AHP-1081

Intel® Atom™ N270
1.6 GHz Processor
Touch Panel PC
With 8.4" TFT LCD

AHP-1081 Manual 2nd Ed.
December 2010

Copyright Notice

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Packing List

Before you begin operating your PC, please make sure that the following materials are enclosed:

- 1 AHP-1081 Touch Panel PC
- 1 Phoenix Terminal Block
- 1 Mounting bracket and screws
- 1 CD-ROM for manual (in PDF format)

If any of these items should be missing or damaged, please contact your distributor or sales representative immediately.

Safety & Warranty

1. Read these safety instructions carefully.

2. Keep this user's manual for later reference.

3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.

4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.

5. Keep this equipment away from humidity.

6. Put this equipment on a firm surface during installation. Dropping it or letting it fall could cause damage.

7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.

8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.

9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.

10. All cautions and warnings on the equipment should be noted.

11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.

12. Never pour any liquid into an opening. This could cause fire or electrical shock.

13. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.

14. If any of the following situations arises, get the equipment checked by service personnel:

    a. The power cord or plug is damaged.

    b. Liquid has penetrated into the equipment.

    c. The equipment has been exposed to moisture.

d. The equipment does not work well, or you cannot get it to work according to the user's manual.

e. The equipment has been dropped and damaged.

f. The equipment has obvious signs of breakage.

15. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20°C (-4°F) OR ABOVE 60°C (140°F). IT MAY DAMAGE THE EQUIPMENT.

FCC

Warning!

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Caution:
There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions and your local government's recycling or disposal directives.

Below Table for China RoHS Requirements

产品中有毒有害物质或元素名称及含量

AAEON Panel PC/ Workstation

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板 及其电子组件	×	○	○	○	○	○
外部信号 连接器及线材	×	○	○	○	○	○
外壳	×	○	○	○	○	○
中央处理器 与内存	×	○	○	○	○	○
硬盘	×	○	○	○	○	○
液晶模块	×	○	○	○	○	○
光驱	×	○	○	○	○	○
触控模块	×	○	○	○	○	○
电源	×	○	○	○	○	○

O：表示该有毒有害物质在该部件所有均质材料中的含量均在
　SJ/T 11363-2006 标准规定的限量要求以下。

X：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出
　SJ/T 11363-2006 标准规定的限量要求。

备注：
一、此产品所标示之环保使用期限，系指在一般正常使用状况下。
二、上述部件物质中央处理器、内存、硬盘、光驱、触控模块为选购品。

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1

General
Information

1.1 Introduction

The AHP-1081 operator panel is an Intel® Atom™ N270 1.6 GHz processor computer that is designed to serve as a human machine interface (HMI). It is a PC-based system with 8.4" color TFT LCD display, onboard Ethernet controller, multi-COM port interfaces and an audio controller. With a built-in CompactFlash socket, the AHP-1081 is as compact and user friendly as a multi-function computer. In addition, its "fit anywhere" design makes it very flexible and able to be used in many different kinds of installations. It can be wall mounted, panel mounted or DIN Rail mounted.

For system integrators, this simple, complete, compact and highly integrated system let you easily build an operator panel into your applications. Common industrial applications include factory automation systems, precision machinery, and production process control. It is also suitable for many non-industrial applications, including vending machine, and car park automation. Our operator panel is a reliable, cost-effective solution to your application's processing requirements.

1.2 Specification

System

- CPU　　　　　　　　　　Onboard Intel® Atom™ N270 1.6 GHz Processor
- System Memory　　　　200-pin DDR2 SODIMM x 1, Max. 2 GB
- LCD / CRT Controller　Intel® 945GSE Integrated
- I/O Port　　　　　　　　USB2.0 x 2

  RS-232 x 1

  RS-232/422/485 x 1

  LAN x 2

  VGA x 1

  Power input x 1

  Power button x 1
- Storage Disk Drive　　Type2 CompactFlash™ slot x 1 (Easy to swap);

  2.5" SATA HDD bay x 1 (Anti-vibration 1G)
- Expansion　　　　　　　Mini-PCI x 1
- OS Support　　　　　　Windows CE, Windows XP Pro, Windows XP Embedded, Windows 7 32-bit, Windows Embedded Standard 7, Fedora Linux

Mechanical

- Construction   Plastic front bezel and aluminum back chassis
- Mounting   Wall/ VESA 75/ Desktop/ Panel Mount
- Dimension   9.65" x 7.2" x 1.92" (245mm x 183mm x 48.8mm)
- Carton Size   13.39" x 7.68" x 9.84" (340mm x 195mm x 250mm)
- Net Weight   3.3 lb (1.5 kg)
- Gross Weight   4.4 lb (2 kg)

Environmental

- Operating Temperature $32^{o}F$~$122^{o}F$ ($0^{o}C$~$50^{o}C$)
- Storage Temperature $-4^{o}F$~$158^{o}F$ ($-20^{o}C$~$70^{o}C$)
- Operating Humidity   5 to 90%@ $40^{o}C$, non-condensing
- Vibration   1G RMS/ 5-500Hz/ Random Operation—With Hard Disk Drive
- Shock   20G peak acceleration (11 msec. duration)
- EMC   CE/FCC Class A
- Power Supply   DC 12V (Phoenix) (ATX Mode)

LCD
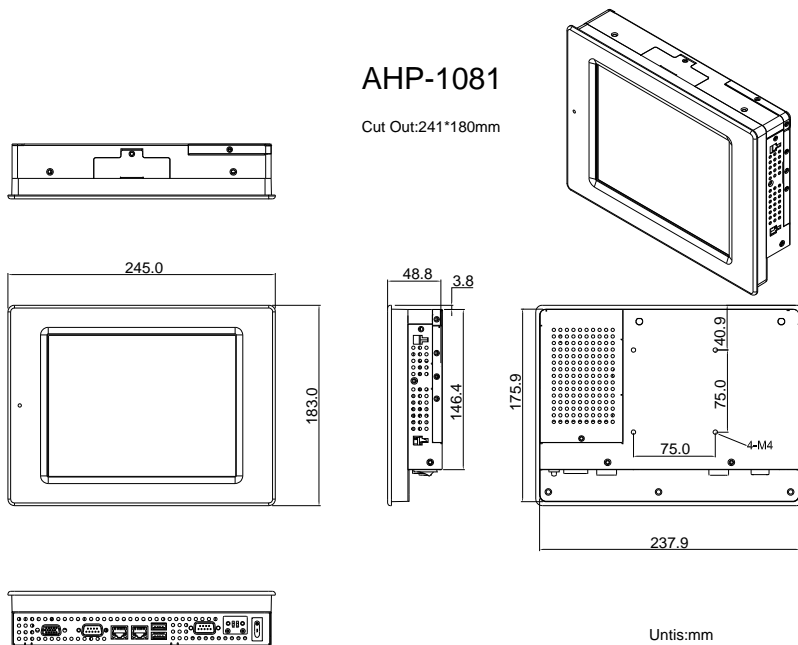
- Display Type   8.4" Color TFT LCD
- Max. Resolution   800x600

- Max. Colors   262K
- Power Consumption   7.44W
- Response Time (msec)   10
- Interface   Single channel LVDS
- Luminance (cd/m^2)   450 nits
- Contrast Ratio   600:1
- Viewing Angle   160° (H) x 140° (V)
- Backlight MTBF (Hours)   50,000

Touch Screen

- Type   5-wire analog touch panel
- Light Transmission   > 80%
- Lifetime   35 million activations

1.3 Dimension

AHP-1081

Cut Out:241*180mm

245.0

183.0

48.8   3.8

175.9

146.4

40.9

75.0

75.0

4-M4

237.9

Untis:mm

Chapter

2

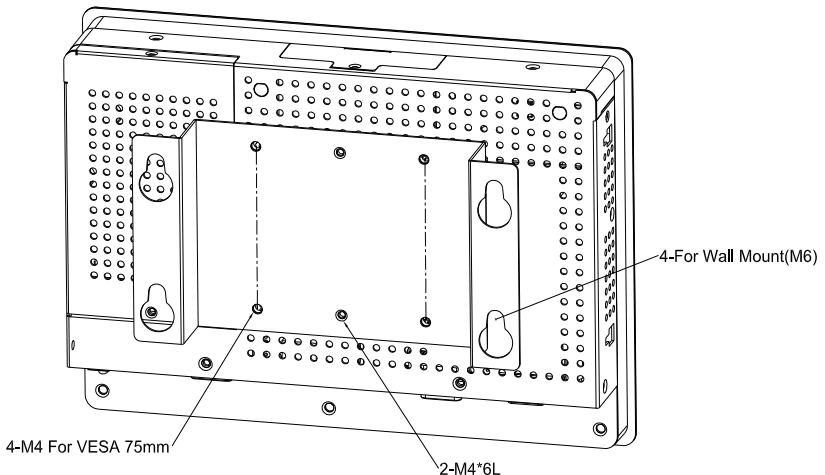# Hardware Installation

2.1 Panelmount Installation

The display panel can be mounted into the wall. You will need the screws along with the mounting brackets, which be packed in the accessory box. Follow the steps below:

Step 1: Place the operator panel into the wall.

Step 2: Place the mounting brackets and bore the screw on it.

Step 3: Screw mounting kits to fix the operator panel.

Step 4: When the mounting set has been tightened, repeat the Steps above and tighten all mounting sets around the monitor until the monitor has been firmly mounted to the wall.
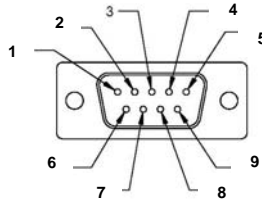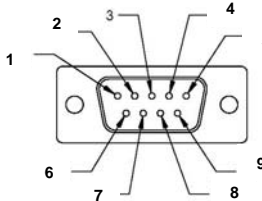

4-For Wall Mount(M6)

4-M4 For VESA 75mm

2-M4*6L

Wall Kit

2.2 COM1/2 RS-232/422/485 Serial Port Connector

COM1 (D-sub 9 male)

Pin	Signal	Pin	Signal
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI		

COM2 RS-232/422/485 (D-sub 9 male)

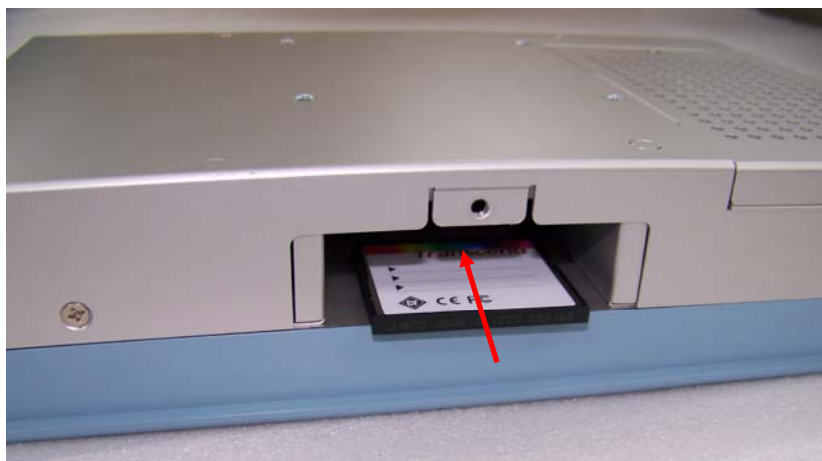| Pin	Signal	Pin	Signal
1	DCD (422TXD-/485DATA-)	2	RXD (422RXD+)
3	TXD (422TXD+/485DATA+)	4	DTR (422RXD-)
5	GND	6	DSR
7	RTS	8	CTS
9	RI/+5Volt/+12Volt		

2.3 CompactFlash™ Installation

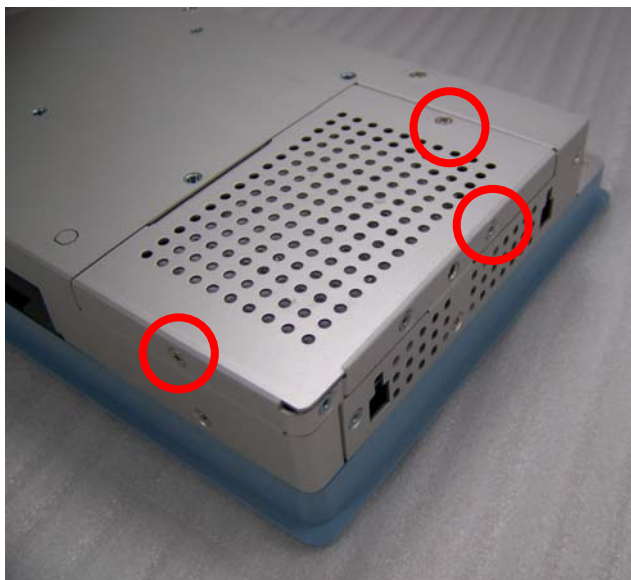Step 1: Loose the screw of cover to open the CompactFlash™ Slot

Step 2: Insert the CompactFlash™ to the CompactFlash™ slot

2.4 Hard Disk Drive Installation

Step 1: Loose the three screws of the cover to get the Hard Disk Drive

(HDD) bracket

Step 2: Insert the HDD to the HDD bracket

Step 3: Fasten the four screws to fasten the HDD and the HDD bracket

Step 4: Connect the SATA cable to the HDD

Chapter

3

Windows XP Embedded Installation

3.1 Introduction

The AHP-1081 comes with a CD-ROM that contains Windows XP Embedded image. Please follow up the installation process at "AAEON Windows XP Embedded Installation Guide" file to install Windows XP Embedded image in your CF Disk. After Touchscreen calibration, you can start to use AHP-1081.

Request for different features of Windows XP Embedded:

Please refer to "AAEON Windows XP Embedded Installation Guide" and "AAEON Windows XP Embedded Integration Service Policy," and fill out "AAEON Windows XP Embedded Request Form" in your CD-ROM, and contact our sales representative for more details.

Chapter

4

Driver Installation

The AHP-1081 comes with a CD-ROM that contains all drivers and utilities that meet your needs.

Follow the sequence below to install the drivers:

Step 1 – Install INF Driver

Step 2 – Install VGA Driver

Step 3 – Install LAN Driver

Step 4 – Install Audio Driver

Step 5 – Install Touch Panel Driver

Please read instructions below for further detailed installations.

4.1 Installation:

Insert the AHP-1081 CD-ROM into the CD-ROM Drive. And install the drivers from Step 1 to Step 5 in order.

Step 1 – Install INF Driver

1. Click on the *Step 1 - INF Update Utility v8.2.0.1014* and then double click on the *Setup.exe*

2. Follow the instructions that the window shows

3. The system will help you install the driver automatically

Step 2 – Install VGA Driver

1. Click on the *Step 2 - Intel Graphics Media Accelerator Driver* folder and double click on the *Setup.exe*

2. Follow the instructions that the window shows

3. The system will help you install the driver automatically

Step 3 – Install LAN Driver

1. Click on the *Step 3 - Intel Ethernet Driver* folder and double click on the *PRO2KXP_v13_1_2.exe*

2. Follow the instructions that the window shows

3. The system will help you install the driver automatically

Step 4 – Install Audio Driver

1. Click on the *Step 4 - Realtek ALC655 Audio Driver v3.71* folder and double click on the *Setup.exe*

2. Follow the instructions that the window shows

3. The system will help you install the driver automatically

Step 5 – Install Touch Panel Driver

1. Click on the *Step 5 - Touch Panel Driver* folder and double click on the *Setup.exe*

2. Follow the instructions that the window shows

3. The system will help you install the driver automatically