9455-E2160/4520C/WT-R/1GB	15" 350 cd/m² XGA Panel PC with POS-9455, Pentium Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, 802.11 b/g/n wireless module, Silver color, PSU ACE-4520C, touch screen, RoHS

▼17" SXGA Touch Panel PC

Power Type	Part Number	Description
AC	WIDS-517A/9455-E2160/A622A/WT-R/1GB	17" 300 cd/m² SXGA panel PC with POS-9455, Pentium Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, 802.11 b/g/n wireless module, Silver color, PSU ACE-A622A, touch screen, RoHS
DC	WIDS-517A/9455-E2160/4520C/WT-R/1GB	17" 300 cd/m² SXGA panel PC with POS-9455, Pentium Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, 802.11 b/g/n wireless module, Silver color, PSU ACE-4520C, touch screen, RoHS

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
Video Wall Controller

5
RISC-based Solutions

6
PACSmate Medical

7
Optional Peripherals

Industrial Aluminum PPC-27 Series

PPC-2706GHS/LX-800
AMD Geode LX800 500MHz Processor with 6.5" TFT LCD and Touchscreen

PPC-2708GHS/LX-800
AMD Geode LX800 500MHz Processor with 8.4" TFT LCD and Touchscreen
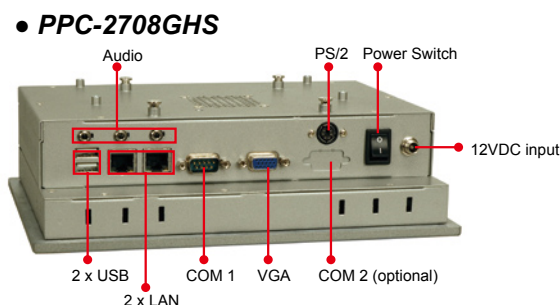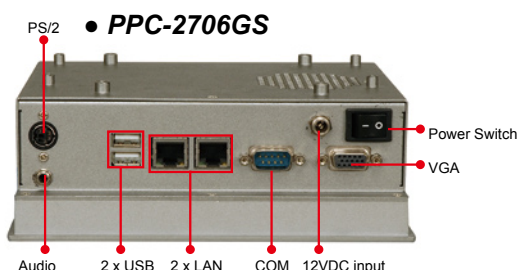
Features

1. 6.5" TFT VGA LCD / 8.4" TFT SVGA LCD
2. AMD Geode™ LX-800 processor
3. Supports 1 GB (max.) 333/444 MHz DDR SO-DIMM
4. Dual 10/100Mbps Ethernet
5. One CompactFlash®Type I/II socket
6. Aluminum die-casting front panel compliant with IP 65 standard
7. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Specifications

Model		PPC-2706GS/LX-800	PPC-2708GHS/LX-800
Display	LCD Size	6.5"	8.4"
	Max Resolution	640(W) x 480(H)	800(W) x 600(H)
	Brightness (cd/m²)	500	400
	Contrast Ratio	450 : 1	400 : 1
	LCD Color	262K	262K
	Pixel Pitch (mm)	0.069(W) x 0.207(H)	0.213(H) x 0.213(V)
	Viewing Angle (V-H)	120° / 140°	100° / 120°
	Backlight MTBF (hrs)	30,000	50,000
Motherboard	SBC Model	WAFER-LX-800	WAFER-LX-800
	CPU	AMD Geode LX800 500MHz processor	AMD Geode LX800 500MHz processor
	Chipset	AMD Geode LX800 + AMD CS5536	AMD Geode LX800 + AMD CS5536
	RAM	Supports one 333/400MHz DDR SO-DIMM(1GB Max.)	Supports one 333/400MHz DDR SO-DIMM(1GB Max.)
I/O Ports and Switches		1 x RS-232 COM Port 2 x USB Port 1 x PS/2 (KB/MS) 2 x RJ-45 for 10/100Mbps LAN 1 X VGA out 1 x Audio (Line-out) 1 x 12VDC input Power Jack 1 x Power Switch	2 x RS-232 COM Port (One optional for Touch Screen) 2 x USB Port 1 x PS/2 (KB/MS) 2 x RJ-45 for 10/100Mbps LAN 1 X VGA out 1 x Audio (Line-in, Line-out, MIC-in) 1 x 12VDC input Power Jack 1 x Power Switch
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD Bay	1 x 2.5" SATA/IDE HDD Bay
	SSD	CF Type II	CF Type II
Physical	Construction Front Panel	Aluminum	Aluminum
	Construction Chasis	Heavy-duty Steel	Heavy-duty Steel
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm
	Front Panel Color	Silver (Pantone 8001C)	Silver (Pantone 8001C)
	Dimension (WxHxD) (mm)	183 x 143 x 62.6	244 x 178 x 67
	Net Gross Weight	1.4 Kg / 3.4 Kg	2.2 Kg / 4.4 Kg
Environment	Operation Temperature (°C)	-10°C ~50°C	-10°C ~50°C
	Storage Temperature (°C)	-20°C ~60°C	-20°C ~60°C
	Vibration	5~17Hz, 0.1" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak	5~17Hz, 0.1" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak
	Shoock	10G acceleration part to part (11ms)	10G acceleration part to part (11ms)
Touch Screen		Resistive Type 4-Wire with RS-232 interface	Resistive Type 4-Wire with RS-232 interface
Power Supply	AC / DC Power Adapter	P/N: 63000-FSP0601AD101C712-RS 60W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC	P/N: 63000-FSP0601AD101C712-RS 60W Power Adapter Input: 90VAC~264VAC, 50/60Hz Output: 12VDC
	Front Panel Protection	IP65 Compliant	IP65 Compliant
	Certificate	Meets CE, FCC	Meets CE, FCC

Fully Integrated I/O

● **PPC-2706GS**

PS/2 · Power Switch · VGA · Audio · 2 x USB · 2 x LAN · COM · 12VDC input

● **PPC-2708GHS**

Audio · PS/2 · Power Switch · 12VDC input · 2 x USB · 2 x LAN · COM 1 · VGA · COM 2 (optional)

Dimensions (Unit: mm)

● *PPC-2706GS*
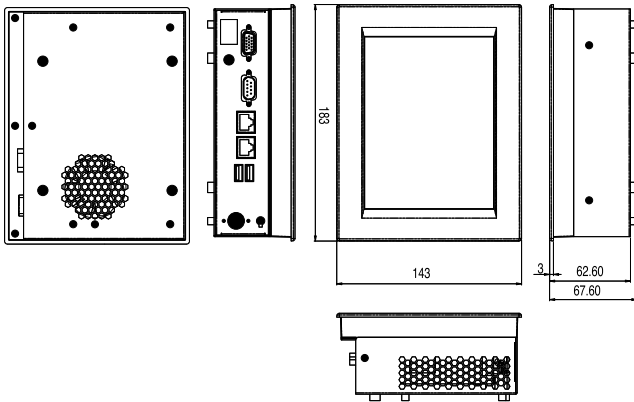
● *PPC-2708GHS*

Compact Size

The compact size is suitable for any places with space limitations.

Only 64.6mm

With Din Mount design, adapt easily to working environments

IEI OS Build Service Flow Chart

IEI offers OS build service in the industrial CF card as the total solution for embedded Panel PC.

Windows CE 5.0 | Windows XP Embedded

WinCE/XP Embedded Requirment

| Functionalities Customization | Software Installation | OS Image Attachment |

IEI Embedded Team's Service

Function Test

Shipping

IQ Mount Supporting List

| Rack Mount (Optional) | Panel Mount (Standard) | Din Mount (Optional) | Wall Mount (Standard) | Stand / Arm (Optional) |

Options

	PPC-2706GS/LX	PPC-2708GHS/LX
Rack Mount Kits	RK-065MS-R10	RK-084MS-R10
LCD Monitor Arm	ARM-11-RS	ARM-11-RS
LCD Monitor Stand Din Mounting Kits	STAND-100-RS/DK-084MS	STAND-100-RS/DK-084MS
Din Mounting Kits	DK-084MS	DK-084MS

Packing List

Description	Part Number	Amount
Screw Kit	19600-000205-RS	1
Jumper Pack	33101-000249-RS	1
Power Cord	32000-000002-RS	1
Power Adapter	63000-FSP0601AD101C712-RS	1
PS/2 Cable	32000-133200-RS	1
Panel Mounting Kits	PK-065M (PPC-2706GS/LX) PK-084M (PPC-2708GHS/LX)	1
Wall Mounting Kit	WK-190MS-R10	1
Din Mounting Kit	19Z00-000025-R10 (PPC-2706GS/LX)	1
HDD IDE Cable	32200-074700-RS	2
Touch Screen Driver CD / Touch Pen		1
User Manual & Driver CD		1

Ordering Information

6.5" TFT LCD	PPC-2706GHS/LX-800/T-R/256MB	6.5" 500 cd/m² VGA TFT Panel PC with WAFER-LX-800,Silver color and Touch Screen,256MB DDR RAM,RoHS
8.4" TFT LCD	PPC-2708GHS-R11/LX-800/T-R/256MB	8.4" 400 cd/m² SVGA TFT Panal PC with WAFER-LX-800 Silver color and Touch Screen,256MB DDR RAM,RoHS
	PPC-2708GHS-R11/LX-800/T-R/512MB	8.4" 400 cd/m² SVGA TFT Panal PC with WAFER-LX-800 Silver color and Touch Screen,512MB DDR RAM,RoHS

Sidebar:
1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
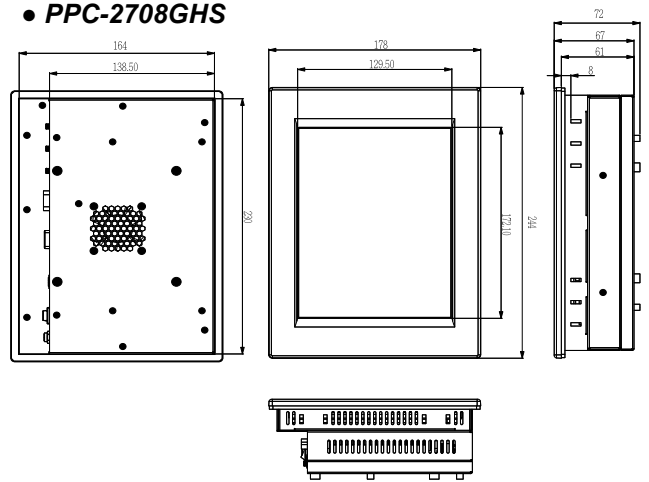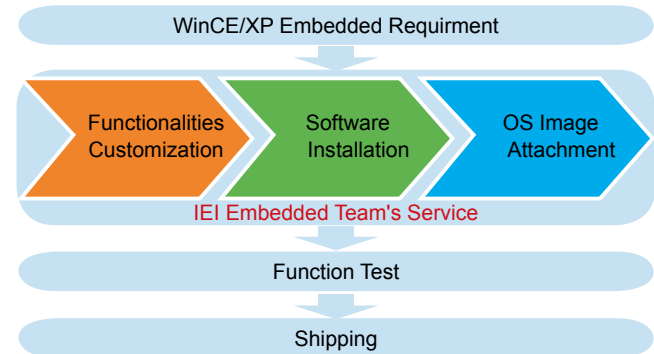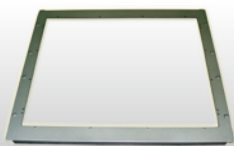7 Optional Peripherals

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals

Industrial Aluminum PPC-27 Series

PPC-2710GHS/LX-800
AMD Geode LX800 500MHz Processor with 10.4" TFT LCD and Touchscreen

PPC-2712GS/LX-800
AMD Geode LX800 500MHz Processor with 12.1" TFT LCD and Touchscreen

Fanless

Features

1. 10.4" TFT SVGA LCD / 12.1" TFT XGA LCD
2. Fanless cooling system
3. 500 MHz AMD Geode™ LX 800 processor
4. Supports 1 GB (max.) 333/444 MHz DDR SO-DIMM
5. Dual 10/100Mbps Ethernet
6. Fanless and ultra-low power consumption
7. Optional 802.11 b/g wireless LAN module
8. One CompactFlash® Type II socket
9. IP 65 compliant aluminum front panel
10. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)
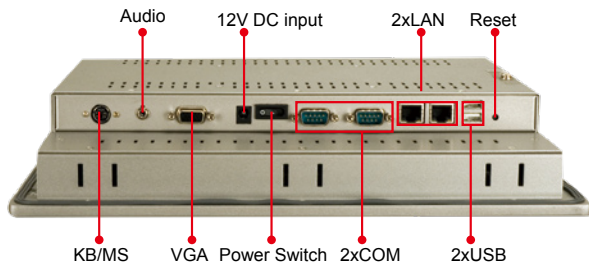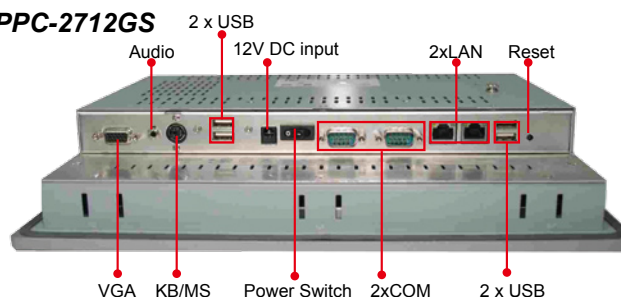
Specifications

Model		PPC-2710GS/LX-800	PPC-2712GS/LX-800
Display	LCD Size	10.4"	12.1"
	Max Resolution	800(W) x 600(H)	1024(W) x 768(H)
	Brightness (cd/m²)	400	450
	Contrast Ratio	400 : 1	700:1
	LCD Color	262K	262K
	Pixel Pitch (mm)	0.264(H) x 0.264(V)	0.240(H) x 0.240(V)
	Viewing Angle (V-H)	100° / 120°	160° / 160°
	Backlight MTBF (hrs)	50,000	
Motherboard	SBC Model	AFLMB-LX-800	
	CPU	AMD Geode LX800 500MHz processor	
	Chipset	AMD Geode LX800 + AMD CS5536	
	RAM	Supports one 333/400MHz DDR SO-DIMM(1GB Max.)	
I/O Ports and Switches		2 x RS-232 COM Port / 1 x PS/2 (KB/MS) / 2 x RJ-45 for 10/100Mbps LAN / 1 x 12VDC input Power Jack / 2 x USB 2.0 / 1 x Power Switch / 1 x VGA Port / 1 x Reset Button / 1 x Audio (Line-out)	2 x RS-232 COM Port / 1 x PS/2 (KB/MS) / 2 x RJ-45 for 10/100Mbps LAN / 1 x 12VDC input Power Jack / 4 x USB 2.0 / 1 x Power Switch / 1 x VGA Port / 1 x Reset Button / 1 x Audio (Line-out)
Driver Bay	HDD Driver Bay	1 x 2.5" / IDE HDD Bay	1 x 2.5" / IDE HDD Bay
	SSD	CF Type II	
Extension Slot		1 x Wireless LAN 802.11 b/g Module (internal Mini PCI interface)	
Physical	Construction Front Panel	Aluminum	
	Construction Chasis	Heavy-duty Steel	
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm	
	Front Panel Color	Silver (Pantone 8001C)	
	Dimension (WxHxD) (mm)	311.5 x 242 x 58	340 x 260 x 66
	Net Gross Weight	2.8 Kg / 5.5 Kg	2.8 Kg / 5.7 Kg
Environment	Operation Temperature (°C)	-10°C ~50°C	
	Storage Temperature (°C)	-20°C ~60°C	
	Vibration	5~17Hz, 0.1" double amplitude displacement / 17~640Hz, 1.5G acceleration peak to peak	
	Shoock	10G acceleration part to part (11ms)	
Touch Screen		Resistive Type 5-Wire with RS-232 interface	
Power Supply	AC / DC Power Adapter	P/N: 63000-FSP0481AD101C-RS / 48W Power Adapter / Input: 90VAC~264VAC, 50/60Hz / Output: 12VDC	
Front Panel Protection		IP65 Compliant	
Certificate		Meets CE, FCC	

Fully Integrated I/O

● **PPC-2710GS**

Audio   12V DC input   2xLAN   Reset

KB/MS   VGA   Power Switch   2xCOM   2xUSB

● **PPC-2712GS**

2 x USB
Audio   12V DC input   2xLAN   Reset

VGA   KB/MS   Power Switch   2xCOM   2 x USB

Dimensions (Unit: mm)
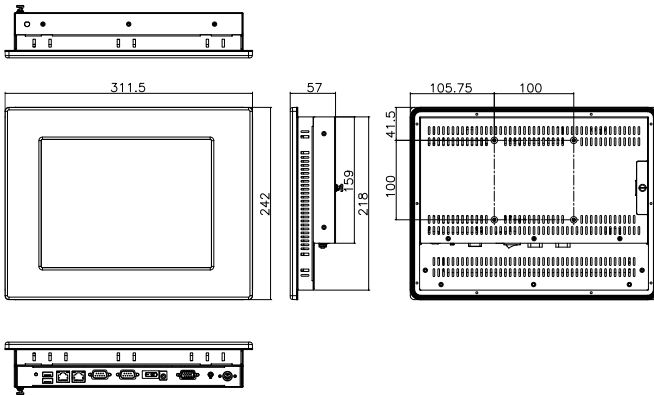
● *PPC-2710GS*

● *PPC-2712GS*

Optional 802.11 b/g Wireless LAN Module

The PPC-2710G and PPC-2712G equip with a wireless module that that make larger bundles of data be transmitted at high speed and in real-time. The application of wireless LAN facilitates its use in large warehouses and at greater distances.

Long distance communication

Fanless System

The PPC-2710G and PPC-2712G are designed with an AMD LX-800 platform. The AMD Geode™ LX 800 generates less heat than other processors but maintains an above-average performance enabling

a fanless design. A fanless design reduces the failure caused by fans and extends the operation life of the device.
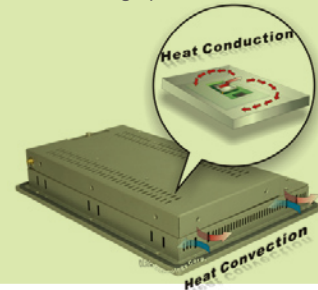
IQ Mount Supporting List

Rack Mount (Optional)   **Panel Mount (Standard)**   **Wall Mount (Standard)**   **Stand / Arm (Optional)**

Options

	PPC-2710GHS/LX	PPC-2712GS/LX
Rack mount kits	RK-104MS-R10	RK-121MS-R10
LCD Monitor Arm	ARM-11-RS	ARM-11-RS
LCD Monitor Stand Din Mounting Kits	STAND-100-RS	STAND-100-RS

Packing List

Description	Part Number	Amount
Screw Kit	19600-000207-RS	1
Jumper Pack	33100-000033-RS	1
Power Cord	32000-000002-RS	1
Power Adapter	63000-FSP0481AD101C-RS (48W Power Adapter)	1
PS/2 Cable	32000-000138-RS	1
Panel Mounting Kits	PK-104M (PPC-2710GS/LX) PK-121M (PPC-2712GS/LX)	1
Wall Mounting Kit	WK-190MS-R10	1
Touch Screen Driver CD / Touch Pen		1
User Manual & Driver CD		1

Ordering Information

10.4" TFT LCD	PPC-2710GHS/AFLMB-LX-800/T-R/256MB	10.4" 400 cd/m² SVGA TFT Panel PC with AFLMB-LX-800,Silver Color & Touch Screen,256MB RAM,RoHS
12.1" TFT LCD	PPC-2712GS/AFLMB-LX-800/T-R/256MB	12.1" 450 cd/m² XGA TFT Panel PC with AFLMB-LX-800,Silver Color & Touch Screen,256MB DDR RAM,RoHS

Sidebar navigation:
1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
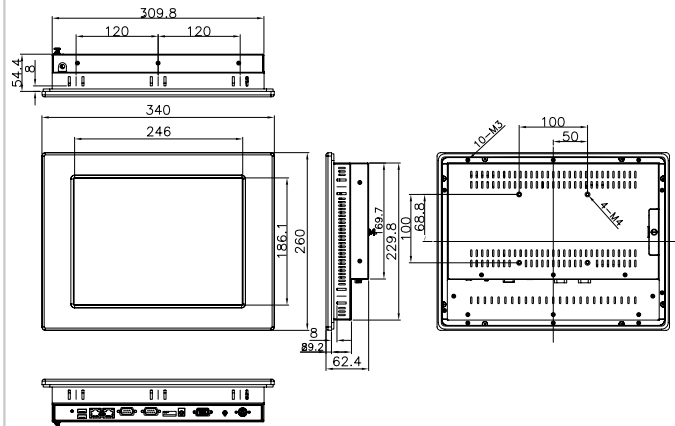*4* Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
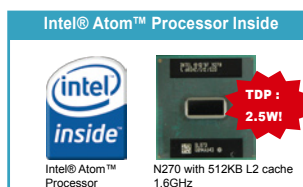*7* Optional Peripherals

Industrial Aluminum PPC-37 Series

PPC-3708

Intel® Celeron® M/Intel® Atom™ N270 Processor with 8.4" SVGA TFT LCD and Touchscreen

Features

1. 8.4" TFT SVGA LCD
2. Supports 2 GB (max.) 400/533 MHz DDR2 SO-DIMM
3. Dual Ethernet
4. Fanless and ultra-low power consumption
5. Optional 802.11 b/g wireless LAN module
6. One CompactFlash® Type II socket
7. IP 65 compliant aluminum die-casting front panel
8. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Intel® Atom™ Processor Inside

Intel® Atom™ Processor

N270 with 512KB L2 cache 1.6GHz

TDP : 2.5W!

One Key Recovery
iEi symantec.

Fanless

Specifications

model	PPC-3708GHS/8522	PPC-3708GHS/9452	PPC-3708A/N270
Display LCD Size	8.4"		
Max Resolution	800(W) x 600(H)		
Brightness (cd/m²)	400		
Contrast Ratio	450 : 1		
LCD Color	262K		
Pixel Pitch (mm)	0.213(H) x 0.213(V)		
Viewing Angle (V-H)	100º / 120º		
Backlight MTBF (hrs)	50,000		
Motherboard SBC Model	NANO-8522	NANO-9452	NANO-945GSE-N270
CPU	Socket 479 2.1GHz (max.) Intel® Pentium® M Celeron® M with 400 MHz 1 GHz or 600 MHz Intel® Celeron® zero cache CPU	Socket M Intel® Core™2 Duo, Core Duo, Core Solo with 667MHz FSB Intel® Celeron® M 533MHz FSB	Intel® Atom™ process N270 1.6GHz CPU
Chipset	Intel® 852GM + ICH4	Intel® 945GM + ICH7M	Intel® 945GSE + ICH7M
RAM	Supports one 266/200MHz DDR SO-DIMM (1GB Max.)	Supports one 400/533/667 MHz DDRII SO-DIMM (1GB Max.)	Supports one 400/533MHz DDRII SO-DIMM (2GB Max.)
I/O Ports and Switches	2 x RS-232 COM Port 1 x RS-232 COM Port(Alternative to RS-422/485) 1 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x 12VDC input Power Jack 1 x Power Switch 1 x 9~36VDC input Terminal block (Optional) 1 x 2.5" SATA/IDE HDD Bay	2 x RS-232 COM Port 1 x RS-232 COM Port(Alternative to RS-422/485) 2 x RJ-45 for LAN Port 2 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x 12VDC input Power Jack 1 x Power Switch 1 x 2.5" SATA/IDE HDD Bay With anti-shook	2 x RS-232 COM Port 1 x RS-232 COM Port(Alternative to RS-422/485) 2 x RJ-45 for LAN Port 2 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x 12VDC input Power Jack 1 x Power Switch 1 x 2.5" SATA/IDE HDD Bay With anti-shook
Drive Bay HDD Drive Bay	1 x 2.5" SATA/IDE HDD Bay With anti-shook		
SSD	CF Type II		
Extension Slot	N/A	1 x Wireless LAN 802.11 b/g Module (internal Mini PCIe interface)	
Physical Construction Front Panel	Aluminum		
Construction Chasis	Heavy-duty Steel		
Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm		
Front Panel Color	Silver (Pantone 8001C)		
Dimension (WxHxD) (mm)	243.57 x 178 x 80.2	243.57 x 178 x 80.2	243.57 x 178 x 80.2
Net Gross Weight	2.2 Kg / 4.4 Kg	2.2 Kg / 4.4 Kg	2.2 Kg / 4.4 Kg
Environment Operation Temperature (ºC)	-10ºC ~50ºC		
Storage Temperature (ºC)	-20ºC ~60ºC		
Vibration	5~17Hz, 0.1" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak		
Shoock	10G acceleration part to part (11ms)		
Touch Screen	Resistive Type 4-Wire with RS-232 interface		
Power Supply AC / DC Power Adapter	For BGA Model - P/N: 63000-FSP0601AD101C-RS - 60W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC For Socket Model - P/N: 63000-FSP0841ADC11118-RS - 84W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC	Power Adapter - P/N: 63000-FSP0841ADC11118-RS - 84W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC	Power Adapter - P/N: 63000-FSP0841ADC11118-RS - 60W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC
Front Panel Protection	IP65 Compliant		
Certificate	Meets CE, FCC		
Ethernet	Intel® 82551ER for 10/100Mbps	2 x PCIe Broadcom BCM5787M GbE chipsets with ASF2.0 remote control support	Dual Realtek RTL8111CP GbE Controllers
Audio	AC' 97 2.3 Realtek ALC 655	AC' 97 2.3 Realtek ALC 883	Support by Audio Kit (AC'97 & HD) 5.1 channel AC' 97 2.3 Realtek ALC 655

Sidebar navigation

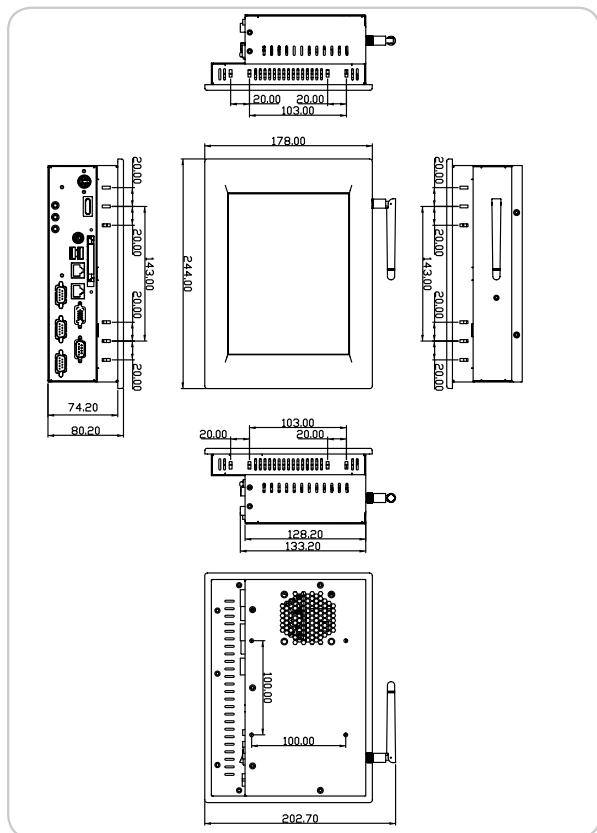1 Automation Panel Solutions
2 All-in-One Touch POS
3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
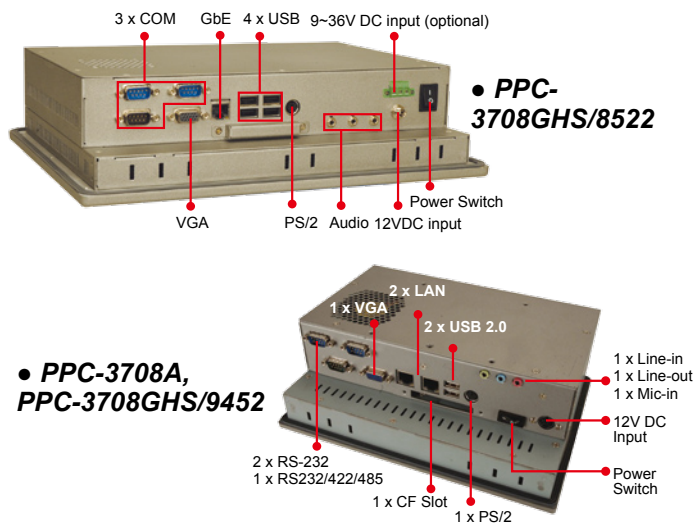7 Optional Peripherals

Dimensions (Unit: mm)

Fully Integrated I/O

3 x COM   GbE   4 x USB   9~36V DC input (optional)

● **PPC-3708GHS/8522**

VGA   PS/2   Audio   12VDC input   Power Switch

2 x LAN
1 x VGA   2 x USB 2.0

● **PPC-3708A, PPC-3708GHS/9452**

1 x Line-in
1 x Line-out
1 x Mic-in
12V DC Input
Power Switch

2 x RS-232
1 x RS232/422/485
1 x CF Slot   1 x PS/2

Inte® Atom™ Power Efficiency

New Microarchitecture design for Intel® Atom™ CPU reduces 50% power consumption.

Different Type for Different User

IEI always close to customer's needs through offering multiple choices.

BGA type CPU

With low power consumption, BGA type enhances thermal performance and system stabilities significantly.

Socket type CPU

For performance-oriented users, socket type allows customers to easily upgrade processors from Pentium® M 1.1GHz to 2.1GHz.

Packing List

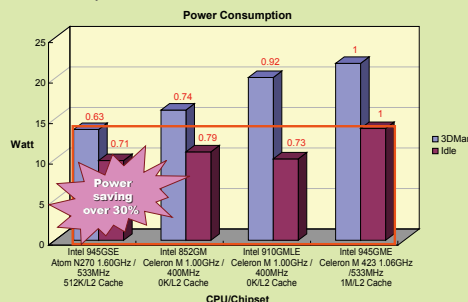| Description	Part Number	Amount
CD-ROM Installation Kit	19B00-000032-RS	1
Power Cord	32000-000002-RS	1
PS/2 Cable	32000-000138-RS	1
Jumper Pack	33100-000033-RS	1
Power Adapter (For GS Model Only)	63000-FSP0601AD101C-RS - 60W 63000-FSP0841ADC11118-RS - 84W	1
Screw Kit	19600-000205-RS	1
HDD IDE Cable	32000-076800-RS (PPC-3708GHS/8522)	1
Panel Mounting Kit	PK-084M	4
Wall Mounting Kit	WK-190MS-R10	1
User Manual & Driver CD		1
Touch Screen Driver CD / Touch Pen (For T-R model only)		1

Options

Panel Mounting Kit	PK-084M
Wall Mounting Kit	WK-190MS-R10
Rack mount kits	RK-084MS-R10
LCD Monitor Arm	ARM-11-RS
LCD Monitor Stand	STAND-100-RS
Din Mounting Kits	DK-084MS

Ordering Information

Intel® 852GM Platform	**PPC-3708GHS/8522-1GZ/T-R/512MB-R12**	8.4" 400 cd/m² SVGA TFT Panel PC with NANO-8522,CPU Celeron M 1.0GHz zero cache,Silver Color,512MB RAM and Touch Screen,RoHS
	PPC-3708GHS/8522-CM370/T-R/512MB-R12	8.4" 400 cd/m² SVGA TFT Panel PC with NANO-8522,CPU Celeron M 1.5GHz,Silver Color,512MB RAM and Touch Screen,RoHS
Intel® 945GM Platform	**PPC-3708GHS/NANO-9452-CM440/T-R/1GB**	8.4" 400 cd/m² SVGA TFT Panel PC with NANO-9452,CPU Celeron M 1.86Ghz,Silver color and Touch screen,w/1GB DDR2 RAM,RoHS
	PPC-3708GHS/NANO-9452-T5500/T-R/1GB	8.4" 400 cd/m²; SVGA TFT Panel PC with NANO-9452,CPU Core™2 Duo 1.66GHz,Silver color and Touch screen,w/1GB DDR2 RAM,RoHS
Intel® Atom™ Platform	**PPC-3708A/NANO-N270/T-R/1GB-R10**	8.4" 400 cd/m² SVGA Panel PC with Intel® Atom™ N270 1.6GHz/ 512KB L2 cache processor,1GB DDR2 RAM and touch screen,12VDC iput

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Industrial Aluminum PPC-37 Series

PPC-3710

Intel® Celeron® M / Intel® Atom™ N270 Processor with 10.4" SVGA TFT LCD and Touchscreen
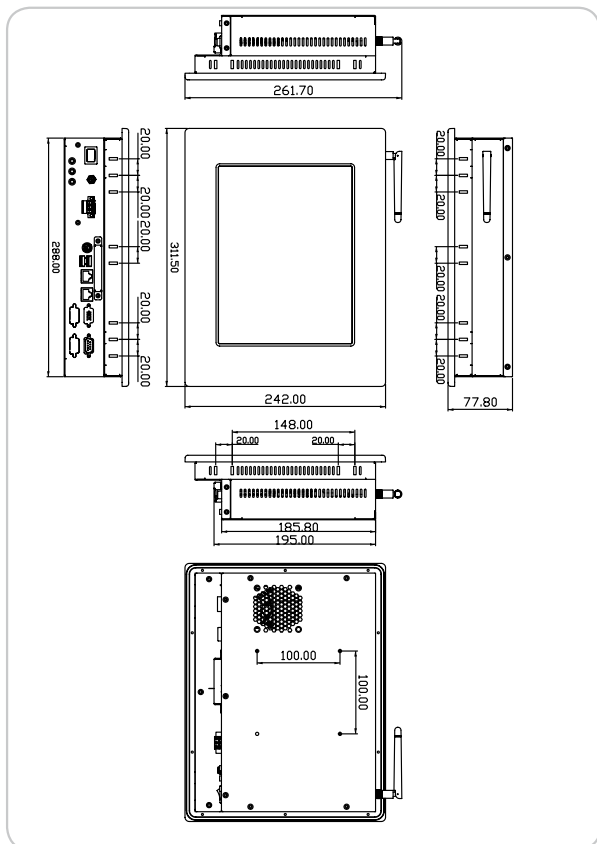
■ Features

1. 10.4" TFT SVGA LCD
2. Supports 2 GB (max.) 400/533 MHz DDR2 SO-DIMM
3. Dual Ethernet
4. Fanless and ultra-low power consumption
5. Optional 802.11 b/g wireless LAN module
6. One CompactFlash® Type II socket
7. IP 65 compliant aluminum die-casting front panel
8. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)
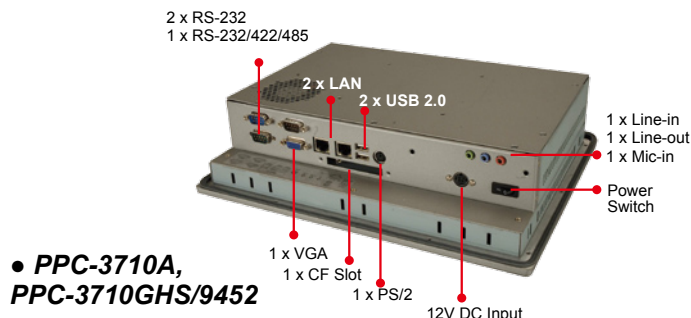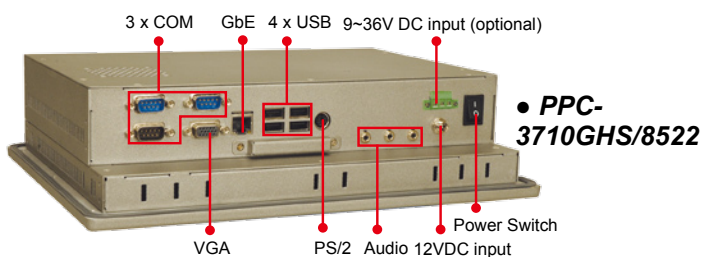
■ Specifications

Model		PPC-3710GHS/8522	PPC-3710GHS/9452	PPC-3710A/N270
Display	LCD Size	10.4"		
	Max Resolution	800(W) x 600(H)		
	Brightness (cd/m²)	400		
	Contrast Ratio	500 : 1		
	LCD Color	262K		
	Pixel Pitch (mm)	0.264(H) x 0.264(V)		
	Viewing Angle (V-H)	100º /120º		
	Backlight MTBF (hrs)	50,000		
Motherboard	SBC Model	NANO-8522	NANO-9452	NANO-945GSE-N270
	CPU	Socket 479 2.1GHz (max.) Intel® Pentium® M Celeron® M with 400 MHz 1 GHz or 600 MHz Intel® Celeron® zero cache CPU	Socket M Intel® Core™2 Duo, Core Duo, Core Solo with 667MHz FSB Intel® Celeron® M 533MHz FSB	Intel® Atom™ process N270 1.6GHz CPU
	Chipset	Intel 852GM + ICH4	Intel 945GM + ICH7M	Intel 945GSE + ICH7M
	RAM	Supports one 266/200MHz DDR SO-DIMM (1GB Max.)	Supports one 400/533/667 MHz DDRII SO-DIMM (1GB Max.)	Supports one 533MHz DDRII SO-DIMM (2GB Max.)
I/O Ports and Switches		2 x RS-232 COM Port 1 x RS-232 COM Port(Alternative to RS-422/485) 1 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x 12VDC input Power Jack 1 x Power Switch 1 x 9~36VDC input Terminal block (Optional)	2 x RS-232 COM Port 1 x RS-232 COM Port(Alternative to RS-422/485) 2 x RJ-45 for LAN Port 2 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x 12VDC input Power Jack 1 x Power Switch	2 x RS-232 COM Port 1 x RS-232 COM Port (Alternative to RS-422/485) 2 x RJ-45 for LAN Port 2 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x 12VDC input Power Jack 1 x Power Switch
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD Bay	1 x 2.5" SATA/IDE HDD bay with anti-shook	1 x 2.5" SATA/IDE HDD bay with anti-shook
	SSD	CF Type II		
Extension Slot		N/A	1 x Wireless Lan 802.11 b/g Module (internal Mini PCIe interface)	
Physical	Construction Front Panel	Aluminum		
	Construction Chasis	Heavy-duty Steel		
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm		
	Front Panel Color	Silver (Pantone 8001C)		
	Dimension (WxHxD) (mm)	311.5 x 242 x 77.8		
	Net Gross Weight	3.4 Kg / 5.8 Kg		
Environment	Operation Temperature (ºC)	-10ºC ~50ºC		
	Storage Temperature (ºC)	-20ºC ~60ºC		
	Vibration	5~17Hz, 0.1" double amplitude displacement, 17~640Hz, 1.5G acceleration peak to peak		
	Shoock	10G acceleration part to part (11ms)		
Touch Screen		Resistive Type 5-Wire with RS-232 interface		
Power Supply	AC / DC Power Adapter	For BGA Model - P/N: 63000-FSP0601AD101C-RS - 60W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC For Socket Model - P/N: 63000-FSP0841ADC11118-RS - 84W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC	Power Adapter - P/N: 63000-FSP0841ADC11118-RS - 84W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC	Power Adapter - P/N: 63000-FSP0601AD101C746-RS - 60W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC
Front Panel Protection		IP65 Compliant		
Certificate		Meets CE, FCC		
Ethernet		Intel® 82551ER for 10/100Mbps	2 x PCIe Broadcom BCM5787M GbE chipsets with ASF2.0 remote control support	Dual Realtek RTL8111CP GbE Controllers
Audio		AC' 97 2.3 Realtek ALC 655	AC' 97 2.3 Realtek ALC 883	Support by Audio Kit (AC'97 & HD) 5.1 channel AC' 97 2.3 Realtek ALC 655

Dimensions (Unit: mm)

261.70

311.50

288.00

20.00 20.00 20.00 20.00 20.00

20.00 20.00 20.00 20.00

242.00

77.80

148.00

20.00 20.00

185.80

195.00

100.00

100.00

Fully Integrated I/O

3 x COM | GbE | 4 x USB | 9~36V DC input (optional)

● **PPC-3710GHS/8522**

VGA | PS/2 | Audio 12VDC input

Power Switch

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

2 x LAN
2 x USB 2.0

1 x Line-in
1 x Line-out
1 x Mic-in

Power Switch

● **PPC-3710A,
PPC-3710GHS/9452**

1 x VGA
1 x CF Slot

1 x PS/2

12V DC Input

Packing List

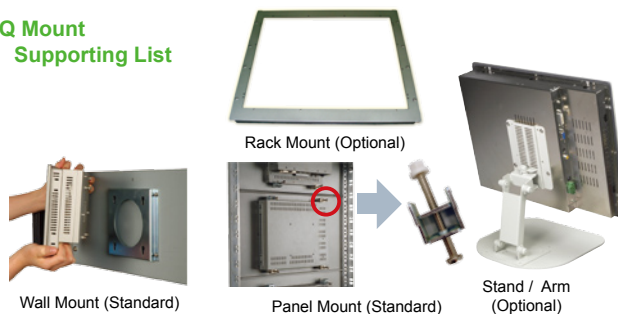| Description	Part Number	Amount
CD-ROM Installation Kit	19B00-000032-RS	1
Power Cord	32000-000002-RS	1
PS/2 Cable	32000-000138-RS	1
Jumper Pack	33100-000033-RS	1
Power Adapter (For GS Model Only)	63000-FSP0601AD101C746-RS - 60W 63000-FSP084DMBA1308-RS - 84W 63000-FSP0601AD101C-RS	1
Screw Kit	19600-000205-RS	1
HDD IDE Cable	32000-076800-RS (PPC-3710GHS/8522)	1
Panel Mounting Kit	PK-104M (PPC-3710GHS/8522)	1
Wall Mounting Kit	WK-190MS-R10	1
User Manual & Driver CD		1
Touch Screen Driver CD / Touch Pen (For T-R model only)		1

Options

Panel Mounting Kit	PK-104M
Wall Mounting Kit	WK-190MS-R10
Rack mount kits	RK-104MS-R10
LCD Monitor Arm	ARM-11-RS
LCD Monitor Stand	STAND-100-RS

Optional 802.11 b/g Wireless LAN Module

The PPC 37 series are equipped with a high speed wireless module that enables larger data transmission in real time. The wireless LAN facilitates applications that require data transmission over large distances, such as in a large warehouse.

Long distance communication

IQ Mount Supporting List

Rack Mount (Optional)

Wall Mount (Standard)

Panel Mount (Standard)

Stand / Arm (Optional)
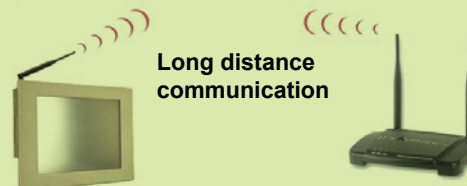
Ordering Information

Intel® 852GM Platform	PPC-3710GHS/8522-1GZ/T-R/512MB-R11	10.4" 400 cd/m² SVGA TFT Panel PC with NANO-8522,CPU Celeron® M 1.0GHz zero cache,Silver Color,512MB DDR RAM and Touch Screen,RoHS
	PPC-3710GHS/8522-CM370/T-R/512MB-R11	10.4" 400 cd/m² SVGA TFT Panel PC with NANO-8522,CPU Celeron® M 1.5GHz,Silver Color,512MB DDR RAM and Touch Screen,RoHS
Intel® 945GM Platform	PPC-3710GHS/NANO-9452-CM440/T-R/1GB	10.4" 400 cd/m² SVGA TFT Panel PC with NANO-9452,1.86 GHz Intel® Celeron® M CPU,Silver color and Touch screen,w/ 1GB DDR2 RAM,RoHS
	PPC-3710GHS/NANO-9452-T5500/T-R/1GB	10.4" 400 cd/m²; SVGA TFT Panel PC with NANO-9452,1.66 GHz Intel® Core™2 Duo CPU,Silver color and Touch screen,w/ 1GB DDR2 RAM,RoHS
Intel® Atom™ Platform	PPC-3710A/NANO-N270/T-R/1GB-R10	10.4" 400 cd/m² SVGA Panel PC with Intel® Atom™ Process N270 1.6GHz/ 512KB L2 cache processor,1GB DDR2 RAM and touch screen,12VDC input

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Industrial Aluminum PPC-37 Series

PPC-3712

Intel® Celeron® M/Intel® Atom™ N270 Processor with 12.1" SVGA / XGA TFT LCD and Touchscreen

Features

1. 12.1" TFT SVGA/XGA LCD
2. Supports 2 GB (max.) 400/533 MHz DDRII SO-DIMM
3. Dual Ethernet
4. Fanless and ultra-low power consumption
5. Optional 802.11 b/g wireless LAN module
6. One CompactFlash® Type II socket
7. IP 65 compliant aluminum die-casting front panel
8. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Specifications

Model		PPC-3712GS/8522	PPC-3712GXS/8522	PPC-3712GXS/9452	PPC-3712A/N270	PPC-3712B/N270
Display	LCD Size	12.1"				
	Max Resolution	800(W) x 600(H)	1024(W) x 768(H)			
	Brightness (cd/m²)	400	450			
	Contrast Ratio	500 : 1	700 : 1			
	LCD Color	262K				
	Pixel Pitch (mm)	0.240(H) x 0.240(V)				
	Viewing Angle (H-V)	140° / 110°	160° / 160°			
	Backlight MTBF (hrs)	50,000				
Motherboard	SBC Model	NANO-8522		NANO-9452	NANO-945GSE-N270	NANO-945GSE-N270
	CPU	Socket 479 2.1GHz (max.) Intel® Pentium® M / Celeron® M with 400 MHz 1 GHz or 600 MHz Intel® Celeron® zero cache CPU		Socket M Intel® Core™2 Duo, Core Duo, Core Solo with 667MHz FSB Intel® Celeron® M 533MHz FSB	Intel® Atom™ process N270 1.6GHz CPU	
	Chipset	Intel® 852GM + ICH4		Intel® 945GM + ICH7M	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M
	RAM	Supports one 266/200MHz DDR SO-DIMM (1GB Max.)		Supports one 400/533/667 MHz DDRII SO-DIMM (1GB Max.)	Supports one 533MHz DDRII SO-DIMM (2GB Max.)	Supports one 533MHz DDRII SO-DIMM (2GB Max.)
I/O Ports and Switches		3 x RS232 COM Port (One optional for Touch Screen) 1 x RS-232 COM Port(Alternative to RS-422/485) 1 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x LPT 1 x 12VDC input Power Jack 1 x Power Switch 1 x 9~36VDC input Terminal block (Optional)		2 x RS232 COM Port 1 x RS-232 COM Port (Alternative to RS-422/485) 2 x RJ-45 for LAN Port 2 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x 12VDC input Power Jack 1 x Power Switch	2 x RS232 COM Port 1 x RS-232 COM Port (Alternative to RS-422/485) 2 x RJ-45 for LAN Port 2 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x 12VDC input Power Jack 1 x Power Switch	
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD Bay	1 x 2.5" SATA HDD bay with anti-shook			
	SSD	CF Type II				
	CD-ROM Driver Bay	Slim Type CD-ROM Bay				N/A
Extension Slot		N/A	1 x Wireless Lan 802.11 b/g Module (internal Mini PCIe interface)			
Physical	Construction Front Panel	Aluminum				
	Construction Chasis	Heavy-duty Steel				
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm				
	Front Panel Color	Silver (Pantone 8001C)				
	Dimensions (WxHxD) (mm)	340 x 260 x 73.4				
	Net Gross Weight	6 Kg / 8 Kg				
Environment	Operation Temperature (ºC)	-10ºC ~50ºC				
	Storage Temperature (ºC)	-20ºC ~60ºC				
	Vibration	5~17Hz, 0.1" double amplitude displacement, 17~640Hz, 1.5G acceleration peak to peak				
	Shock	10G acceleration part to part (11ms)				
Touch Screen		Resistive Type 5-Wire with RS-232 interface				
Power Supply		For BGA Model - P/N: 63000-FSP0601AD101C712-RS - 60W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC For Socket Model - P/N: 63000-SPU65105-RS - 80W Power Adapter - Input: 90VAC~260VAC, 50/60Hz - Output: 12VDC		Power Adapter - P/N: 63000-FSP0841ADC11118-RS - 84W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC	Power Adapter - P/N: 63000-FSP0601AD101C712-RS - 60W Power Adapter - Input: 90VAC~264VAC, 50/60Hz - Output: 12VDC	For AT AC Input model: -P/N: ACE-890A-RS -86W Power Supply -Input: 90VAC ~ 264VAC -Output: 12VDC For ATX DC Input model: -P/N: ACE-709TX-RS -90W Power Supply -Input: 36VDC ~ 72VDC -Output: 12VDC
Front Panel Protection		IP65 Compliant				
Certificate		Meets CE, FCC				
Ethernet		Intel® 82551ER for 10/100Mbps		Dual PCIe Broadcom BCM5787M GbE chipsets with ASF2.0 remote control support	Dual Realtek RTL8111CP GbE Controllers	
Audio		AC' 97 2.3 Realtek ALC 655		AC' 97 2.3 Realtek ALC 883	AC' 97 2.3 Realtek ALC 655	

Left sidebar:
1 Automation Panel Solutions
2 All-in-One Touch POS
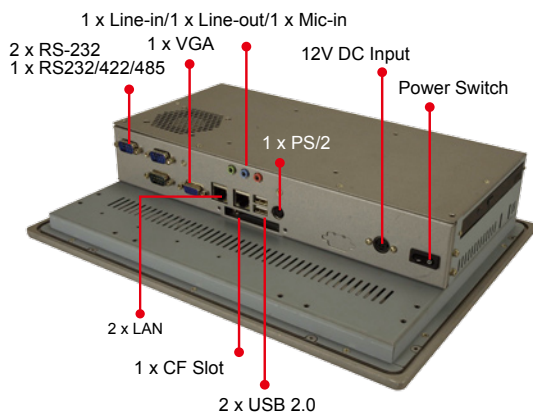3 Digital Signage
4 Video Wall Controller
5 RISC-based Solutions
6 PACSmate Medical
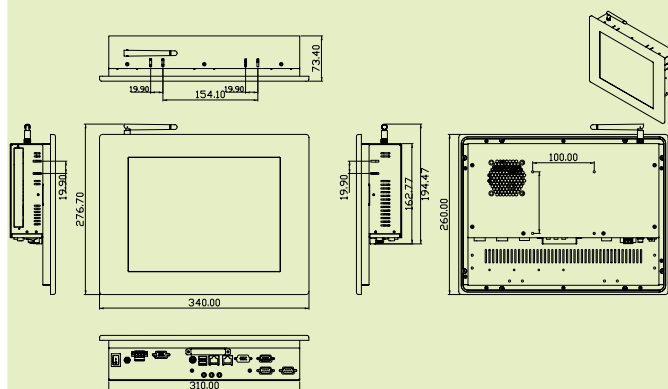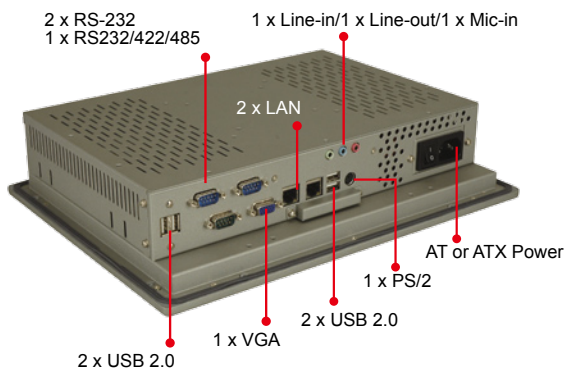7 Optional Peripherals

Fully Integrated I/O

● *PPC-3712A, PPC-3712GXS/9452*

1 x Line-in/1 x Line-out/1 x Mic-in
2 x RS-232
1 x RS232/422/485
1 x VGA
12V DC Input
Power Switch
1 x PS/2
2 x LAN
1 x CF Slot
2 x USB 2.0

PPC-3712A, PPC-3712GXS/9452
Dimensions (Unit: mm)

73.40
19.90 154.10 19.90
19.90
276.70
162.77
194.47
19.90
260.00
100.00
340.00
310.00

● *PPC-3712B*

2 x RS-232
1 x RS232/422/485
1 x Line-in/1 x Line-out/1 x Mic-in
2 x LAN
AT or ATX Power
1 x PS/2
2 x USB 2.0
1 x VGA
2 x USB 2.0

PPC-3712B
Dimensions (Unit: mm)

74.80
340.00
20.00
120.00
247.51
20.00
260.00
186.11
20.00
120.00
100.00
75.00
100.00
75.00
310.00

● *PPC-3712GS/8522*

LPT
COM2
COM4
Audio
PS/2
COM3 (optional)
9~36V DC input (optional)
COM1
VGA
GbE
4 x USB 2.0
CF Slot
12VDC input
Power Switch
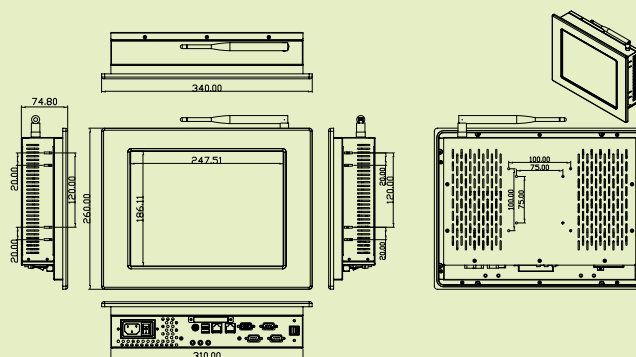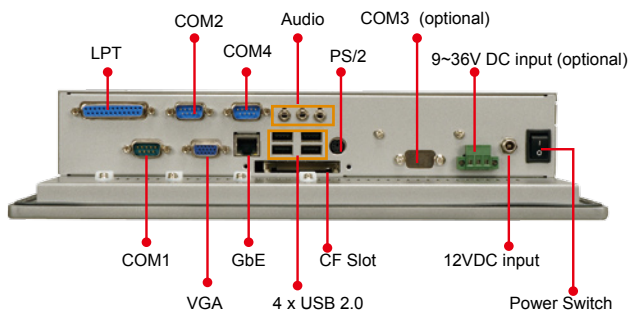
PPC-3712GS/8522
Dimensions (Unit: mm)
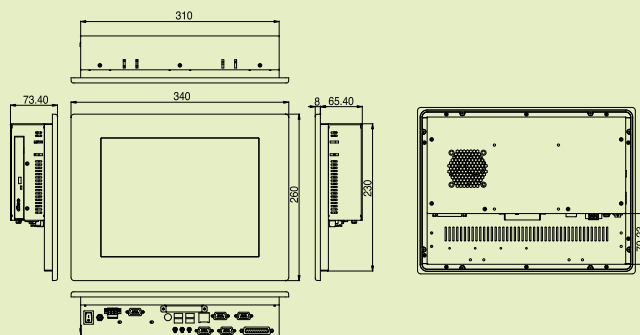
310
73.40
340
8 65.40
260
230
79.23

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

IEI's New PPC-3712BA/BT Supports More Features as :

85~264V AC or 36~72 V DC power supply built in without external power adapter

DC 48V Input AC Input Directly

All New Power Selection

A: PPC-3712BA/NANO-945GSE/ACE-890A

ACE-890A
86 W AC-DC Open Frame AT Power Supply

Input Type	85 ~ 264 VAC Full Range		
Output Voltage	+5 V	+12 V	-12V
ACE-890A	10A	2.5 A	0.5A
Efficiency	70%		
Temperature	Operating : 0 ˚C~ 50˚C, Storage : -20 ~ 85˚C		
MTBF(hrs)	268,000(ACE-890A)		

B: PPC-3712BT/NANO-945GSE/ACE-709TX

ACE-709TX
DC Input Open Frame ATX Power

Input Type	36 ~ 72 VDC (ACE-709TX)			
Output Voltage	+5 V	+12 V	-12V	+5 Vsb
ACE-890A	10A	2.5 A	0.5A	0.5A
Efficiency	70%			
Temperature	Operating : -20 ˚C~ 70˚C , Storage : -20 ˚C~ 85 ˚C			
MTBF(hrs)	170,000 (ACE-709TX)			

High Performance & Compact Size

High performance and compact size allow users to set up the PPC-3712GS in a wide range of applications

73.4mm

Function
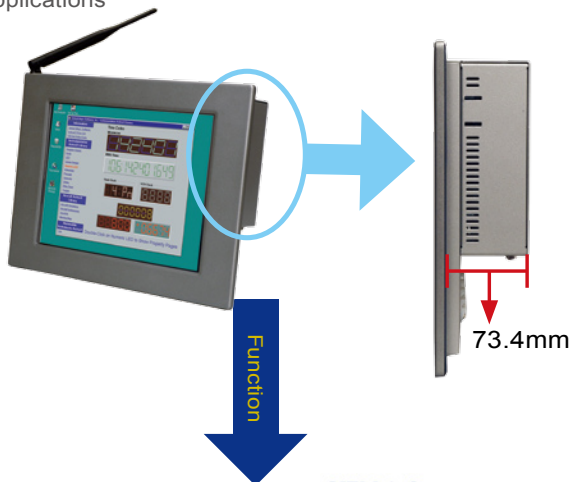
Dual Display | SATA Transmission | High Performance
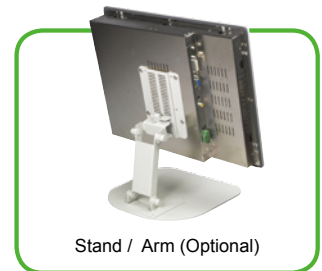
IQ Mount Supporting List

Rack Mount (Optional) | Stand / Arm (Optional)

Wall Mount (Standard) | Panel Mount (Standard)

Ordering Information

Intel® 852GM Platform	**PPC-3712GS/8522-1GZ/T-R/ 512MB-R11**	12.1" 400 cd/m² SVGA TFT panel PC with NANO-8522,CPU Celeron M 1.0GHz zero cache,Silver Color,512MB RAM and touch screen,RoHS
	PPC-3712GS/8522-CM370/T-R/ 512MB-R11	12.1" 400 cd/m² SVGA TFT panel PC with NANO-8522,CPU Celeron M 1.5GHz,Silver Color,512MB RAM and touch screen,RoHS
	PPC-3712GXS/8522-1GZ/T-R/ 512MB-R11	12.1" 450 cd/m² XGA TFT panel PC with NANO-8522,CPU Celeron M ULV 1GHz,Silver Color,512MB RAM and Touch Screen,RoHS
	PPC-3712GXS/8522-CM370/T-R/ 512MB-R11	12.1" 450 cd/m² XGA TFT panel PC with NANO-8522,CPU Celeron M 1.5GHz,Silver Color,512MB RAM and touch screen, RoHS
Intel® 945GM Platform	**PPC-3712GXS/NANO-9452-CM440/ T-R/1GB**	12.1" 450 cd/m² XGA TFT panel PC with NANO-9452,1.86 GHz Intel® Celeron® M CPU,Silver color and touch screen,w/ 1GB DDR2 RAM, RoHS
	PPC-3712GXS/NANO-9452-T5500/ T-R/1GB	12.1" 450 cd/m² XGA TFT panel PC with NANO-9452,1.66 GHz Intel® Core™2 Duo CPU,Silver color and touch screen,w/ 1GB DDR2 RAM, RoHS
Intel® Atom™ Platform	**PPC-3712A/NANO-N270/T-R/1GB-R10**	12.1" 450 cd/m² XGA panel PC with Intel® Atom™ N270 1.6GHz/ 512KB L2 cache processor,1GB DDR2 RAM and touch screen,12VDC input
	PPC-3712BA/NANO-N270/890A/T-R/ 1GB-R10	12.1" 450 cd/m² XGA fanless panel PC with Intel® Atom™ N270 1.6GHz/ 512KB L2 cache processor, w/ACE-890A AC input power supply, 1GB DDR2 RAM and touch screen, RoHS
	PPC-3712BT/NANO-N270/709TX/T-R/ 1GB-R10	12.1" 450 cd/m² XGA fanless panel PC with Intel® Atom™ N270 1.6GHz/ 512KB L2 cache processor, w/ACE-709TX DC input power supply, 1GB DDR2 RAM and touch screen, RoHS

Packing List

Description	Part Number	Amount
CD-ROM Installation Kit	19B00-000032-RS	1
Power Cord	32000-000002-RS	1
PS/2 Cable	32000-000138-RS	1
Jumper Pack	33100-000033-RS	1
Power Adapter (For GS Model Only)	63000-FSP0601AD101C746-RS - 60W 63000-SPU65105-RS - 80W ACE-890A-RS - 86W ACE-709TX-RS - 90W	1
Screw Kit	19600-000207-RS	1
HDD IDE Cable	32200-074000-RS (PPC-3712GHS/8522)	1
Panel Mounting Kit	PK-121M	1
Panel Mounting Bracket	41019-0 45J4-00-RS	4
Wall Mounting Kit	WK-190MS-R10	4
User Manual & Driver CD		1
Touch Screen Driver CD / Touch Pen (For T-R model only)		1

Options

Panel Mounting Kit	PK-121M
Wall Mounting Kit	WK-190MS-R10
Rack mount kit	RK-121MS-R10
LCD Monitor Arm	ARM-11-RS
LCD Monitor Stand	STAND-100-RS

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions
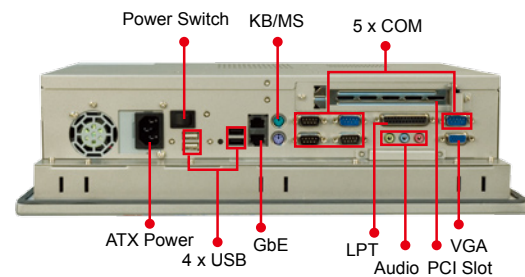
6 PACSmate Medical
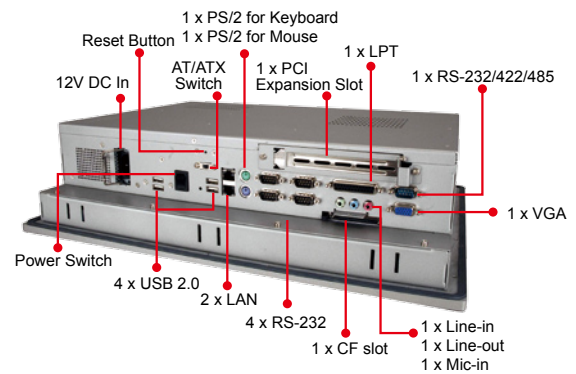
7 Optional Peripherals

Industrial Aluminum PPC-51 Series

PPC-5150

Intel® Pentium® 4 / Pentium® Dual-Core Processor with 15" XGA TFT LCD and Touchscreen

Features

1. 15" TFT XGA LCD
2. Intel® Pentium® 4 / Celeron® D CPU support FSB 533MHz up to 2.8GHz
3. DDR 266/333MHz DIMM memory up to 4GB
4. Dual Gigabit Ethernet support
5. One CompactFlash® Type II socket
6. Easy installing and mechanism design
7. IP 65 compliant aluminum die-casting front panel
8. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Specifications

Model		PPC-5150GS/8520	PPC-5150A-R11/9455
Display	LCD Size	15"	
	Max Resolution	1024(W) x 768(H)	
	Brightness (cd/m²)	350	
	Contrast Ratio	700 : 1	
	LCD Color	262K	
	Pixel Pitch (mm)	0.297(H) x 0.297(V)	
	Viewing Angle (H-V)	140° / 125°	
	Backlight MTBF (hrs)	50,000	
Motherboard	SBC Model	POS-8520	POS-9455
	CPU	Socket 478 Intel® Pentium® 4, Celeron® M with 533MHz(max.) FSB	LGA 775 Socket with Intel® Core™2 Duo, Celeron® D with 533/800/1066 MHz
	Chipset	Intel® 852GME + ICH5	Intel® 945G + ICH7R
	RAM	Supports two 266/333MHz DDR DIMM (2GB Max.)	Supports two 400/533/667MHz DDR2 DIMM (4GB Max.)
I/O Ports and Switches		4 x RS232 COM Port 1 x RS-232/422/485 Port 2 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x Power Switch 1 x PCI Slot 1 X LPT	4 x RS232 COM Port 1 x RS-232/422/485 Port 2 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x Power Switch 1 x AT / ATX Switch 1 x PCI Slot 1 X LPT
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD bay with anti-shock (or two 2.5" SATA/IDE HDD bay without anti-shock)	1 x 2.5" SATA HDD bay with anti-shook
	SSD	CF Type II	
	CD-ROM Driver Bay	Slim Type CD-ROM Bay	
Extension Slot		1 x PCI slot	1 x PCI slot 1 x PCIe mini card 1 x PCIe by 1 slot (Option)
Physical	Construction Front Panel	Aluminum	
	Construction Chasis	Heavy-duty Steel	
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm	
	Front Panel Color	Silver (Pantone 8001C)	
	Dimension (WxHxD) (mm)	410 x 309 x 110.5	
	Net Gross Weight	7 Kg / 11 Kg	
Environment	Operation Temperature (°C)	-10°C ~50°C	
	Storage Temperature (°C)	-20°C ~60°C	
	Vibration	5~17Hz, 0.1" double amplitude displacement，17~640Hz, 1.5G acceleration peak to peak	
	Shoock	10G acceleration part to part (11ms)	
Touch Screen		Resistive Type 5-Wire with RS-232 interface	
Power Supply	ATX AC-Input	AC Input ATX Power Supply - P/N: ACE-4518AP-RS - 180W Power Supply - Input: 90VAC~240VAC, 50/60Hz - Output(max.): 3.3A@16.8A, 5V@12A, 12V@10A, -12V@0.8A	AC Input ATX Power Supply - P/N: ACE-A618A-RS - 180W Power Supply - Input: 90VAC~264VAC, 50/60Hz - Output(max.): 3.3A@14A, 5V@16A, 12V@14A, -12V@0.5A
	ATX DC-Input	DC Input ATX Power Supply - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@12A, 5V@12A, 12V@15.4A, -12V@0.5A	DC Input ATX Power Supply - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@12A, 5V@12A, 12V@15.4A, -12V@0.5A
Front Panel Protection		IP65 Compliant	
Certificate		Meets CE, FCC	
Ethernet		Dual Realtek RTL8110S GbE LAN	Dual Broadcom RTL8111CP PCIe Controllers

Dimensions (Unit: mm)

Fully Integrated I/O

● *PPC-5150GS/8520*

Power Switch   KB/MS   5 x COM

ATX Power   4 x USB   GbE   LPT   Audio   PCI Slot   VGA

● *PPC-5150A/9455*

Reset Button   1 x PS/2 for Keyboard   1 x PS/2 for Mouse   1 x LPT

12V DC In   AT/ATX Switch   1 x PCI Expansion Slot   1 x RS-232/422/485

Power Switch   4 x USB 2.0   2 x LAN   4 x RS-232   1 x CF slot   1 x VGA   1 x Line-in   1 x Line-out   1 x Mic-in

Packing List

Description	Part Number	Amount
Slim Type Floppy Installation Kit	19B00-000013-RS (PPC-5150GS/8520)	1
Slim Type CD-ROM Installation Kit	19B00-000032-RS (PPC-5150GS/8520)	1
HDD IDE Cable (44-pin + 2 x 40-pin)	32200-014506-RS (PPC-5150GS/8520)	1
HDD IDE Cable (44-pin + 40-pin)	32200-019201-RS (PPC-5150GS/8520)	1
HDD SATA Cable	32000-077000-RS (PPC-5150GS/8520)	1
CPU Cooler	19100-000037-RS (PPC-5150GS/8520)	1
Screw Kit	19600-000078-RS	1
Jumper Pack	33100-000079-RS	1
Power Cord	32000-000002-RS	1
Two 2.5" HDD Installation Kit	41011-0397C0-00-RS	1
Panel Mounting Kit	PK-170M	1
Wall Mounting Kit	WK-190MS-R10	1
Touch Screen Driver CD / Touch Pen (For T-R model only)		1
User Manual & Driver CD		1

Anti-Shock Protection

All new Anti-shock design enhances protection performance of hard drives dramatically in terms of shock and vibration tests.

Options

Panel Mounting Kit	PK-170M
Wall Mounting Kit	WK-190MS-R10
Rack mount kits	RK-150MS-R10
LCD Monitor Arm	ARM-31-RS
LCD Monitor Stand	STAND-210-R11
PCIe x 4 slot with PCIe x1 Signal Riser Card	134D270-00-102-RS (For PPC-5150A Only)

Ordering Information

Intel® 852GM Platform	PPC-5150GS/8520-P4-28G/4518AP/T-R/1GB	15" 350 cd/m² XGA TFT Panel PC with POS-8520,P4-2.8GHZ FSB533,1GB RAM,ACE-4518AP and touch screen Silver color,RoHS
	PPC-5150GS/8520-P4-28G/4520C/T-R/1GB	15" 350 cd/m² XGA TFT Panel PC with POS-8520,P4-2.8GHZ FSB533,1GB RAM,ACE-4520C and touch screen Silver color,RoHS
Intel® 945GM Platform	PPC-5150A-R11/9455-E2160/A618A/T-R/1GB	15" 350 cd/m² XGA Panel PC with POS-9455 R11 version,Pentium® Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, Silver color,PSU ACE-A618AP, touch screen, RoHS
	PPC-5150A-R11/9455-E2160/4520C/T-R/1GB	15" 350 cd/m² XGA Panel PC with POS-9455 R11 version, Pentium® Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, Silver color, PSU ACE-4520C, touch screen, RoHS

Industrial Aluminum PPC-51 Series

PPC-5170

Intel® Pentium® 4 / Pentium® Dual-Core Processor
with 17" SXGA TFT LCD and Touchscreen

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
Video Wall Controller

5
RISC-based Solutions

6
PACSmate Medical

7
Optional Peripherals

Features

1. 17" TFT SXGA LCD
2. Intel® Pentium® 4 / Celeron® D CPU support FSB 533MHz up to 2.8GHz
3. DDR 266/333MHz DIMM memory up to 4GB
4. Dual Gigabit Ethernet support
5. One CompactFlash® Type II socket
6. Easy installing and mechanism design
7. IP 65 compliant aluminum die-casting front panel
8. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Specifications

Model		PPC-5170GS/8520	PPC-5170A-R11/9455
Display	LCD Size	17"	
	Max Resolution	1280(W) x 1024(H)	
	Brightness (cd/m²)	300	
	Contrast Ratio	800 : 1	
	LCD Color	16.7M	
	Pixel Pitch (mm)	0.264(H) x 0.264(V)	
	Viewing Angle (H-V)	160° / 160°	
	Backlight MTBF (hrs)	50,000	
Motherboard	SBC Model	POS-8520	POS-9455
	CPU	Socket 478 Intel® Pentium® 4, Celeron® M with 533MHz(max.) FSB	LGA 775 Socket with Intel® Core™2 Duo, Celeron® D with 533/800/1066 MHz
	Chipset	Intel® 852GME + ICH5	Intel® 945G + ICH7R
	RAM	Supports two 266/333MHz DDR DIMM (2GB Max.)	Supports two 400/533/667MHz DDR2 DIMM (4GB Max.)
I/O Ports and Switches		4 x RS-232 COM Port 1 x RS-232/422/485 Port 2 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x Power Switch 1 x PCI Slot	4 x RS-232 COM Port 1 x RS-232/422/485 Port 2 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x Power Switch 1 x AT / ATX Switch 1 x PCI Slot
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD bay with anti-shock (or two 2.5" SATA/IDE HDD bay without anti-shock)	1 x 2.5" SATA HDD bay with anti-shock
	SSD	CF Type II	
	CD-ROM Driver Bay	Slim Type CD-ROM Bay	
Extension Slot		1 x PCI slot	1 x PCI slot 1 x PCIe mini card 1 x PCIe by 1 slot (Option)
Physical	Construction Front Panel	Aluminum	
	Construction Chasis	Heavy-duty Steel	
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm	
	Front Panel Color	Silver (Pantone 8001C)	
	Dimension (WxHxD) (mm)	452 x 356 x 110	452 x 356 x 115
	Net Gross Weight	8 Kg / 12 Kg	
Environment	Operation Temperature (°C)	-10°C ~50°C	
	Storage Temperature (°C)	-20°C ~60°C	
	Vibration	5~17Hz, 0.1" double amplitude displacement 17~640Hz, 1.5G acceleration peak to peak	
	Shoock	10G acceleration part to part (11ms)	
Touch Screen		Resistive Type 5-Wire with RS-232 interface	
Power Supply	ATX AC-Input	AC Input ATX Power Supply - P/N: ACE-4518AP-RS - 180W Power Supply - Input: 90VAC~240VAC, 50/60Hz - Output(max.): 3.3A@16.8A, 5V@12A, 12V@10A, -12V@0.8A	AC Input ATX Power Supply - P/N: ACE-A622A-RS - 220W Power Supply - Input: 90VAC~264VAC, 50/60Hz - Output(max.): 3.3A@14A, 5V@16A, 12V@10A, -12V@0.8A
	ATX DC-Input	DC Input ATX Power Supply - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@12A, 5V@12A, 12V@15.4A, -12V@0.5A	DC Input ATX Power Supply - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@12A, 5V@12A, 12V@15.4A, -12V@0.5A
Front Panel Protection		IP65 Compliant	
Certificate		Meets CE, FCC	
Ethernet		Dual Realtek RTL8110S GbE LAN	Dual Broadcom RTL8111CP PCIe Controllers
Audio		AC' 97 2.3 Realtek ALC 655	AC' 97 2.3 Realtek ALC 883

Dimensions (Unit: mm)

Fully Integrated I/O

● *PPC-5170G/8520*

● *PPC-5170A/9455*

Packing List

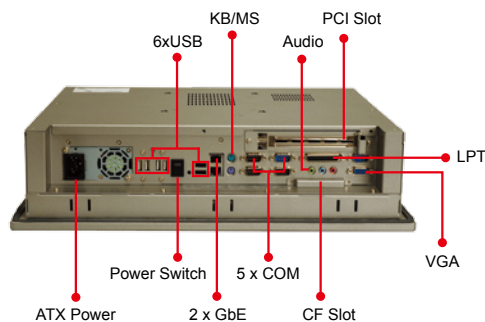| Description	Part Number	Amount
Slim Type Floppy Installation Kit	19B00-000013-RS (PPC-5170GS/8520)	1
Slim Type CD-ROM Installation Kit	19B00-000032-RS	1
HDD IDE Cable (44-pin + 2 x 40-pin)	32200-014506-RS (PPC-5170GS/8520)	1
HDD IDE Cable (44-pin + 40-pin)	32200-019201-RS (PPC-5170GS/8520)	1
HDD SATA Cable	32000-077000-RS	1
CPU Cooler	19100-000037-RS (PPC-5170GS/8520)	1
Two 2.5" HDD Installation Kit	41011-0397C0-00-RS	1
Screw Kit	19600-000078-RS	1
Jumper Pack	33100-000079-RS	1
Power Cord	32000-000002-RS	1
Panel Mounting Kit	PK-170M	1
Wall Mounting Kit	WK-190MS-R10	1
Touch Screen Driver CD / Touch Pen (For T-R model only)		1
User Manual & Driver CD		1

Options

Panel Mounting Kit	PK-170M
Wall Mounting Kit	WK-190MS-R10
Rack mount kits	RK-170MS-R10
LCD Monitor Arm	ARM-31-RS
LCD Monitor Stand	STAND-210-R11
PCIe x 4 slot with PCIe x1 Signal Riser Card	134D270-00-102-RS (For PPC-5170A Only)

Dual 10/100/Gigabit Ethernet Support

PPC-5170GS provides dual independent gigabit LAN ports. In HMI application environments, many system integrators prefer dual independent LAN to allocate factory zone and data storage zone to reduce the network collision and crash, or virus infection.

Ordering Information
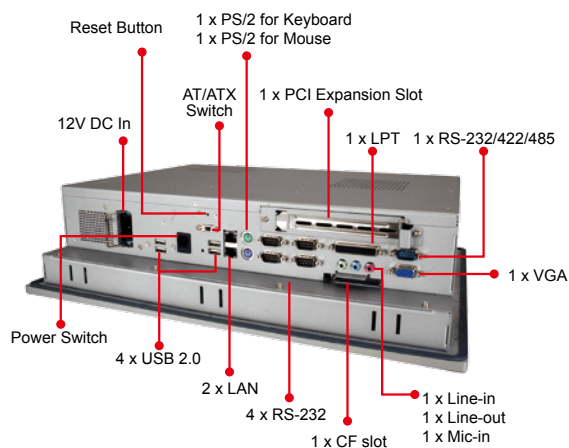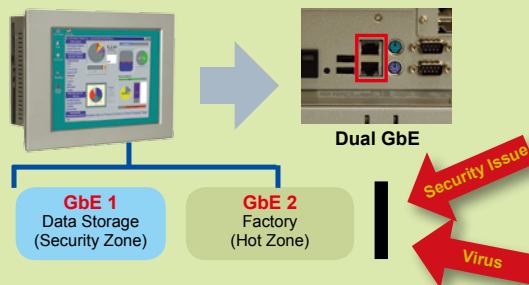
Intel® 852GM Platform	PPC-5170GS/8520-P4-28G/4518AP/T-R/1GB	17" 300 cd/m² SXGA TFT Panel PC with POS-8520,P4-2.8GHZ FSB533,1GB RAM,ACE-4518AP and touch screen Silver color,RoHS
	PPC-5170GS/8520-P4-28G/4520C/T-R/1GB	17" 300 cd/m² SXGA TFT Panel PC with POS-8520,P4-2.8GHZ FSB533,1GB RAM,ACE-4520C and touch screen Silver color,RoHS
Intel® 945GM Platform	PPC-5170A-R11/9455-E2160/A622A/T-R/1GB	17" 300 cd/m² SXGA panel PC with POS-9455 R11 version,Pentium® Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, Silver color,PSU ACE-A622A, touch screen, RoHS
	PPC-5170A-R11/9455-E2160/4520C/T-R/1GB	17" 300 cd/m² SXGA panel PC with POS-9455 R11 version,Pentium® Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, Silver color, PSU ACE-4520C, touch screen, ,RoHS

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Industrial Aluminum PPC-51 Series

PPC-5190

Intel® Pentium® 4/Pentium® Dual-Core Processor with 19" SXGA TFT LCD and Touchscreen

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Features

1. 19" TFT SXGA LCD
2. Intel® Pentium® 4 / Celeron® D CPU support FSB 533MHz up to 2.8GHz
3. DDR 266/333MHz DIMM memory up to 4GB
4. Dual Gigabit Ethernet support
5. One Compact Flash® Type II socket
6. Easy installing and mechanism design
7. IP 65 compliant aluminum die-casting front panel
8. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Specifications

Model		PPC-5190GS/8520	PPC-5190A-R11/9455
Display	LCD Size	19"	
	Max Resolution	1280(W) x 1024(H)	
	Brightness (cd/m²)	300	
	Contrast Ratio	700 : 1	
	LCD Color	16.7M	
	Pixel Pitch (mm)	0.294(H) x 0.294(V)	
	Viewing Angle (H-V)	170° / 160°	
	Backlight MTBF (hrs)	50,000	
Motherboard	SBC Model	POS-8520	POS-9455
	CPU	Socket 478 Intel® Pentium® 4, Celeron M with 533MHz(max.) FSB	LGA 775 Socket with Intel® Core™2 Duo, Celeron® D with 533/800/1066 MHz
	Chipset	Intel® 852GME + ICH5	Intel® 945G + ICH7R
	RAM	Supports two 266/333MHz DDR DIMM (2GB Max.)	Supports two 400/533/667MHz DDR2 DIMM (4GB Max.)
I/O Ports and Switches		4 x RS-232 COM Port 1 x RS-232/422/485 Port 2 x RJ-45 for LAN Port 6 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x Power Switch 1 x PCI Slot	4 x RS-232 COM Port 1 x RS-232/422/485 Port 2 x RJ-45 for LAN Port 6 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x Power Switch 1 x AT / ATX Switch 1 x PCI Slot
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD bay with anti-shock (or two 2.5" SATA/IDE HDD bay without anti-shock)	1 x 2.5" SATA HDD bay with anti-shock (or two 2.5" SATA/IDE HDD bay without anti-shock)
	SSD	CF Type II	
	CD-ROM Driver Bay	Slim Type CD-ROM Bay	
Extension Slot		1 x PCI slot	1 x PCI slot, 1 x PCIe mini card, 1 x PCIe by 1 slot (Option)
Physical	Construction Front Panel	Aluminum	
	Construction Chasis	Heavy-duty Steel	
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100mm x 100mm	
	Front Panel Color	Silver (Pantone 8001C)	
	Dimension (WxHxD) (mm)	483 x 399 x 115.2	483 x 399 x 115.2
	Net Gross Weight	12.6 Kg / 18.2 Kg	
Environment	Operation Temperature (ºC)	-10ºC ~50ºC	
	Storage Temperature (ºC)	-20ºC ~60ºC	
	Vibration	5~17Hz, 0.1" double amplitude displacement / 17~640Hz, 1.5G acceleration peak to peak	
	Shoock	10G acceleration part to part (11ms)	
Touch Screen		Resistive Type 5-Wire with RS-232 interface	
Power Supply	ATX AC-Input	AC Input ATX Power Supply - P/N: ACE-4518AP-RS - 180W Power Supply - Input: 90VAC~240VAC, 50/60Hz - Output(max.): 3.3A@16.8A, 5V@12A, 12V@10A, -12V@0.8A	AC Input ATX Power Supply - P/N: ACE-A622A-RS - 220W Power Supply - Input: 90VAC~264VAC, 50/60Hz - Output(max.): 3.3A@14A, 5V@16A, 12V@10A, -12V@0.8A
	ATX DC-Input	DC Input ATX Power Supply - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@12A, 5V@12A, 12V@15.4A, -12V@0.5A	DC Input ATX Power Supply - P/N: ACE-4520C-RS - 200W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@12A, 5V@12A, 12V@15.4A, -12V@0.5A
Front Panel Protection		IP65 Compliant	
Certificate		Meets CE, FCC	
Ethernet		Dual Realtek RTL8110S GbE LAN	Dual Broadcom RTL8111CP PCIe Controllers
Audio		AC' 97 2.3 Realtek ALC 655	AC' 97 2.3 Realtek ALC 883

Dimensions (Unit: mm)

Fully Integrated I/O

● *PPC-5190G/8520*

● *PPC-5190A/9455*

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
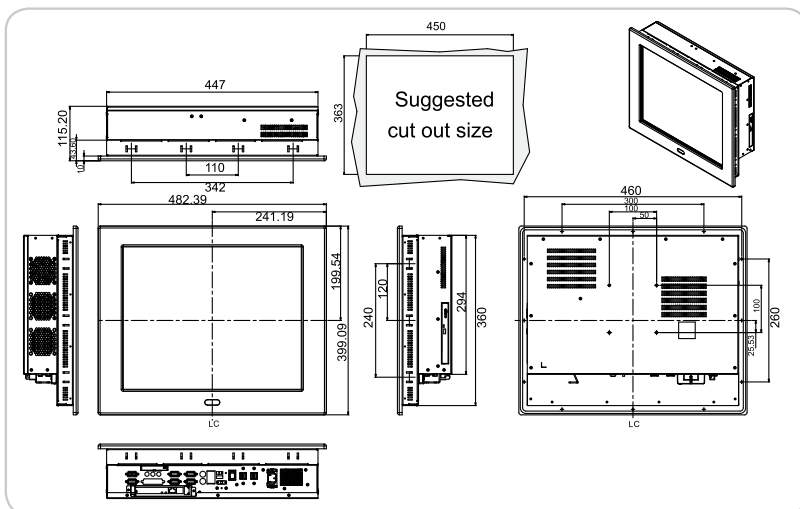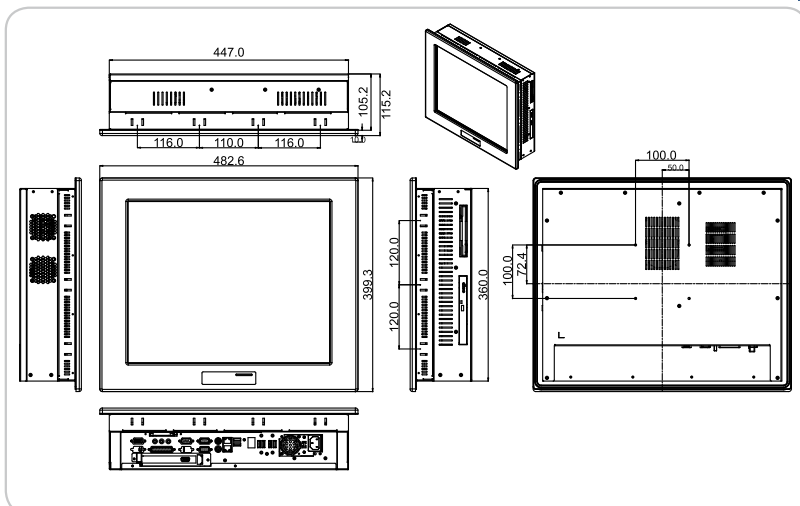Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals

Packing List

Description	Part Number	Amount
Slim Type Floppy Installation Kit	19B00-000013-RS (PPC-5170GS/8520)	1
Slim Type CD-ROM Installation Kit	19B00-000032-RS	1
HDD IDE Cable (44-pin + 2 x 40-pin)	32200-014506-RS (PPC-5170GS/8520)	1
HDD IDE Cable (44-pin + 40-pin)	32200-019201-RS (PPC-5170GS/8520)	1
HDD SATA Cable	32000-077000-RS	1
CPU Cooler	19100-000037-RS (PPC-5170GS/8520)	1
Two 2.5" HDD Installation Kit	41011-0397C0-00-RS	1
Screw Kit	19600-000078-RS	1
Jumper Pack	33100-000079-RS	1
Power Cord	32000-000002-RS	1
Panel Mounting Kit	PK-190M	1
Wall Mounting Kit	WK-190MS-R10	1
Touch Screen Driver CD / Touch Pen		1
User Manual & Driver CD		1

Big Screen for Multi-Display

PPC-5190GS equips 19" TFT LCD which is ideal for multi-display requirement such as digital surveillance or multi-operating system. With multi-display configuration, users can handle more tasks at the same time as well as saving resource and space.

Options

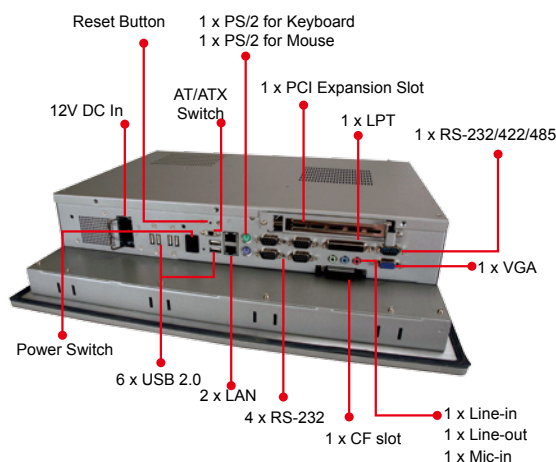| Panel Mounting Kit	PK-190M
Wall Mounting Kit	WK-190MS-R10
Rack mount kits	RK-190MS-R10
LCD Monitor Arm	ARM-31-RS
LCD Monitor Stand	STAND-210-R11
PCIe x 4 slot with PCIe x1 Signal Riser Card	134D270-00-102-RS (For PPC-5190A Only)

Ordering Information

Intel® 852GM Platform	PPC-5190GS/8520-P4-28G/4518AP/T-R/1GB	19" 300 cd/m² SXGA TFT Panel PC with POS-8520,P4-2.8GHZ FSB533,1GB RAM,ACE-4518AP and touch screen Silver color,RoHS
	PPC-5190GS/8520-P4-28G/4520C/T-R/1GB	19" 300 cd/m² SXGA TFT Panel PC with POS-8520,P4-2.8GHZ FSB533,1GB RAM,ACE-4520C and touch screen Silver color,RoHS
Intel® 945GM Platform	PPC-5190A-R11/9455-E2160/A622A/T-R/1GB	19" 300cd/m² SXGA panel PC with POS-9455 R11 version,Pentium® Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, Silver color,PSU ACE-A622A, touch screen, RoHS
	PPC-5190A-R11/9455-E2160/4520C/T-R/1GB	19" 300 cd/m² SXGA panel PC with POS-9455 R11 version,Pentium® Dual-Core E2160 1.8GHz CPU, 1GB DDR2 RAM, Silver color, PSU ACE-4520C, touch screen, ,RoHS

Industrial Aluminum PPC-53 Series

PPC-5350

Intel® Celeron® M / Pentium® M Processor with 15" TFT LCD and Touchscreen

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals

Features

1. 15" TFT LCD touch Panel PC
2. New upgrade model from PPC-5350/A300 model
3. Aluminum die-casting IP 65
4. Intel® Celeron® M mobile CPU with 400 MHz FSB supported
5. Two DDR2 SO DIMM 667 MHz SDRAM DIMM support up to 2GB
6. Two SATA connectors supported by ICH6M
7. Dual PCIe Gigabit Ethernet support
8. High speed express card and PCIe mini card support
9. Optional 802.11 b/g PCIe mini wireless kit
10. IEI One Key Recovery solution allows you to create rapid OS backup and recovery (Suggest over 4GB storage capacity)

Specifications

Model		PPC-5350GS/A300	PPC-5350GS/A311
Display	LCD Size	15"	
	Max Resolution	1024(W) x 768(H)	
	Brightness (cd/m²)	350	
	Contrast Ratio	700 : 1	
	LCD Color	16.2M	
	Pixel Pitch (mm)	0.297(H) x 0.297(V)	
	Viewing Angle (H-V)	140° / 125°	
	Backlight MTBF (hrs)	50,000	
Motherboard	SBC Model	A300	A311
	CPU	Socket 479 Intel® Pentium® 4, Celeron M with 400MHz(max.) FSB 1 GHz ULV Intel Celeron zero cache CPU	Socket 479 Intel® Pentium® M, Celeron® M with 400/533MHz(max.) FSB 1 GHz ULV Intel® Cele ron zero cache CPU
	Chipset	Intel® 855GME + ICH4	Intel® 910GMLE + ICH6M
	RAM	Supports two 266/333MHz DDR DIMM (2GB Max.)	Supports two 400/533MHz DDR2 DIMM (2GB Max.)
I/O Ports and Switches		5 x RS-232 COM Port 2 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x Power Switch 1 x AT / ATX Switch 1 x DVI port 1 x PCI Slot	5 x RS-232 COM Port 2 x RJ-45 for LAN Port 4 x USB 2.0 1 x VGA Port 1 x Audio (Line-in, Line-out, MIC-in) 1 x PS/2 (KB/MS) 1 x Power Switch 1 x AT / ATX Switch 1 x DVI port 1 x PCI Slot
Driver Bay	HDD Driver Bay	1 x 2.5" SATA/IDE HDD bay with anti-shook	1 x 2.5" SATA HDD bay with anti-shook
	SSD	CF Type II	
	CD-ROM Driver Bay	Slim Type CD-ROM Bay	
Extension Slot		1 x PCI slot	1 x PCI slot 1 x PCIe mini card
Physical	Construction Front Panel	Aluminum	
	Construction Chasis	Heavy-duty Steel	
	Mounting	Panel, Wall, Rack, Stand and Arm ,VESA 100mm x 100mm	
	Front Panel Color	Silver (Pantone 8001C)	
	Dimension (WxHxD) (mm)	410 x 309 x 110.5	
	Net Gross Weight	8 Kg / 12 Kg	7 Kg / 11 Kg
Environment	Operation Temperature (ºC)	-10ºC ~50ºC	
	Storage Temperature (ºC)	-20ºC ~60ºC	
	Vibration	5~17Hz, 0.1" double amplitude displacement / 17~640Hz, 1.5G acceleration peak to peak	
	Shoock	10G acceleration part to part (11ms)	
Touch Screen		Resistive Type 5-Wire with RS-232 interface	
Power Supply	ATX AC-Input	AC Input ATX Power Supply - P/N: ACE-4518AP-RS - 180W Power Supply - Input: 90VAC~240VAC, 50/60Hz - Output(max.): 3.3A@16.8A, 5V@12A, 12V@10A, -12V@0.8A	
	ATX DC-Input	DC Input ATX Power Supply - P/N: ACE-815C-RS - 100W Power Supply - Input: 24VDC, 50/60Hz - Output(max.): 3.3A@4A, 5V@13A, 12V@2.5A, -12V@0.3A	
Front Panel Protection		IP65 Compliant	
Certificate		Meets CE, FCC	
Ethernet		Dual Realtek RTL8110S GbE Controllers	
Audio		AC' 97 2.3 Realtek ALC 655	AC' 97 2.3 Realtek ALC 655

New PPC-5350 Features

Serial ATA is the next -generation internal storage interface designed to replace parallel ATA technology. Serial ATA was introduced at 150Mbytes/sec. New PPC-5350/A311 supports two native SATA ports without additional driver requirement which is highly increasing device compatibility in all different OS

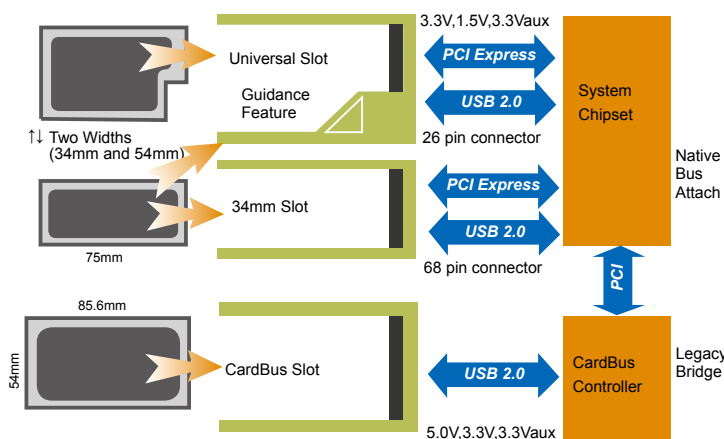**Native serial ATA interface support**

NEW

PPC-5350/A311   PPC-5350/A300

New ExpressCard Features

ExpressCard is a hardware standard replacing PC cards (also known as PCMCIA cards), both developed by the Personal Computer Memory Card International Association (PCMCIA). The host device supports both PCI Express and USB 2.0 connectivity through the Express Card slot, and each card uses whichever the designer feels most appropriate to the task. The cards are hot-pluggable.

ExpressCard Technology vs. CardBus

Universal Slot
Guidance Feature
↑↓ Two Widths (34mm and 54mm)
34mm Slot
75mm
85.6mm
54mm
CardBus Slot

3.3V,1.5V,3.3Vaux
PCI Express
USB 2.0
26 pin connector
PCI Express
USB 2.0
68 pin connector
USB 2.0
5.0V,3.3V,3.3Vaux

System Chipset
Native Bus Attach
PCI
CardBus Controller
Legacy Bridge

| ExpressCard Modules	Brand
FireWire	Abcom, Addonics, Belkin, SIIG
Memory Card Adapter	Atech Flash, Buffalo, Delkin, Griffin, Hagiwara
TV tuners	AverMedia, HP
WLAN/WWAN/Smart Card/SATA	Abcom, Addonics, Belkin, SIIG, Atech Flash, Buffalo, Delkin, Gemplus, Hagiwara, Novatel, Rotoc, SCM
Bluetooth device	Newton
Expansion chassis and docking stations	Belkin
Remote control devices	HP, Interlink

New PPC-5350/A311 Expansions

Flexible extension interface: 1 x PCI slot, 1 x PCIe mini slot, 1 x ExpressCard
PPC-5350 provides most rich expansion interfaces, including one standard 32 bit PCI slot for various PCI add-on card, one PCIe mini card socket for small form factor extender like wireless module, and one express slot for expansion.

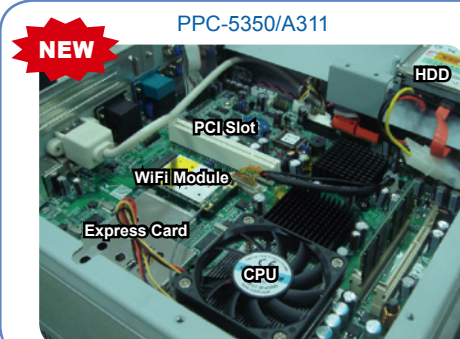Digital Surveillance

PCI slot

PCI
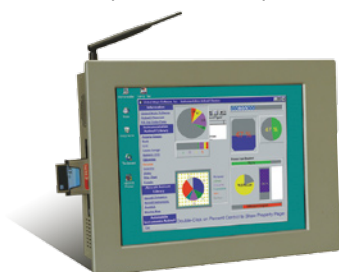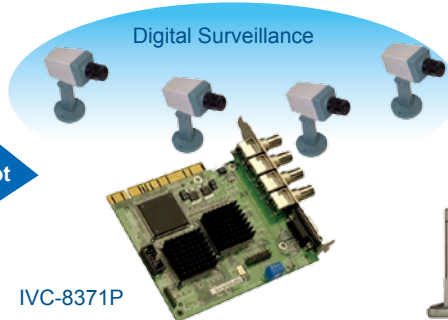
PPC-5350GS   IVC-8371P

New PPC-5350/A311 Placement

All new PPC-5350/A311 system board is designed with native SATA and PCIe interfaces supported from chipset directly with no extra driver requirement. All internal connector placements are redesigned for easy installation and better internal air flow inside.

PPC-5350/A311   PPC-5350/A300
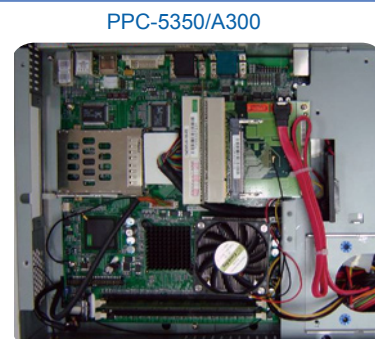
NEW

HDD
PCI Slot
WiFi Module
Express Card
CPU

1
Automation Panel Solutions

2
All-in-One Touch POS

3
Digital Signage

4
Video Wall Controller

5
RISC-based Solutions

6
PACSmate Medical

7
Optional Peripherals

1
Automation
Panel
Solutions

2
All-in-One
Touch POS

3
Digital
Signage

4
Video Wall
Controller

5
RISC-
based
Solutions

6
PACSmate
Medical

7
Optional
Peripherals

Model	PPC-5350GS/A311	PPC-5350GS/A300
CPU	Socket 479 with 400/533 MHz FSB Intel® Pentium® M Processor Intel® Celeron® M processor	Socket 479 400 MHz FSBIntel® Pentium® M Processor Intel® Celeron® M processor
NB	Mobile Intel® 910GMLE Express Chipset	Mobile Intel® 855GME Express Chipset
SB	ICH6M	ICH4
Display	CRT integrated in 910GMLE -- D-SUB CONNECTORChrontel CH7307C -- DVI CONNECTOR910GMLE for LVDS Panel Interface	CRT integrated in 855GME -- D-SUB CONNECTORSilicon image -- DVI CONNECTOR855GME for LVDS Panel Interface
Memory	Two DDR2 667MHz, Up to 2GB	Two DDR 266/333MHz, Up to 2GB
SSD	CF Type II	CF Type II
Audio	AC'97 codec with Realtek ALC655	Realtek ALC655 with AC'97 codec
LAN	Dual PCIe Realtek RTL8111CP GbE chipsets	Dual RealTek RTL8110S GbE chipsets
COM	5 COM ports	5 COM ports (5x RS-232)
USB 2.0	4 x USB 2.0	4 x USB 2.0
IDE	1 X IDE 40 pin connector. (From ICH6M)1 x CF type II (From ICH6M)	2 X IDE 40 pin connector. 1 x CF type II
SATA	2 x SATA connector by ICH6M	2 x SATA connector by ALIM5283
FAN connector	4pin Smart fan	3pin fan
Expansion	ExpressCard x 1 PCI x1 PCIe mini card on board x1	PCMCIA X 1 PCI x1 mini PCI x1

Transition to New Generation

Upgrading Performance

```
Intel          Intel
855GME    →    910GMLE
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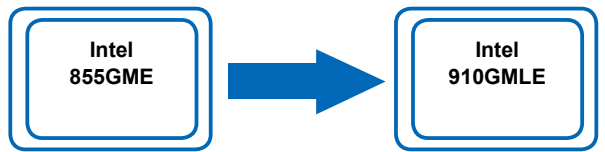
Featuring the Intel® Graphics Media Accelerator 900, the 910GMLE chipset in PPC-5350/A311 enables 2x the graphics performance of the previous generation of platforms based on the Intel® ® 855GME chipset in PPC-5350/A300.

Extra CPU support list :

Package Type		Brand Name	CPU No.	Clock Speed	FSB (MHz)	L2	TDP	Chipset
Socket 479	90nM	Pentium M	780	2.26G		2M	27W	915GME
			770	2.13G		2M	27W	
			760	2G		2M	27W	
			755	2G	533	2M	27W	
			750	1.86G		2M	27W	
			740	1.73G		2M	27W	
			730	1.6G		2M	27W	

Comparison Graphic Core
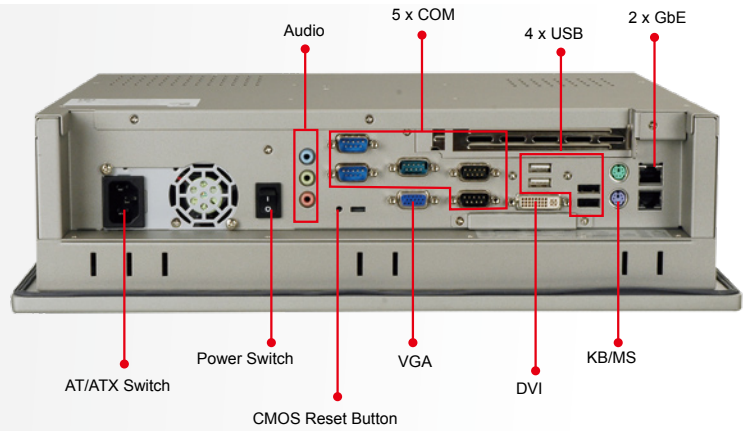
Chipset	910GMLE	855GME
DirectX Support	9	7.1
OpenGL Support	1.4	1.3
Core Clock	333/320 MHz 200 MHz 166/160 MHz 133 MHz	250 MHz 200 MHz 166 MHz 133 MHz
Pixel Pipes	4	1
Display Support	Dual Independent	Dual Independent
Video Memory	DVMT 3.0	DVMT 2.0
Memory Bandwidth	8.5 GB/sec	2.6 GB/sec
Max. Resolution	QXGA 75 Hz 2048x1535	QXGA 60 Hz 2048x1535

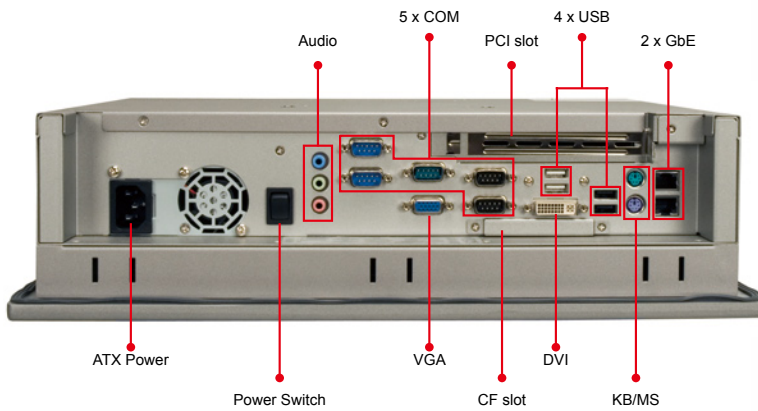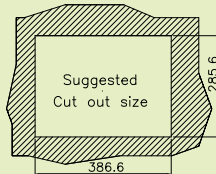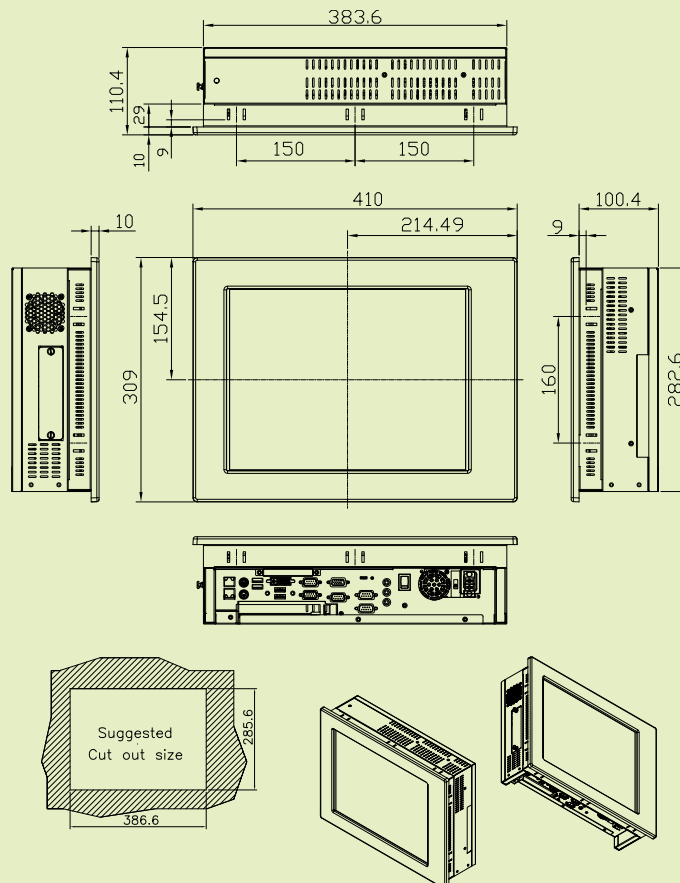| Features / Options	DDR	DDR2	DDR2 Advantages
Voltage	2.5V / 2.5V I/O	1.8V / 1.8V I/O	Reduces memory system power demand
Densities	128MB-1GB	256MB-4GB	High-density components enable large memory subsystems
Speed (data pin)	200, 266, 333, 400	400, 533, 667	Migration to higher speed IO
Read Latency	2, 2.5, 3 CLK	CL + AL / CL = (3,4,5)	Eliminating one-half clock helps speed internal DRAM logic and improves yields
Additive Latency	N/A	AL options (0,1,2,3,4)	Mainly used in Server applications to improve command bus efficiency
Write Latency	1 clock	read latency-1	improves command bus efficiency
Data Strobes	Single-ended	Differential or single-ended	Improves system timing margin by reducing strobe cross-talk

Fully Integrated I/O

● PPC-5350GS/A311

Audio
5 x COM
4 x USB
2 x GbE

Power Switch
AT/ATX Switch
CMOS Reset Button
VGA
DVI
KB/MS

● PPC-5350GS/A300

Audio
5 x COM
PCI slot
4 x USB
2 x GbE

ATX Power
Power Switch
VGA
CF slot
DVI
KB/MS

PPC-5350GS
Dimensions (Unit: mm)

383.6
110.4
29
9
10
150
150

410
214.49
100.4
9
10
154.5
309
160
282.6

285.6
Suggested Cut out size
386.6

1 Automation Panel Solutions

2 All-in-One Touch POS

3 Digital Signage

4 Video Wall Controller

5 RISC-based Solutions

6 PACSmate Medical

7 Optional Peripherals

Rich I/O in PPC-5350/A311

Fully I/O function support:6 x COM (One for Touch screen), 4 x USB, 1 x CF socket PPC-5350 combines multiple traditional UART ports (five RS-232 ports) and four most popular USB 2.0 ports for IO extension. Additionally, PPC-5350 also support one CompactFlash® Type II socket for storage usage.
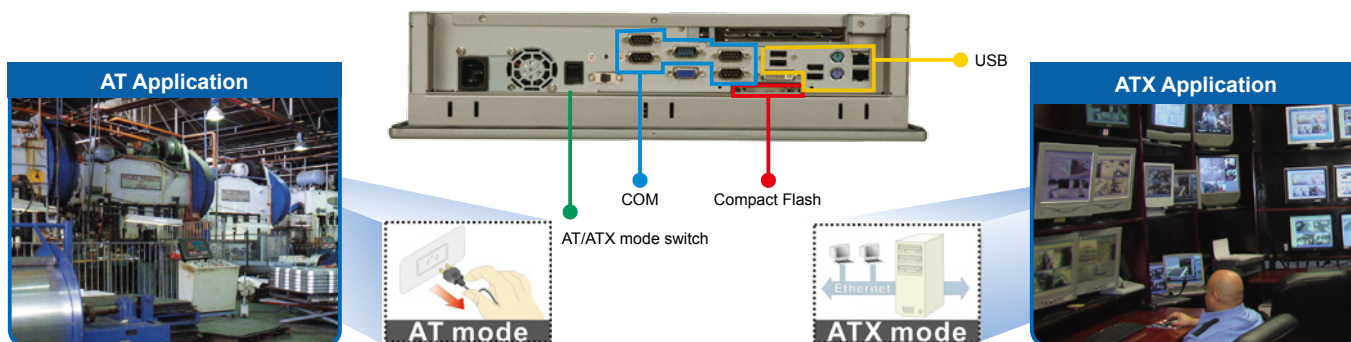
AT Application

USB

COM   Compact Flash

AT/ATX mode switch

ATX Application

AT power mode allows multiple panel PCs automatically start when the central power unit is connected.

The ATX power mode allows the panel PCs to be turned on/off remotely via network.

Ordering Information

Intel® Celeron® M 1GHz Platform	**PPC-5350GS-R11/A300-1GZ/T-R/ 512MB**	15" 350 cd/m² XGA TFT LCD panel PC with A300,ULV Celeron M 1GHz CPU,512MB RAM and Touch screen,ACE-4518AP,RoHS
	PPC-5350GS-R11/A300-CM370/T-R/ 1GB	15" 350 cd/m² XGA TFT LCD panel PC with A300 main board,CPU Celeron M 1.5Ghz,1GB RAM and Touch screen,ACE-4518AP,RoHS
	PPC-5350GS/A300-1GZ/ACE-815C/ T-R/512MB	15" 350 cd/m² XGA TFT LCD panel PC with A300,ULV Celeron M 1GHz CPU,512MB RAM,Touch screen and ACE-815C (24VDC input,100W power supply),RoHS
	PPC-5350GS/A300-CM370/ACE-815C/T-R/1GB	15" 350 cd/m² XGA TFT LCD panel PC with A300 main board,CPU Celeron M 1.5Ghz,1GB RAM,Touch screen and ACE-815C (24VDC input,100W power supply),RoHS
WL-KIT01		802.11 B/G Mini-PCI interface WiFi module with RF cable and antenna, RoHS
Intel® Celeron® M 1GHz Zero Cach Platform	**PPC-5350GS/A311-1GZ/4518AP/ T-R/1GB-R10**	15" 350 cd/m² XGA panel PC with A311 system board,Intel® Celeron M 1GHz Zero Cache, 1GB RAM,Touch screen and ATX AC input power supply,ACE-4518AP
	PPC-5350GS/A311-CM370/4518AP/ T-R/1GB-R10	15" 350 cd/m² XGA panel PC with A311 system board, Intel® Celeron M 1.5GHz,1GB RAM, Touch screen and ATX AC input power supply,ACE-4518AP
	PPC-5350GSD/A311-1GZ/815C/T-R/ 1GB-R10	15" 350 cd/m² XGA panel PC with A311 system board,Intel® Celeron®M 1GHz Zero Cache, 1GB RAM,Touch screen and ATX DC input Power supply,ACE-815C(24VDC input. 100W),RoHS
	PPC-5350GSD/A311-CM370/815C/ T-R/1GB-R10	15" 350 cd/m² XGA panel PC with A311 system board, Intel® Celeron®M 1.5GHz, 1GB RAM, Touch screen and ATX DC input Power supply, ACE-815C (24VDC input. 100W) ,RoHS

Options

Panel Mounting Kit	PK-170M
Wall Mounting Kit	WK-190MS-R10
Rack mount kits	RK-150MS-R10
LCD Monitor Arm	ARM-31-RS
LCD Monitor Stand	STAND-210-R11

Packing List

Description	Part Number	Amount
Slim Type CD-ROM Installation Kit	19B00-000032-RS	1
HDD IDE Cable	32200-069900-RS (PPC-5350GS/A300)	1
HDD SATA Cable	32000-077000-RS	1
Screw Kit	19600-000078-RS	1
Jumper Pack	33100-000079-RS	1
Power Cord	32000-000002-RS	1
Panel Mounting Kit	PK-170M	1
Wall Mounting Kit	WK-190MS-R10	1
Touch Screen Driver CD / Touch Pen		1
User Manual & Driver CD		1