



# **User Manual**

**EC-VP-3100**

**All-in-one Touch POS Terminal**

# CHAPTER

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# Overview

Thank you for purchasing the EC-VP-3100 all in one touch POS terminal. We are committed to use up-to-date technology and provide better after-sales service continuously. Please take time to read this user manual before system installation.

**Note: Information in this user manual may change without prior notice**

## 1. Safety Information

- Make sure the power voltage are correct and the ground connection of the power outlet is working properly before plug in the electricity.
- During lightning storm, unplug the network cable, power cable and any other connections.
- Turn off power before connect any devices (except USB devices) to the terminal.
- Do not attempt to open the chassis. There is a possibility of electric shock. For service, contact the authorized service provider.
- Do not spill liquid on the terminal or place any objects into the ventilation holes. It may cause short-circuit for the internal components and cause a fire or electric shock.
- After the computer is stored below temperature of 10 degree, put the machine at room temperature (10 – 35 degree) in the original packing for not less than two hours to resume to room temperature before operation. This is to avoid condensation that might bring electrical damage.
- Keep the terminal clean, dry, away from dust, moisture and direct sunlight.
- Do not use harsh chemicals or strong cleaning solvents to clean the LCD or touch panel. Use a soft terry cloth with mild cleaning liquid.
- Do not share the same power outlet with high power electrical appliances, keep distance from high level magnetic interference.
- Do not use sharp pointed objects to operate, it will cause damage to the screen.

### ***When the following occurs:***

- Water go in the POS terminal;
- Physical damage accidentally;
- Burning smell from the terminal; disconnect the power supply immediately, unplug the power cord and contact a qualified service technician.

## ***2. Electromagnetic Compatibility Statement***

### **FCC NOTICE**

This device complies with Part 15 of FCC Rules. Operations are 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.

### **EUROPEAN COMMUNITY (CE) MARK FOR CONFORMITY**

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. Logic Controls cannot accept responsibility for any failure to satisfy the protection requirement resulting from non-recommended modification of the product. This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 22/European Standard EN 55022. The limits for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

### 3. Specification

<b>EC-VP3100</b>		
<b>MAIN UNIT</b>	Processor	Intel® Bay Trail-D J1900 up to 2.42Ghz
	Memory	DDRIII 4GB (up to 8GB)
	Storage	128GB SSD / 500GB Hard Disk Optional 256GB SSD
	LAN	10/100/1000 Mbps Gigabit Ethernet
	I/O interface	3 X RS-232 1 X RJ11 (DK Port) 1 X RJ45 Gigabit LAN 1 X Customer Display (Reserved) 1 X USB 3.0 3 X USB 2.0; 1 X MSR (Reserved) 1 X TOUCH (Reserved) 1 X 12V DC Input 1 X 12V DC Out
	VGA Signal	VGA
	Operation System	Windows 7, POSReady 7, Windows 8.1, Windows Embedded 8.1 industry, Windows 10, Windows IOT
	<b>LCD Panel</b>	Viewing Area
Resolution		1366*768 or 1920*1080
Active Display Area (mm)		344.16(W) X 193.59(H)
Display Color		16,777,216 Colors
Response Time		12ms
Contrast Ratio		500:1
Viewing Angle (Up/ Down/ Left/ Right)		20/40/45/45
Touch Panel		Taiwan Capacitive Touch
Luminance		220 cd/m
<b>Power</b>	Input	Universal AC 100-240V
	Output	DC+12V
<b>Environment<sup>1</sup></b>	Management	VESA DPMS
	Consumption	35MAX

	Storage Temperature	-20°C - 60°C
	Operating Temperature	0°C - 40°C
	Operating Humidity	10% - 85%
<b>Mechanical</b>	Rotation	180° Vertical
	Mounting	VESA Compliant (100mm X 100mm)
	Optional Glass	Strengthen Glass (For Non-Touch Version)
	Dimension	386.5W×200D X 312.5H (mm)
	Weight	NW: 4.6KG GW: 6.3KG
<b>Optional Peripherals</b>	3 Tracks Magnetic Reader	Support
	1-line VFD	Nil
	2-line VFD	Support
	10 inch Monitor (with/ without touch)	Support
	12 inch Monitor (with/ without touch)	Support
	15 inch Monitor (with/ without touch)	Support

## 4. Installation Guide

### 4.1 Appearance

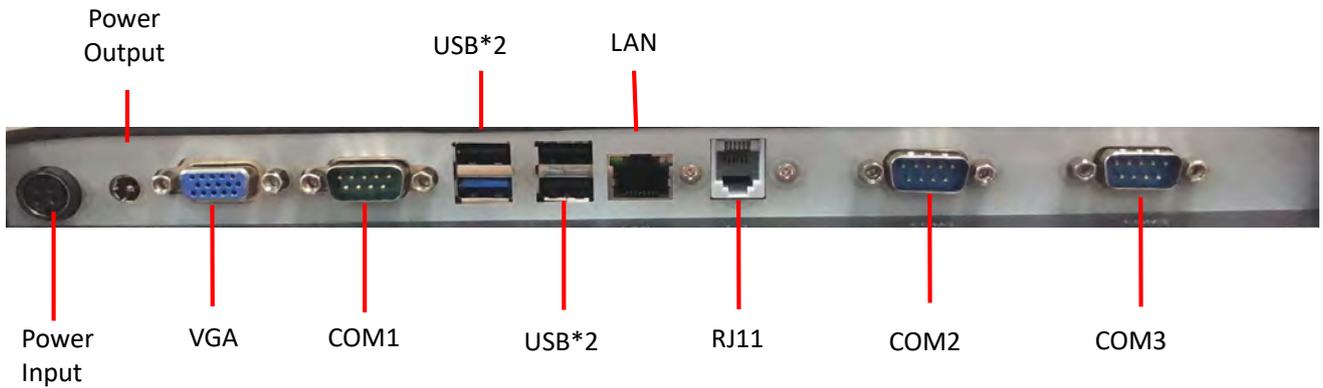


### 4.2 Power Button



### 4.3 Rear Panel I/O Connectors

At the rear panel of the EC-VP-3100 is a row of external I/O device connectors. Detail as below:



- RJ11 - RJ11 interface (DK port) for connection of cash drawer
- VGA - VGA signal output for connection of external VGA monitor
- COM2 & 3 - For connection of serial devices
- USB2.0 - Connection to USB 2.0 devices (compatible with USB 1.1 devices)
- USB3.0 - Connection to USB 3.0 devices (compatible with USB 2.0 devices)
- LAN - RJ-45 Ethernet connection to Giga-bit LAN
- 12V DC IN - Connection to 12V DC Power Supply
- 12V DC OUT - Connection to the second display

## 5. Getting Start:

This chapter describe preparation before use the EC-VP-3100. The following topics are described.

### 5.1 Unpacking

Below are the items should include in the carton box:

- EC-VP-3100 X 1
- Power Supply X 1
- Power cord X 1
- Quick Installation Guide X 1
- Warranty sheet X 1
- Drivers CD X 1

If any of the above item is missing, please contact you dealer.

After unpacking the carton, connect the power cord and Ethernet extension cable properly to the system. Cables should pass through the punch hole to the rear bottom of the stand.

### Optional Parts

1. MSR	2. Customer Display	3. Second Display with stand
4. Screws		

### 5.2 Remove the Rear Cover

Steps to remove the rear cover

1. Remove all screws (including the hard disk cover)
2. Remove the cover



## 5.3 Install the Optional Peripheral

### 5.3.1 Install the MSR

1. Remove the left side screw
2. Connect the MSR



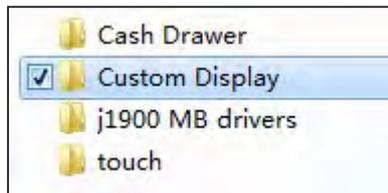
### 5.3.2 Install the Customer Display (Physically and Driver)

1. Fix the customer display with two screws
2. Connect the cable



#### 3. Install the driver

- 3.1 Open the installer directory in the CD, select the J1900 MB drivers



- 3.2 Double-click the "custom display" to proceed



- 3.3 Double-click "setup.exe" to start installation



- 3.4 When installation starts, click [NEXT] to proceed to the next step, until installation finish

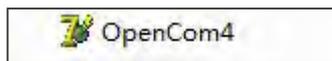
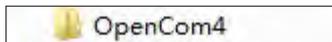
### 5.3.3 Install the Second Display

1. Turn the second display, secure the stand with four screws
2. Connect the power to “power output” and VGA cable



### 5.3.4 Connect the Cash Drawer

1. Connect the cash drawer cable
2. Test the cash drawer

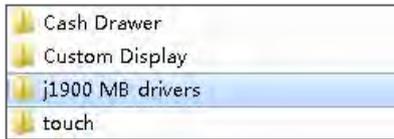


## 6. Install the Drivers and Software

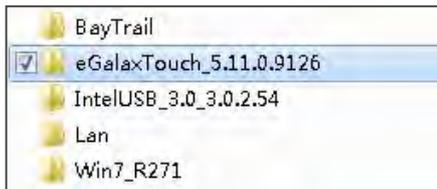
### 6.1 Install the Touch screen driver

#### 1. Touch Screen Driver Installation:

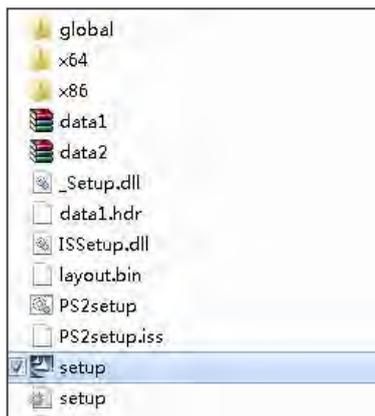
Step 1: Open the installer directory in the CD, select J1900 MB drivers



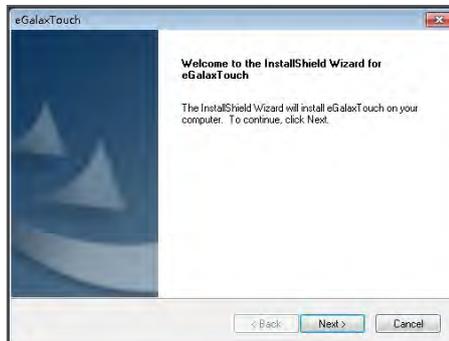
Step 2: Double-click the “eGalaxTouch\_5.11.0.9126” to proceed



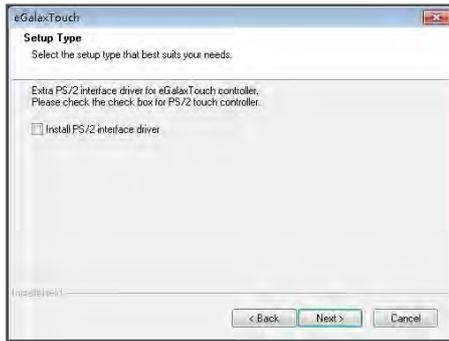
Step 3: Double-click “setup.exe” to start installation



Step 4: When installation starts, click [NEXT] to proceed to the next step



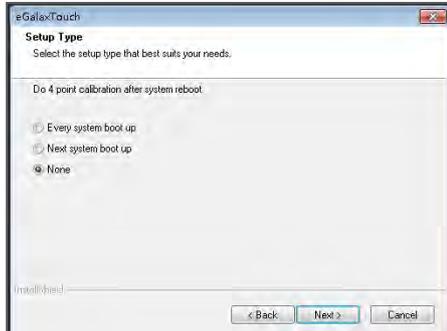
Step 5: Select "INSTALL PS/2", click [NEXT] to continue installation



Step 6: Select "install RS232 interface driver" and click [Next] to continue



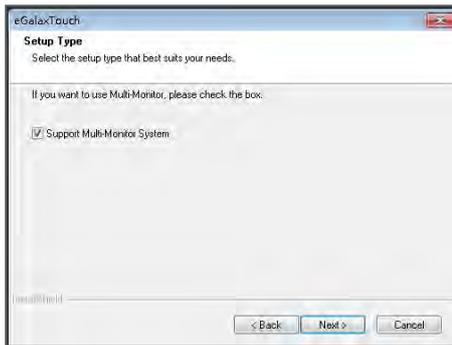
Step 7: Select option "NONE", click [Next] to continue installation



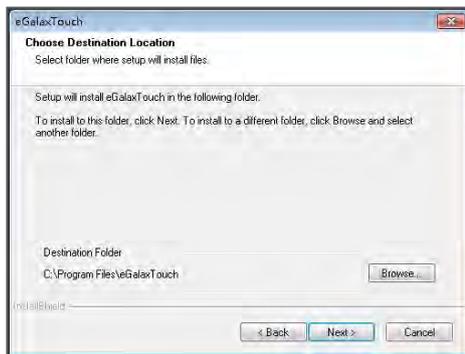
Step 8: When installing USB touch, connect the USB controller and USB cable



Step 9: If it has an additional touch monitors connected, choose “support multi-monitor system”



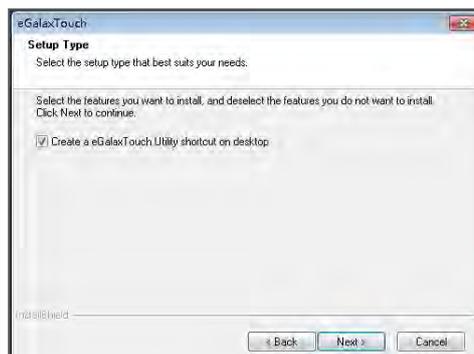
Step 10: Select the destination location to install the touch driver. The default path is "C:\Program Files\Galaxtouch". Click [Next] to continue installation



Step 11: Select the Program Folder to install the utility. The default is "eGalaxtouch". Click [Next] to continue installation



Step 12: Check the option to create a desktop shortcut icon



## **7. Identify the Problem.**

### **7.1 Follow the procedure below to troubleshoot the problems:**

- Identify all the symptoms in detail
- Verify symptoms by re-create them
- Follow corrective procedures in order
- If you replace an FRU and the symptom still exists, install the original part and do another test to identify the problem

### **7.2 Electricity Failure**

Power failure can be caused by AC adapter, or undetermined problems (such as loose connections)

### **7.3 Touch Screen Doesn't Function**

1. Re-install the touch screen driver
2. Check the touch screen cabling
3. Check the cabling form mainboard-to-LCD
4. Check the BIOS setting

### **7.4 Power Failure**

Power shut down unexpectedly cannot turn on the system

1. Check the power cable
2. Check the mainboard power connector
3. Check CPU settings
4. Check DRAM settings
5. Check the power button cable
6. Replace the power supply

### **7.5 Network / LAN Failure**

1. Confirm the hub / switch is working properly
2. Check the network cable
3. Confirm the RJ45 LED on the terminal is on
4. Reinstall the Ethernet driver
5. Replace the main board

### **7.6 MSR Failure**

1. Check the MSR reader cables

### **7.7 USB Failure**

1. Check the ports which detected in Windows Device Manager
2. Reseat the USB device
3. Reinstall the USB device driver
4. Replace the USB device

## **7.8 Cash Drawer Doesn't Function**

1. Check the cash drawer cable
2. Replace the cash drawer cable

## **7.9 Re-Boot Continuously**

1. Restore the BIOS defaults
2. Remove all I/O device drivers and reinstall them
3. Check the IDE cable
4. Check the memory

## **7.10 Printer Doesn't Work**

1. Make sure the printer is power on
2. Replace paper roll
3. Check the printer cables

## **8. Replace Field Replaceable Units (FRUs)**

### **8.1 Safety and Precautions**

Computer components and electronic circuit boards can be damaged by discharges of static electricity, continuously working on those computers that are still connected to a power supply can be extremely dangerous. Follow these guidelines to avoid damage to the computer or injury to yourself.

- Always disconnect the unit from the power outlet
- Leave all components inside the static-proof packing that they ship with until they are ready for installation
- After replacing optional devices, make sure all screws, springs, or other small parts are placed tightly, no left over inside the case. Metal parts or flakes can cause electrical shorts

### **Caution**

- Only qualified personnel should perform repairs on the terminal. Damage due to unauthorized servicing is not covered by the warranty
- If the LCD breaks, pay attention for the fluid spill to the skin or eyes. Immediately wash with water and seek medical attention
- Under no circumstances to touch the inverter card while power is connected to the terminal. Unplug the power cord before attempting to replace any FRU
- To prevent static damage to components, wear a grounded wrist strap. Alternatively, discharge any static electricity by touching the bare metal chassis of the unit case, or the bare metal body of any other grounded appliance
- Hold electronic circuit boards by the edges only. Do not touch the components on the board unless it is necessary to do so. Do not flex processor by its pins; hold it by the edges

### **8.2 Before You Begin**

Make sure you have a stable and clean working environment. Dust and dirt can get in to Mercury components damaging the internal components.

Most of the electrical and mechanical connections can be disconnected by using your fingers. It is recommended that you do not use needle-nosed pliers to disconnect as these can damage the soft metal or plastic parts of the connectors.

- To prevent scratching the case, make sure the table top surface is clean and flat
- If you need to put the display face down, be sure to use a foam mat underneath for protection purpose

### **8.3 Replace Parts**

Take note of the following when replacing parts:

- If you replace an FRU and the symptom still exists, install the original part and do another test to identify the problem
- When replacing a falling part, other parts that have to be removed before the falling part are listed at the top of the page
- To replace a part, reverse the removal procedure

### 8.3.1 Rear Cover.

1. Remove the screws (keep all screws carefully)
2. Remove the hard disk
3. Remove the cover



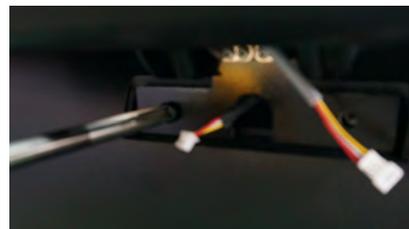
### 8.3.2 MSR

1. Remove the screws
2. Disconnect the cable
3. Remove the MSR



### 8.3.3 Customer display

1. Disconnect the cables
2. Remove the customer display with two screws



### 8.3.4 SATA interface

1. Remove the hard disk interface screws
2. Disconnect the cables



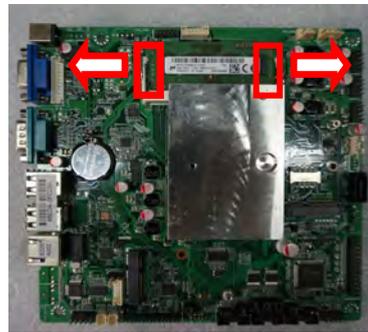
### 8.3.5 Mainboard

1. Remove the mainboard and radiator's screws (total 8 screws)
2. Disconnect the cables



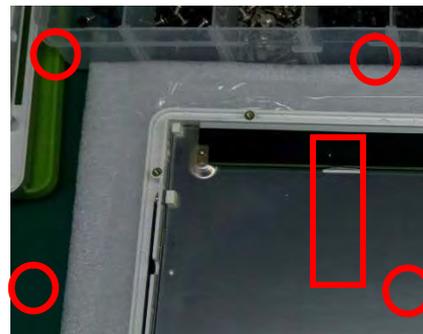
### 8.3.6 Memory card

1. After take out the mainboard, pull from both side of the memory slot

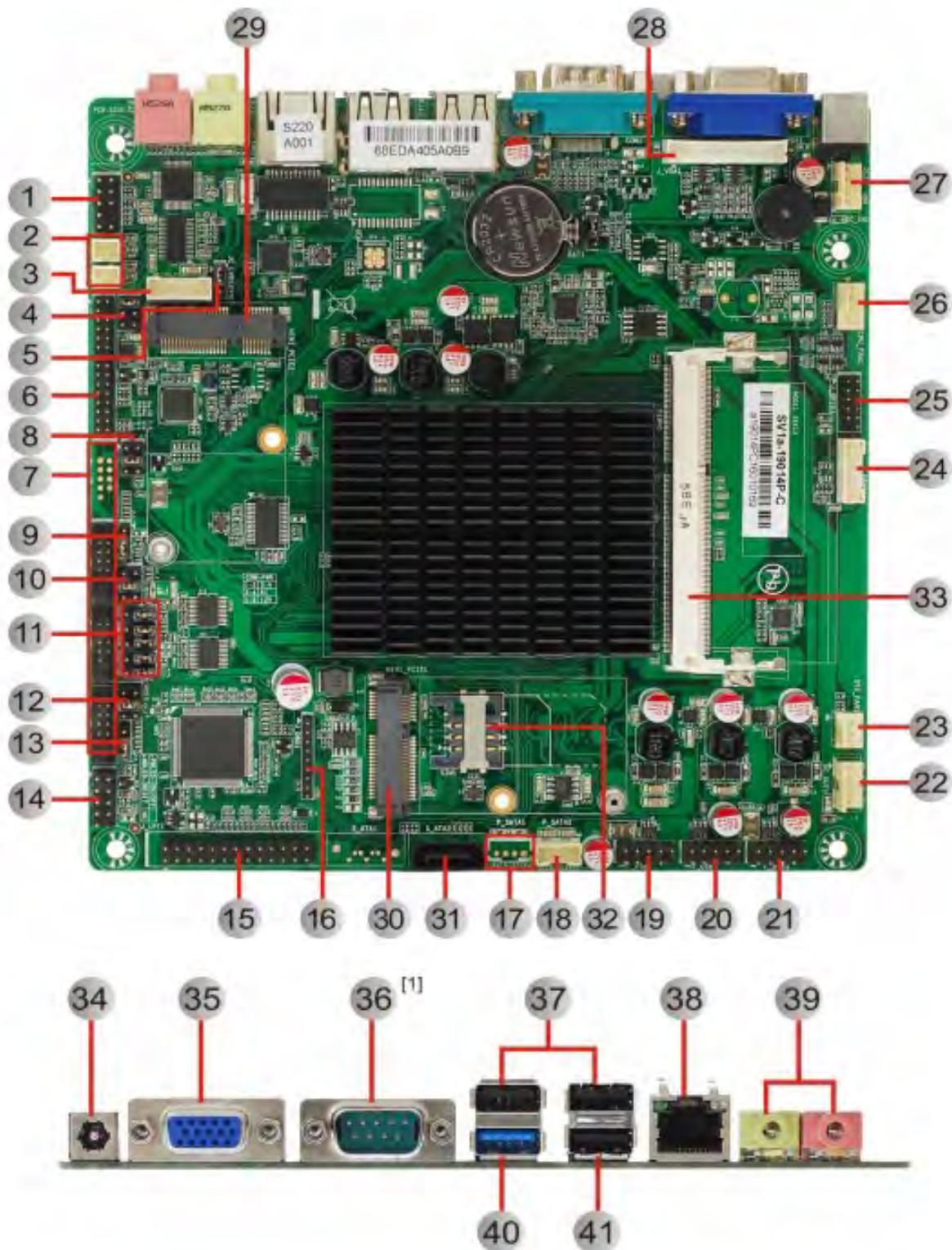


### 8.3.7 The LCD panel

1. Tear up the black lid
2. Disconnect the cables
3. Remove 4 screws, then take out the LCD panel



## 9. Mainboard



Jumpers / Headers and Connectors					
1	Front Audio Pin Header	P <sub>7</sub>	22	DC12V/5V Power Output Connector	P <sub>12</sub>
2	Amplifier Pin Headers	P <sub>7</sub>	23	System Fan Connector	P <sub>12</sub>
3	LVDS Backlight Control Pin Header	P <sub>7</sub>	24	Keyboard and Mouse Pin Header	P <sub>13</sub>
4	LVDS VDD Select Jumper	P <sub>7</sub>	25	GPIO Pin Header	P <sub>13</sub>
5	LVDS Backlight PWM/CCFL Select Jumper	P <sub>7</sub>	26	CPU Fan Connector	P <sub>13</sub>
6	LVDS Signal Pin Header	P <sub>8</sub>	27	DC12V Power Input Connector	P <sub>13</sub>
7	COM1-4 Pin Headers	P <sub>8</sub>	28	VGA Pin Header	P <sub>13</sub>
8	COM1 Select Jumper	P <sub>9</sub>	29	Mini PCI-E2 Slot	
9	COM2 Select Jumper1	P <sub>9</sub>	30	Mini PCI-E1 Slot	
10	COM2 Select Jumper2	P <sub>10</sub>	31	SATA 2.0 Connector	
11	COM3 Select Jumpers	P <sub>10</sub>	32	SIM Card Slot	
12	COM4 Select Jumper1	P <sub>10</sub>	33	SO-DIMM Slot	
13	COM4 Select Jumper2	P <sub>10</sub>	34	DC 12V Power Input Connector	
14	Front Panel Pin Header	P <sub>11</sub>	35	VGA Connector	
15	Parallel Pin Header	P <sub>11</sub>	36	COM1 Connector [1]	
16	Debug Pin Header		37	USB2.0 Connectors	
17	SATA Power Pin Header1		38	LAN Connector	
18	SATA Power Pin Header2	P <sub>11</sub>	39	Audio Connectors	
19	Front USB1 Pin Header	P <sub>11</sub>	40	USB3.0 Connector	
20	Front USB2 Pin Header	P <sub>12</sub>	41	USB2.0 Connector	
21	Front USB3 Pin Header	P <sub>12</sub>			

Notes:

[1]: HDMI and COM1 (DB9) Connectors on rear I/O share the same position and are mutually exclusive.

**Manufacturer: EC LINE**

Thank you very much for using EC Line product

For service, please contact [service@ecline.com.hk](mailto:service@ecline.com.hk)

[www.eclinepos.com](http://www.eclinepos.com)

**RoHS CE FC**