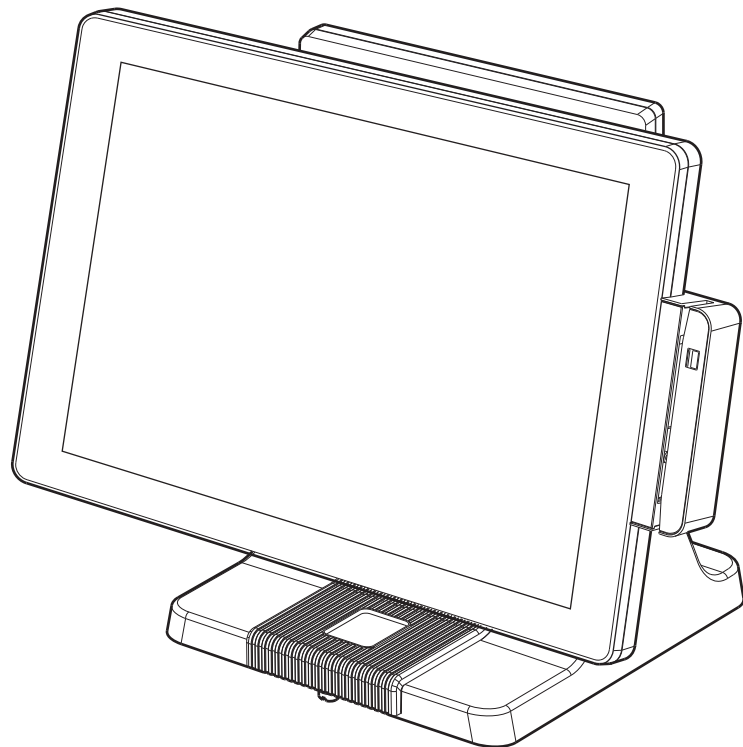


# USER MANUAL

VERSION 2.0 September 2018

## All-in-One Point-of-Sale Hardware System



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## Safety

### IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrical power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Save these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.



This device complies with the requirements of the EEC directive 2004/108/EC with regard to "Electromagnetic compatibility" and 2006/95/EC "Low Voltage Directive".



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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

## CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.



### Battery Caution

Risk of explosion if battery is replaced by an incorrectly type. Dispose of used battery according to the local disposal instructions.



### Safety Caution

Note: To comply with IEC60950-1 Clause 2.5 (limited power sources, L.P.S) related legislation, peripherals shall be 4.7.3.2 "Materials for fire enclosure" compliant.

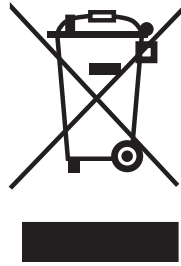
#### 4.7.3.2 Materials for fire enclosures

For MOVABLE EQUIPMENT having a total mass not exceeding 18kg.the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of V-1 CLASS MATERIAL or shall pass the test of Clause A.2.

For MOVABLE EQUIPMENT having a total mass exceeding 18kg and for all STATIONARY EQUIPMENT, the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of 5VB CLASS MATERIAL or shall pass the test of Clause A.1.

## LEGISLATION AND WEEE SYMBOL

2012/19/EU Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.



The crossed dust bin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

# Revision History

Changes to the original user manual are listed below:

Revision	Description	Date
1.0	<ul style="list-style-type: none"><li>Initial release</li></ul>	November 2010
1.1	<ul style="list-style-type: none"><li>C68 MB added</li></ul>	NOvember 2011
1.2	<ul style="list-style-type: none"><li>B68 MB removed</li><li>C76 MB added</li></ul>	December 2013
1.3	<ul style="list-style-type: none"><li>D36 and D66 MB added</li></ul>	April 2014
1.4	<ul style="list-style-type: none"><li>D66 IO port view updated</li></ul>	July 2017
2.0	<ul style="list-style-type: none"><li>C68 and C76 MB removed</li><li>D36 V4.0 MB added</li><li>D86S MB added</li></ul>	September 2018

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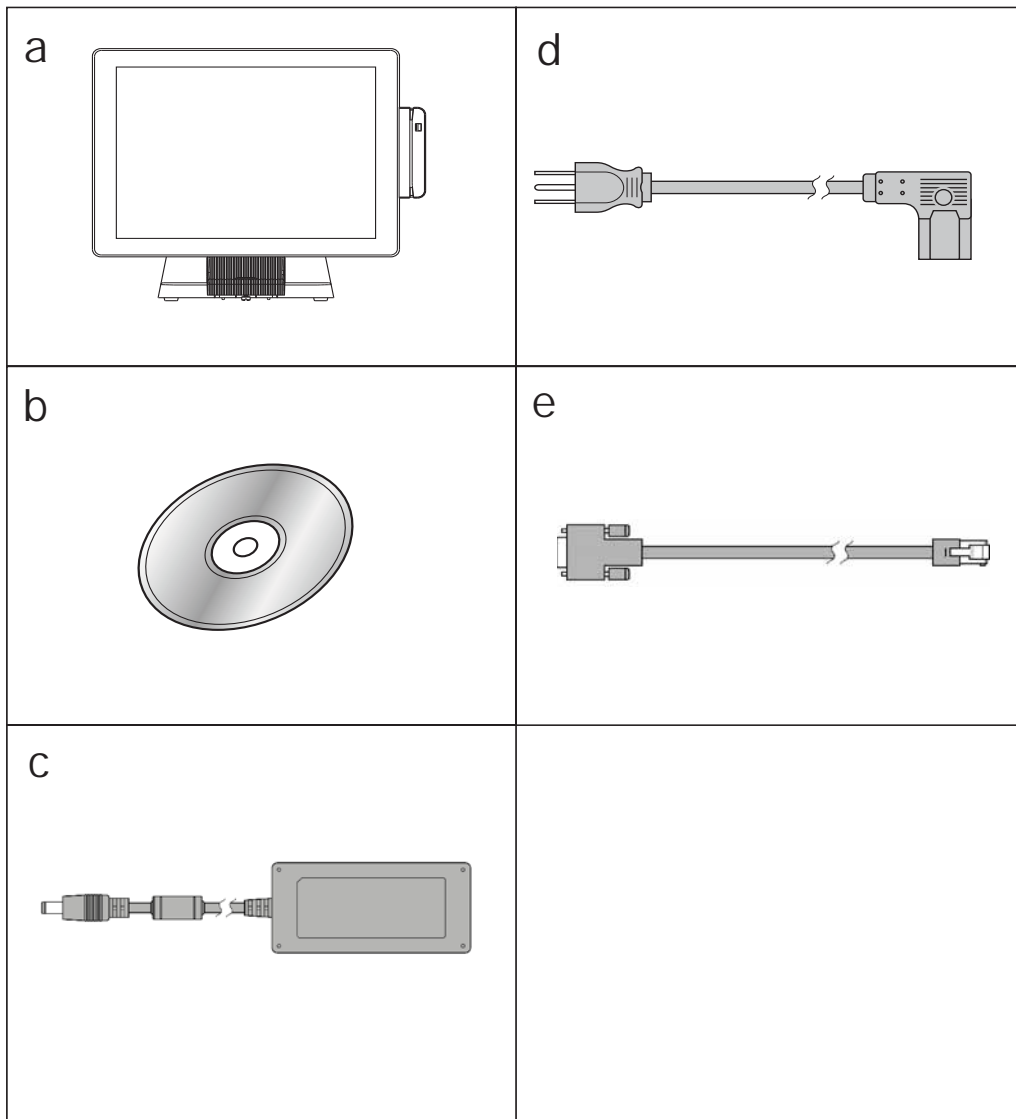
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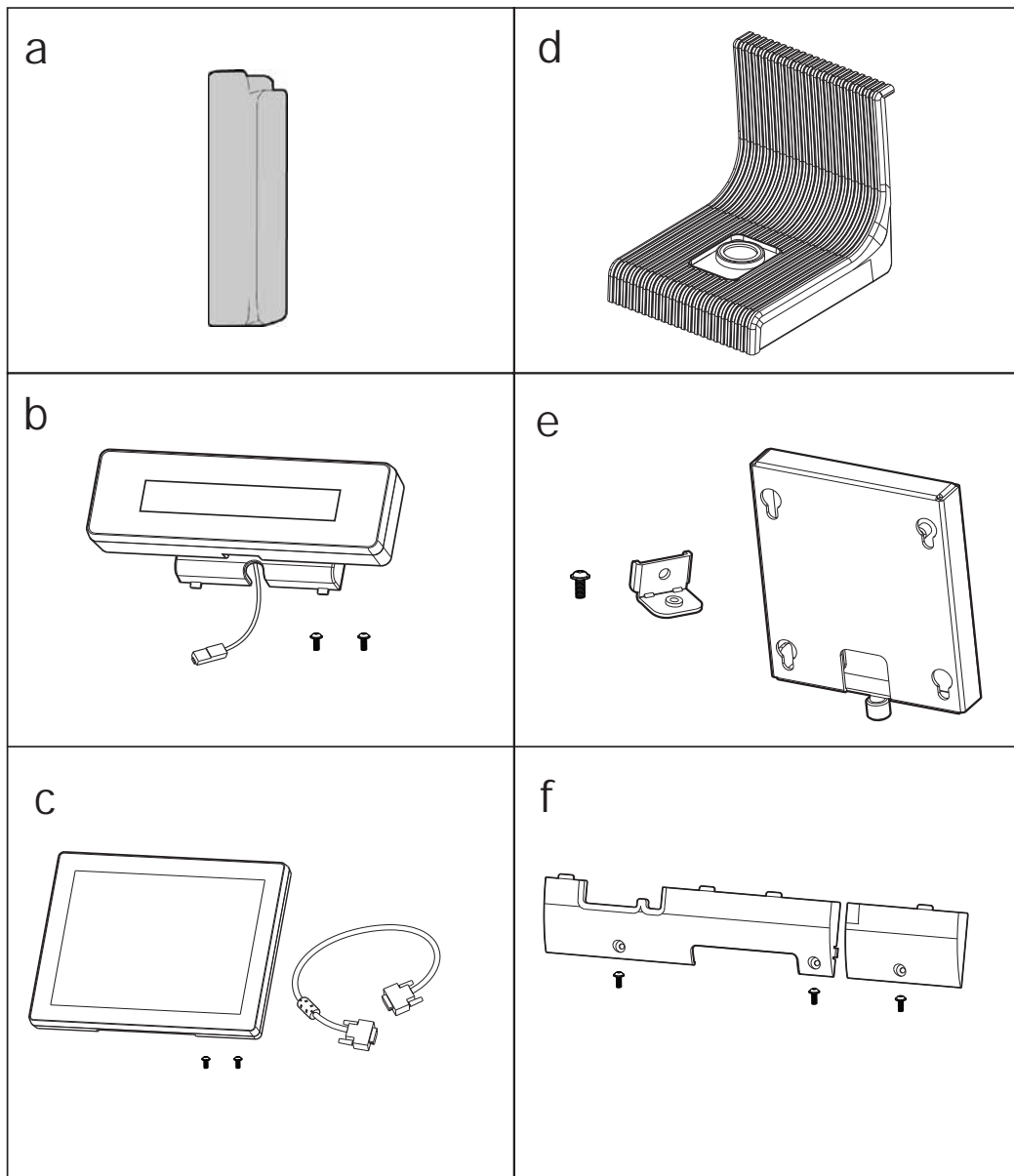
# 1. Packing List

## 1-1. Standard Accessories



- a. System
- b. Driver CD
- c. Power adapter
- d. Power cord
- e. RJ45-DB9 cable (x2)

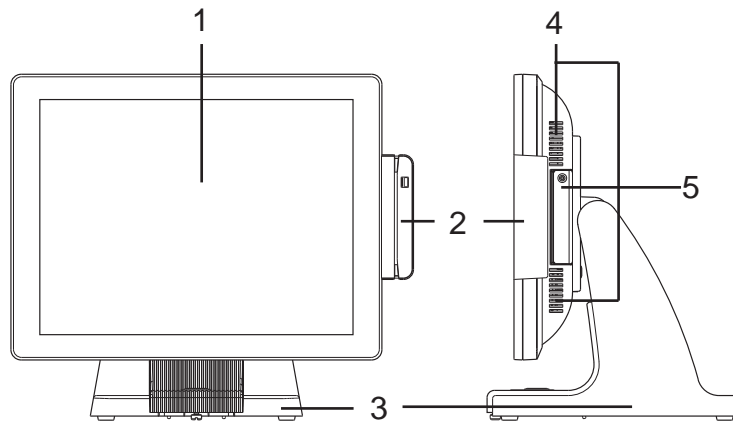
## 1-2. Optional Accessories



- a. MSR module
- b. VFD module (with RJ-45 cable)
- c. Second display (with VGA cable)
- d. Fingerprint module or iButton module
- e. Wall mount kit
- f. Cable cover

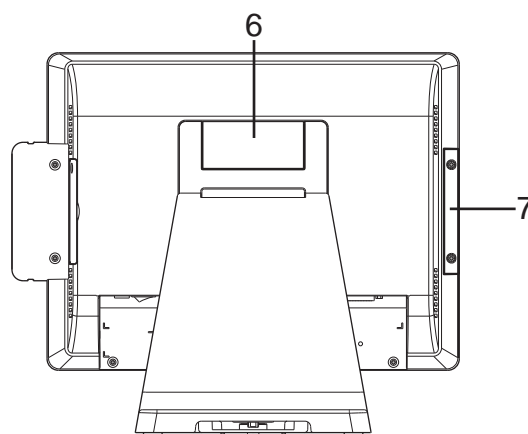
# 2. System View

## 2-1. Front & Side View



No.	Description
1	Touch screen
2	MSR module (optional)
3	Rugged footprint
4	Ventilation
5	HDD door

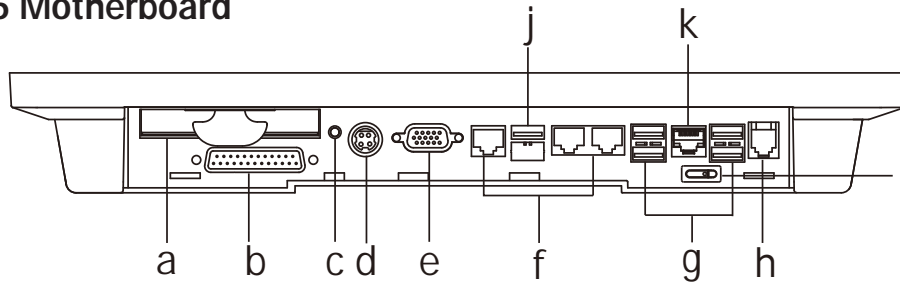
## 2-2. Rear View with stand



No.	Description
6	VFD dummy cover
7	MSR dummy cover

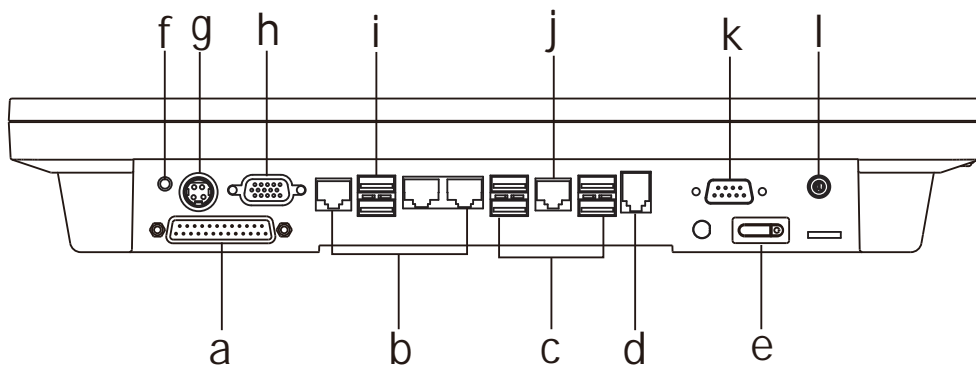
## 2-3. I/O Ports View

### D36 Motherboard



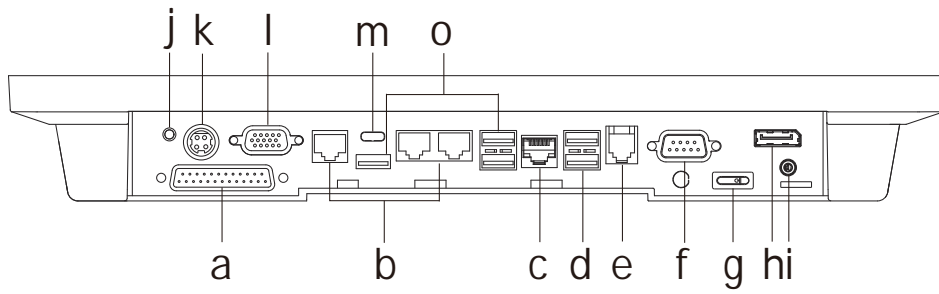
No.	Description
a	HDD slot
b	Printer
c	Power button
d	DC-IN
e	VGA
f	COM port 1, 2, 3 (from right to left)
g	USB 2.0 (x4)
h	Cash drawer
i	Power switch
j	USB 3.0 (x1)
k	LAN

### D66 Motherboard



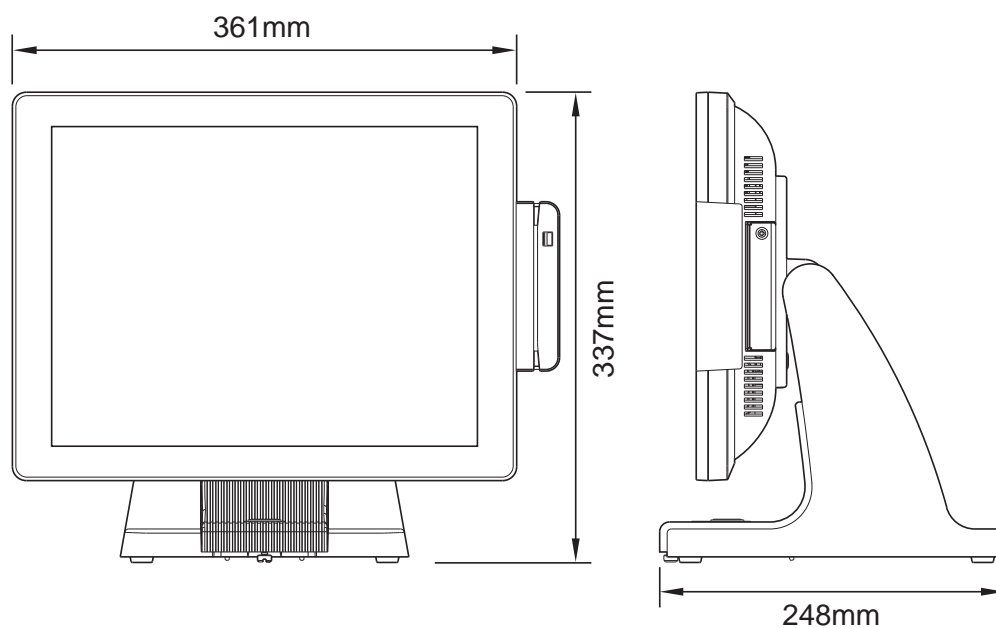
No.	Description
a	Printer
b	COM port 1, 2, 3 (from right to left)
c	USB 2.0 (x4)
d	Cash drawer
e	Power switch
f	Power button
g	DC-IN
h	VGA
i	USB 3.0 (x2)
j	LAN
k	COM4
l	Line out

## D86S Motherboard



No.	Description
a	Printer
b	COM port 1, 2, 3 (from right to left)
c	LAN
d	USB 2.0 (x2)
e	Cash drawer
f	COM5
g	Power switch
h	Display port
i	Line out
j	Power button
k	DC-IN
l	VGA
m	USB type C
o	USB 3.0 (x3)

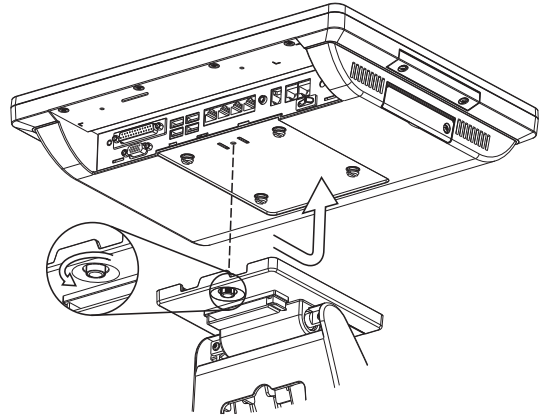
## 2-4. System Dimension



# 3. System Assembly & Disassembly

## 3-1. Stand Disassembly

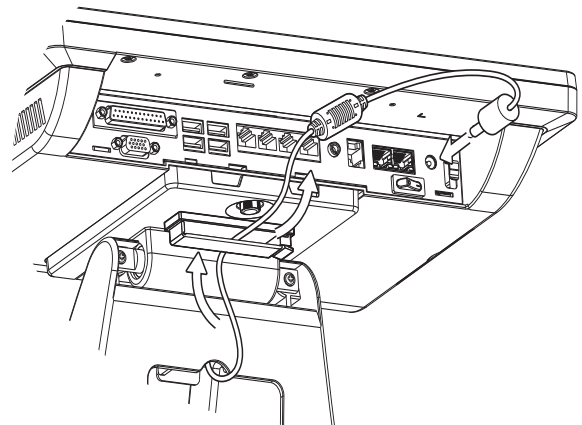
1. Loosen the thumb screw (x1) and slide the stand towards the IO panel to release it from the system.
2. Reverse the steps above to attach stand to the system.



## 3-2. Power Adapter Replacement

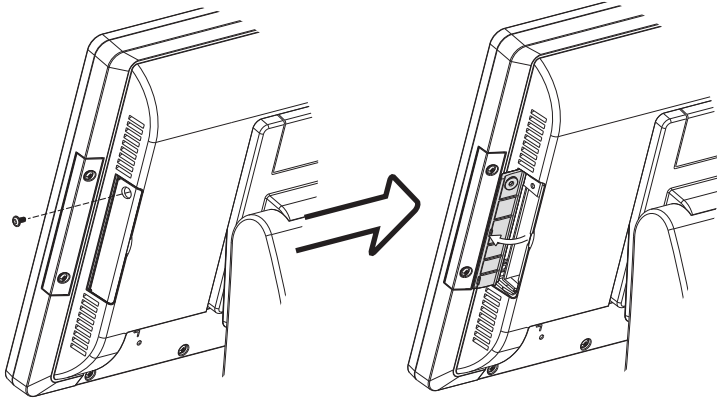
Power adapter is secured to the system stand by a holding bracket and screws. To attach power adapter, please follow the steps below.

1. Route the cable as shown in the picture.
2. Connect the cable to the DC-IN port on system IO panel.



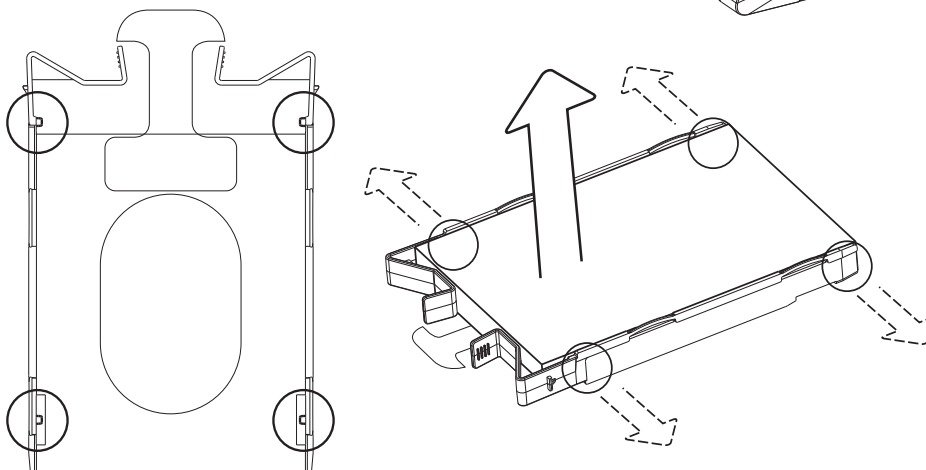
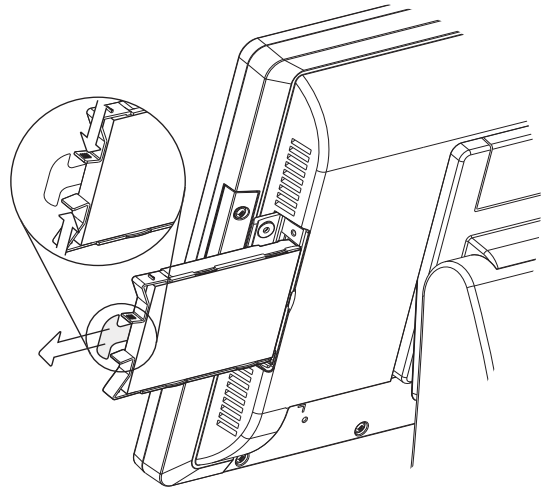
## 3-3. HD Replacement

Please remove the current HDD first.



To remove the HDD from the System:

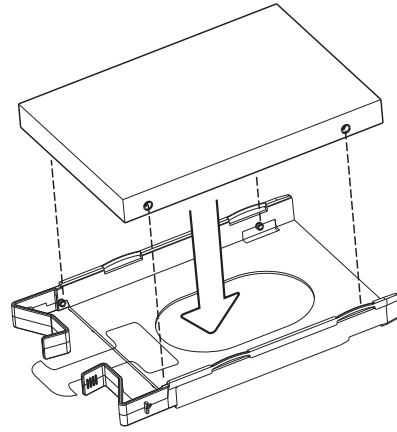
1. Power the system down.
2. Remove the screw(x1) from the HDD door.
3. Open the HDD door.
4. While pinching the HDD bracket tabs pull the HDD from the system. For easier removal pull the plastic puller (see picture) at the same time.



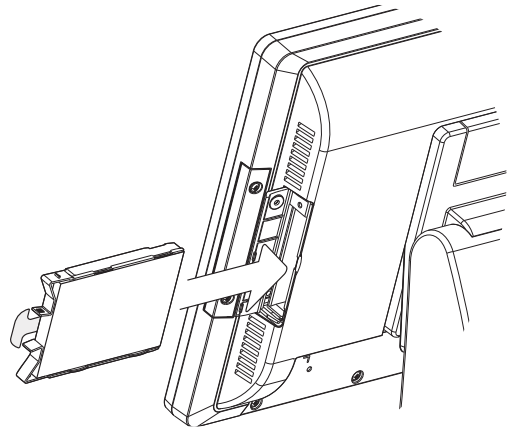
### Disassemble HDD

1. To release the HDD from the bracket gently pull it open until the four pins are removed.

2. To install a new HDD, attach the HDD to the bracket until it clicks in place. Make sure to press the edges of the drive not the center to avoid damaging the drive.



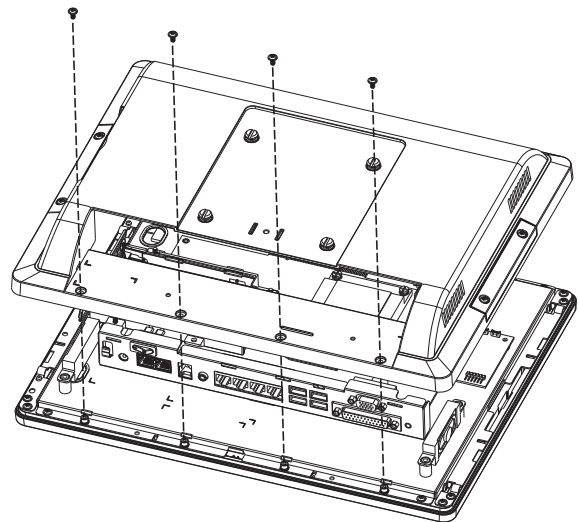
3. Finally slide the HDD into the slot till it clicks.



## 3-4. Open the System

1. Place the system face down. Making sure not to scratch the screen.
2. Remove the screws (x4) on system rear cover to open the system.

**Note: If the system is equipped with a MSR, the MSR must be removed first.(refer to Chapter 4-1 and reverse the steps to remove the MSR)**



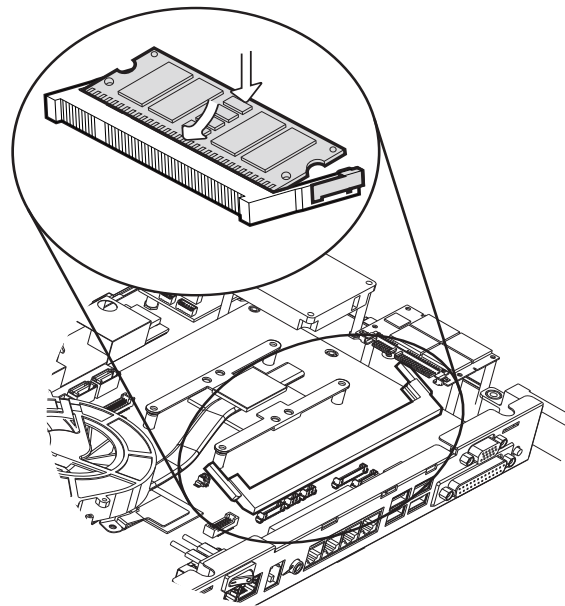


## 3-5. RAM Replacement

1. Follow the steps in Chapter 3-4 to open the system.
2. The RAM is located on the right side of the system (see picture).

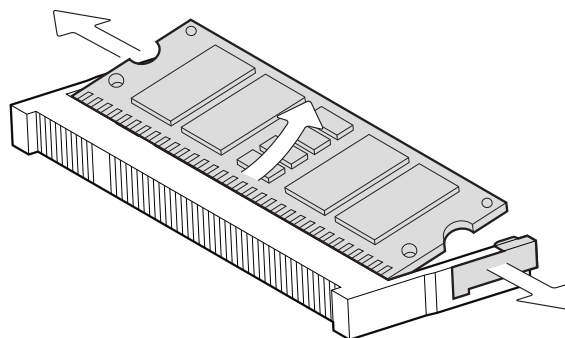
### Installing a RAM module

3. Slide the memory module into the memory slot and press down until it locks in place.



### Removing a RAM module

1. To remove the module pull the ejector clips out of the side of the module.
2. Slide the memory out of the slot.

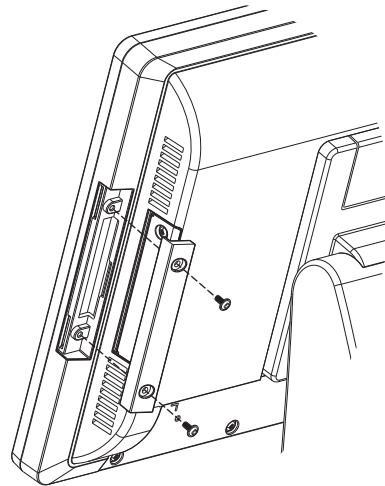


# 4. Peripherals Installation

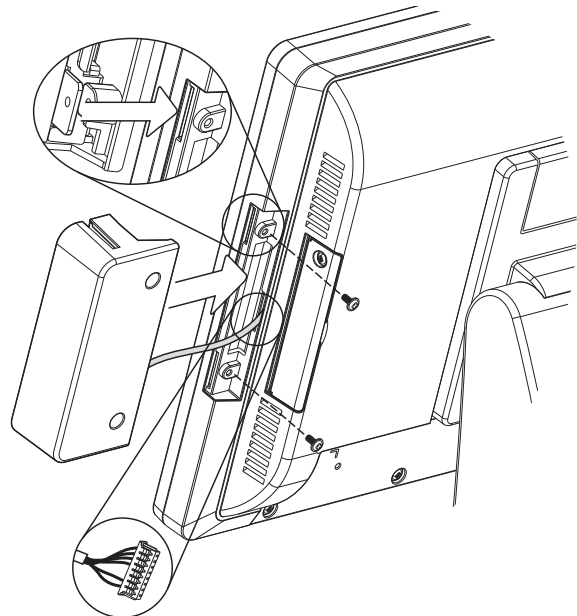
## 4-1. MSR Installation

MSR module can be installed to either side of the system. Choose one side and follow the steps below. Make sure the unit is powered down before starting.

1. Remove the screws (x2) to release the MSR dummy cover.



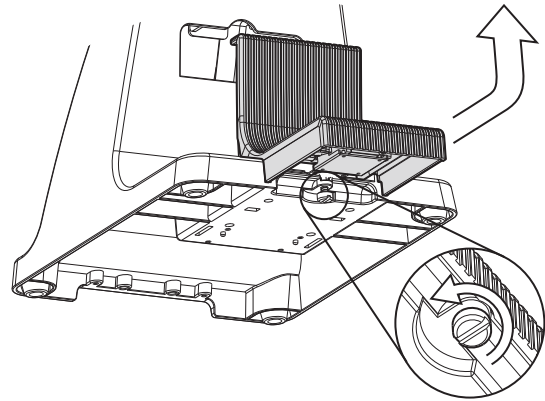
2. Connect MSR cable to the connector on system side.
3. Insert MSR module in place and fasten the screws (x2) on the back to secure the module.



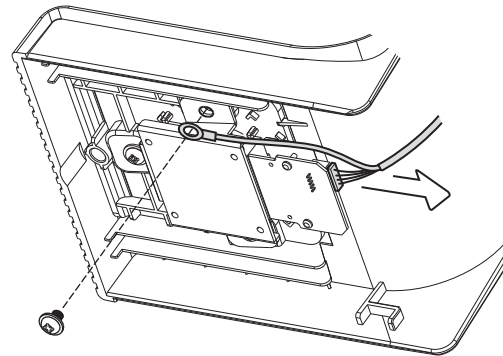
## 4-2. Fingerprint Installation

Fingerprint module will be installed to system prior to shipping once it is selected. To uninstall fingerprint module, please follow the steps below.

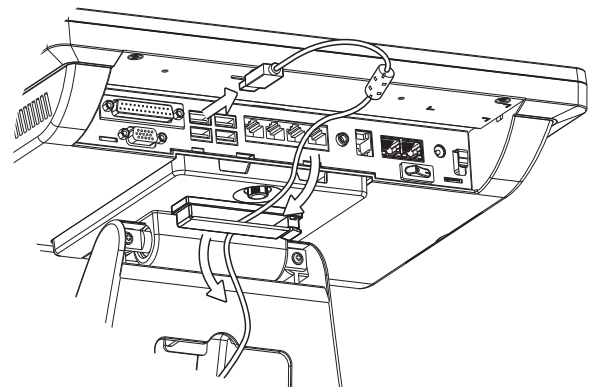
1. Loose the thumb screw (x1) securing the module and slide the module outward as arrow shown.



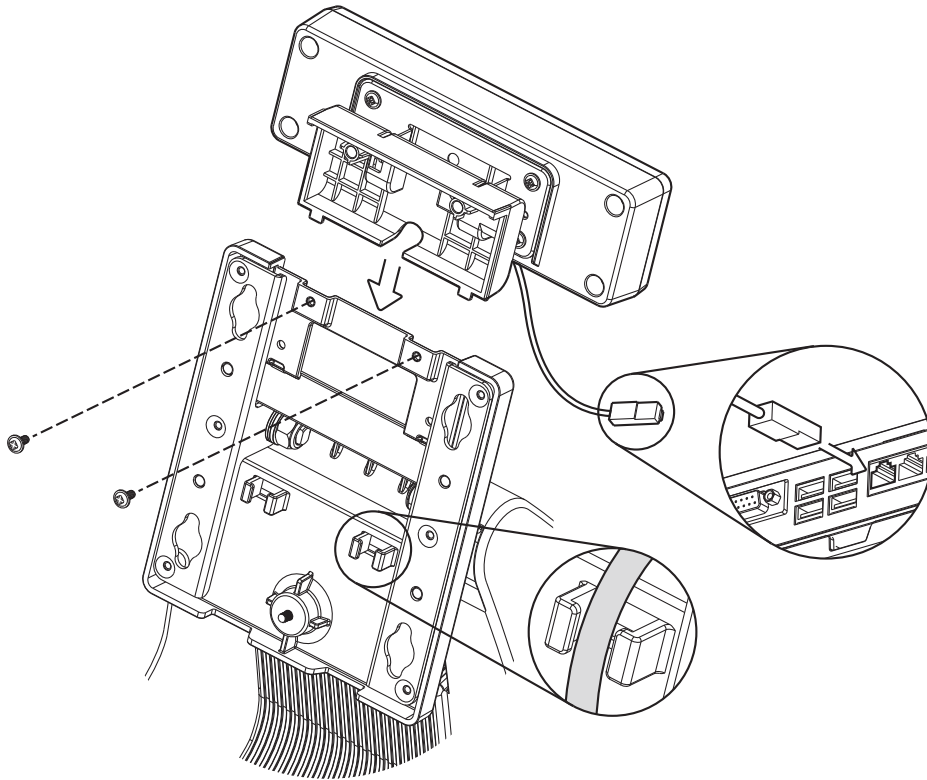
2. Loose the screw (x1) fastening the ground cable and disconnect the cable from the connector.



3. Disconnect the cable from the USB port.
4. Reverse the steps above for installation.

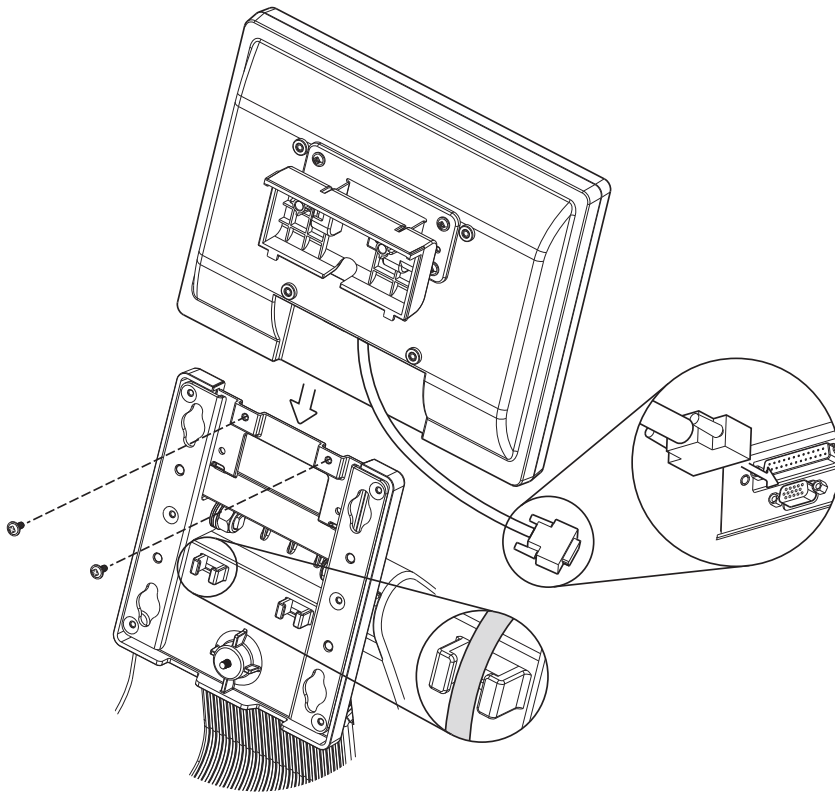


## 4-3. VFD Installation



1. Follow steps in Chapter 3-1 to disassemble the system stand.
2. Attach the VFD module to system by fastening the screws (x2).
3. Route the cable through cable mangement on the system stand.
4. Connect the RJ-45 cable to COM port on the systems IO panel. Make sure the system is powered off.

## 4-4. Second Display Installation

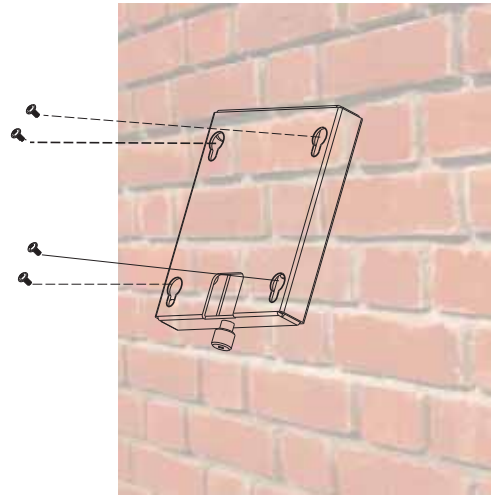


1. Follow steps in Chapter 3-1 to disassemble the system stand.
2. Connect one end of the VGA cable to 2nd Display. Route the cable through cable mangement on the system stand.
3. Attach the 2nd Display to system by fastening the screws (x2).
4. Connect the other end of the VGA cable to 2nd VGA port on system IO panel. Make sure the system is powered off.

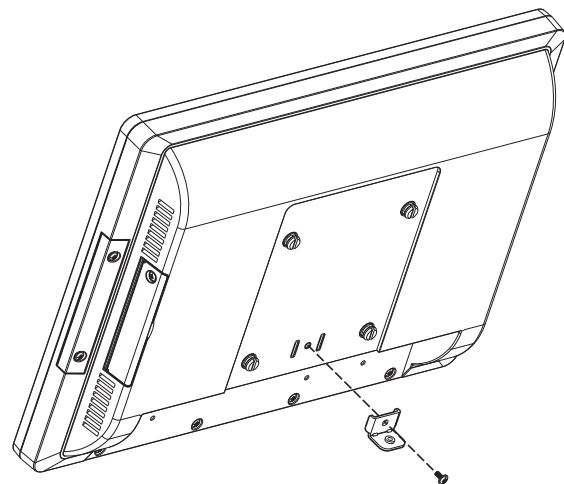
## 4-5. Wall Mounting Kit Installation

The Wall mounting Kit includes a wall plate, a metal bracket, and one screw. (refer to Chapter 1-2 item e). Please follow the steps below.

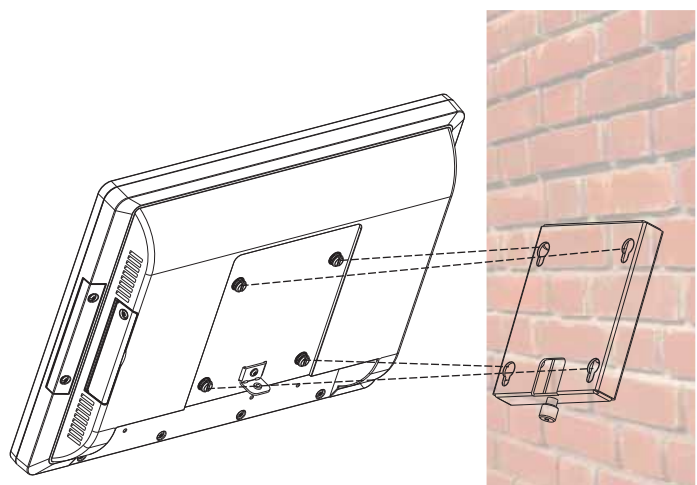
1. Secure the wall plate to the wall by fastening screws (x4).



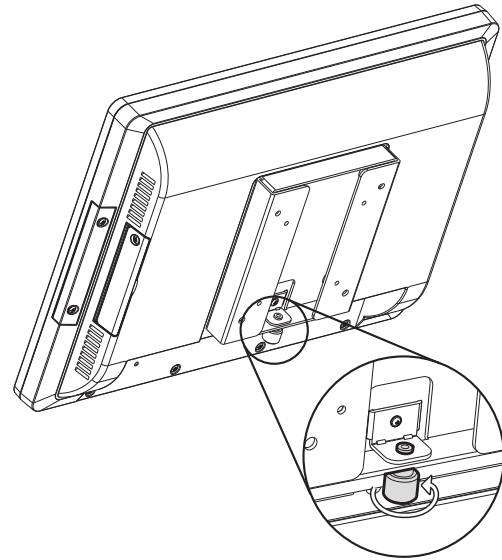
2. Attach the metal bracket to the back of the system by fastening the screw (x1) as shown.



3. Align the large end of the teardrop mounting holes (x4) on the wall plate with the screws (x4) on the system rear cover. Slide the wall plate until the screws are even with the narrow end.



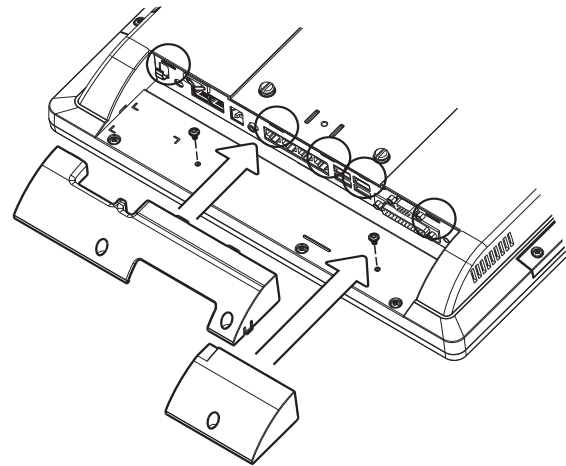
4. Fasten the screw (x1) through the metal bracket to secure the wall mount kit.



## 4-6. Cable Cover Installation

There are two different cable covers. These can be utilized separately or together. When both are needed, please take care that they are installed in the correct order.

1. Slide the covers on the IO panel, if using both covers the large cover needs to be installed before the smaller one.
2. Fasten the screws (x3, two for the larger one and one for the smaller one) to secure the covers.

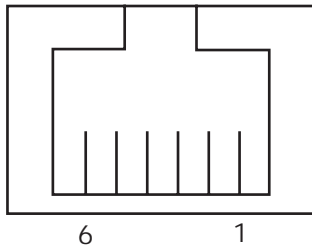


# 4-7. Cash Drawer Installation

## 4-7-1. For D36 / D86S Motherboard

You can install a cash drawer through the cash drawer port. Please verify the pin assignment before installation.

### Cash Drawer Pin Assignment



Pin	Signal
1	Cash drawer 2 In
2	Cash drawer 1 Out
3	Cash drawer 1 In
4	12V / 19V (or 24V)
5	Cash drawer 2 Out
6	GND

### Cash Drawer Controller Register

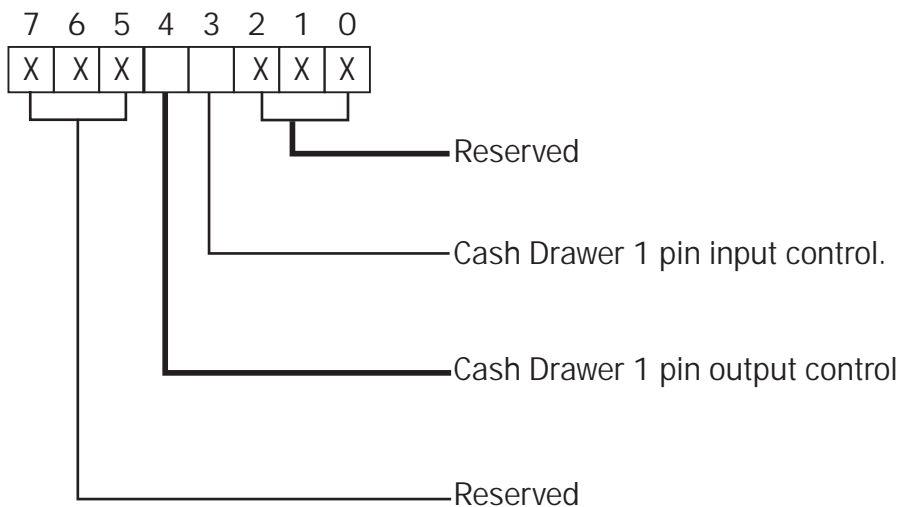
The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

**Register Location:** 0x482h

**Attribute:** Read / Write

**Size:** 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserved			CD1 Out	CD1 In	Reserved		





- Bit 7: Reserved
- Bit 6: Reserved
- Bit 5: Reserved
- Bit 4: Cash Drawer 1 pin output control.
  - = 1: Opening the Cash Drawer
  - = 0: Allow close the Cash Drawer
- Bit 3: Cash Drawer 1 pin input control.
  - = 1: the Cash Drawer closed or no Cash Drawer
  - = 0: the Cash Drawer opened
- Bit 2: Reserved
- Bit 1: Reserved
- Bit 0: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

### Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

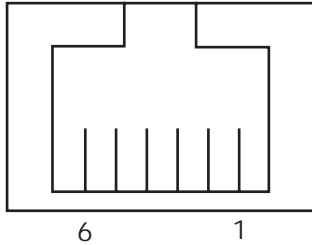
Command	Cash Drawer
O 482 10	Opening
O 482 00	Allow to close
<ul style="list-style-type: none"> <li>▶ Set the I/O address 482h bit4 =1 for opening Cash Drawer by "DOUT bit0" pin control.</li> <li>▶ Set the I/O address 482h bit4 = 0 for allow close Cash Drawer.</li> </ul>	

Command	Cash Drawer
I 482	Check status
<ul style="list-style-type: none"> <li>▶ The I/O address 482h bit3 =1 mean the Cash Drawer is opened or not exist.</li> <li>▶ The I/O address 482h bit3 =0 mean the Cash Drawer is closed.</li> </ul>	

## 4-7-2. For D66 Motherboard

You can install a cash drawer through the cash drawer port. Please verify the pin assignment before installation.

### Cash Drawer Pin Assignment



Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V / 19V
5	DOUT bit1
6	GND

### Cash Drawer Controller Register

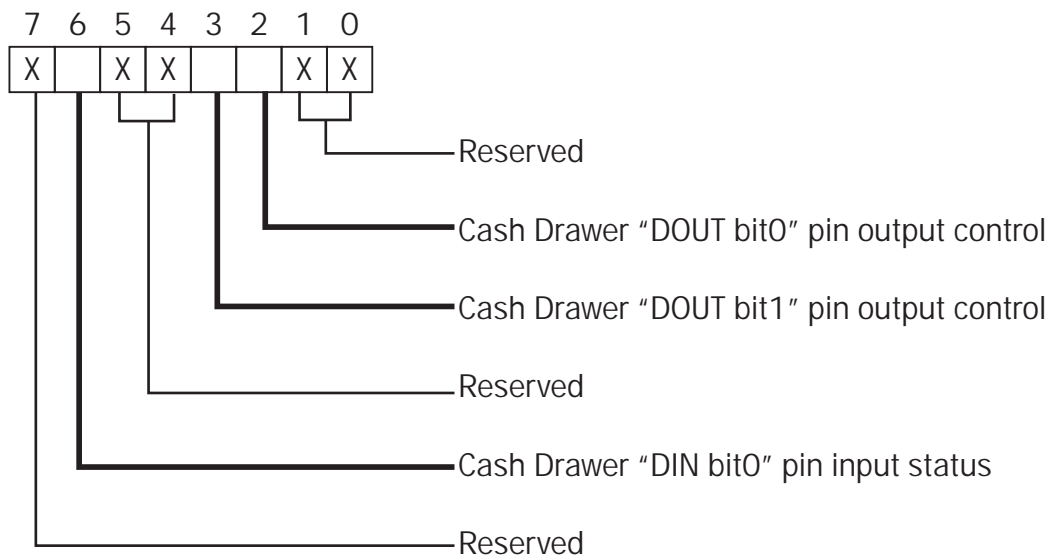
The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

**Register Location:** 48Ch

**Attribute:** Read / Write

**Size:** 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
<b>Attribute</b>	Reserved	Read	Reserved	Reserved	Write	Write	Reserved	Reserved



- Bit 7: Reserved
- Bit 6: Cash Drawer "DIN bit0" pin input status.
  - = 1: the Cash Drawer closed or no Cash Drawer
  - = 0: the Cash Drawer opened
- Bit 5: Reserved
- Bit 4: Reserved
- Bit 3: Cash Drawer "DOUT bit1" pin output control.
  - = 1: Opening the Cash Drawer
  - = 0: Allow close the Cash Drawer
- Bit 2: Cash Drawer "DOUT bit0" pin output control.
  - = 1: Opening the Cash Drawer
  - = 0: Allow close the Cash Drawer
- Bit 1: Reserved
- Bit 0: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

### Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

Command	Cash Drawer
O 48C 04	Opening
O 48C 00	Allow to close
<ul style="list-style-type: none"> <li>▶ Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by "DOUT bit0" pin control.</li> <li>▶ Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer.</li> </ul>	

Command	Cash Drawer
I 48C	Check status
<ul style="list-style-type: none"> <li>▶ The I/O address 48Ch bit6 =1 mean the Cash Drawer is opened or not exist.</li> <li>▶ The I/O address 48Ch bit6 =0 mean the Cash Drawer is closed.</li> </ul>	

# 5. Specification

Model name	POS485		
Motherboard	D36	D66	D86S
CPU support	Intel Bay Trail CPU Celeron J1900 2.0GHz, L2 2M	Intel Haswell CPU LGA-1150 22nm i5-4570S 2.9GHz, LLC 6MB, TDP 65W, AMT 9.0 i3-4330 3.5GHz, LLC 3MB, TDP 54W Pentium G3420 3.2GHz, LLC 3M, TDP 54W Celeron GT1820 2.7G L3 2M 54W	Intel SkylakeS i7-6700 3.4G L3 8MB, 65W i5-6500 3.6G, L3 6M, 65W i3-6100 3.7G, L3 4M, 51W Pentium-G4400 3.3G, L3 2M, 54W Celeron G3900 2.8G, L3 2M, 51W
Chipset	N/A, including CPU	Intel Lynx Point PCH H81/ Q87 (AMT technology) option	Intel SunrisePoint PCH H110
System memory	1x DDR3 -1066/1333Hz, SO-DIMM, default 2GB, max. 8GB	1x DDR3 -1333/1600Hz, SO-DIMM, default 2GB, max. 8GB	1 x DDR4 2133MHz, SO-DIMM. default 2GB, max. 8GB
Graphic memory	Intel HD graphic DX11 and OCL1.1	Intel HD graphic DX11.1	Intel Graphic (Gen 9) DX12, define on CPU
<b>LCD touch panel</b>			
LCD size	15.1" LED Panel		
Brightness	250~300 nits		350 nits
Maximal resolution	1024 x 768		
Touch screen type	Elo resistive / Mildex resistive / P-CAP touch, color black for all, white for Midlex resistive touch and P-CAP		
Tilt angle	10° ~ 90°		
<b>Storage</b>			
HDD	One 2.5" SATA HDD bay		
Flash memory	1 x SATA SSD card (option)		
<b>Expansion</b>			
Mini PCI-E socket	1		NA
M.2 socket	NA		1
<b>External I/O ports</b>			
USB	5 (1 x USB3.0/2.0 ; 4 x USB2.0)	6 (2 x USB3.0/2.0 ; 4 x USB2.0)	6 (3 x USB3.0/2.0; 2 x USB2.0; 1 x USB type C)
Serial / COM	4 xRJ-45 COM COM1/COM2/COM3 with Power 5V or 12V enabled by BIOS)		3 x RJ-45 COM (COM1/COM2 with power 5V, COM3 with power 12V enabled by BIOS (support 1xDB-9(M) COM4 with power 0V) by option
Printer	1 (option)		
Display port			1 (option)
LAN (10/100/1000)	1 x RJ45		
DC jack	1		
VGA	1 (12V power enable by BIOS)		
Cash drawer	1 x RJ 11 (12V /24V)		
Audio	1 x Line-out (option)		
Power switch	1		
<b>Power</b>			
Power adapter	65W/19V	120W/19V	
<b>Control / Indicator</b>			
Power LED	1		
Power button	1		
<b>Peripherals</b>			
MSR	3 Tracks MSR (USB)		
Fingerprint	1(USB)		
iButton	1(USB)		
Second display	10.1" / 15" 2nd display without touch		
Customer display	Flush mount VFD display 2 x 20 characters (COM)		
Speaker	2 x 2W		
<b>Communication</b>			
Wireless LAN	802.11 b/g/n Wireless LAN card & antenna (option)		

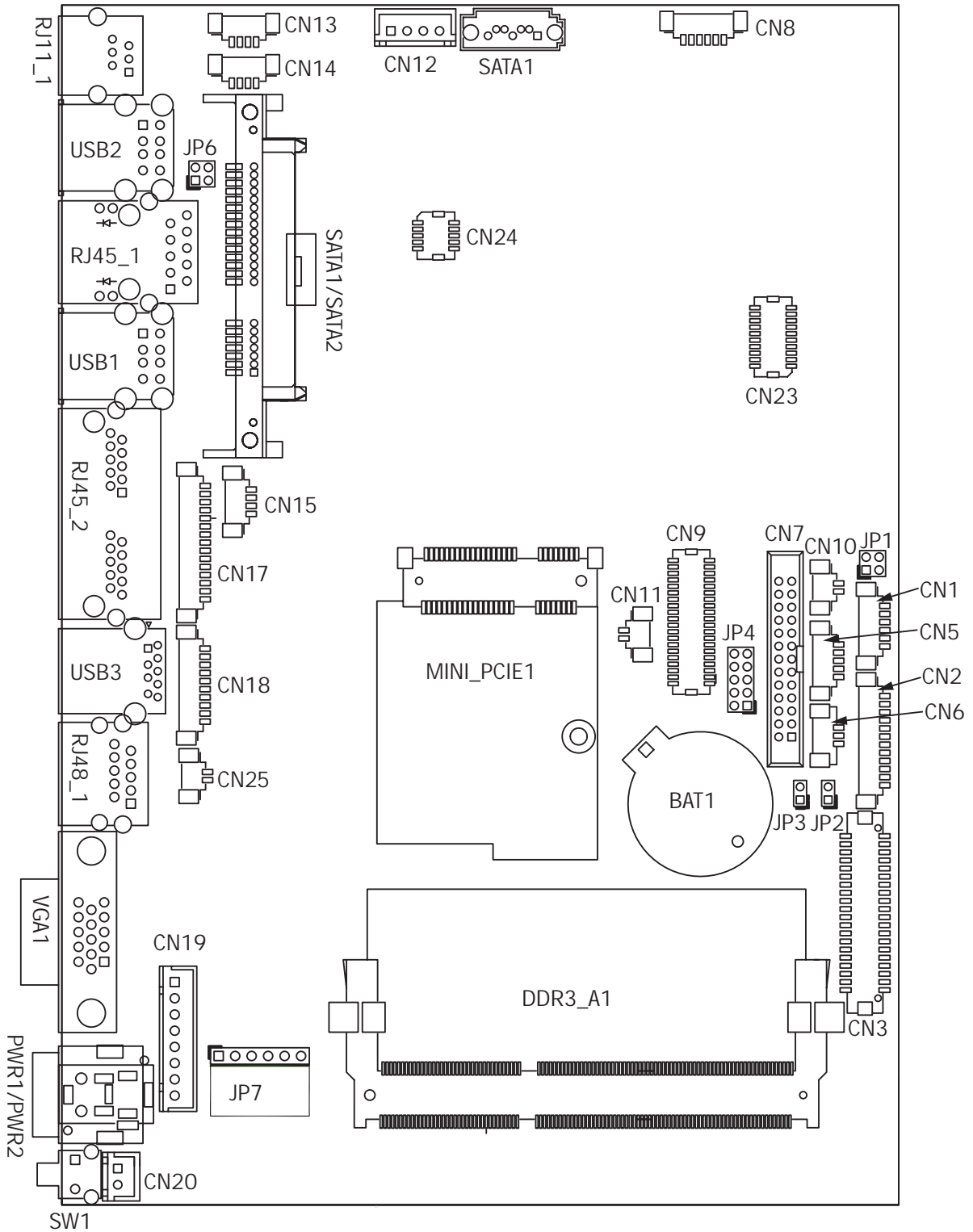
<b>Model name</b>	<b>POS485</b>		
<b>Motherboard</b>	<b>D36</b>	<b>D66</b>	<b>D86S</b>
<b>Environment</b>			
EMC & Safety	FCC, Class A, CE, LVD		
Operating temperature	0°C ~ 35°C (32°F ~ 95°F)		
Storage temperature	-20°C ~ 60°C (-4°F ~ 140°F)		
Storage humidity	20% ~ 85% RH non condensing		
<b>Dimension (W x D x H)</b>	LCD 90 degree : 361 x 248 x 337 mm		
<b>Weight (N.W./G.W.)</b>	7kgs / 8kgs		
<b>VESA mounting</b>	100mm x100mm VESA mounting holes for Panel PC type		
<b>OS support</b>	Windows embedded 7 standard, Windows Embedded Compact 7, Windows 7, POSReady7, Windows embedded 8, Windows 8, RTOS (support provided by Winriver) Linux, Windows 10 IOT	Linux, POSReady 7, Windows® Embedded 8.1 Industrial Pro retail, Windows® Embedded 8.1 Pro, Windows 10 IOT (64-bit)	Windows 7 pro (64bit), POS Ready 7 (64bit), Windows 8.1 (64bit), Windows Embedded industry 8.1(64bit), Windows 10 (64bit), IOT 10 (64bit) Linux: UbuntuAfter version 15.10,Fedora After version 23,SUSE (openSUSE):The latest version of openSUSE(42.1) uses kernel v4.1, which do not support.

**\* This specification is subject to change without prior notice.**

# 6. Configuration

## 6-1. D36 V2.1 Motherboard

### 6-1-1. Motherboard Layout



## 6-1-2. Connectors & Functions

Connector	Function
CN1	Front I/O board
CN2	Inverter connector
CN3	LVDS connector
CN6	System FAN connector
CN7	LPT port connector
CN8	Speaker & MIC connector
CN9	40pin external connector
CN10	HDD LED connector
CN11	Power LED connector
CN12	SATA power connector
CN13/14	USB port (internal)
CN15	PS2 keyboard connector
CN17	MSR connector
CN18	COM5 (touch) connector
CN19	Wide Range
CN20	Power button (internal)
CN21	LCM connector
CN22	POS325 51pin connector
CN25	S5/S0 Status LED
PWR1/PWR2	DC Jack
RJ11_1	Cash drawer connector
RJ45_1	LAN connector
RJ45_2	COM1/ COM2
RJ48_1	COM3
DDR3_A1	DDR3 SO-DIMM
SATA0/SATA2	SATA
USB1/USB2	USB2.0
USB3	USB3.0
VGA1	CRT connector
SW1	Power button
MINI_PCIE1	MINI PCIE
JP1	Inverter select
JP4	LCD ID setting
JP6	Cash drawer power setting
JP7	Touch connector

## 6-1-3. Jumper Setting

### Inverter Selection

Function	JP1				
▲ LED	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				
CCFL	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				

### Cash Drawer Power Setting

Function	JP6				
▲ +19V	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				
+12V	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				

### COM1/COM2/COM3 Power Setting

COM1, COM2 and COM3 can be set to provide power to your serial device. The voltage can be set to +5V or +12V in the BIOS.

1. Power on the system, and press the <DEL> key when the system is booting up to enter the BIOS Setup utility.
2. Select the Advanced tab.
3. Select **VGA/COM Power Configuration** Ports and press <Enter> to go to display the available options.
4. To enable the power, select COM1 ,COM2 or COM3 Power setting and press <Enter>. Select Power and press <Enter>. Save the change by pressing F10.



▲ = Manufacturer Default Setting



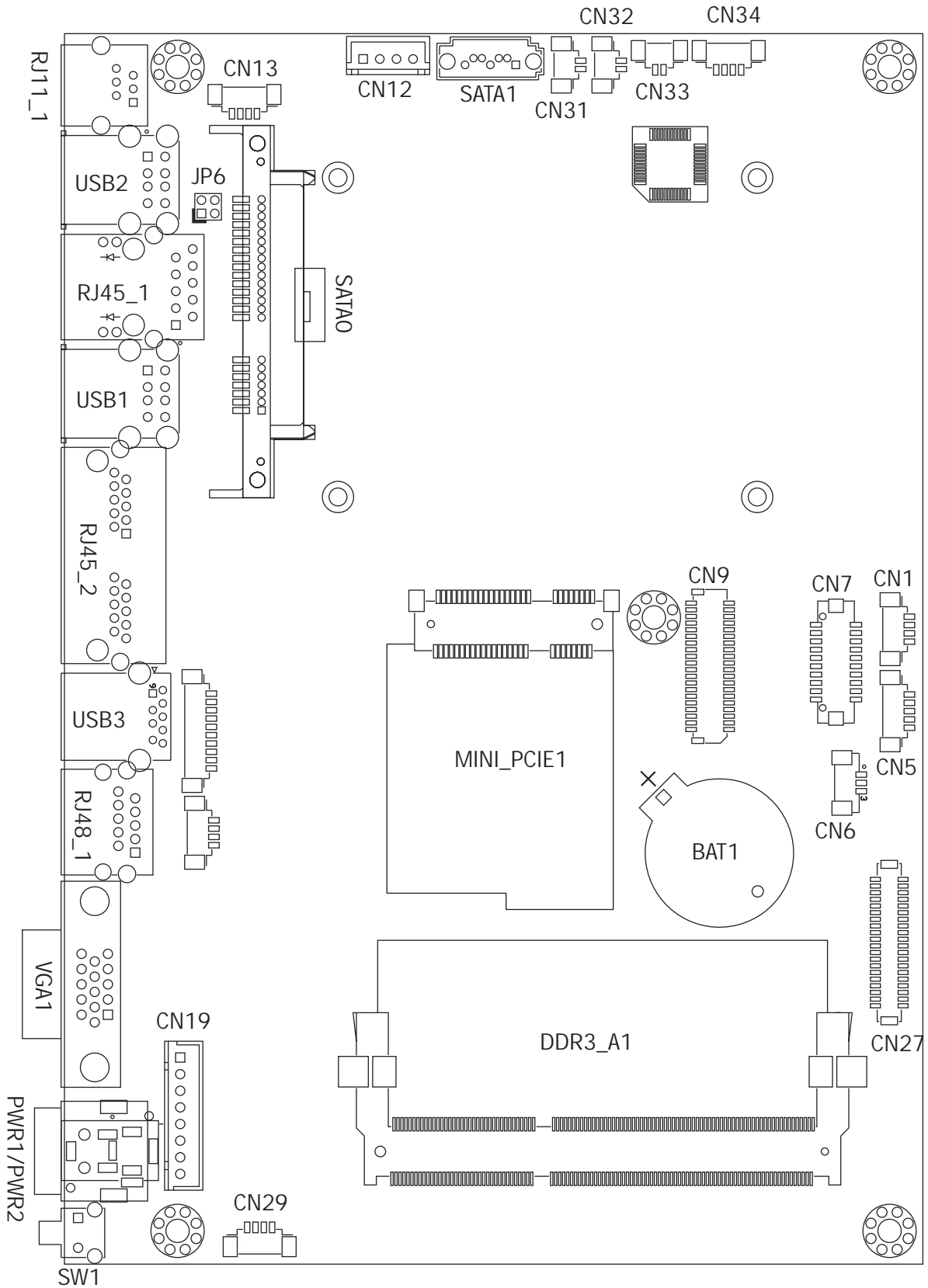
## LCD ID Setting

Panel#	Resolution	LVDS		Output Interface	JP4
		Bits	Channel		
1	800 x 600	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
2	800 x 600	24	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
3	1024 x 768	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
4	1024 x 768	24	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
5	1366 x 768	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
6	1366 x 768	24	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
7	1024 x 600	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
8	1280 x 1024	24	Dual	LVDS Panel	1 3 5 7 9 2 4 6 8 10
9	1440 x 900	24	Dual	LVDS Panel	1 3 5 7 9 2 4 6 8 10
15	1920 x 1080	24	Dual	LVDS Panel	1 3 5 7 9 2 4 6 8 10
				CRT	1 3 5 7 9 2 4 6 8 10

1 Jumper open     1 Jumper short  
2 Jumper open     2 Jumper short

# 6-2. D36 V4.0 Motherboard

## 6-2-1. Motherboard Layout



## 6-2-2. Connectors & Functions

Connector	Function
C N 1 / C N 1 3 / C N 2 1 / C N 2 9	Internal USB connector
CN5	EC Debug
CN6	CPU FAN connector
CN7	LPT connector
CN9	40Pin connector
CN12	SATA power connector
CN18	COM5 (touch) connector
CN19	Wide range power connector
CN25	S0/S5 LED & Power button connector
CN26	51P connector
CN27	eDP connector
CN31	Speaker L output
CN32	Speaker R output
CN33	MIC output
CN34	Earphone connector
BAT1	Battery connector
PWR1/PWR2	DC Jack
RJ11_1	Cash drawer connector
RJ45_1	LAN connector
RJ45_2	COM1/ COM2
RJ48_1	COM3
DDR3_A1	DDR3 SO-DIMM
SATA1/SATA2	SATA connector
USB1/USB2	USB2.0
USB3	USB3.0
VGA1	CRT connector
SW1	Power button
MINI_PCIE1	MINI PCIE
JP6	Cash drawer power setting

## 6-2-3. Jumper Setting

### Cash Drawer Power Setting

Function	JP6				
▲ +19V	<table border="1"> <tr> <td>1</td> <td>3</td> </tr> <tr> <td>2</td> <td>4</td> </tr> </table>	1	3	2	4
1	3				
2	4				
+12V	<table border="1"> <tr> <td>1</td> <td>3</td> </tr> <tr> <td>2</td> <td>4</td> </tr> </table>	1	3	2	4
1	3				
2	4				

### COM1/COM2/COM3 Power Setting

COM1, COM2 and COM3 can be set to provide power to your serial device. The voltage can be set to +5V or +12V in the BIOS.

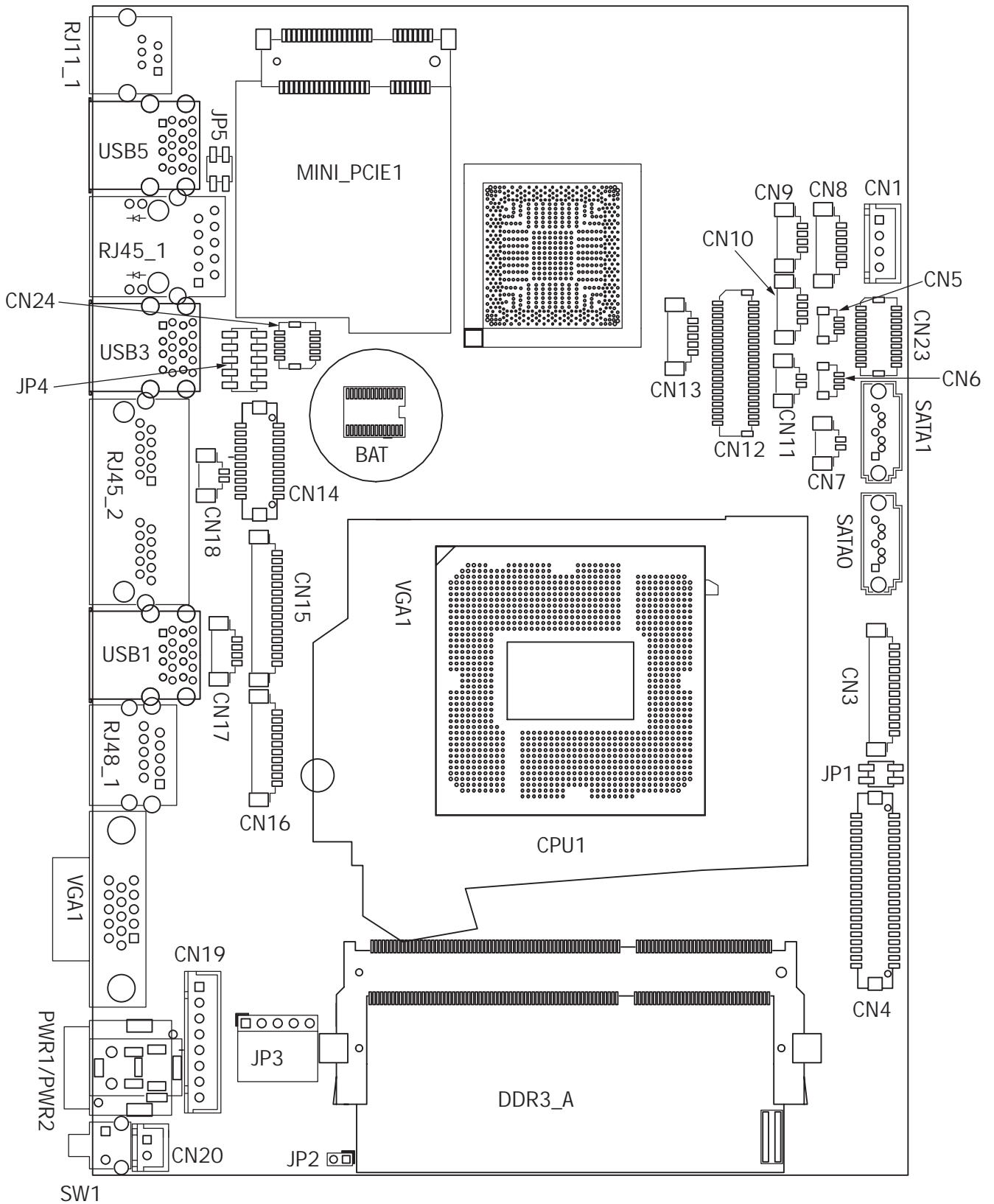
1. Power on the system, and press the <DEL> key when the system is booting up to enter the BIOS Setup utility.
2. Select the Advanced tab.
3. Select **VGA/COM Power Configuration** Ports and press <Enter> to go to display the available options.
4. To enable the power, select COM1 ,COM2 or COM3 Power setting and press <Enter>. Select Power and press <Enter>. Save the change by pressing F10.



▲ = Manufacturer Default Setting

# 6-3. D66 Motherboard

## 6-3-1. Motherboard Layout



## 6-3-2. Connectors & Functions

Connector	Function
CN1	SATA power connector
CN3	Inverter connector
CN4	LVDS connector
CN5	CPU FAN connector
CN6	System FAN connector
CN7	HDD LED connector
CN8	Speaker & MIC connector
CN9/10	USB port (internal)
CN11	Power LED connector
CN12	40pin external connector
CN13	EC Debug
CN14	Printer connector
CN15	MSR connector
CN16	COM5 (touch) connector
CN17	PS2 keyboard connector
CN18	RTC connector
CN19	Wide Range
CN20	Power button (internal)
CN21	LCM connector
CN22	51pin connector
CN23	SDU connector
CN24	SDU connector (LAN)
RJ45_1	LAN connector
RJ45_2	COM1/ COM2
RJ48_1	COM3
RJ11_1	Cash drawer connector
PWR1	DC Jack (4 pin)
PWR2	DC Jack (2 pin)
SATA0	SATA0
SATA1	SATA1
SW1	Power button
USB1	USB3.0
USB4	USB2.0
USB6	USB2.0
VGA1	CRT connector
DDR3_A	DDR3 SO-DIMM
JP1	Inverter select
JP2	Hardware Reset
JP3	Touch connector
JP4	LCD ID setting
JP5	Cash drawer power setting

## 6-3-3. Jumper Setting

### Inverter Selection

Function	JP1				
▲ LED	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				
CCFL	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				

### Cash Drawer Power Setting

Function	JP5				
▲ +19V	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				
+12V	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				

### COM1/COM2/COM3 Power Setting

COM1, COM2 and COM3 can be set to provide power to your serial device. The voltage can be set to +5V or +12V in the BIOS.

1. Power on the system, and press the <DEL> key when the system is booting up to enter the BIOS Setup utility.
2. Select the Advanced tab.
3. Select **VGA/COM Power Configuration** Ports and press <Enter> to go to display the available options.



4. To enable the power, select COM1, COM2 or COM3 Power setting and press <Enter>. Select Power and press <Enter>. Save the change by pressing F10.



▲ = Manufacturer Default Setting

### LCD ID Setting

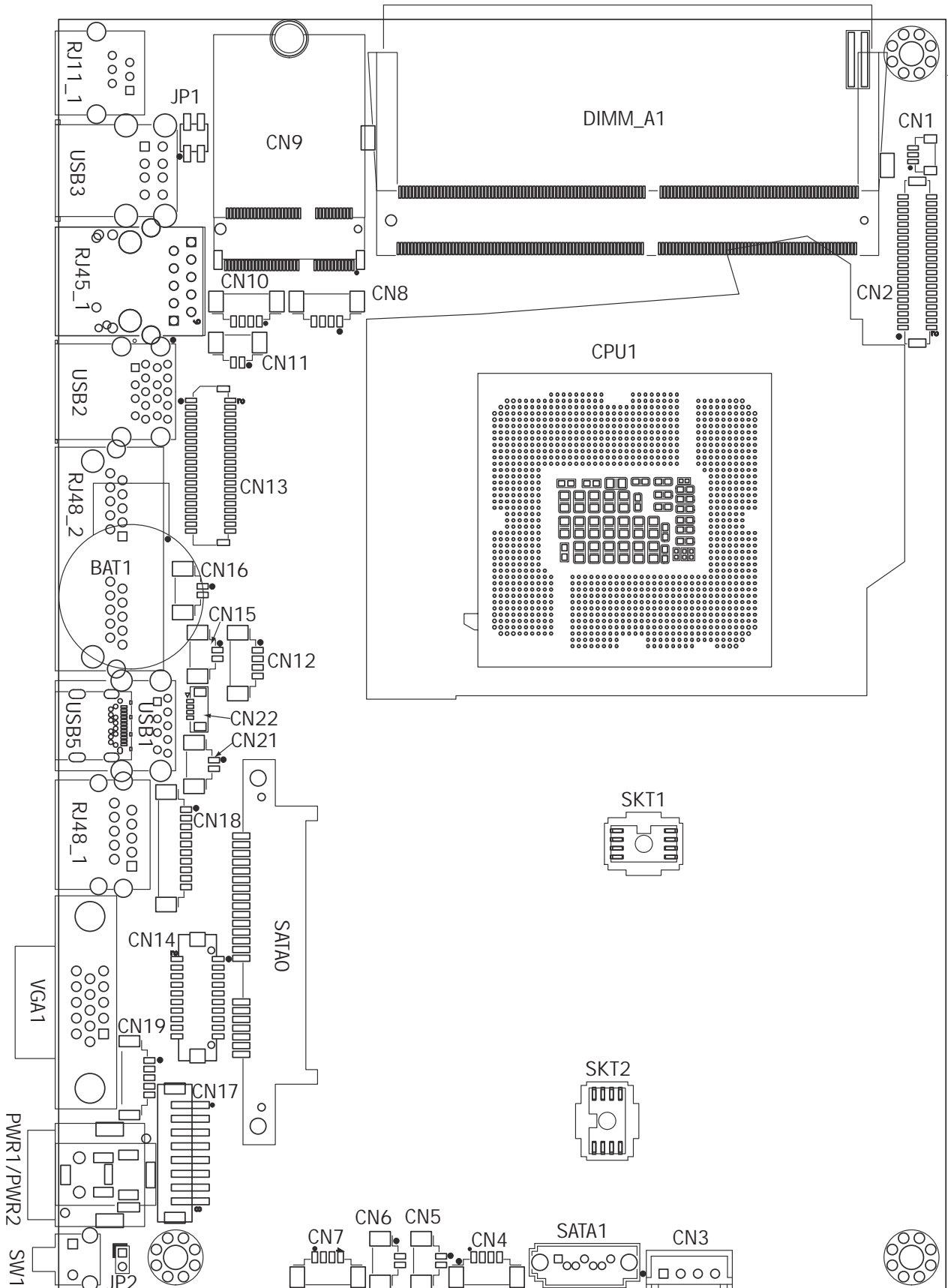
Panel#	Resolution	LVDS		Output Interface	JP4										
		Bits	Channel												
1	800 x 600	18	Single	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
2	800 x 600	24	Single	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
3	1024 x 768	18	Single	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
4	1024 x 768	24	Single	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
5	1366 x 768	18	Single	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
6	1366 x 768	24	Single	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
7	1024 x 600	18	Single	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
8	1280 x 1024	24	Dual	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
9	1440 x 900	24	Dual	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
15	1920 x 1080	24	Dual	LVDS Panel	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											
				CRT	<table border="0"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10
1	3	5	7	9											
2	4	6	8	10											

1	Jumper open	1	Jumper short
2		2	



# 6-4. D86S Motherboard

## 6-4-1. Motherboard Layout



## 6-4-2. Connectors & Functions

Connector	Function
CN1	System FAN connector
CN2	eDP connector
CN3	HDD power connector
CN4 /8 / 12	USB connector
CN5	MIC-In connector
CN6	Audio connector(right)
CN7	Audio black connector
CN9	M.2 connector
CN10	Power LED connector
CN11	Audio connector(left)
CN13	40 pin external connector
CN14	Printer connector
CN15	Speaker Combo sound connector
CN16	Battery connector
CN17	Power button (internal)
CN18	COM5 connector
CN19	EC Debug
BAT1	Battery connector
PWR1/2	DC Jack
RJ11_1	Cash drawer connector
RJ45_1	LAN connector
RJ48_1	COM3
RJ48_2	COM1/2
USB1/2/5	USB3.0
USB3	USB2.0
VGA1	CRT connector
SW1	Power button
SATA0 /1	SATA connector
DIMM_A1	DDR4 SO-DIMM
BZ1	Buzzer
JP1	Cash drawer power setting
JP2	COMBO speaker setting

## 6-4-3. Jumper Setting

### Cash Drawer Power Setting

Function	JP1				
▲ +19V	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				
+12V	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				

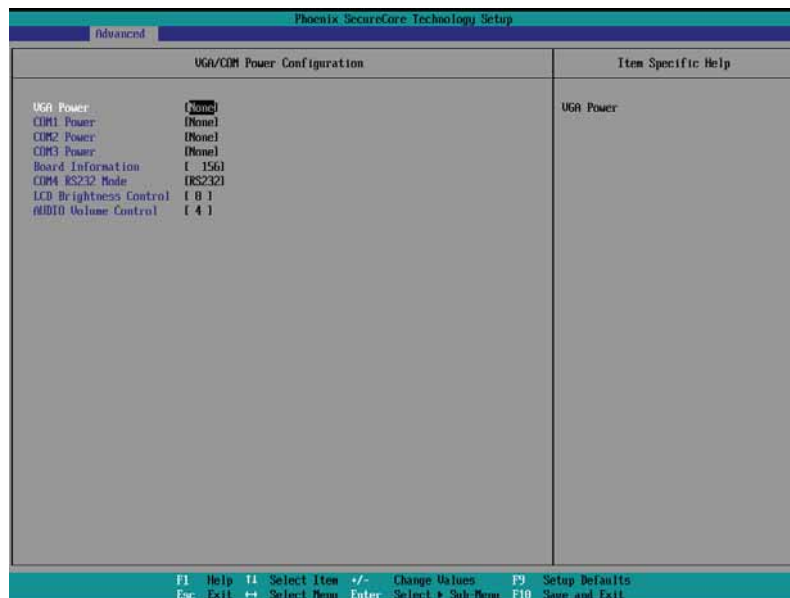
### COMBO Speaker Setting

Function	JP2		
Enagle	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			
▲ Disable	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			

1 Jumper open   
 2 Jumper short   
 ▲ = Manufacturer Default Setting

### COM1/COM2/COM3 Power Setting

COM1, COM2 and COM3 can be set to provide power to your serial device. The voltage can be set to +5V or +12V in the BIOS.



1. Power on the system, and press the <DEL> key when the system is booting up to enter the BIOS Setup utility.
2. Select the Advanced tab.
3. Select **VGA/COM Power Configuration** Ports and press <Enter> to go to display the available options.
4. To enable the power, select COM1 ,COM2 or COM3 Power setting and press <Enter>. Select Power and press <Enter>. Save the change by pressing F10.

# Appendix: Drivers Installation

The shipping package includes a Driver CD in which you can find every individual driver and utility that enables you to install the drivers on the system.

Please insert the Driver CD into the drive and double click on the "index.htm" to select the models. You can refer to the drivers installation guide for each driver in the "Driver/Manual List".