

**Flexible / Classy / High Performance**



**POS AD1000 Series**

# **USER'S MANUAL**

**Android POS systems**

**Freescale i.MX6 Dual/Quad Core Processor technology**

Version: 1.1

Date: December 25, 2014

### **About this Manual**

Thank you for purchasing POS AD-1000 Series All-in-One system. This terminal offers all the enhanced features and is easy to connect to various optional devices for optimal performance. This user manual describes how you setup and connect your terminal.

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## Federal Communications Commission (FCC)

This device complies with Part 15 of the 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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

### **WARNING:**

Use the included AC power cord so as not to interfere with radio and television reception.  
If you use other cables, it may cause interference with radio and television reception.

### **WARNING:**

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

### **WARNING:**

This is a equipment of Class A. This device could cause interferences in residential areas; in the case of interferences it can be demand from the user to provide appropriate solutions for it.

### **WARNING:**

The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.



**RoHS**

### **BEFORE YOU PROCEED**

- Read the safety notices and the User's Manual carefully before using the product.
- Keep the box and packaging in case the product needs to be shipped in the future.
- Follow the product and warning label instructions.
- For safety reasons, only qualified service personnel should open the terminal.
- Any changes or modifications that do not follow the instructions in this manual will void this product/s warranty.

### **! SAFETY PRECAUTIONS**

In the interest of safety, please observe the following precautions:

#### **Power Requirement:**

This product is designed to operate on 110~240V AC 50/60Hz in Europe and U.S.A.

Never connect to any outlet or power supply having a different voltage or frequency.

### **! POWER SUPPLY SAFETY NOTICE**

- Disconnect this terminal from the AC outlet before cleaning. Use only a moistened cloth for cleaning.
- Check the voltage of the power source when connecting the equipment to the power outlet. Make sure the voltage of the power outlet conforms within voltage range of the terminal. Failure to comply may cause the electric shock or damage to the terminal. If you are not sure of the electricity voltage that you are using, contact your local electricity company.
- To avoid electric shocks, disconnect the power cord from the electrical outlet before relocating the system.
- Do not overload electric power outlets to avoid fire or electric shocks.
- Protect the power cord from being walked on or pinched particularly at plug.
- If the equipment is not used for a long time, disconnect the equipment from the mains to avoid damage.
- Never allow liquid into ventilation openings. This could cause fire or electrical shock.

### **! OPERATING INSTRUCTIONS**

- Keep the User's Manual for future reference.
- Follow the product label instructions.
- Lay this terminal on a stable surface when installing. Heavy objects placed on the product can cause damage or obstruct proper ventilation.
  
- If one of the following situations arises, notify a qualified service technician immediately:
  - a. The power cord or plug is damaged.
  - b. Liquid has been split on to the terminal.
  - c. The terminal has been dropped and damaged.
  - d. The terminal does not function according to the user manual.
  - e. The terminal has obvious signs of damage.
  
- Ventilation slots and holes are provided on the sides of this unit. Do not block any ventilation openings to prevent the equipment from overheat.
- Do not place the unit locations with high humidity and dust. They can cause extensive damage. Avoid places where unit is likely to be exposed to oily fumes and vapors.
- Places exposed to direct sunlight, or near heating appliances can attain extremely high temperatures, which may deform the cabinet, or can become a prime cause of damage.
  
- The operating ambient temperature range is 41 ° F - 95 ° F (0 ° C to 35 ° C), and humidity of 10% - 90%. When using the unit on the system rack, be sure to keep this ambient temperature inside the range.
- Avoid shaky places or hot-springs areas where hydrogen sulfide and acidic ions are likely to be generated.
- When transporting this unit, make sure it is not likely to be subjected to impacts. They can be a prime cause for damage.

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# 1. Introduction

## Welcome

Congratulations on your purchase of POS AD-1000 Series Terminal. Your easy-to-use POS terminal is designed to help you enhance your business flexibility by offering a superior customer experience.

### 1.1 How to Use This Manual

This manual contains all the information needed for setting up a POS AD-1000 Series Terminal. In addition, you can also consult the manual for the operation system and added peripheral hardware.

- Provides an introduction to POS AD-1000 Series Terminal and this user's manual.
- Provides all necessary information for all hardware setup.
- List all the specifications of POS AD-1000 Series Terminal and information for the motherboard configuration.
- Provides information for troubleshooting POS AD-1000 Series Terminal.

### 1.2 A Visual Tour of POS AD-1000 Series Terminal

Before you start, take a few moments to become familiar with POS AD-1000 Series Terminal.

**Elegant, Solid, Fashionable Compact Design**



Easy to reach I/O Connector Ports  
(Back Side of Machine)

VFD Mounting Cover

MSR Mounting  
Cover





### 1.2a What Comes With POS AD-1000 Series Terminal

The following items are standard with POS AD-1000 Series terminal.

Before setting up your POS AD-1000 Series terminal, check that the package contains the following items. If any of the items are missing or damaged, contact your supplier immediately.

- Main system with LCD panel
- Power adapter + AC power cord

Optional Items:

- |                                                                                   |                                |
|-----------------------------------------------------------------------------------|--------------------------------|
| ➤ MSR                                                                             | ➤ VFD Customer Display         |
| ➤ 2 in 1 Reader (MSR+RFID)                                                        | ➤ 2 in 1 Reader (MSR+i-Button) |
| ➤ Peripherals (Scanner, Cash drawer, Receipt printer, 7", 10" Second LCD monitor) |                                |

POS AD-1000 with MSR and WiFi



VFD Customer Display



Peripherals



Receipt Printer



Cash Register



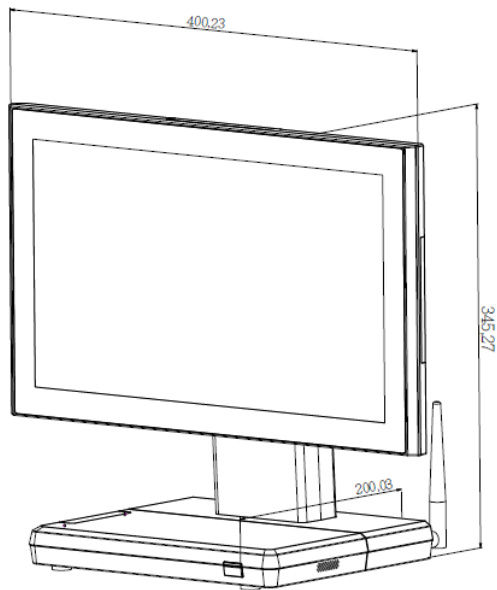
Barcode Scanner



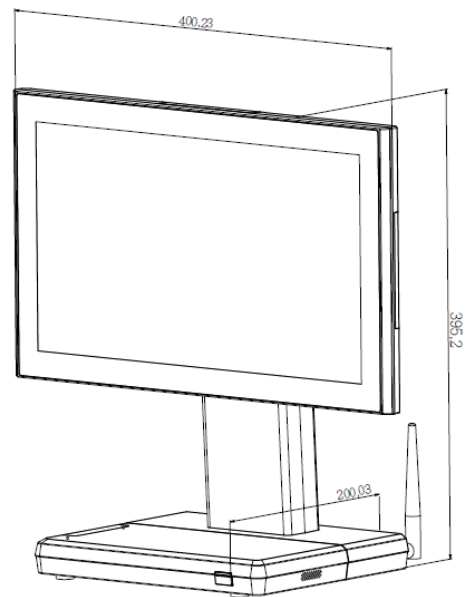
7",10" second display

## 1.2b Dimension 15.6" POS AD-1000

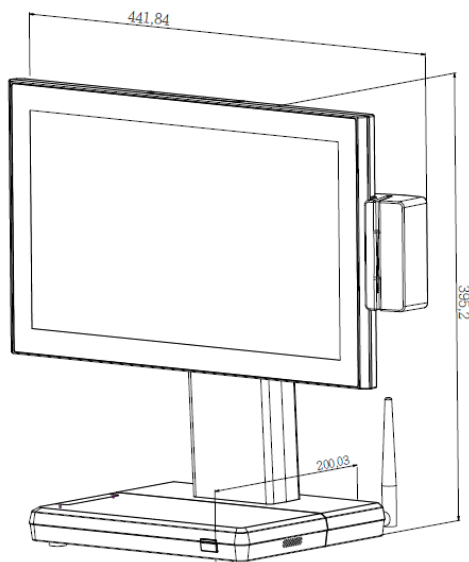
15.6" POS AD-1000 Terminal standard Dimensions:



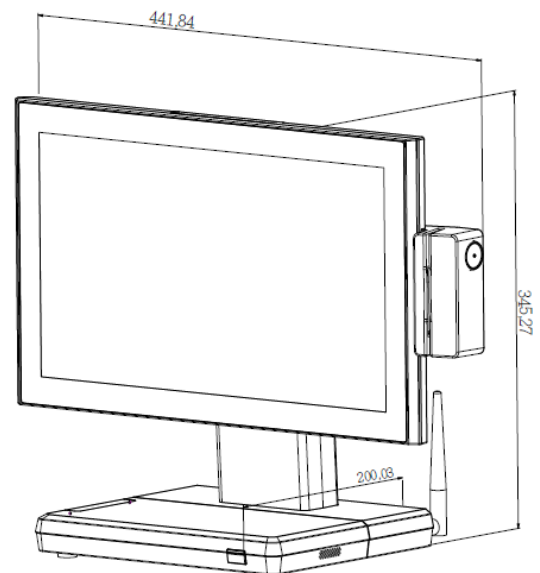
15.6" POS AD-1000 Terminal standard Dimensions:



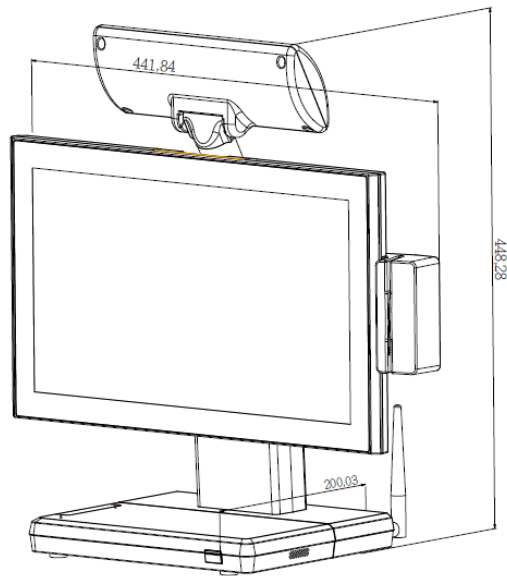
15.6" POS AD-1000 Terminal and MSR Dimensions:



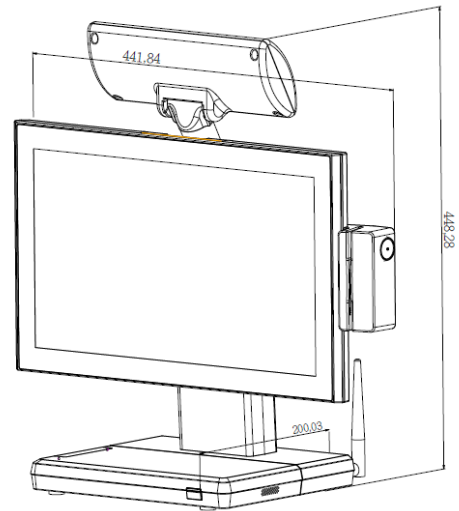
15.6" POS AD-1000 Terminal and 2- in -1 MSR Dimensions:



15.6" POS AD-1000 Terminal  
and VFD customer display:

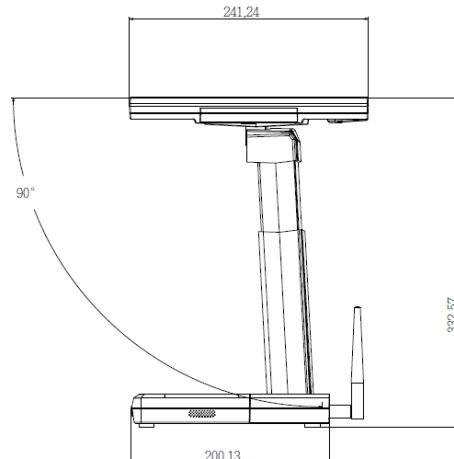
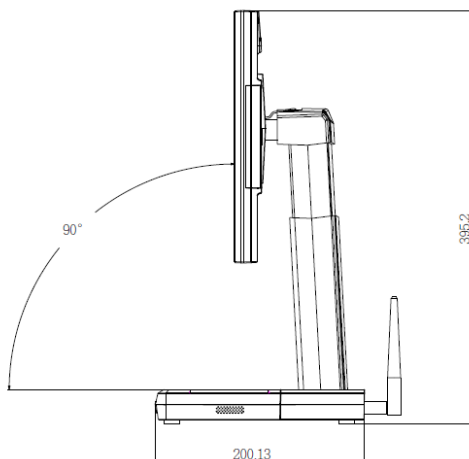
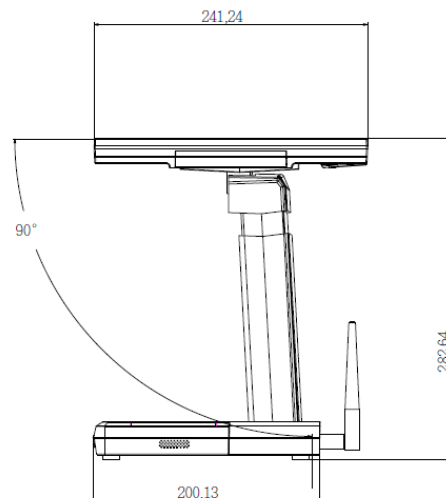
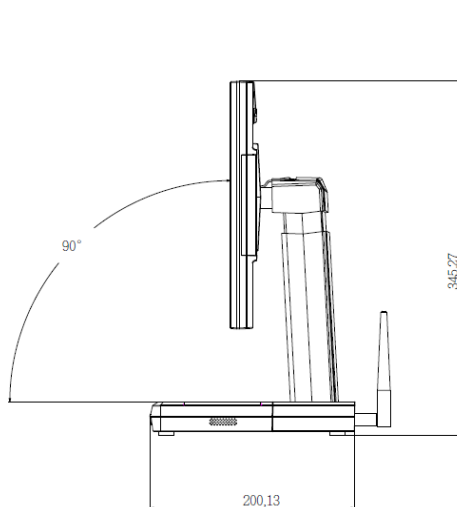


15.6" POS AD-1000 Terminal  
and VFD + 2- in -1 MSR Dimensions:



### 1.2c Adjustable LCD Operation Angle

"Super Firm and Perfectly Secured LCD display Angles from 90 ~ 180 degree."



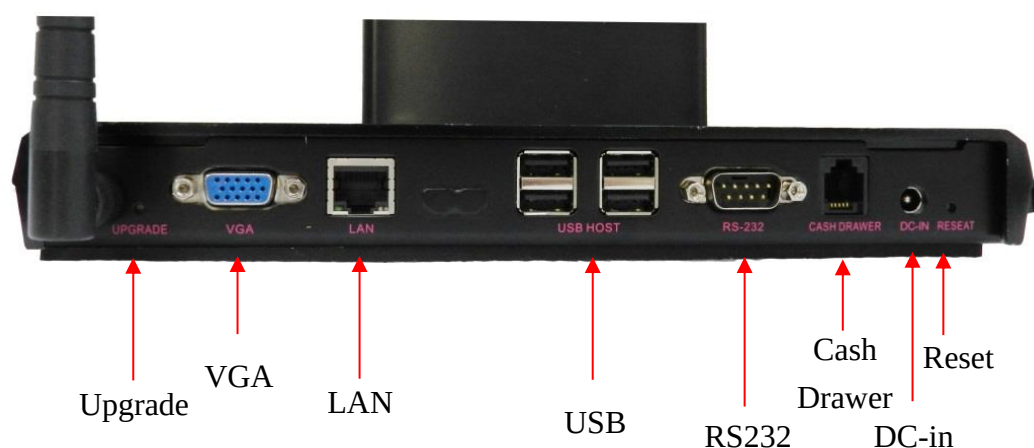
### 1.3 Features

POS AD-1000 Series terminal comes equipped with the following features:

|                                 |                                                                                                                                                                                                                                                                   |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ● Low power consumption         | LV (Low Voltage) design of the device is embedded with a unique chipset renders power saving function.                                                                                                                                                            |
| ● Saving cost of ownership      | Modular design provides the owner with the following benefits:<br>(a) cost effectiveness,<br>(b) customization flexibility, and<br>(c) Easy maintenance.                                                                                                          |
| ● Compact size/Aesthetic design | Slimmest in the POS industry standard [Standard: 400(W) x 200(D) x 345(H) mm, Highest: 400(W) x 200(D) x 395(H) mm]. This elegant, economic POS system features a sleek, compact design base that saves counter space and adds appeal to the service environment. |
| ● Dust/water proof              | AD-1000 features a highly durable, rigorously tested design that is reliable and dependable in rugged environments.                                                                                                                                               |
| ● Environment protection        | Environmental friendly, RoHS compliant product.                                                                                                                                                                                                                   |
| ● High Stability                | The AD-1000 has a longer overall system MTBF to provide a higher stability during operation.                                                                                                                                                                      |

### 1.4 Connector Panels

The connector panel is located at the bottom of the main unit base. To clearly see the panel you must open the base cover.



**Chart of the connector panel:**

| I/O Port        | Connector Type            | Description                                                                                                                                   |
|-----------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Upgrade         | Push Button               | Use this button to upgrade system.                                                                                                            |
| VGA             | VGA Connector             | The VGA port is for the external LCD or CRT monitor.                                                                                          |
| LAN             | 10/100/1000Mbps Ethernet  | The LAN port is used to hook this device to a local area network.                                                                             |
| USB             | USB                       | The USB (Universal Serial Bus) port can be used to connect USB devices.                                                                       |
| RS232           | DSUB Connector            | The serial port can be used to connect serial devices such as printer.                                                                        |
| Cash Drawer     | RJ12 Cable                | The port is used to hook this device to a cash drawer.                                                                                        |
| Power Connector | DC 12V IN power connector | The power connector mainly supplies power to the machine. Caution! If the DC 12V power connector is not connected, the system will not start. |
| Reset           | Push Button               | Use this button to reset system.                                                                                                              |

## 2. Hardware Setup

### Getting Started

This section describes how to install the optional accessories on your POS AD-1000 Touch Terminal for optimal serviceability.

#### 2.1 Pre-installation Notice

Before you start installing POS AD-1000 terminal, please read the following notices carefully.

1. The POS AD-1000 terminal does support Android system.
2. Do not plug in or unplug any interior devices, such as any function card, when powered on.
3. For installation and compatibility, using the 1G DDR3 RAM from the original manufacturer is recommended.
4. The spill proof design of POS AD-1000 conforms to IP-65 standard from front bezel.
5. Do not insert or remove any devices or components from the POS AD-1000 terminal while the power is on.

### Hardware Assembly

Please make sure that the system power is turned off and the power supply is disconnected when making any hardware changes to POS AD-1000 terminal.

## 2.2a WiFi Installation

### Package Content

- A external antenna



Step 1: Please secure external antenna to rear panel of the terminal.



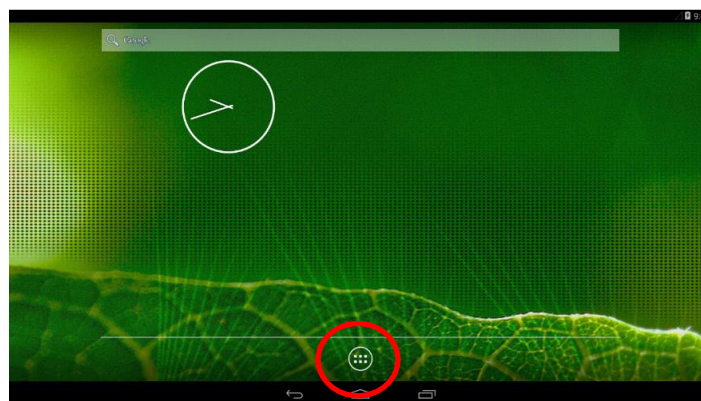
Step 2: Please secure external antenna to rear panel of the terminal.

Step 3: Integration completed..

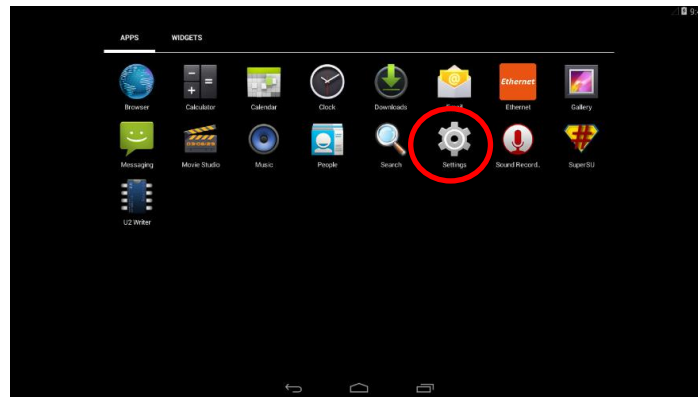


Step 4: Setting WiFi in the system.

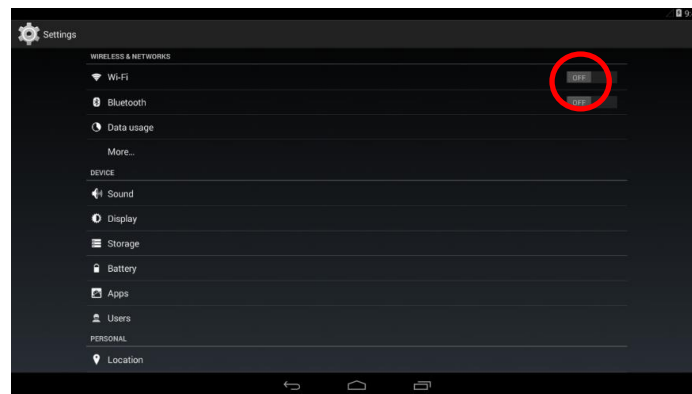
Step5: Please press home key in the screen.



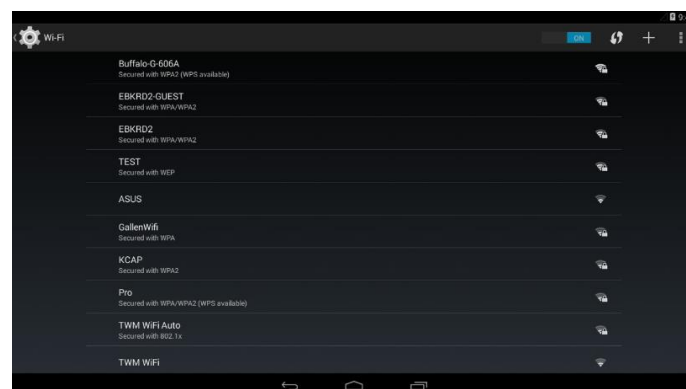
Step6: Please press settings icon in the screen.



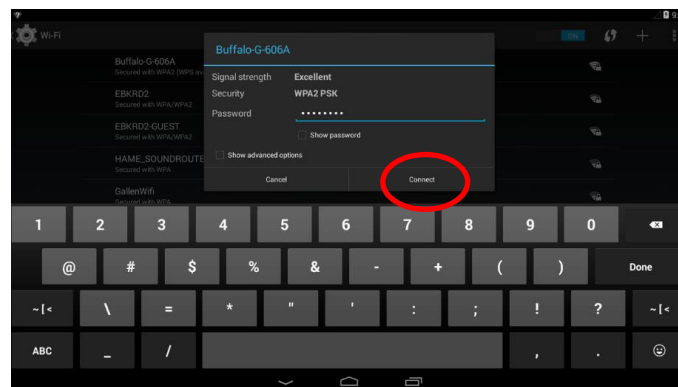
Step7: Please setting WiFi status from off to on .



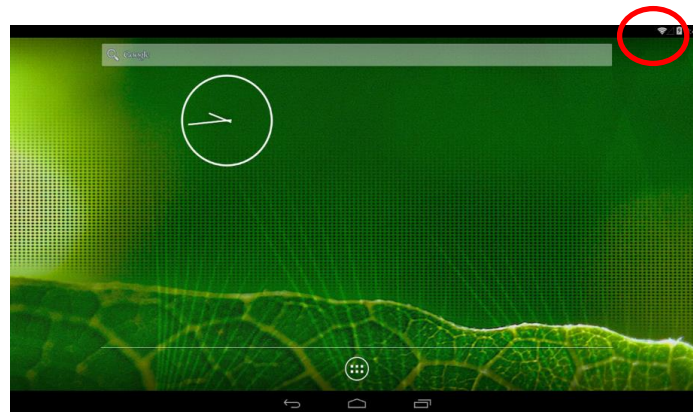
Step8: Please select AP as below.



Step9: Please key-in password then press connect button as below.

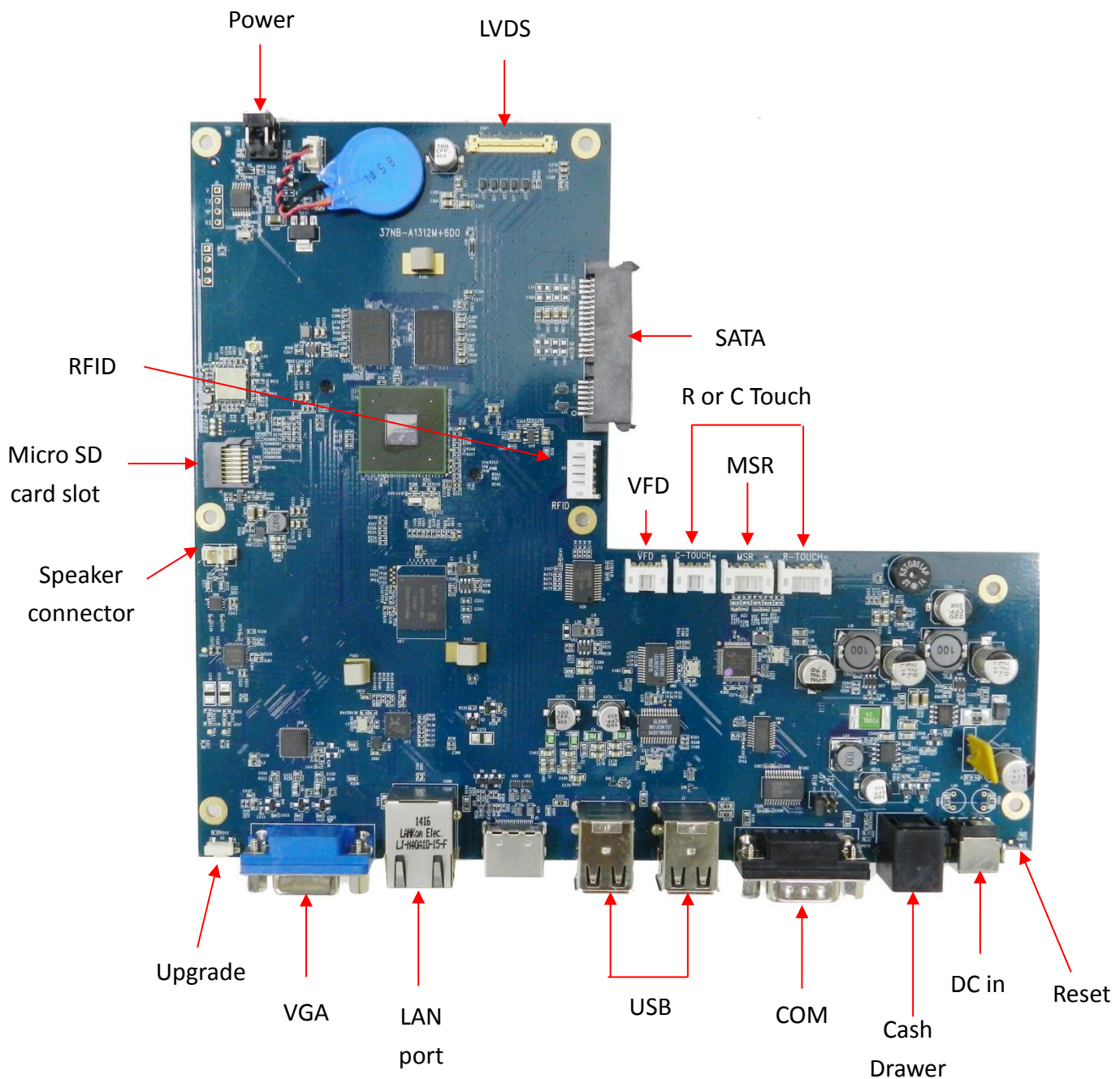


Step10: WiFi icon will display in the screen.



Step11: WiFi setting completed.

## 2.2b Motherboard Introduction.



The Power electricity on COM port of AD-1000 is 0 as default. If you want to change power electricity to +5V or +12V, you have to follow the instruction below.

Prepare nippers to change the position of the jumpers from Ring-IN to +5V or +12V as the picture shown below.



## 2.2c Micro SD card Installation.

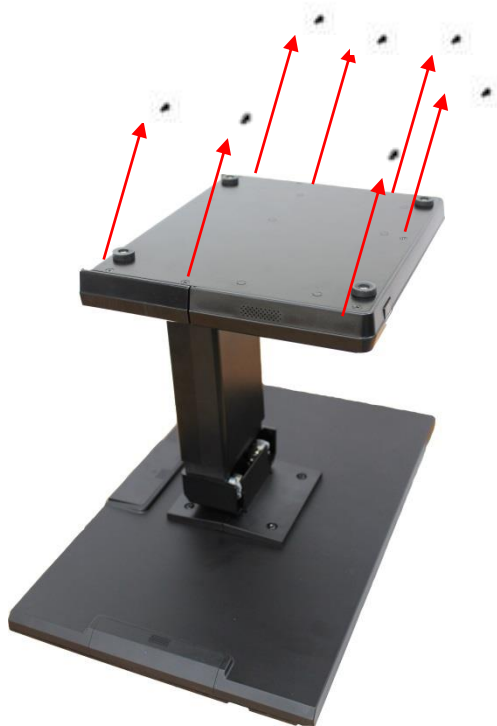
### Package Content

- A micro SD card

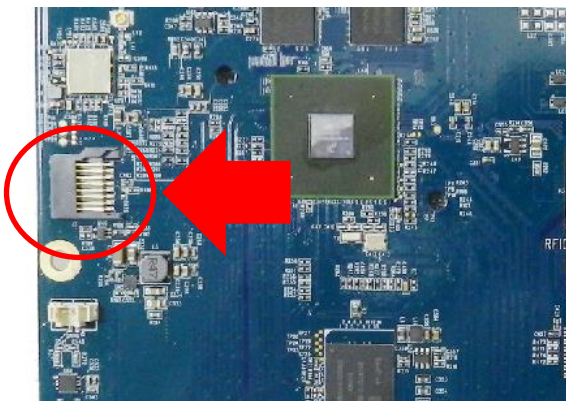


### Installing a Micro SD card

1. Please turn off the system power.
2. Turn over the AD-1000, the Micro SD Card socket is found under the case.
3. Unscrew the metal piece.



4. Plug-in the Micro SD Card as below.



5. Replace the metal piece and retighten the screw.

6. You may turn the system back on once the Micro SD card is completely installed.

## 2.2d Magnetic Stripe Reader Installation.

An optional Magnetic Stripe Reader (MSR) can be installed on the right side of AD-1000 Terminal.

Package Content

- An MSR housing
- Screw x 2



Installing an MSR

Step 1: Please turn off the system power.

Step 2: Please remove the side cover of the terminal.



Step 3: Please push in MSR housing into the terminal.



Step 4: Using two screws to secure MSR housing to the right side of the monitor.



Step 5: Integration completed.



Step 6: You may turn the system back on once the MSR is completely installed.

## 2.2e 2-in-1 Card Reader Installation.

An optional 2-in-1/ 3-in-1 Card Reader can be installed on the right side of AD-1000 Terminal.

Package Content

- A 2-in-1 Card Reader housing
- Screw x 2



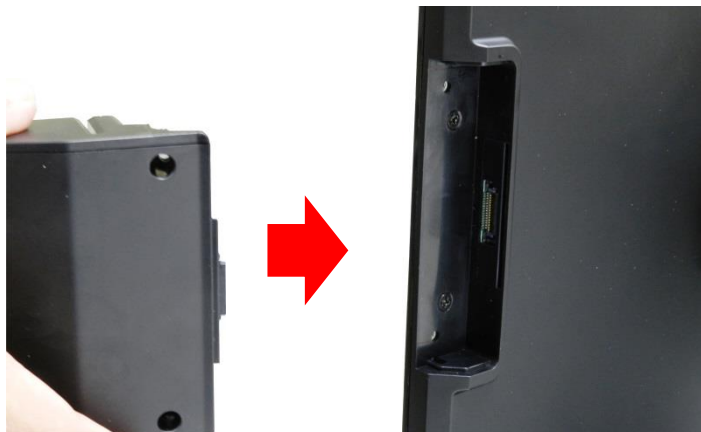
### Installing a 2-in-1 Card Reader

Step 1: Please turn off the system power.

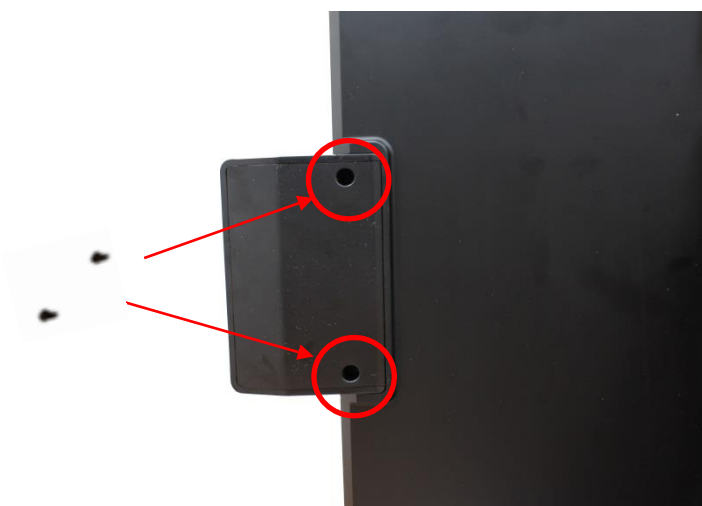
Step 2: Please remove the side cover of the terminal.



Step 3: Please push in 2-in-1 MSR housing into the terminal.



Step 4: Using two screws to secure 2-in-1 MSR housing into the right side of the monitor.



Step 5: Integration completed.



Step 6: You may turn the system back on once the 2-in-1 MSR is completely installed.

## 2.2f VFD Customer Display Installation.

Package Content

- A VFD
- Screw x 2



Installing a VFD

Step 1: Please turn off the system power.

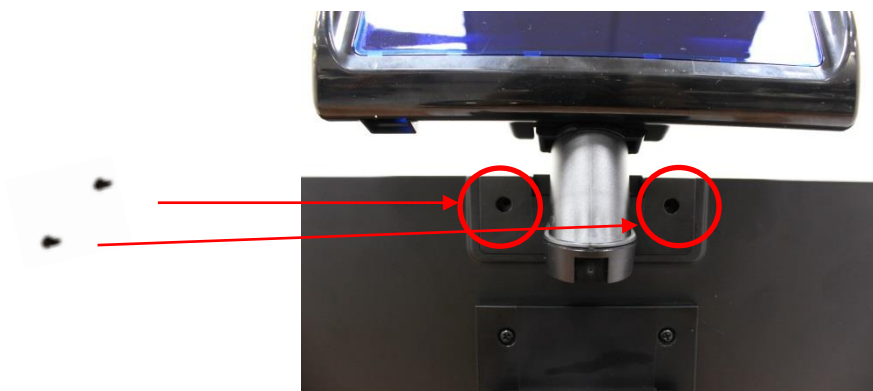
Step 2: Please remove the side cover of the terminal.



Step 3: Please push in VFD customer display to the terminal.



Step 4: Using two screws to secure VFD customer display to the up side of the monitor.



Step 5: Integration completed.



Step 6: Turn on VFD customer display power switch, and then turn on system power.

## 2.2g HDD/SSD kit Installation.

Package Content

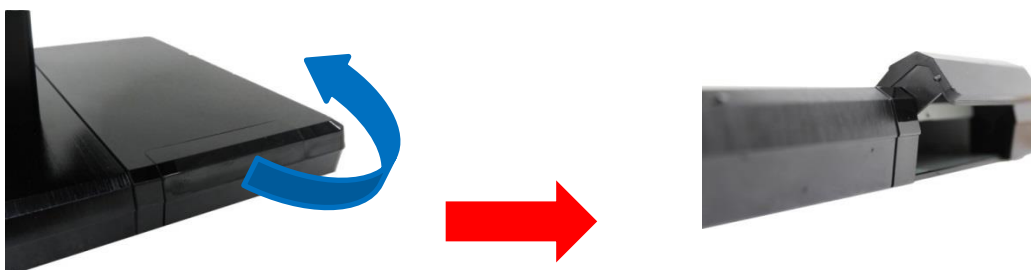
- A 2.5" HDD/SSD kit
- Screw x 1



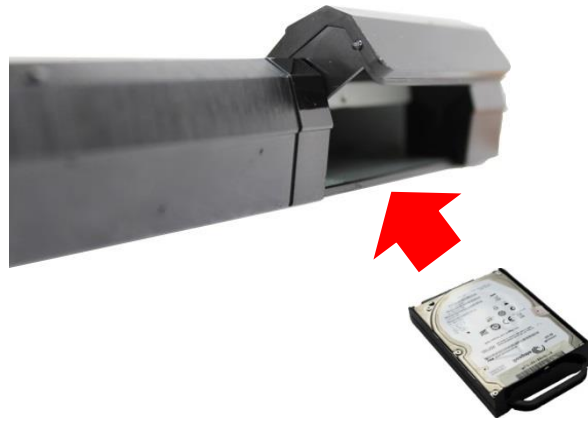
Installing a 2.5" HDD/SSD kit

Step 1: Please turn off the system power.

Step 2: Please open the HDD cover.



Step 3: Please push in HDD or SSD kit into the terminal where indicated below.



Step 4: Please screw a screw indicated below to fix HDD or SSD kit.



Step 5: Close the HDD cover to complete the installation.



Step 6: Integration completed.

## 2.2h RFID Installation

An optional RFID Card can be installed on the AD-1000 Terminal.

### Package Content

- A RFID kit
- Screw x 2



### Installing a RFID kit

Step 1: Please turn off the system power.

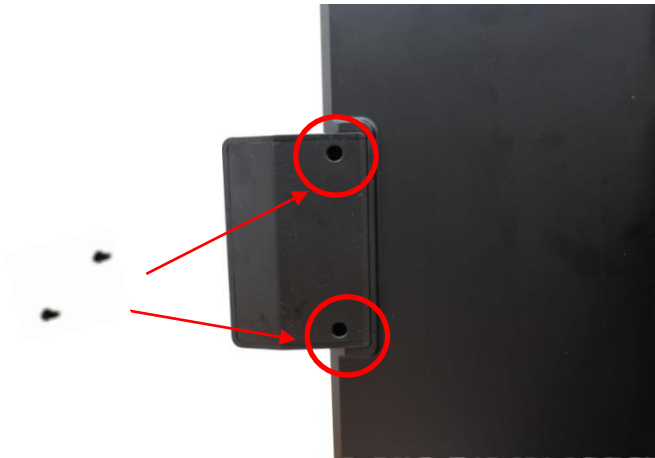
Step 2: Please remove the side cover of the terminal.



Step 3: Please push in RFID kit into the terminal.



Step 4: Using two screws to secure RFID kit to the right side of the monitor.



Step 5: Integration completed.

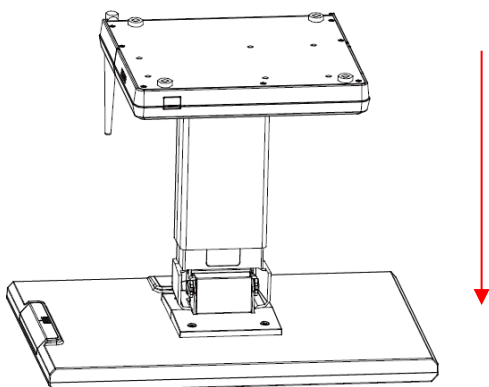


Step 6: You may turn the system back on once the RFID kit is completely installed.

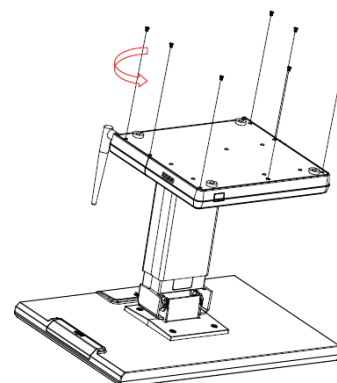
### 3. Service manual

#### 3.1 Touch/LCD Panel

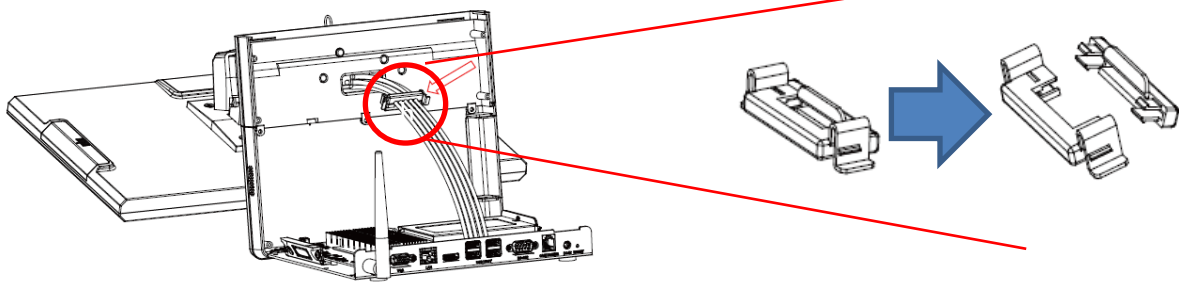
Step 1: Please position the terminal as shown below on a working table with “soft protective pad”.



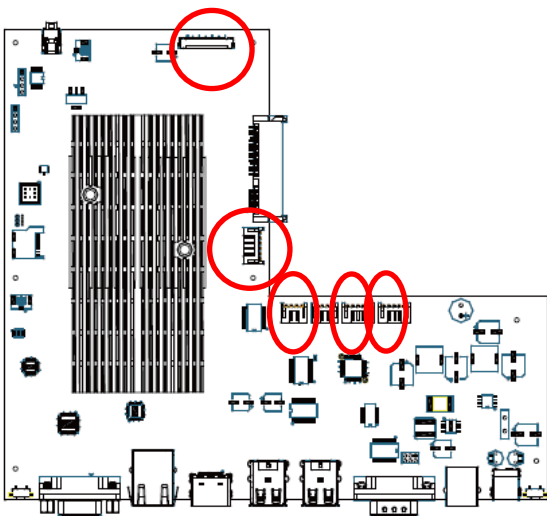
Step 2: Unscrew the metal piece.



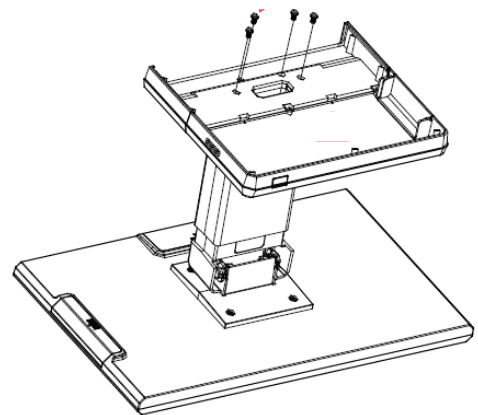
Step 3: Please open the Wire Clip.



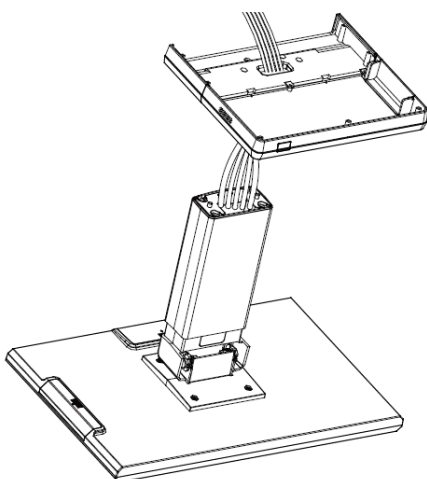
Step 4: Please remove 5 cables of the motherboard.



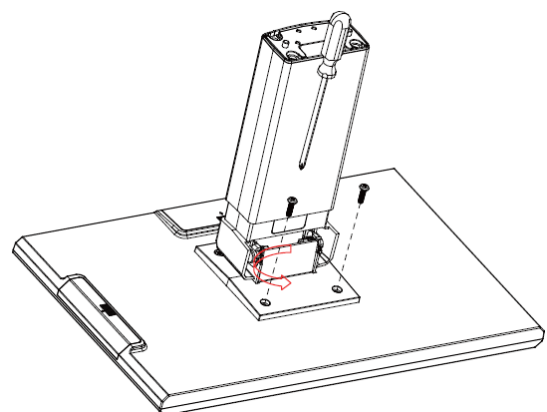
Step 5: Please remove 4 screws of the stand.



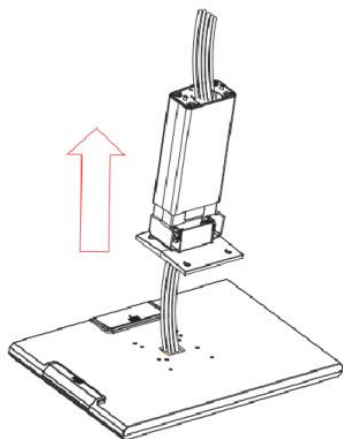
Step 6: Please remove the stand.



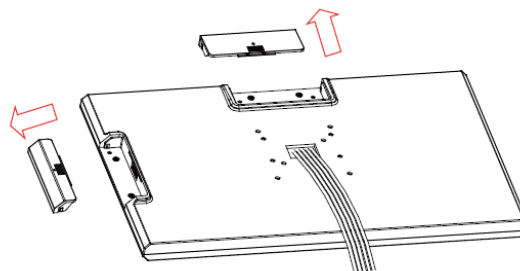
Step 7: Please remove 4 screws of the hinge.



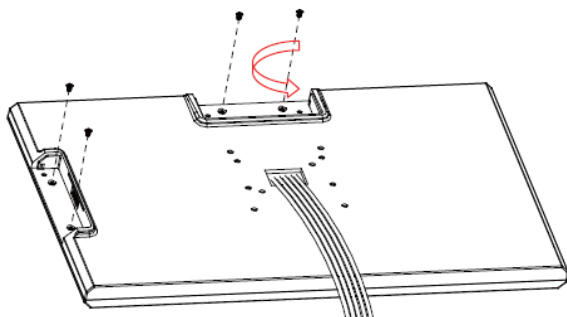
Step 8: Please remove the hinge.



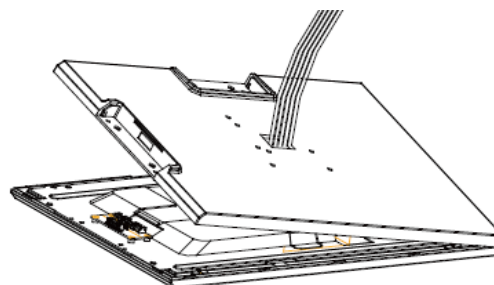
Step 9: Please remove side cover of the monitor.



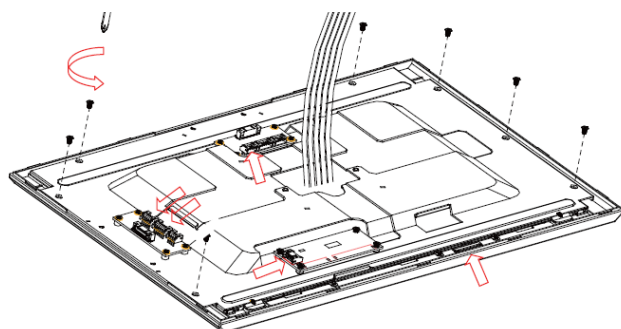
Step 10: Please remove 4 screws.



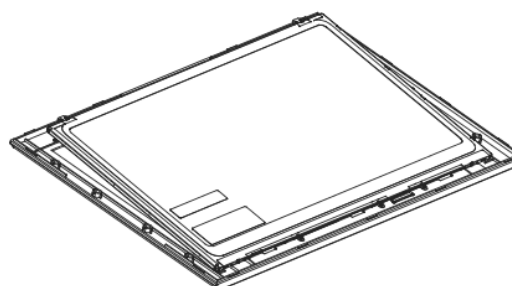
Step 11: Please remove back cover.



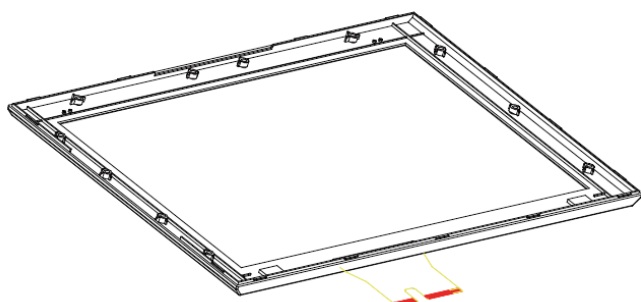
Step 12: Please remove 7 screws of the LED bracket.



Step 13: Please remove LED panel.



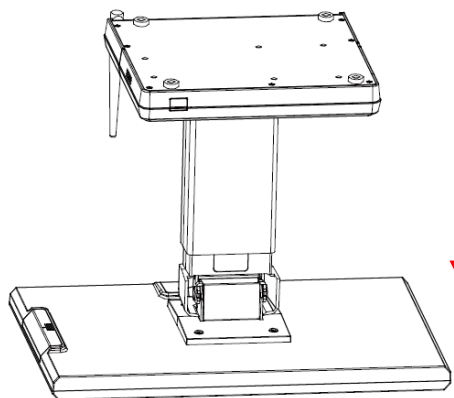
Step 14: Remove completed.



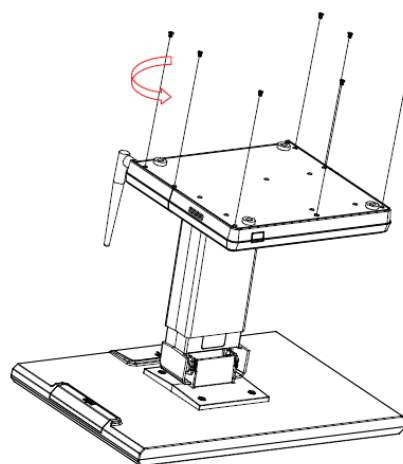
Step 15: After touch panel or LED panel is replaced, please reverse the step 1-13 to assemble the machine.

### 3.2 Motherboard

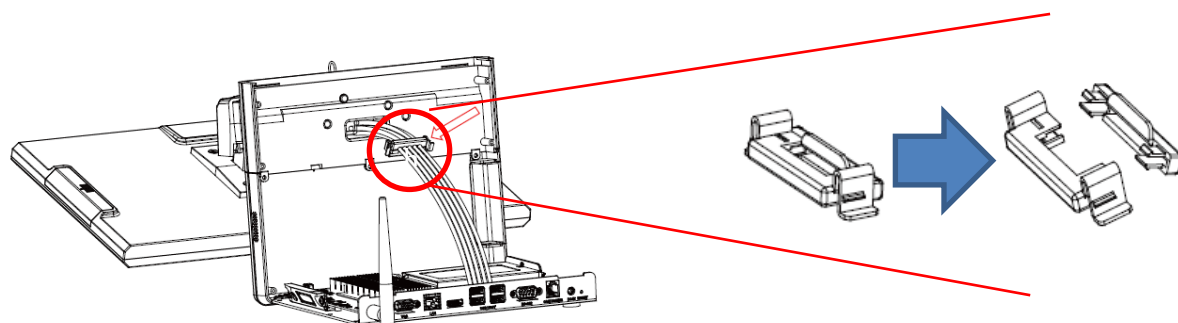
Step 1: Please position the terminal as shown below on a working table with “soft protective pad”.



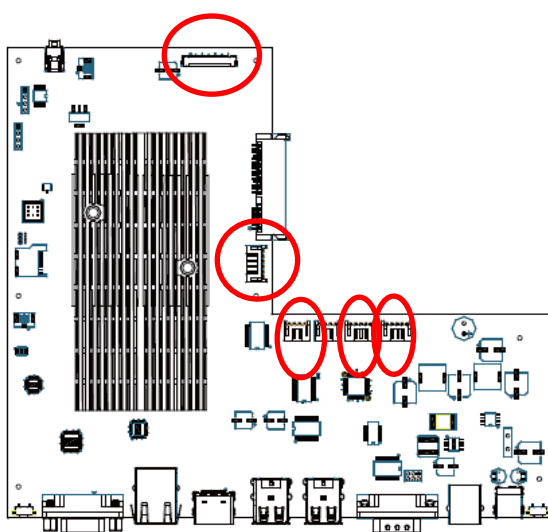
Step 2: Unscrew the metal piece.



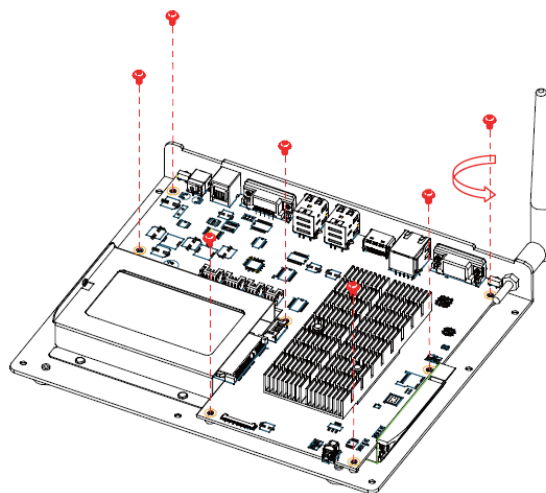
Step 3: Please open the Wire Clip.



Step 4: Please remove 5 cables of the M/B.



Step5: Please remove 7 screws from M/B to separate and replace motherboard.



.Step 6: Please reverse step 1-5 to assemble the machine.

## 4. Specifications

| AD1000 System Specifications |                                                 |                                                               |
|------------------------------|-------------------------------------------------|---------------------------------------------------------------|
| Outlook                      |                                                 |                                                               |
| Dimension                    | 400(L)x300(D)x345(H) mm                         |                                                               |
| Weight                       | 4.7kg                                           |                                                               |
| Color                        | Black                                           |                                                               |
| Hardware Specification       |                                                 |                                                               |
| CPU                          | FSL i.MX6Q 1GHz, Quad Cortex A9                 |                                                               |
| System Memory                | 1GB LVDDR3 800MT/s                              |                                                               |
| Graphics                     | 3D GPU (Vivante GC2000) and Vector Graphics GPU |                                                               |
| Display                      | Size                                            | 15.6" LED panel                                               |
|                              | Resolution                                      | 1366x768;wide screen                                          |
|                              | Touch Screen                                    | 15.6" 5-wired resistive touch or   projected capacitive touch |
|                              | Bezel free                                      | Yes                                                           |
| Storage                      | EMMC 8G flash menory                            |                                                               |
| WiFi                         | 802.11 b/g/n                                    |                                                               |
| Speaker                      | Internal speaker 2W x 1                         |                                                               |
| Power Supply                 | 60W (12V/5A )power adapter                      |                                                               |
| External I/O Ports           |                                                 |                                                               |
| USB 2.0                      | 4                                               |                                                               |
| Serial                       | 1                                               |                                                               |
| LAN                          | 10/100/1000Mbps                                 |                                                               |
| Cash Drawer                  | 1 x RJ-11 (12V/24V)                             |                                                               |
| VGA                          | 1 ; Second display with external power adapter  |                                                               |
| Optional Peripherals         |                                                 |                                                               |
| MSR                          | 3 Tracks , JIS-I or II   , USB interface        |                                                               |
| VFD                          | 2 x 20 VFD Customer Display , RS232 interface   |                                                               |
| Second Display               | Support 7"/10" second display                   |                                                               |
| RFID                         | RFID 13.56MHZ , RS232 interface                 |                                                               |
| 2-in-1 Reader (MSR+i-Button) | Yes                                             |                                                               |

|                               |                                          |
|-------------------------------|------------------------------------------|
| 2-in-1 Reader (MSR+RFID)      | Yes                                      |
| Optional Storage              | 2.5" HDD/SSD,micro SD card               |
| Barcode Scanner               | USB interface                            |
| Thermal Printer               | RS232 interface                          |
| <b>Control Buttons</b>        |                                          |
| Power                         | 1 (ON /OFF;include LED display)          |
| Reset                         | 1                                        |
| Upgrade                       | 1                                        |
| <b>Environment</b>            |                                          |
| Green Product                 | RoHS,REACH                               |
| EMI/Safety                    | CE CLASS A,FCC Part 15 Subpart B,CLASS A |
| Operating Temperature         | 0°C ~ 40°C (32°F ~ 104°F)                |
| Storage Temperature           | -10°C ~ 55°C (14°F ~131°F)               |
| Relative Humidity             | 10% ~ 90% (Non-Condensing)               |
| <b>Software Specification</b> |                                          |
| OS                            | Android 4.4.2                            |