

All-in-One Access Control Terminal

EM / MIFARE Compliance !

ACT-08A

8.4" SVGA Intelligent Access Control Terminal

- All-in-One Intelligent System
- Fanless
- Rugged Design

AUPS AUPSA10/ A20 for ACT-08A use

ACT-08A

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All-in-One Access Control Terminal



All-in-One Access Control Terminal

ACT-08A

8.4" SVGA Intelligent Access Control Terminal

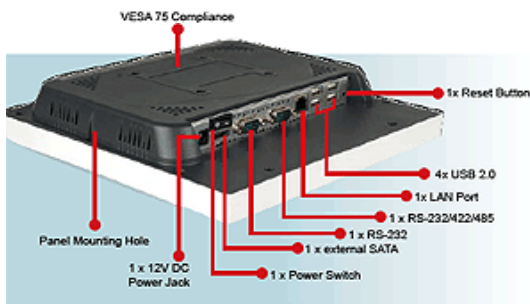
The advanced, easy-to-use ACT-08A fanless touch-screen panel PC all-in-one control terminal reads both MIFARE and EM tags and transponders. The fanless ACT-08A panel PC are built on low-power, low-heat x86 Intel® 910GML or VIA CX700M chipsets. The x86 ACT-08A panel PC are more flexible than the traditional RISC-based control terminals. The x86 architecture enables system developers to integrate sophisticated time attendance, access control and/or prepaid card software on the ACT-08A for implementation in the following areas:

- Door Access
- Time Attendance
- Cashless payment for vehicle, ticket, membership club, photocopying, dining, laundry...etc.
- Parking Access control



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 enables the most convenient access and control
- **Fanless 1.0 GHz Intel® Celeron® M processor with 512 KB L2 cache or 1.0 GHz ULV VIA Eden 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)**
- **Built-in microphone**
- **Wireless Connection 802.11 b/g wireless LAN Module (Internal PCle mini card interface)**
- **One CF Type II Slot**
- **Bluetooth Connectivity**
- **Mounting Panel, Wall, Stand and Arm mounting Compliance (VESA 75 mm x 75 mm)**



All-in-One Ready to Run

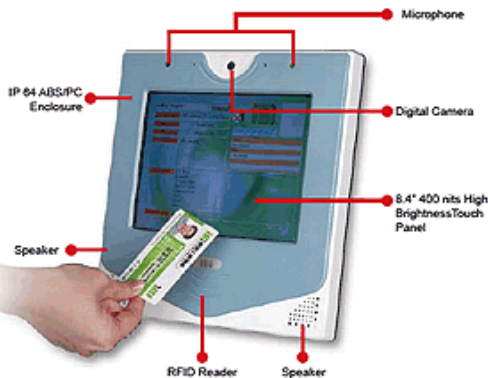
The x86 ACT-08A all-in-one panel PC with Windows CE and Windows XPE operating systems is easily integrated with data intensive applications including voice recognition, face recognition etc. The ACT-08A with an 8.4" touch panel is a complete turnkey solution that comes with an RFID reader digital camera, microphone, two speakers, built-in Wi-Fi and Bluetooth module.

Fanless

The fanless ACT-08A systems have less downtime and extended operational lives as they are not susceptible to overheating problems caused by fan failures.

Rugged Design

The rugged ACT-08A systems combine IP 64 compliant front panels with anti-shock and anti-vibration shields to ensure the system is secured against vandalism and protected against extreme environmental conditions.



Programmable RFID Support

IEI provides specific RFID software utility configuration instructions including how to:

- Read from the MIFARE card
- Write to the MIFARE card
- Set MIFARE card reader parameters
- Read MIFARE card reader parameters
- Set card reader type detection



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Complete Solutions for You

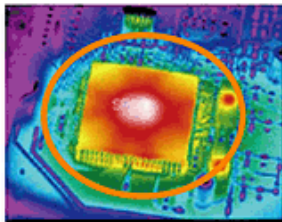
A. ACT-08A-9103

▶ 8.4" SVGA High Performance Access Control Terminal



Embedded High Computing Performance

The slim Intel® 910GMLC 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® 910GMLC
Memory	one 200-pin 2GB (maximum) DDR2 SO-DIMM

B. ACT-08A-CX2

▶ 8.4" SVGA Multimedia Enjoyment Access Control Terminal



Flawless digital media playback with ultra-low CPU-utilization

A VIA CX700M chipset is embedded in the ACT-08A-CX2. The VIA UniChrome™ Pro II graphic core in the VIA CX700M supports popular digital video and audio formats.

The graphic core employs a multi-faceted approach to displaying multimedia content, implementing a number of advanced tools at every stage of video processing. These include integrated MPEG-2, MPEG-4, and WMV9 decoding, for flawless digital video playback with ultra-low CPU-utilization.

Without Hardware Decoder

- Lagged image with Higher CPU usage



With Hardware Decoder

- Good image quality with Lower CPU usage



Processor	VIA Eden 1 GHz ULV
Chipset	VIA CX700M
Memory	one 200-pin 1GB (maximum) DDR2 SO-DIMM

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▶ Expand the Opportunities with RFID

The latest RFID identification reader enables the ACT-08A to be integrated into applications with sophisticated automated identification requirements.

⊙ Diagram of ACT-08A with RFID

The RFID chip communicates with the reader through RFID induction technology. These tags require close proximity to an antenna to complete a transaction. They are often used when transactions must be processed quickly or hands-free.

Transponder (RF tag)



RFID tags come in a wide variety of shapes and sizes: Plastic/paper Card, Key Fobs, ABS/PVC Tag, clear tag, etc. assist to expand more applications.

ACT-08A RFID Reader



Compatible with EM and MIFARE!



Built-in RFID Module

The RFID tag reader is fully protected in a very low-profile enclosure in the front of the ACT-08A to identify objects using radio-frequency communication techniques and easily for sensor the common smart cards: MIFARE/EM card.

RFID Card Categories

	MIFARE Card	EM Card
Effective Sensing Distance	5cm (max)	10cm (max)
Frequency Band	13.56 MHz	125 KHz
Applications	MIFARE Card with 1.0 kByte of memory ideal for more secure applications such as parking, vending and employer cards or as a stored value card.	Ideal for storage id information etc. Student identification, electronic passport, vending, parking and tolls are common applications for contact-less cards.

⊙ Advantages

- Non-contact
- Non-line-of-sight nature of the technology

⊙ RFID systems are distinguished by frequency ranges

RFID Category	Frequency band	Benefits	Drawbacks
LF	< 135 MHz	Works well around water and metal	<ul style="list-style-type: none"> • Short read range • Slower read rate
HF	13.56 MHz	Low cost	Higher read rate than LF
UHF	860 MHz to 930 MHz	EPC standard built around this frequency	Does not work with items of high water or metal content

* Operating range depends on reader power and operating environment

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▶ Multi-Device Application Possibilities

▶ Identification

The ACT-08A integrates the RFID reader in the front panel making the ACT-08A ideal for digital Identification applications.

⊙ Library RFID Management System



⊙ Membership Management



⊙ School Student Attendance Monitoring



▶ Commercial Transaction

The ACT-08A all-in-one access control terminal is easily integrated into automated payment systems integrated at self-service gas stations, in vending machines or at cashier terminals in stores. The ACT-08A also facilitates pre-paying household utilities, paying parking meters etc.

⊙ Digital signage and payment system



⊙ Transportation Payment System



⊙ Vending Machine

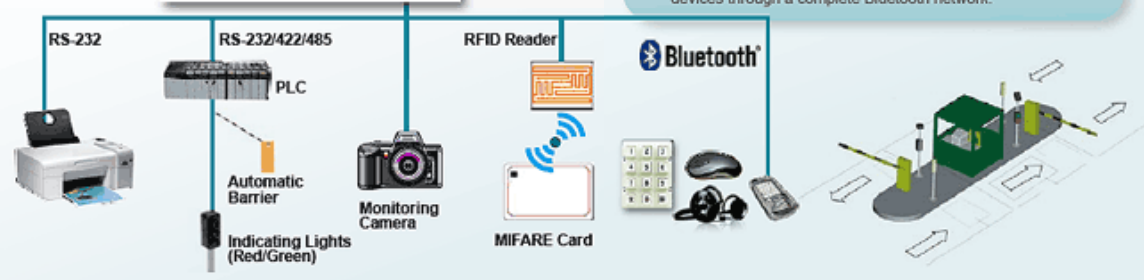


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▶ Parking Lot Entrance Control

▶ RFID Automated Parking Control System

The RFID controller unit enables the ACT-08A to be implemented in automatic toll collection systems to ensure parking fees are paid. The ACT-08A can be used to access and control a database and monitor the toll collection transaction history.



● We Offer

● Serial port for Data Transmission

We provide Two independent RS-232 and RS-233/422/485 serial ports for connecting data acquisition equipment and many other serial devices ACT-08A.

	RS-232	RS-422	RS-485
Mode of Operation	Single ended	Differential	Differential
Maximum Cable	50 Feet	4000 Feet	4000 Feet
Maximum Data Rate	20 kb/s	10 Mb/s-100 Kb/s	10 Mb/s-100 Kb/s

● Bluetooth Wireless Connectivity

Bluetooth module integrated into the ACT-08A all-in-one panel access control terminal transmits information between peripheral devices through a complete Bluetooth network.

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▶ Access Control Door System

The two-in-one EMMIFARE 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.

● 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.

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▶ Healthcare Solutions

The ACT-08A with Radio Frequency Identification (RFID) technology applied in patient care in hospitals and healthcare facilities can identify and track patients, objects, and assets, and speeds 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.



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Specifications

Model	ACT-08A-9103	ACT-08A-CX2
LCD	8.4"	
Max Resolution	800 x 600	
Brightness (cd/m ²)	400	
Contrast Ratio	500:1	
LCD Color	262K	
Pixel Pitch (mm)	0.213(H) x 0.213(V)	
Viewing Angle (H-V)	120° / 100°	
Backlight MTBF	50000 hrs	
SBC Model	AFLMB-9103-R10	AFLMB-CX2-R10
CPU	Intel® Celeron® M processor (1.0GHz) with 512KB L2 Cache	VIA EDEN 1GHz ULV
Chipset	Intel® 910GML E	CX700M
RAM	One DDRII SO-DIMM Up to 2GB	One DDRII SO-DIMM Up to 1GB
I/O Ports and Switches	1 x RS-232 COM Port 1 x RS-232/422/485 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	
Construction Front Panel	ABS + PC Plastic front frame	
Construction 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 or Arm mounting, VESA 75mm x 75mm	
Color	Blue and White	
Dimensions (WxHxD) (mm)	251.72 mm x 244.69 mm x 53.3 mm	
Operation	0~45°C	

Temperature (°C)

✦ N/G Weight	1.1 kg	
✦ IP Level	IP 64	
✦ Safety & EMC	CE / EMC / FCC / CB / CCC	
✦ Power Consumption	48W	38W

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▶ Ordering informations

Part No.	Description
ACT-08A-CX2-E10G/WT-R/512MB	8.4" 400cd/m ² SVGA fanless panel PC with VIA Eden 1GHz ULV CPU, 512 MB DDR2 RAM, 802.11 b/g wireless module, MIFARE & EM RFID module, touch screen, bluetooth, RoHS
ACT-08A-9103-10G/WT-R/1GB	8.4" 400cd/m ² SVGA fanless panel PC with Celeron® 1GHz 512KB cache CPU, 1GB DDR2 RAM, 802.11 b/g wireless module, MIFARE & EM RFID module, touch screen, bluetooth, RoHS

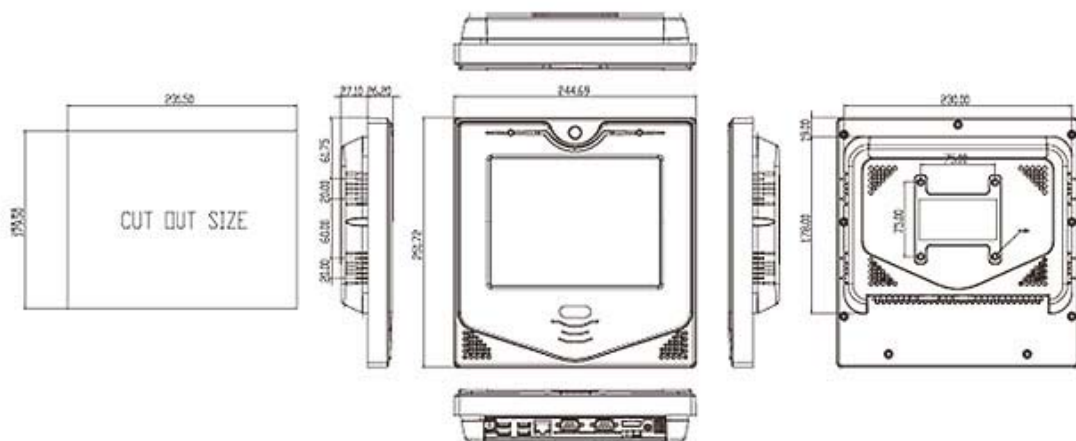
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▶ Options

Model	ACT-08A-CX2	ACT-08A-9103	
Panel Mounting Kit		AFLPK-08	
Wall Mounting Kit		AFLWK-12	
ARM		ARM-11-RS / ARM-31-RS	
STAND		STAND-B08/STAND-100-RS/STAND-150-RS	
OS	Win CE 5.0	AFLCF-08-CX2-CE	AFLCF-08-9103-CE
	Win CE 6.0	AFLCF-08-CX2-CE060	AFLCF08-9103-CE060
	Win XPE	AFLCF-08-CX2-XPE	AFLCF-08-9103-XPE

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▶ Dimensions



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▶ Optional VESA Mount DC UPS Module

AUPS

VESA Mount Intelligent UPS Module

A. Dual Power Input Mode

1. DC 9V-36V input by terminal block (Only AUPS-A20 / AUPS-B20)

2. (1) Only 12V input by DC jack (AUPS-A10 / AUPS-B10)
(2) Wide 9V-36V input by DC jack (AUPS-A20 / AUPS-B20)

B. Battery status console port

C. DC output on/off switch

D. DC output on/off switch by terminal block.

E. Networking UPS Management Port by RJ-45

VESA 75 / 100 support

Feature:

1. VESA 75/100 standard for all AFL products
2. Wide range power voltage 9V-36V by DC jack or terminal block input
3. Enhance charger and battery status utility network remote management software

E. Networking UPS Management Port by RJ-45

- Network remote management software

E-Mail Alarming

Battery Low / Temperature High Alarm
IEI UPS will pop-up the status screen to notify user that special event, Battery Low or Temperature over 60°C, has happened, if this function is enabled.

Special event Pop-up: Yes No

E-mail **configuration** **Status** **Upload**

Battery Monitoring Utility



IEI smart battery software

1. Battery detection
2. Battery capacity status
3. Battery charge
4. DC Input Indicator
5. Battery Indicator
6. Over Temp Indicator
7. Low Battery Alarm
8. Connection port detection

In addition, the utility software provide the following functions:

- » Current Power source.
- » Battery status.
- » Charging status.
- » Percentage remaining

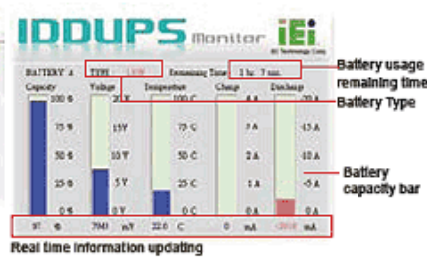
Benefit:

- » Provide 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.

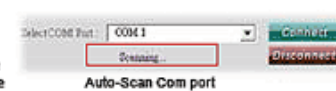
► DC / Battery input detection



► Battery status real time monitoring



► Connection Port auto detection



LED Signal Table			
	LED 1	LED 2	LED 3
Color	Green	Yellow	Orange
Function	Power Input	Charger Status	Battery Status
Dark	DC Power Out		
Light	DC Power In	Discharging	Battery Full
Blinking		Charging	Battery Low

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Specifications

VESA Type		VESA 75		VESA 100	
Model Name	AUPS-A10	AUPS-A20	AUPS-B10	AUPS-B20	
Output	Voltage	+12V +/-5%	+12V +/-5%	+12V +/-5%	+12V +/-5%
	Output Power	60W	60W	100W	100W
Input	Voltage	+12V	+9V~+36V	+12V	+9V~+36V
	Type	Li-Ion 2S2P	Li-Ion 2S2P	Li-Ion 4S2P	Li-Ion 4S2P
Battery	Normal Voltage	7.4V 3800mAH	7.4V 3800mAH	14.8V 3800mAH	14.8V 3800mAH
	Backup	60W/10Min	60W/10Min	100W/10Min	100W/10Min
Physical	Dimensions	150mm(L) * 95mm(W)*34mm (H)	150mm(L) * 95mm(W)*34mm (H)	170mm(L) * 150mm(W) *34mm(H)	170mm(L) * 150mm(W) *34mm(H)
	Weight	1.2kg	1.2kg	1.8kg	1.8kg
	Green	DC power input	DC power input	DC power input	DC power input
LED Indicator	Yellow	Battery charging	Battery charging	Battery charging	Battery charging
	Orange	Battery discharging	Battery discharging	Battery discharging	Battery discharging
Environment	Operating Tem.	0°C~40°C	0°C~40°C	0°C~40°C	0°C~40°C
	Storage				

Tem.

-20°C~50°C

-20°C~50°C

-20°C~50°C

-20°C~50°C

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Ordering informations

Part No.	Description
AUPS-A10-R10	VESA 75, DC 12V input 60W UPS module with 3800mAH, 2S2P Li-Ion battery
AUPS-A20-R10	VESA 75, DC 9~36V input 60W UPS module with 3800mAH, 2S2P Li-Ion battery
AUPS-B10-R10	VESA 100, DC 12V input 100W UPS module with 3800mAH, 4S4P Li-Ion battery
AUPS-B20-R10	VESA 100, DC 9~36V input 100W UPS module with 3800mAH, 4S4P Li-Ion battery

NOTE: AUPS-A10/ A20 for ACT-08A use

Packing List

- 1 x DC jack cable
- 1 x USB cable
- 1 x screw kit

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