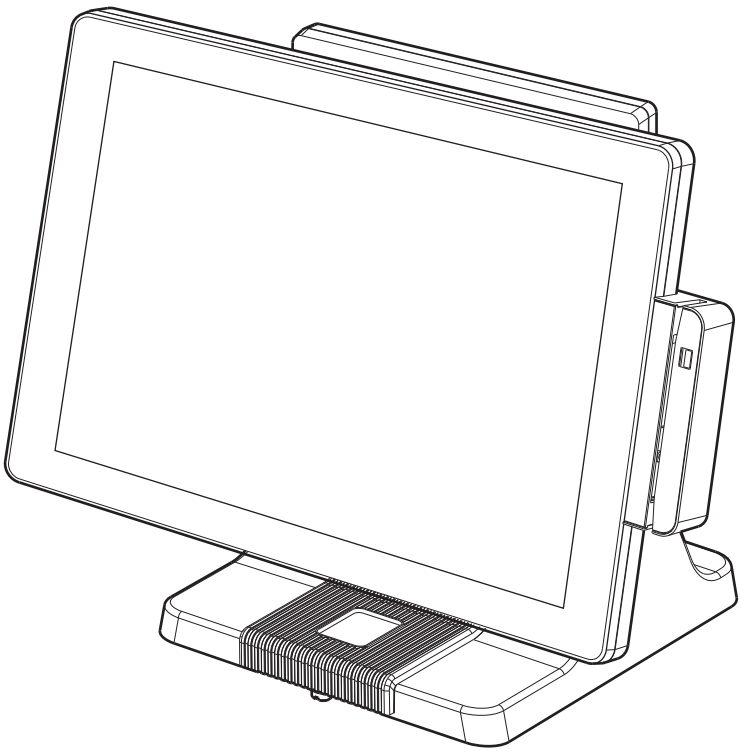
USER MANUAL

VERSION 1.3 April 2014

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



Manual Version 1.3
Part Number: 3LMPP4850113

TRADEMARK

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.

CE MARK

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”.

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.
(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.

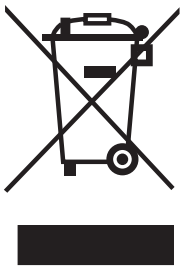
Safety Caution

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	• Initial release	Novenber 2010
1.1	• C68 motherboard added	NOvember 2011
1.2	• B68 motherboard removed • C76 motherboard added	December 2013
1.3	• D36 and D66 motherboard added	April 2014

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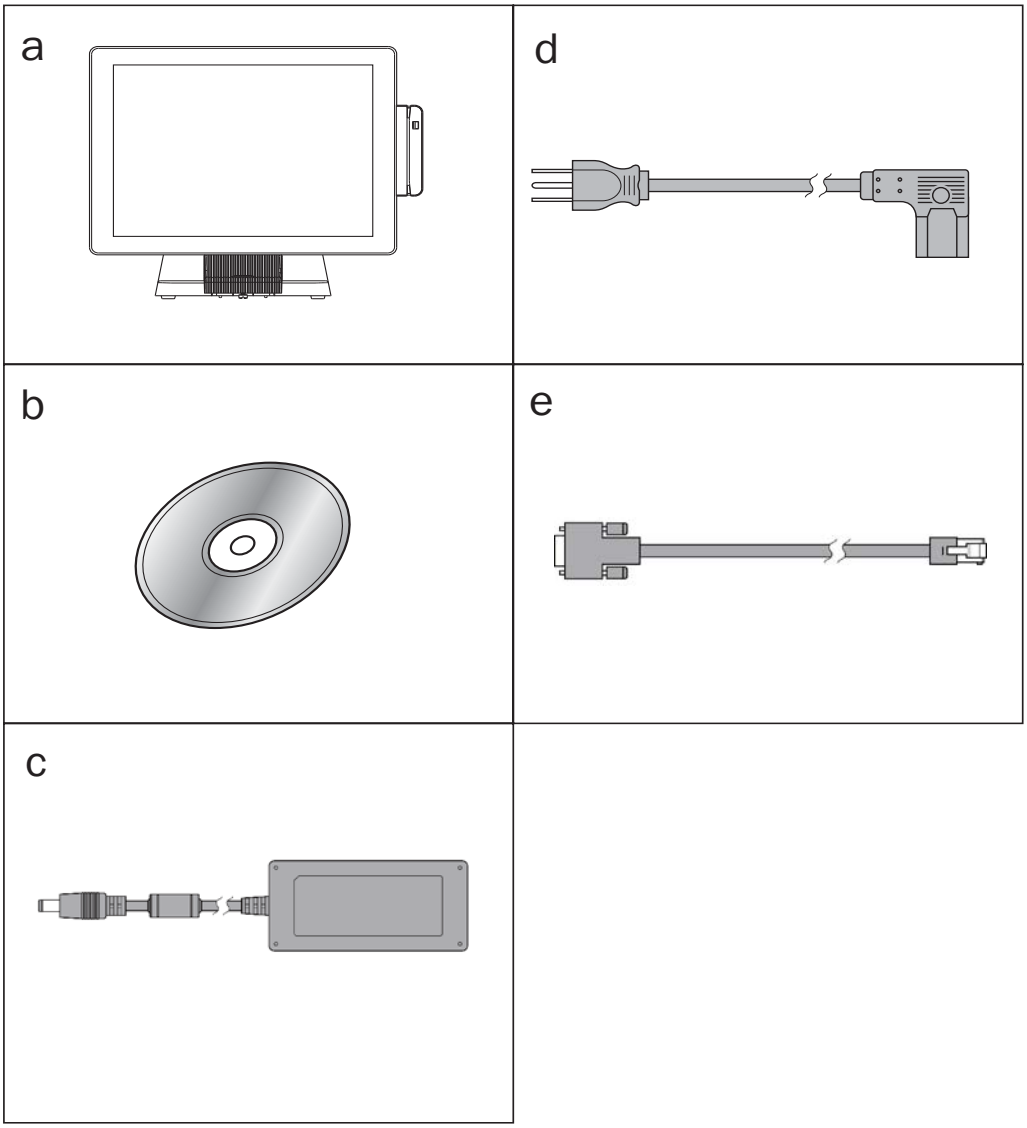
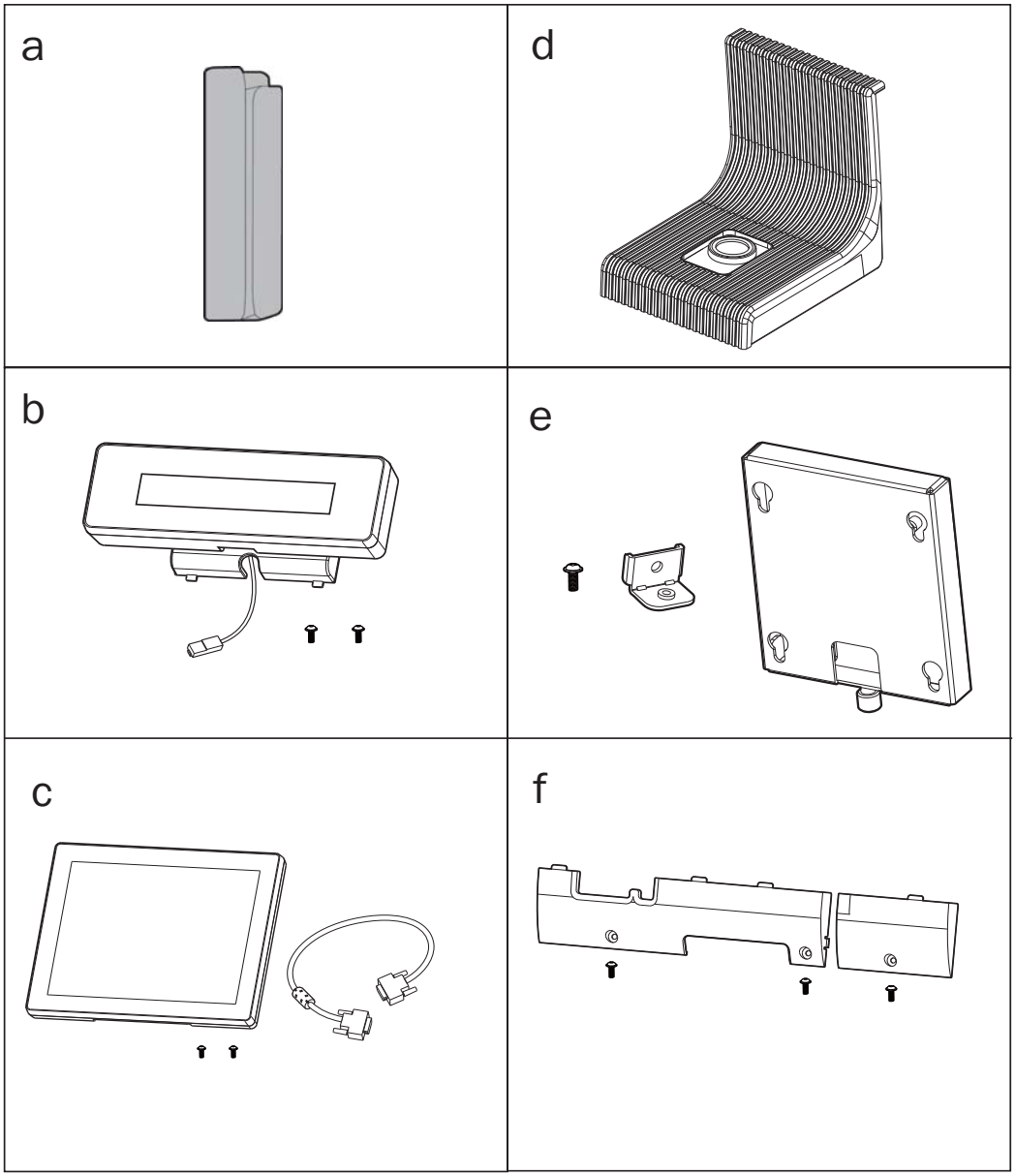
1. Packing List

1-1. Standard Accessories



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

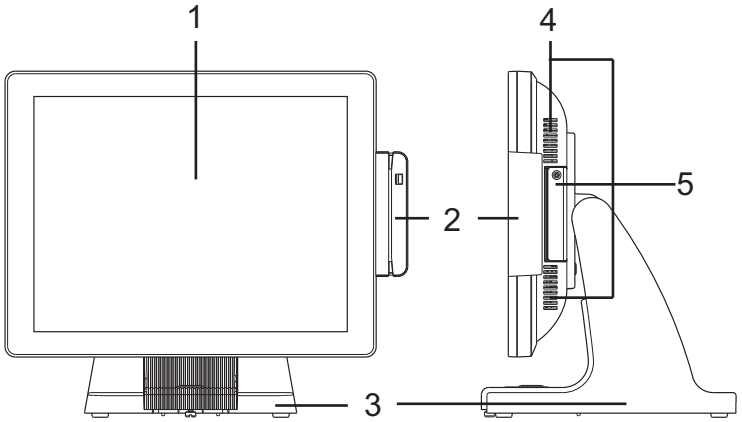
1-2. Optional Accessories



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

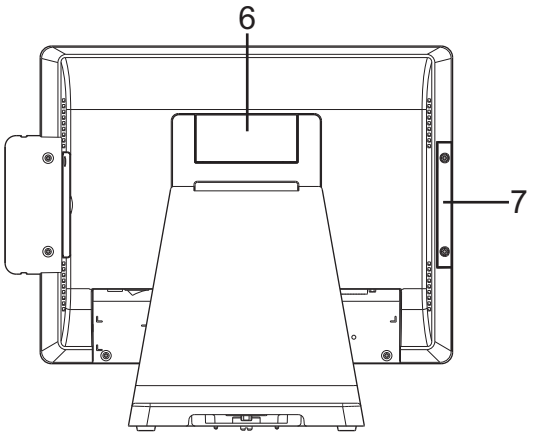
2. System View

2-1. Front & Side View



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

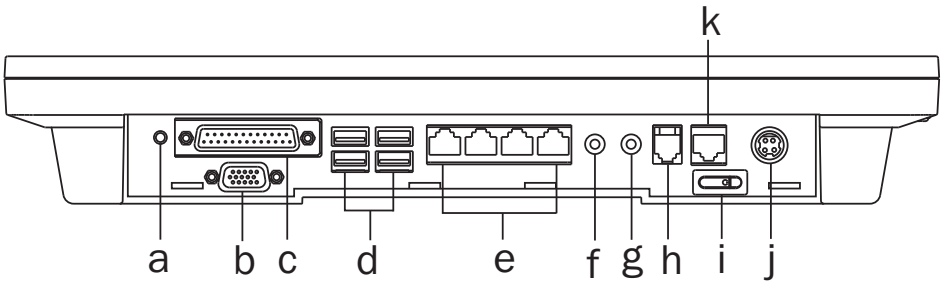
2-2. Rear View with stand



No.	Description
6	VFD dummy cover
7	MSR dummy cover

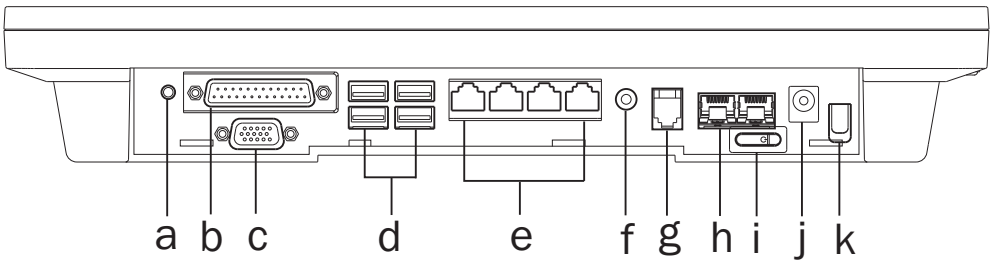
2-3. I/O Ports View

C48 Motherboard



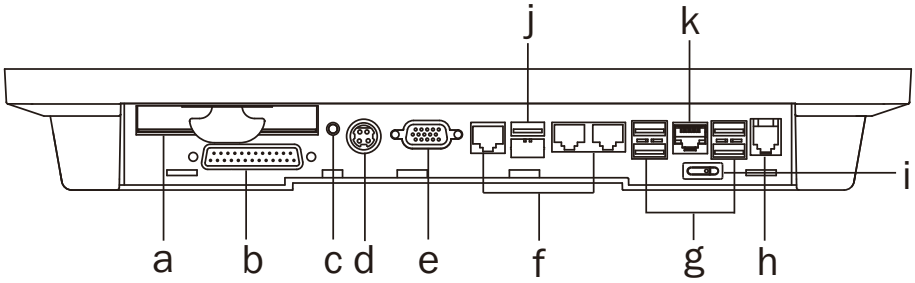
No.	Description
a	Power button
b	VGA
c	Printer
d	USB x 4
e	COM 1, 2, 3, 4 (from right to left)
f	Line-out
g	Mic-in
h	Cash drawer
i	Power switch
j	DC-IN
k	LAN

C68 Motherboard



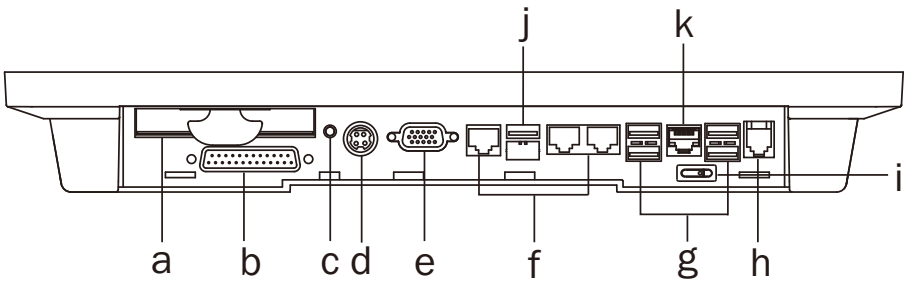
No.	Description
a	Power button
b	Printer
c	VGA
d	USB x 4
e	COM 1, 2, 3, 4 (from right to left)
f	Line-out
g	Cash drawer
h	LAN x 2
i	Power switch
j	DC-IN
k	Cable strap

C76 Motherboard



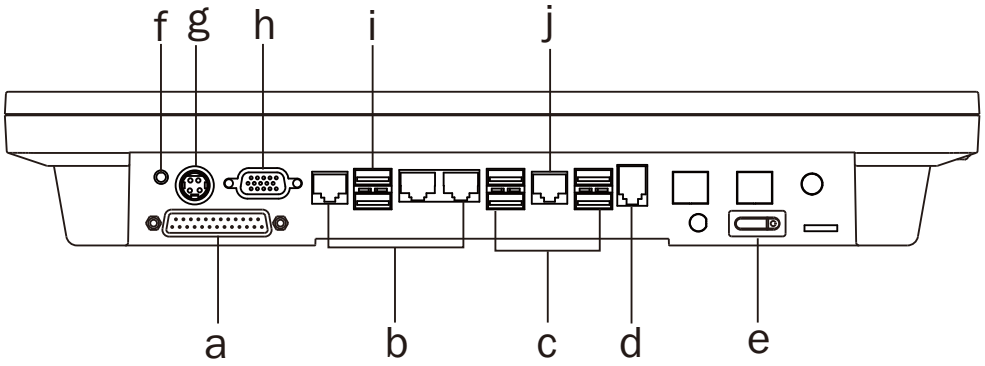
No.	Description
a	HDD slot
b	Printer
c	Power button
d	DC-IN
e	VGA
f	COM port 1, 2, 3 (from right to left)
g	USB 2.0 (x4)
h	Cash drawer
i	Power switch
j	USB 3.0 (x2)
k	LAN

D36 Motherboard



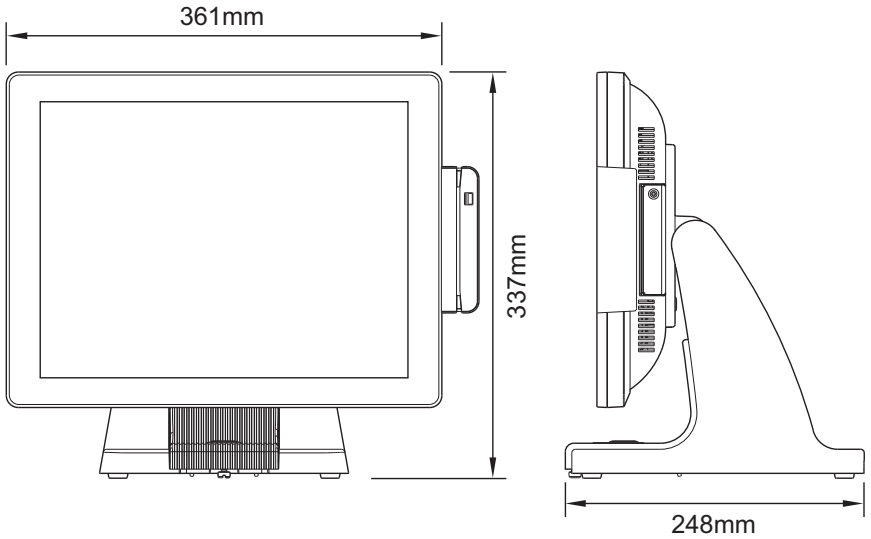
No.	Description
a	HDD slot
b	Printer
c	Power button
d	DC-IN
e	VGA
f	COM port 1, 2, 3 (from right to left)
g	USB 2.0 (x4)
h	Cash drawer
i	Power switch
j	USB 3.0 (x1)
k	LAN

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

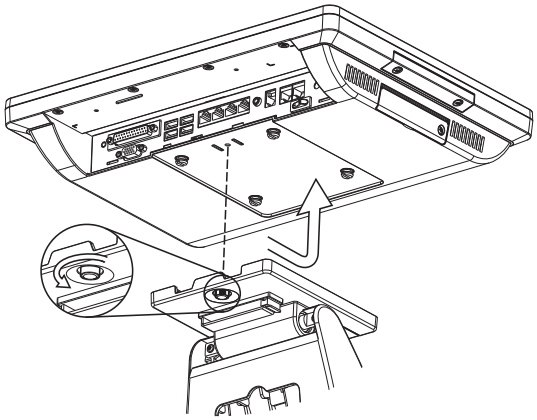
2-4. System Dimension



3. System Assembly & Disassembly

3-1. Stand Disassembly

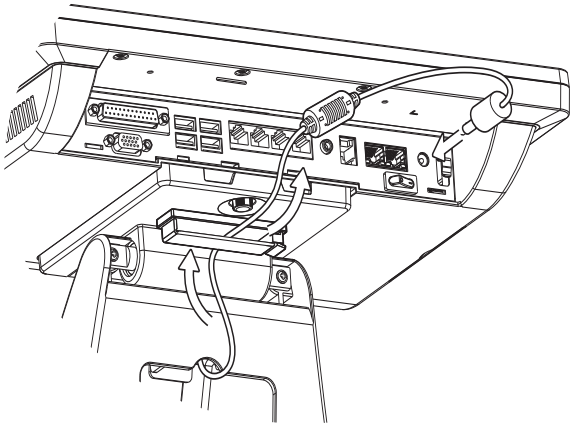
1. Loosen the thumb screw (x1) and slide the stand towards the IO panel to release it from the system.
2. Reverse the steps above to attach stand to the system.



3-2. Power Adapter Replacement

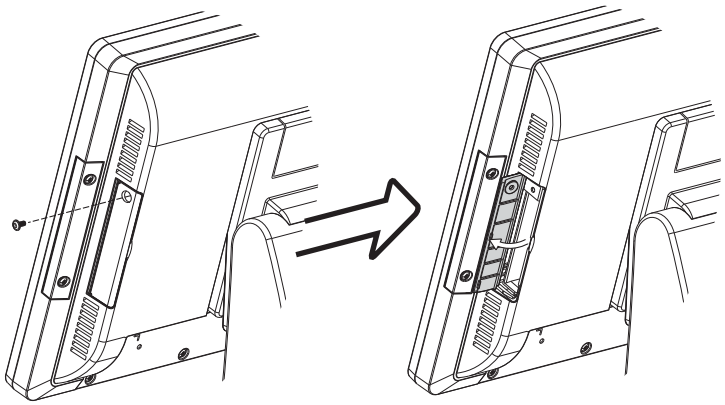
Power adapter is secured to the system stand by a holding bracket and screws. To attach power adapter, please follow the steps below.

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



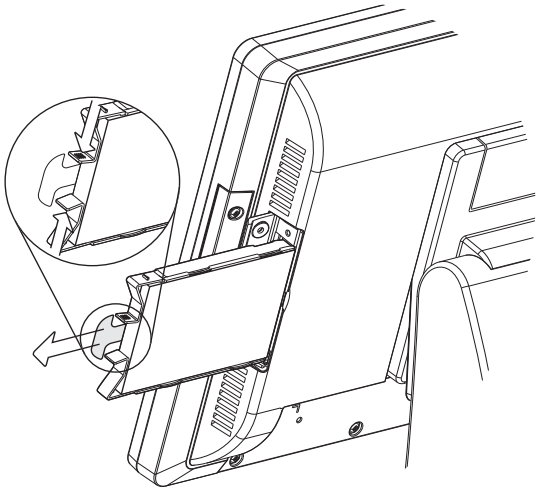
3-3. HD Replacement

Please remove the current HDD first.

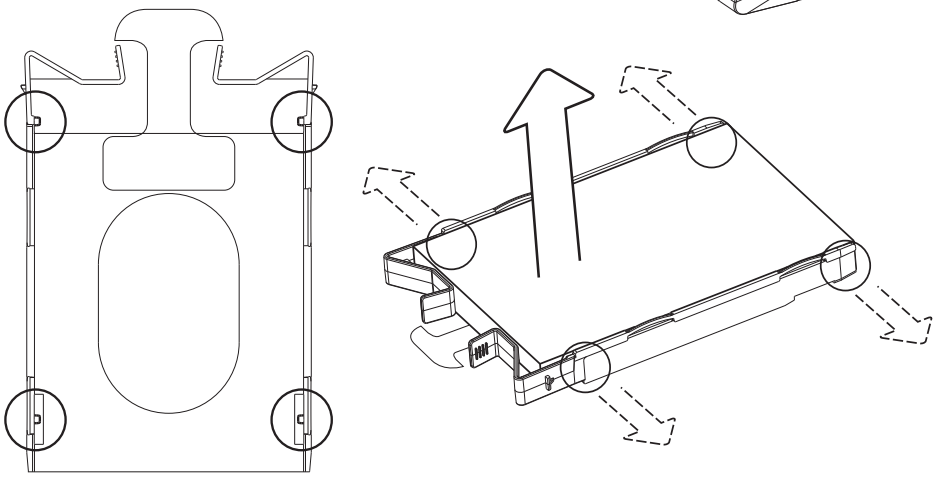


To remove the HDD from the System:

1. Power the system down.
2. Remove the screw(x1) from the HDD door.



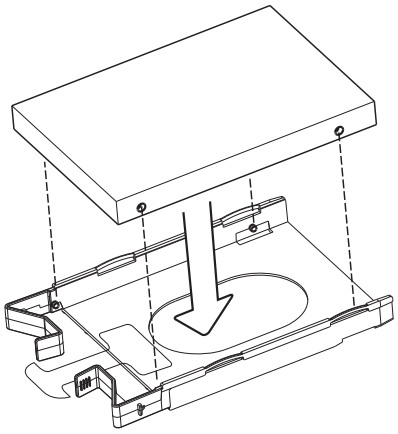
3. Open the HDD door.
4. While pinching the HDD bracket tabs pull the HDD from the system. For easier removal pull the plastic puller (see picture) at the same time.



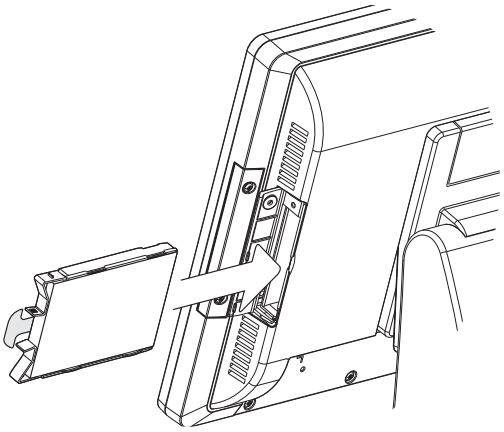
Disassemble HDD

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.



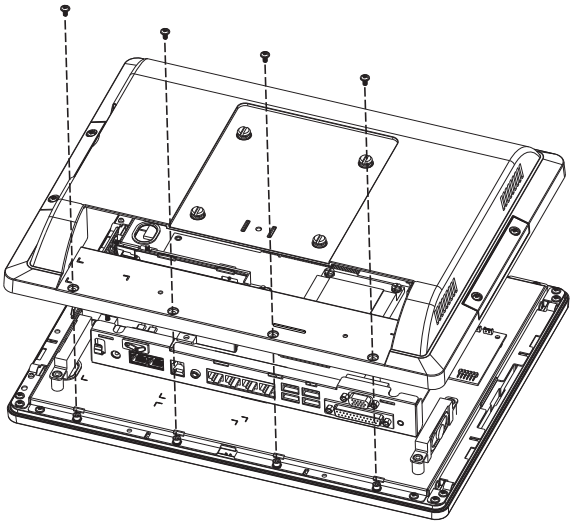
3. Finally slide the HDD into the slot till it clicks.



3-4. Open the System

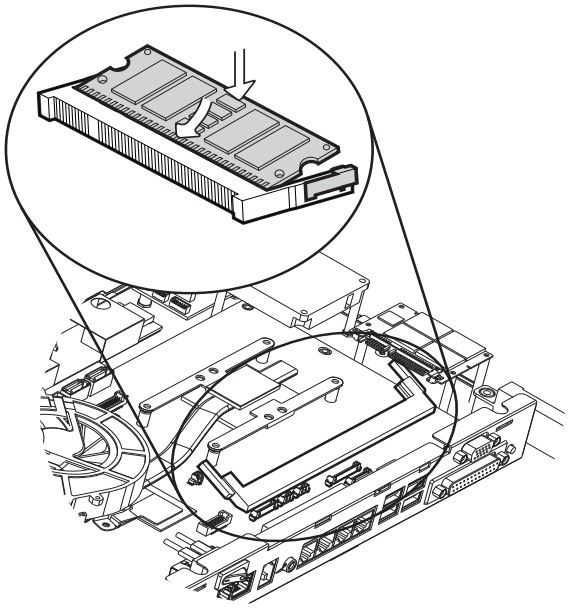
1. Place the system face down. Making sure not to scratch the screen.
2. Remove the screws (x4) on system rear cover to open the system.

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).

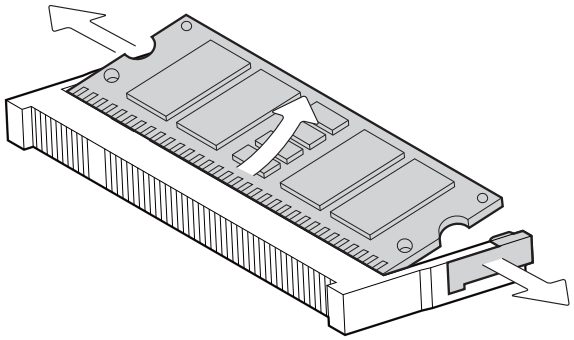


Installing a RAM module

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.

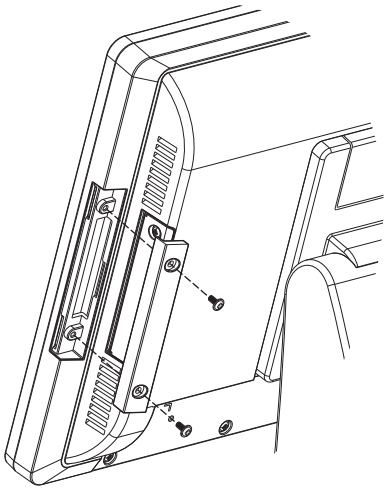


4. Peripheral Installation

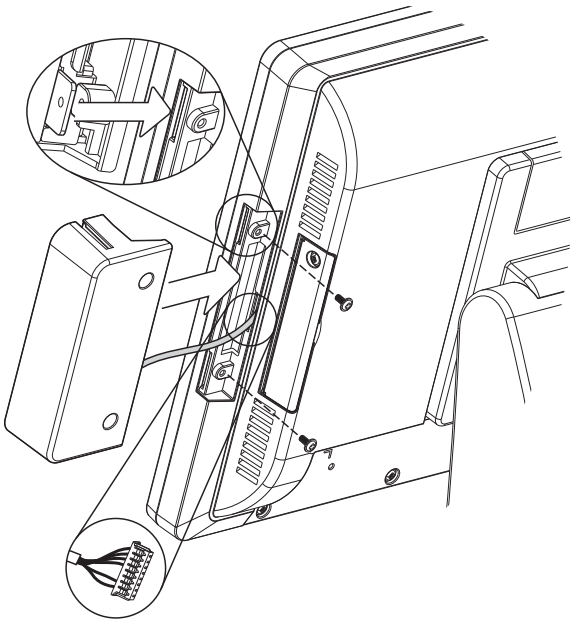
4-1. MSR Installation

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.



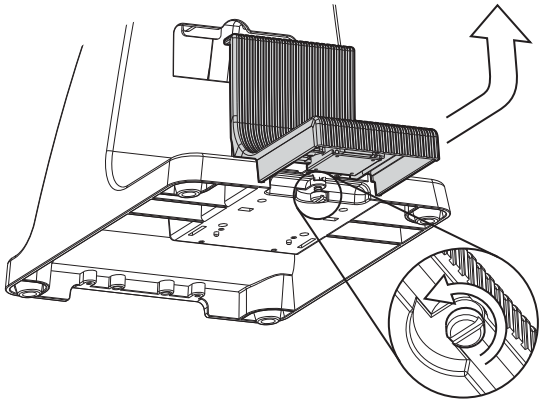
2. Connect MSR cable to the connector on system side.
3. Insert MSR module in place and fasten the screws (x2) on the back to secure the module.



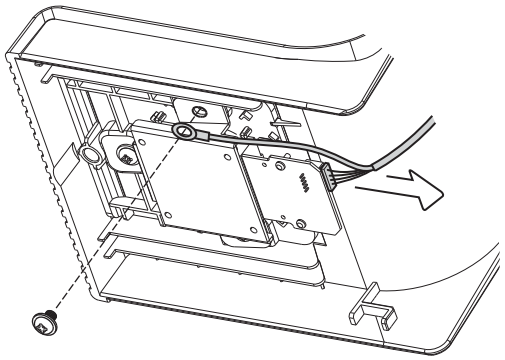
4-2. Fingerprint Installation

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

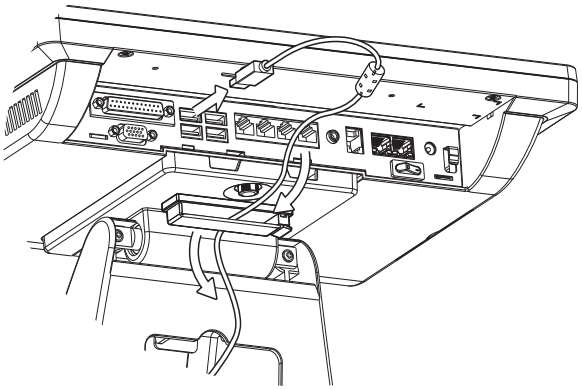
1. Loose the thumb screw (x1) securing the module and slide the module outward as arrow shown.



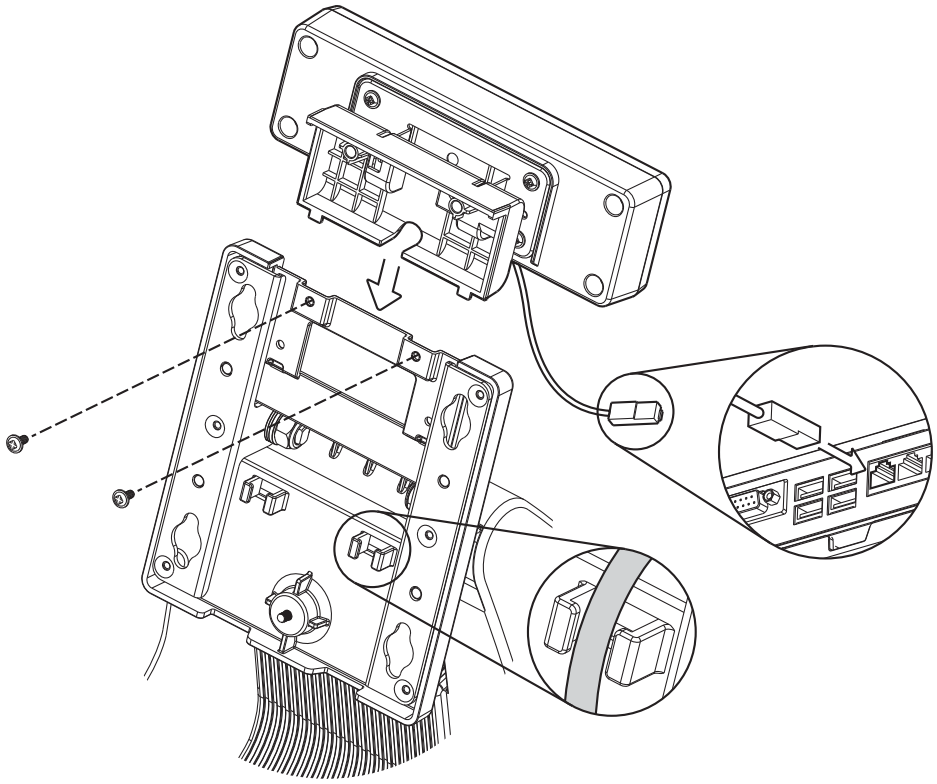
2. Loose the screw (x1) fastening the ground cable and disconnect the cable from the connector.



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

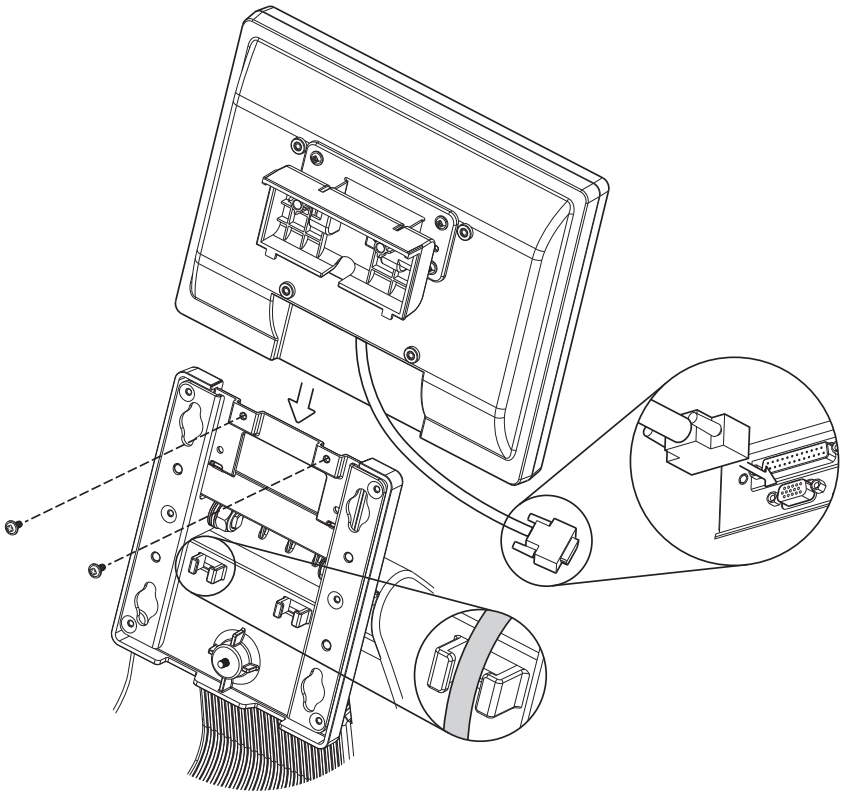


4-3. VFD Installation



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

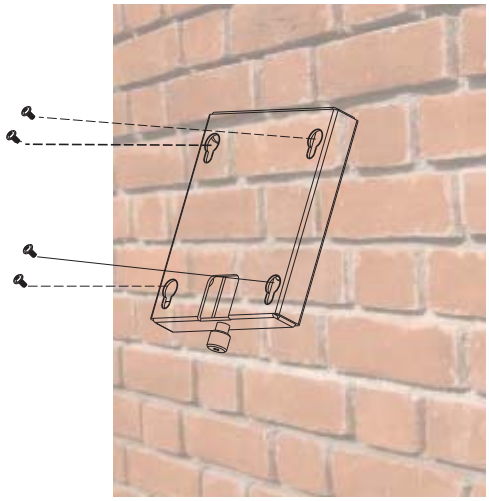


1. Follow steps in Chapter 3-1 to disassemble the system stand.
2. Connect one end of the VGA cable to 2nd Display. Route the cable through cable mangement on the system stand.
3. Attach the 2nd Display to system by fastening the screws (x2).
4. Connect the other end of the VGA cable to 2nd VGA port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

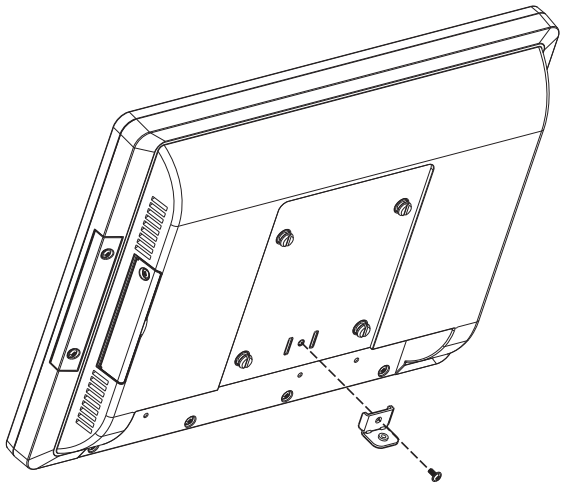
4-5. Wall Mounting Kit Installation

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.

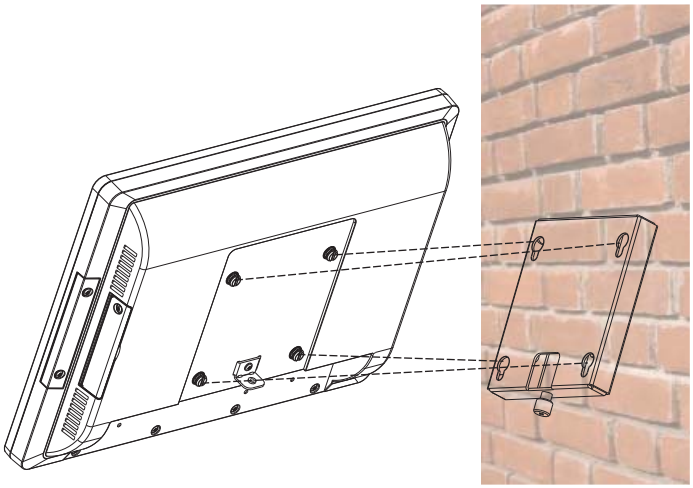
1. Secure the wall plate to the wall by fastening screws (x4).



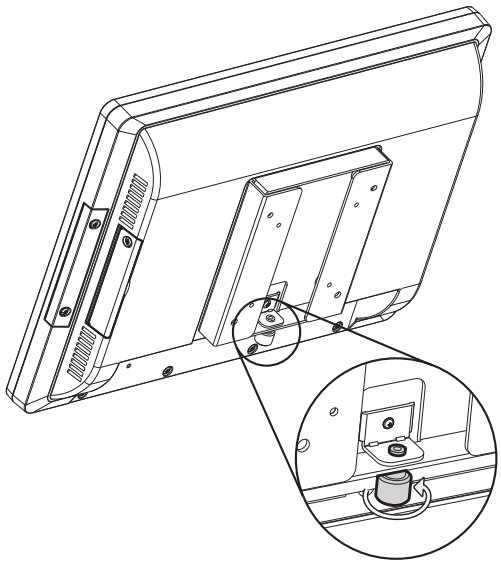
2. Attach the metal bracket to the back of the system by fastening the screw (x1) as shown.



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.



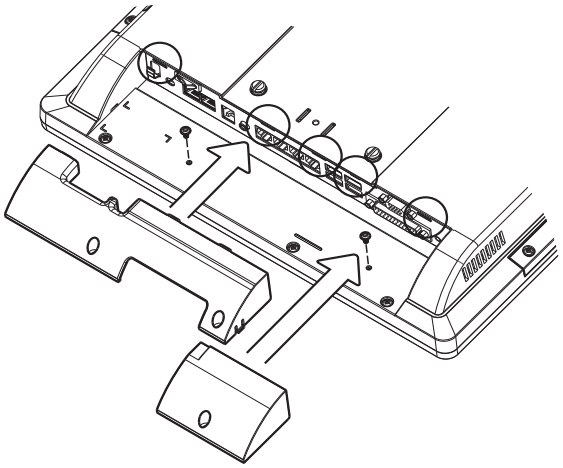
4. Fasten the screw (x1) through the metal bracket to secure the wall mount kit.



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.

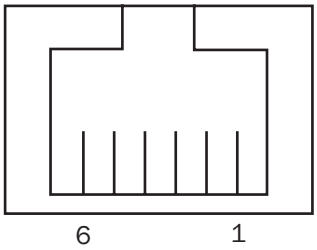


4-7. Cash Drawer Installation

4-7-1. For C48/C68/C76/D66 Motherboard

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

Cash Drawer Pin Assignment



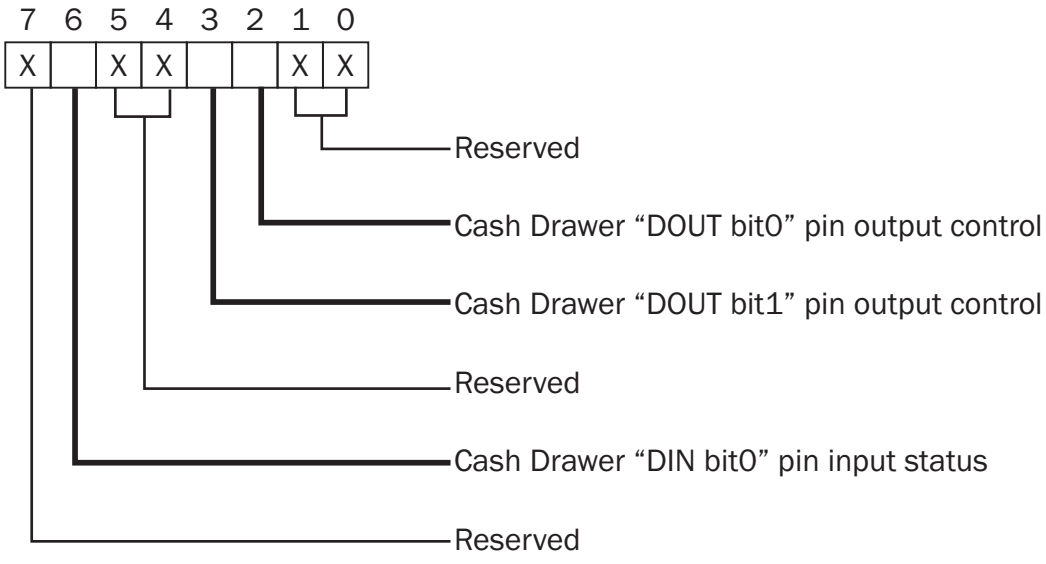
Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V / 19V
5	DOUT bit1
6	GND

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
Attribute	Reserved	Read	Reserved		Write		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

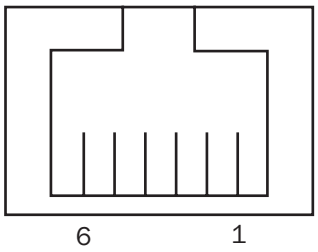
Command	Cash Drawer
O 48C 04	Opening
O 48C 00	Allow to close
► Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by “DOUT bit0” pin control. ► Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer.	

Command	Cash Drawer
I 48C	Check status
► The I/O address 48Ch bit6 =1 mean the Cash Drawer is opened or not exist. ► The I/O address 48Ch bit6 =0 mean the Cash Drawer is closed.	

4-7-2. For D36 Motherboard

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

Cash Drawer Pin Assignment



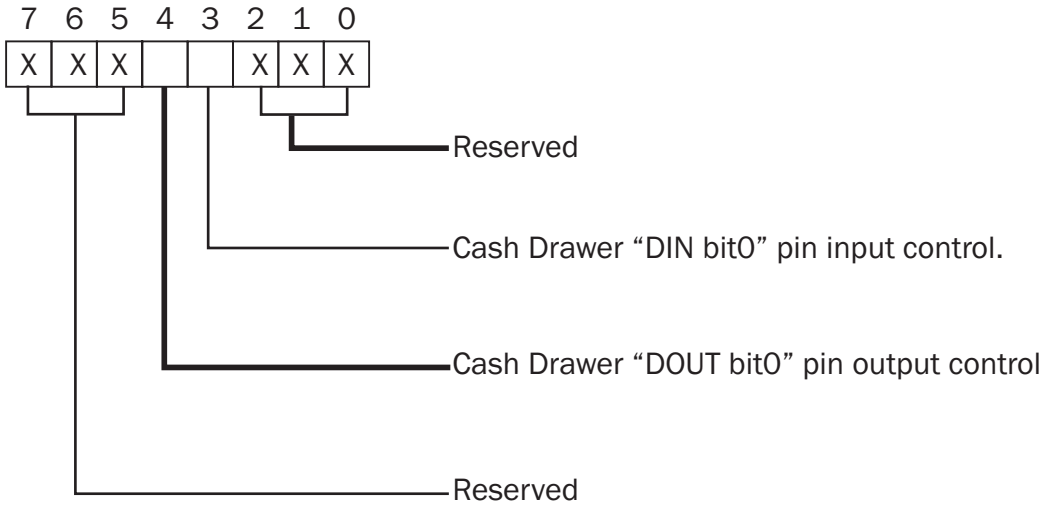
Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V / 19V
5	DOUT bit1
6	GND

Cash Drawer Controller Register

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

Register Location: 482h
Attribute: Read / Write
Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserved			Write	Read	Reserved		



Bit 7: Reserved
Bit 6: Reserved
Bit 5: Reserved
Bit 4: Cash Drawer “DOUT bit0” pin output control.
= 1: Opening the Cash Drawer
= 0: Allow close the Cash Drawer
Bit 3: Cash Drawer “DIN bit0” 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 04	Opening
O 482 00	Allow to close
► Set the I/O address 482h bit4 =1 for opening Cash Drawer by “DOUT bit0” pin control. ► Set the I/O address 482h bit4 = 0 for allow close Cash Drawer.	

Command	Cash Drawer
I 482	Check status
► The I/O address 482h bit3 =1 mean the Cash Drawer is opened or not exist. ► The I/O address 482h bit3 =0 mean the Cash Drawer is closed.	

5. Specification

Model Name	POS485		
Motherboard	**C48**	**C68**	**C76**
CPU support	Intel Pinevew D525 1.8G L2 1M dual core 13W	Intel Sandy Bridge CPU i3-2120 3.3G, L2 3M, 65W Pentium G850 2.9G, L2 3M, 65W Celeron G530 2.4G, L2 2M, 65W	Intel Ivy Bridge CPU, Celeron 1007U 1.5GHz, LLC 2MB, TDP 17W Intel Ivy Bridge CPU, i3-3217U 1.8GHz, LLC 3MB, TDP 17W
Chipset	CPU with Graphic built-in + ICH 8M	Intel Q67 PCH (Processor Controller Hub, AMT supported_highend) Intel H61 PCH (Processor Controller Hub, no AMT suport_mainstream)	Intel PCH HM76
System memory	2 x SO-DIMM slot up to 4GB DDR3 800MHz	1 x Long DIMM slot up to 8GB DDR3 1066/1333 MHz	1 x DDR3 -1600Hz, SO-DIMM, default 2GB, max. 8GB
Graphic memory	Shared system memory up to 256MB	Intel HD Graphics 3000/2000, integrated in CPU, frequency 850MHz, (dynamic up to 1.1GHz)	Intel HD graphic DX11 and OCL1.1
LCD touch panel			
LCD size	15.1” LED & TFT LCD Panel		
Brightness	250 nits		250~300 nits
Maximal resolution	1024 x 768		
Touch screen type	Resistive		True Flat resistive by ELO & P-CAP by Mildex
Tilt angle	10° ~ 90°		
Storage			
HDD	One 2.5” SATA HDD bay		
Flash memory	1 x SATA SSD card (option)		
Expansion			
Mini PCI-E Socket	1		
External I/O ports			
USB	4 (USB2.0)		6 (2 x USB3.0/2.0, 4 x USB2.0)
Serial / COM	4 x RJ45 COM (COM1/COM2 standard RS-232 without power, COM3 /COM4 powered COM with power enable / disable by BIOS setting and +5V/+12V by MB setting. COM3 default +5V/ COM4 default +12V)	4 x COM RJ-45 (COM1/COM2 standard RS-232 without power; COM3 /COM4 powered COM with power enable/disable by BIOS setting and+5V/+12V by MB setting, COM3 default +5V/ COM4 default +12V)	3 x RJ-45 COM (COM1/COM2 W/5V, COM3 W/12V powered enabled by BIOS
Printer	1		
LAN (10/100/1000)	1 x RJ45	2 x RJ45	1 x RJ45
DC Jack	1		
VGA	1 (12V power enable by BIOS)		
Cash drawer	1 (RJ-11, 12V/24V, default 24V)		
Audio	1 x Line-out, 1 x Mic-in	1 x Line-out	1 x Line-out (option)
Power switch	1		

Power			
Power adapter	19V / 90W	19V / 120W	19V / 90W
Control / Indicator			
Power LED	1		
Peripherals			
MSR	3 Tracks MSR (PS/2)		
Fingerprint	1 (USB)		
iButton	1 (COM) (choose either iButton or Fingerprint)		
Second display	8.4" / 15" 2nd display without touch		
Customer display	Flush mount VFD display 2 x 20 characters (COM)		
Speaker	2 x 2W		
Environment			
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 ~ 141°F)		
Humidity	20% ~ 85% RH non condensing		
Dimension (WxDxH)	LCD 90 degree : 361 x 248 x 337 mm		
Weight (N.W./G.W.)	7kgs / 8kgs		
Mounting	100mm x100mm VESA mounting holes for Panel PC type		
OS support	Windows® XP Professional, Windows Embedded POSReady 2009, Windows XP Embedded, Windows XP Professional for Embedded, WinCE, Vista, Windows 7, Linux	Windows® XP Professional, Windows Embedded POSReady 2009, Windows XP Embedded, Windows XP Professional for Embedded, POSready 7, Vista, Windows 7, Linux	Windows XP professional, POS Ready 2009, Windows XP Embedded, Windows XP professional for Embedded, Linux, Windows 7, Windows 8

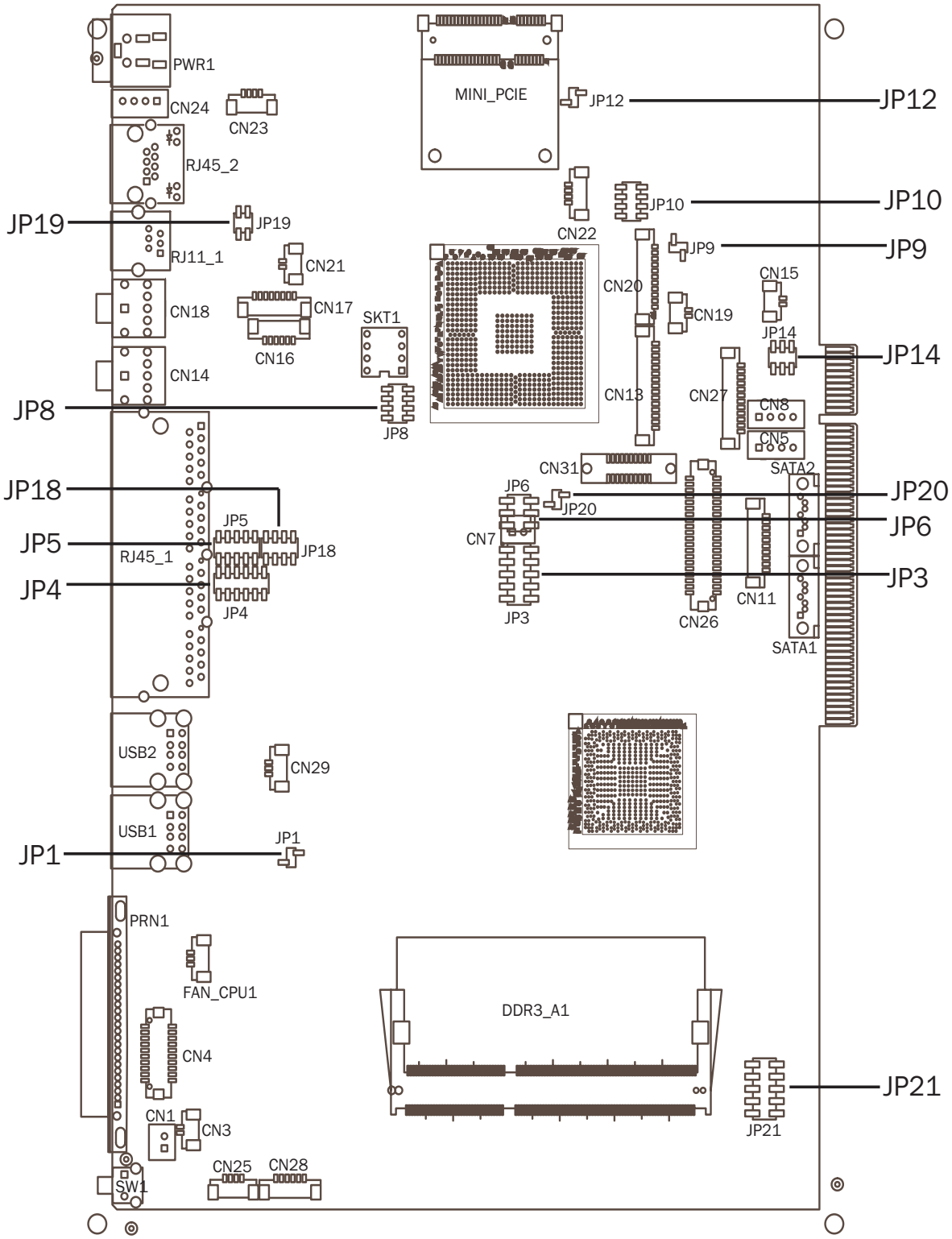
*** This specification is subject to change without prior notice.**

Model name	P0S485	
Motherboard	**D36**	**D66**
CPU support	Intel Bay Trail CPU Celeron J1900 2.0GHz, L2 2M	Intel HaswellCPU 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
Chipset	N/A,including CPU	Intel Lynx Point PCH H81/ Q87 (AMT technology) option
System memory	1x DDR3 -1066/1333Hz, SO-DIMM, default 2GB, max. 8GB	1x DDR3 -1333/1600Hz, SO-DIMM, default 2GB, max. 8GB
Graphic memory	Intel HD graphic DX11 and OCL1.1	Intel HD graphic DX11.1
LCD touch panel		
LCD size	15.1" LED Panel	
Brightness	250~300 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°	
Storage		
HDD	One 2.5" SATA HDD bay	
Flash memory	1 x SATA SSD card (option)	
Expansion		
Mini PCI-E socket	1	
External I/O ports		
USB	5 (1 x USB3.0/2.0 ; 4 x USB2.0)	6 (2 x USB3.0/2.0 ; 4 x USB2.0)
Serial / COM	3 xRJ-45 COM COM1/COM2/COM3 with Power 5V or 12V enabled by BIOS)	
Printer	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	
Power		
Power adapter	65W/19V	120W/19V
Control / Indicator		
Power LED	1	
Peripheral		
MSR	3 Tracks MSR (USB)	
Fingerprint	1(USB)	
iButton	1(USB)	
Second display	8.4" / 15" 2nd display without touch	
Customer display	Flush mount VFD display 2 x 20 characters (COM)	
Speaker	2 x 2W	
Environment		
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	
Dimension (W x D x H)	LCD 90 degree : 361 x 248 x 337 mm	
Weight (N.W./G.W.)	7kgs / 8kgs	
VESA mounting	100mm x100mm VESA mounting holes for Panel PC type	
OS support	Windows embedded 7 standard, Windows Embedded Compact 7, Windows 7, POSReady7, Windows embedded 8, Windows 8, RTOS (support provided by Winriver) Linux	Linux, POSReady 7, Windows® Embedded 8.1 Industrial Pro retail, Windows® Embedded 8.1 Pro

6. Jumper Setting

6-1. C48 Motherboard

6-1-1. Motherboard Layout

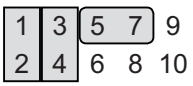
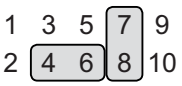
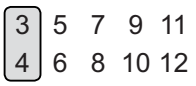
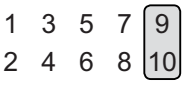


6-1-2. Connectors & Functions

Connector	Function
CN1	Power Button Connector
CN3	Printer Port Reset
CN4	Printer Port
CN5/8	HDD Power
CN11	COM5 For Touch
CN13	Card Reader Connector
CN14	Line out
CN15	HDD LED
CN16	Speaker & MIC
CN17	CD IN
CN18	MIC IN
CN19	Power LED
CN20/JP10	System Indicator
CN21	LAN LED
CN22	USB Port
CN23	PS2 KEYBOARD
CN24	+19V DC IN
CN25	For GM2621 Debug
CN26	LVDS
CN27	Inverter Connector
CN28	Key Pad
CN29	System Fan
DDR3_A1	DDR3 SO-DIMM1
SATA1	SATA Connector
SATA2	SATA Connector
SW1	Power Button
JP1	CMOS Operation Mode
JP3/6	VGA Port
JP4/5	COM2 RS232/485/422 Setting
JP8	LCD ID Setting
JP9	Power Mode Setting
JP12	System Reset
JP14	Inverter Selection
JP18	COM3/4 Power Setting
JP19	Cash Drawer Power Setting

6-1-3. Jumper Setting

COM2 RS232/485/422 Setting

Function	JP5	JP4
▲RS232		
RS485		
RS422		

Cash Drawer Power Setting

Function	JP19
+19V	
▲+12V	

Power Mode Setting

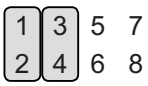
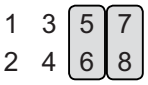
Function	JP9
▲ATX Power	
AT Power	

System Reset

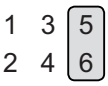
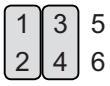
Function	JP12
▲System Normal	
System Reset	

▲ = Manufacturer Default Setting

System Indicator

Function	JP10
▲Disable	
Enable	

Inverter Selection

Function	JP14
▲ CCFL	
LED	

CMOS Operation Mode

CMOS Reset

To clear the CMOS,

1. Remove the power cable from the system.
2. Open the system, and set the 'CMOS Operation jumper' from 'CMOS Normal' to 'CMOS Reset'. (refer to the jumper shown below)
3. Connect the power cable to the system, and **power on the system:**
   in ATX mode: press the power button and it will fail power on
   in AT mode: turn on system power
4. Remove the power cable from the system.
5. Return the "CMOS Operation mode" jumper setting from "CMOS Reset" to "CMOS normal".
6. Connect the power cable and power on the system.

Function	JP1
▲CMOS Normal	
CMOS Reset	

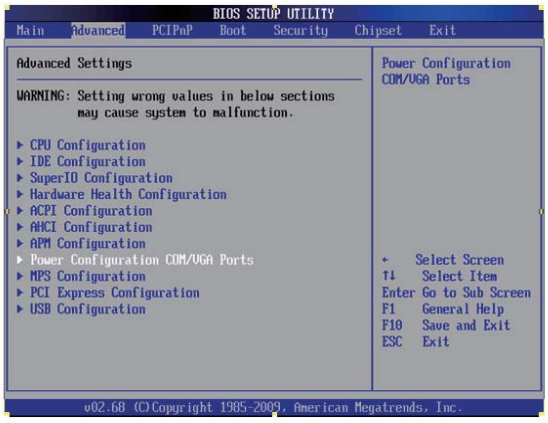
▲ = Manufacturer Default Setting

COM3 & COM4 Power Setting

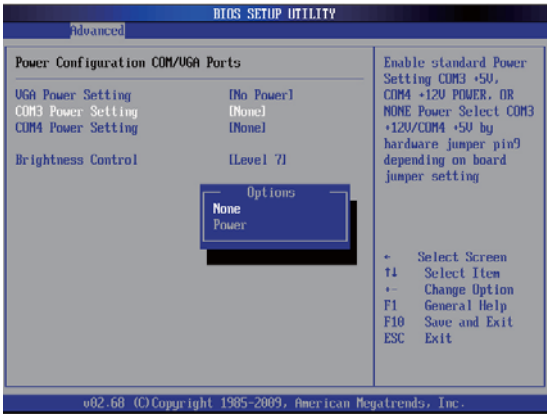
COM3 and COM4 can be set to provide power to your serial device. The voltage can be set to +5V (default) or 12V by setting jumper JP18 on the motherboard. When enabled, the power is available on pin 10 of the RJ45 serial connector. If you use the serial RJ45 to DB9 adapter cable, the power is on pin 9 of the DB9 connector. By default, the power option is disabled in the BIOS.

Enable COM3/COM4 power in 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 Power Configuration COM/ VGA Ports and press <Enter> to go to display the available options.



4. To enable the power, select COM3 Power Setting or COM4Power setting and press <Enter>. Select Power and press <Enter>. Save the change by pressing F10.



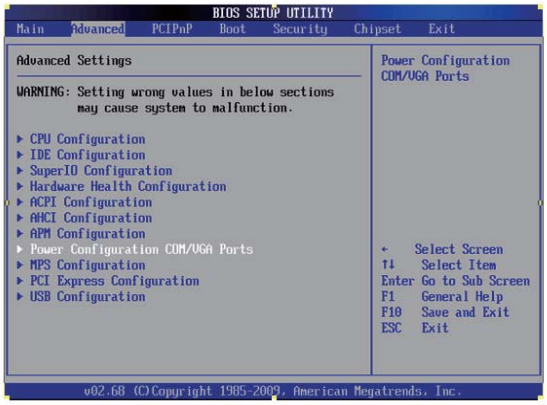
Function		JP18
COM3	▲+5V	[1] 3 5 7 [2] 4 6 8
	+12V	1 [3] 5 7 2 [4] 6 8
COM4	+5V	1 3 [5] 7 2 4 [6] 8
	▲+12V	1 3 5 [7] 2 4 6 [8]

▲ = Manufacturer Default Setting

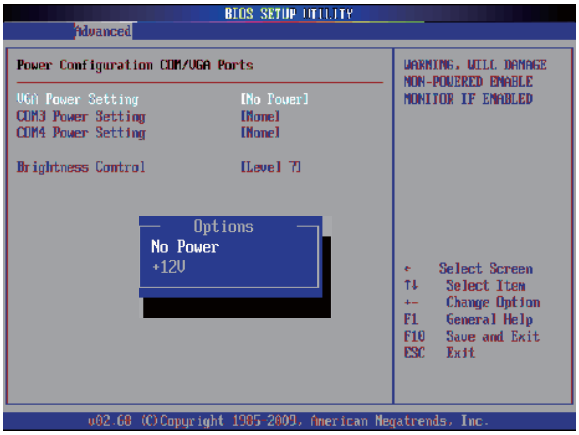
2nd VGA Power Setting

VGA port power must be on through BIOS/Utility. By default, the power option is disabled in the BIOS.

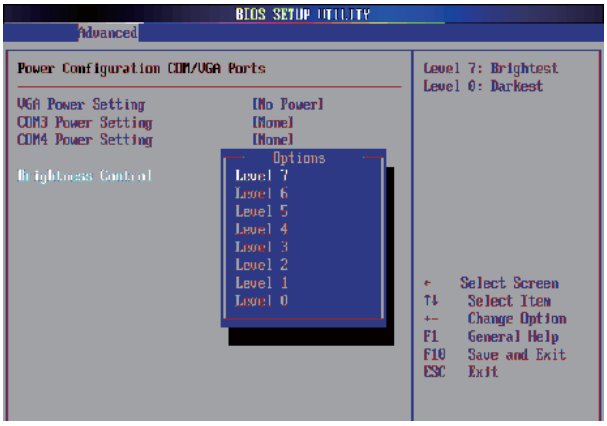
1. Press <DEL> key to enter BIOS SETUP UTILITY when system boot up.
2. Find tab "Advanced".
3. Select "Power Configuration COM/ VGA Ports" and press <Enter> to go to sub screen.



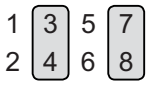
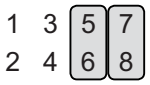
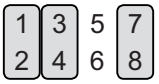
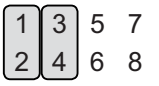
4. To switch on the power, select "+12V". Please save the change before exiting BIOS to avoid data lost.



5. To switch brightness level, select brightness control and choose level. Please save the change before exiting BIOS to avoid data lost.



LCD ID Setting

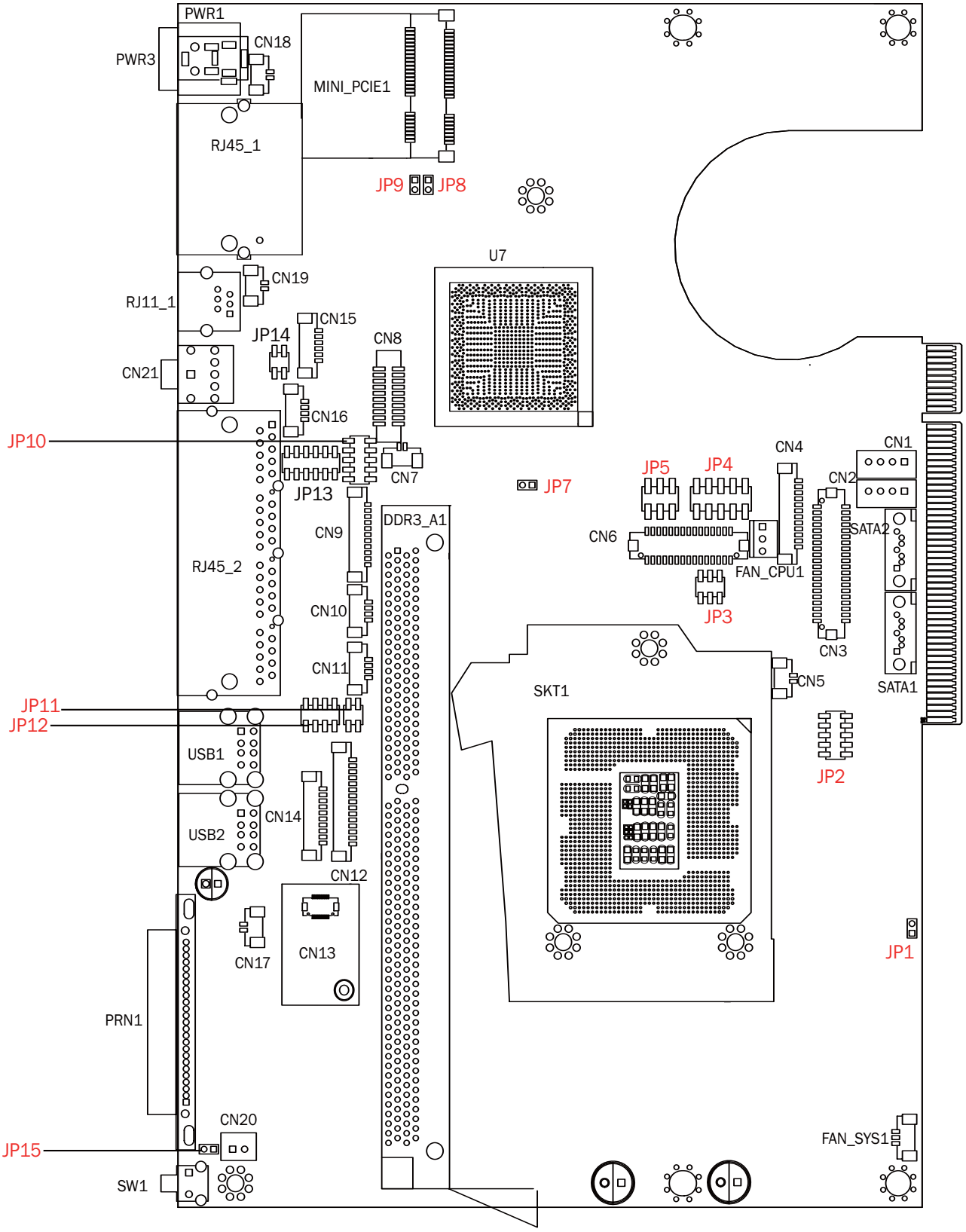
Resolution	LVDS		Output Interface	JP8
	Bits	Channel		
800 x 600	24	Single	1st: LCD Panel 2nd: VGA port	
1024 x 768	24	Single		
1366 x 768	24	Single		
800 x 600	18	Single		
*800 x 600	18	Single		
1024 x 768	18	Single		

*specialized for Sharp 12.1” LQ121S1LG41/LQ121S1LG42 panel.

 Jumper open  Jumper short

6-2. C68 Motherboard

6-2-1. Motherboard Layout



6-2-2. Connectors & Functions

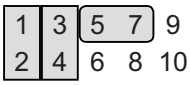
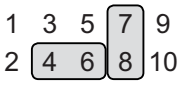
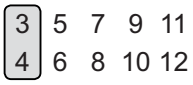
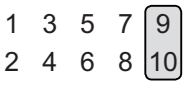
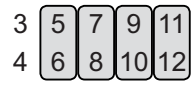
Connector	Function
CN1/2	SATA power Connector
CN3	LVDS Connector
CN4	LVDS INVERTER Connector
CN5	SATA HDD LED Connector
CN6	DVI Connector
CN7	BATTERY Connector
CN9	FT STATUS INTERFACE
CN10/11	USB Port(Internal)
CN12	Card Reader Connector(COM6)
CN13	RF Connector
CN14	COM5 for Touch
CN15	SPEAKER & MIC Connector (Internal)
CN16	PS2 Keyboard Connector
CN17	Power On LED Connector
CN18/CN19	LAN1/2 LED(Internal)
CN20	Power button(Internal)
CN21	Line out JACK
DDR3_A1	DDR3 LONG-DIMM
FAN_CPU1	CPU FAN Connector
FAN_SYS1	System FAN Connector
PRN1	PARALLEL PORT
PWR3	+19V DC JACK
RJ11_1	CASH DRAWER Connector
RJ45_1	LAN1/LAN2 Connector
RJ45_2	COM1/ COM2/ COM3/ COM4
SATA1/2	SATA Connector
USB1	USB4 USB2
USB2	USB3 USB4
JP2	LCD ID Setting
JP3	INVERTER Select
JP4/5	VGA
JP7	CMOS Operation Mode
JP8	ME Update
JP9	H/W Reset
JP10/13	COM2 RS232/485/422 Setting
JP11	USB Touch Power Setting(CN11)
JP12	COM3/COM4 Power Setting
JP14	CASH DRAWER Power Setting
SW1	Power button

6-2-3. Jumper Setting

Power Mode Setting

Function	JP1
▲ATX Power	
AT Power	

COM2 RS232/485/422 Setting

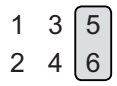
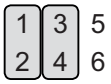
Function	JP10	JP13
▲RS232		
RS485		
RS422		

Cash Drawer Power Setting

Function	JP14
▲+19V	
+12V	

▲ = Manufacturer Default Setting

Inverter Selection

Function	JP3
▲ CCFL	
LED	

ME Update

Function	JP8
▲Lock	
Un-lock	

Hardware Reset

Function	JP9
▲System Normal	
System Reset	

USB Touch Power Setting for CN11 Connector

Function	JP11
+5VSB	
▲+5V	

▲ = Manufacturer Default Setting

CMOS Operation Mode

CMOS Reset

To clear the CMOS,

1. Remove the power cable from the system.
2. Open the system, and set the 'CMOS Operation jumper' from 'CMOS Normal' to 'CMOS Reset'. (refer to the jumper shown below)
3. Connect the power cable to the system, and **power on the system:**
   in ATX mode: press the power button and it will fail power on
   in AT mode: turn on system power
4. Remove the power cable from the system.
5. Return the "CMOS Operation mode" jumper setting from "CMOS Reset" to "CMOS normal".
6. Connect the power cable and power on the system.

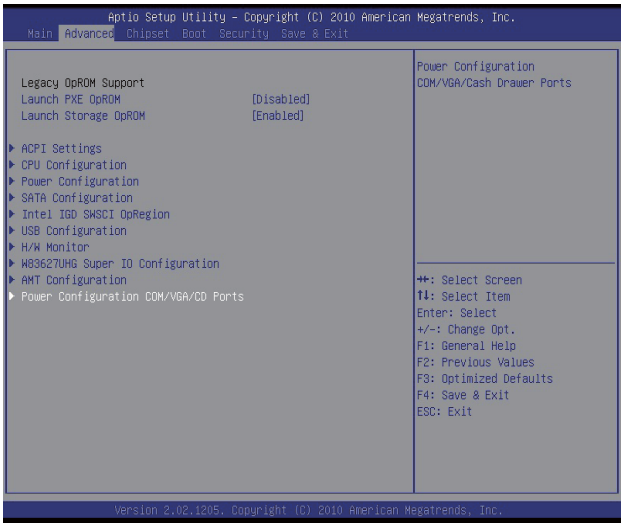
Function	JP7
▲CMOS Normal	
CMOS Reset	

COM3 & COM4 Power Setting

COM3 and COM4 can be set to provide power to your serial device.
The voltage can be set to +5V or 12V by setting jumper JP12 on the motherboard. When enabled, the power is available on pin 10 of the RJ45 serial connector. If you use the serial RJ45 to DB9 adapter cable, the power is on pin 9 of the DB9 connector. By default, the power option is disabled in the BIOS.

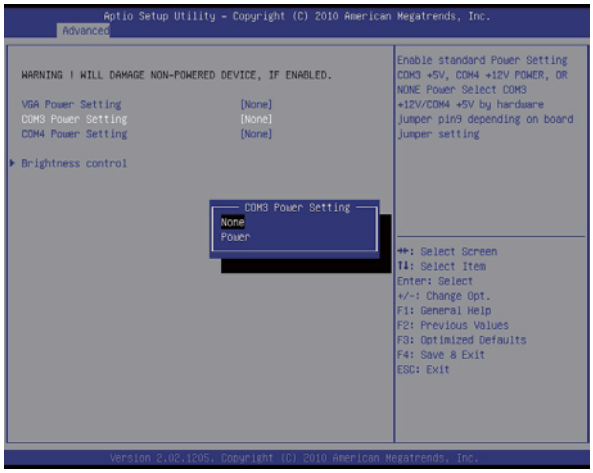
Enable COM3/COM4 power in BIOS

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 Power Configuration COM/ VGA Ports and press <Enter> to go to display the available options.



▲ = Manufacturer Default Setting

4. To enable the power, select COM3 Power Setting or COM4Power setting and press <Enter>. Select Power and press <Enter>. Save the change by pressing F10.



COM3/COM4 Jumper setup

Function		JP12
COM3	▲+5V	1 3 5 7 2 4 6 8
	+12V	1 3 5 7 2 4 6 8
COM4	+5V	1 3 5 7 2 4 6 8
	▲+12V	1 3 5 7 2 4 6 8

LCD ID Setting

Panel#	Resolution	LVDS		Output Interface	JP2
		Bits	Channel		
1	800 x 600	18	Single	LVDS Panel	1 [3 5 7] 9 2 [4 6 8] 10
3	800 x 600	24	Single	LVDS Panel	1 3 [5 7] 9 2 4 [6 8] 10
5	1024 x 768	18	Single	LVDS Panel	1 [3] 5 [7] 9 2 [4] 6 [8] 10
7	1024 x 768	24	Single	LVDS Panel	1 3 5 [7] 9 2 4 6 [8] 10
9	1280 x 1024	24	Dual	LVDS Panel	1 [3 5] 7 9 2 [4 6] 8 10
11	1366 x 768	24	Single	LVDS Panel	1 3 [5] 7 9 2 4 [6] 8 10
13	1440 x 900	24	Dual	LVDS Panel	1 [3] 5 7 9 2 [4] 6 8 10
15	1920 x 1020	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]

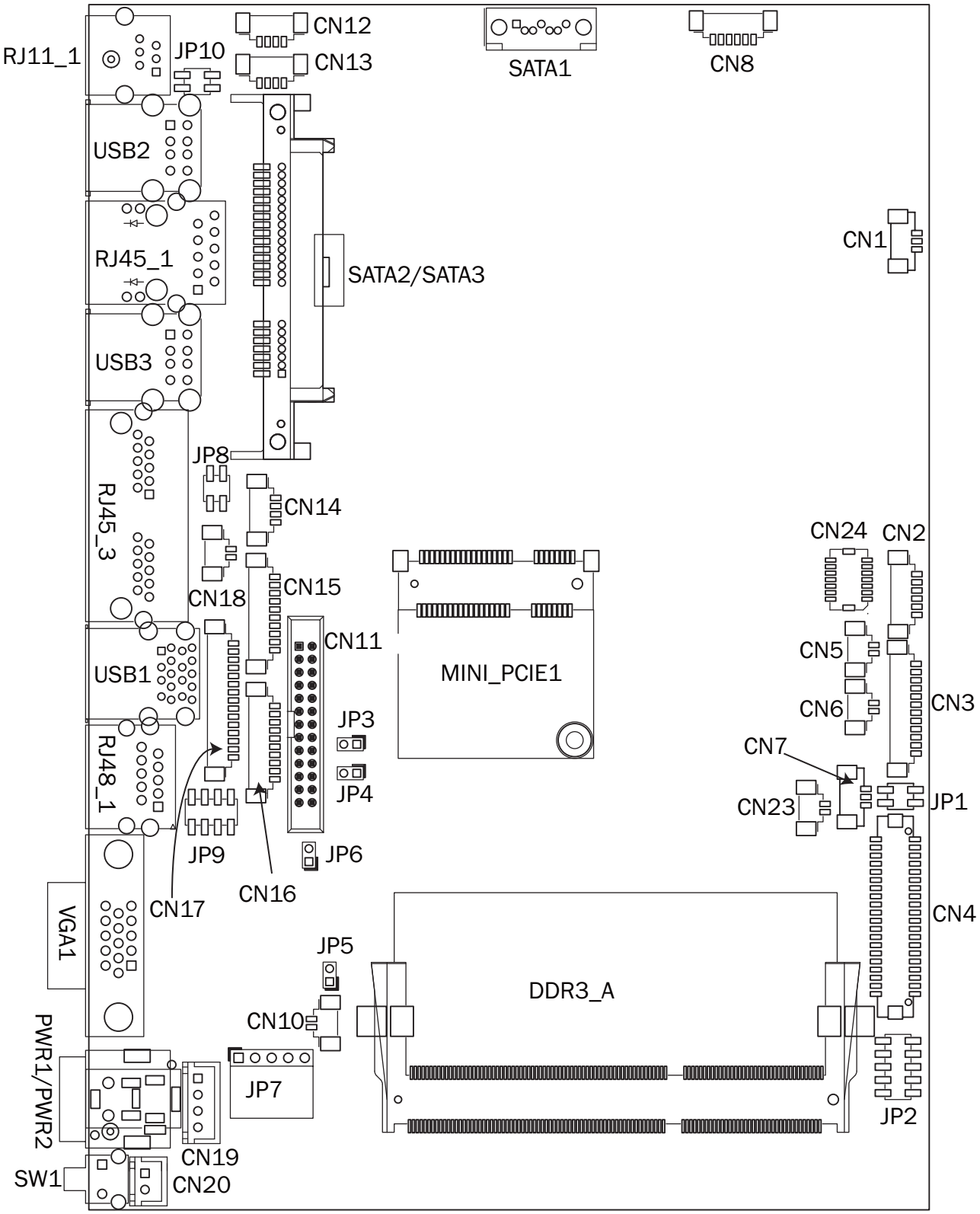
Remark:
Panel ID#12 is specialized for Sharp 12.1" LQ121S1LG41/LQ121S1LG42 panel.

1
2 Jumper open

[1
2] Jumper short

6-3. C76 Motherboard

6-3-1. Motherboard Layout



6-3-2. Connectors & Functions

Connector	Function
CN1	EC Debug
CN2	USB/Power Button
CN3	Inverter Select
CN4	LVDS Inverter Connector
CN5	Power LED Connector
CN6	HDD LED Connector
CN7	FAN Connector
CN8	Speaker & MIC Connector
CN9	SATA Power Connector
CN10	RTC Connector
CN11	Printer Port Connector
CN12	USB (Internal)
CN13	USB (Internal)
CN14	PS/2 Keyboard Connector
CN15	COM4 Connector
CN16	COM5(Touch) Connector
CN17	MSR Connector
CN18	LAN LED Connector
CN19	DC Jack Connector
CN20	Power Button
CN21	LCM Connector
CN22	BOT 51P Connector
CN23	iButton Connector
CN24	SDR Connector
RJ45_1	LAN Connector
RJ45_3	COM1/ COM2
RJ48_1	COM3
RJ11_1	Cash Drawer Connector
PWR1	DC Jack (2 pin)
PWR2	DC Jack (4 pin)
SATA3	SATA1
SATA2	SATA1
SATA1	SATA2
SW1	Power button
USB1	USB3.0
USB2	USB2.0
USB3	USB2.0
VGA1	VGA Connector
DDR3_A1	DDR3 SO-DIMM
JP1	Inverter Select
JP2	LCD ID Setting
JP3	Auto Power Button
JP4	H/W Reset
JP5	RTC Reset
JP6	ME Debut
JP7	Touch Connector
JP8	COM1 Power Setting
JP9	COM2/COM3 Power Setting
JP10	Cash Drawer Power Setting

6-3-3. Jumper Setting

Inverter Selection

Function	JP1
▲LED	1 3 2 4
CCFL	1 3 2 4

Cash Drawer Power Setting

Function	JP10
▲ +19V	1 3 2 4
+12V	1 3 2 4

COM1 Power Setting

Function	JP8
▲COM1 +5V	1 3 2 4
COM1 +12V	1 3 2 4

COM2/COM3 Jumper setup

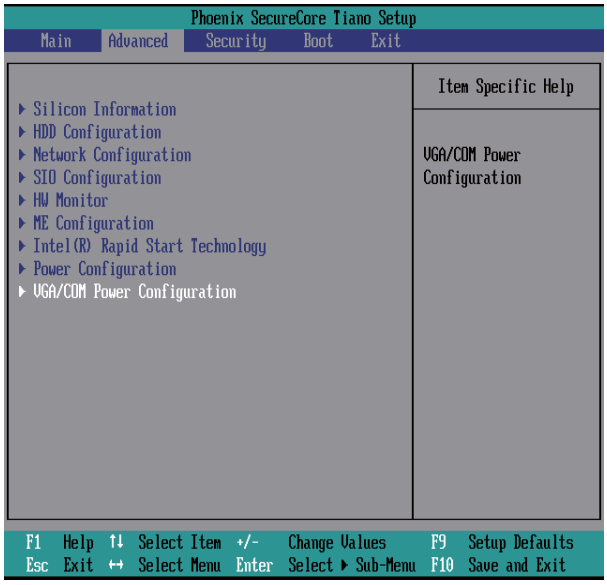
Function		JP6
COM2	▲+5V	1 3 5 7 2 4 6 8
	+12V	1 3 5 7 2 4 6 8
COM3	+5V	1 3 5 7 2 4 6 8
	▲+12V	1 3 5 7 2 4 6 8

▲ = Manufacturer Default Setting

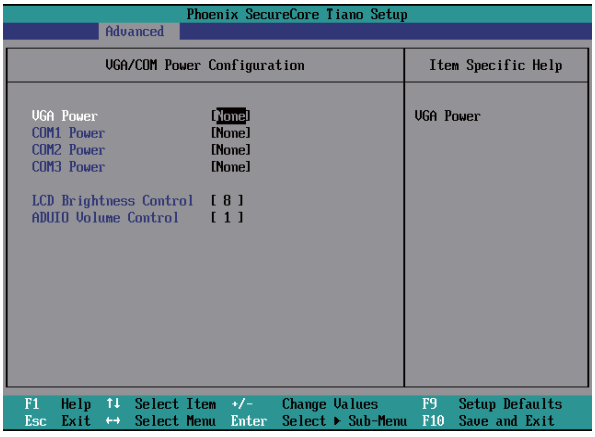
COM1/COM2/COM3 Power Setting

COM1, COM2 and COM3 can be set to provide power to your serial device. The voltage can be set to +5V or +12V by setting jumper JP8 and JP9 on the motherboard. When enabled, the power is available on pin 10 of the RJ45 serial connector. If you use the serial RJ45 to DB9 adapter cable, the power is on pin 9 of the DB9 connector. By default, the power option is disabled in the BIOS.

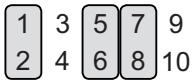
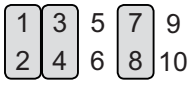
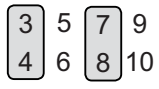
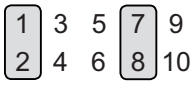
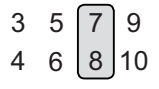
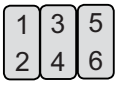
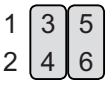
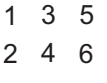
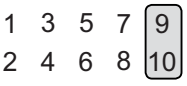
1. Power on the system, and press the <DEL> key when the system is booting up to enter the BIOS Setup utility.
2. Select the Advanced tab.
3. Select **VGA/COM Power and LCD Brightness Configuration** Ports and press <Enter> to go to display the available options.



4. To enable the power, select COM2 ,COM3 or COM4 Power setting and press <Enter>. Select Power and press <Enter>. Save the change by pressing F10.



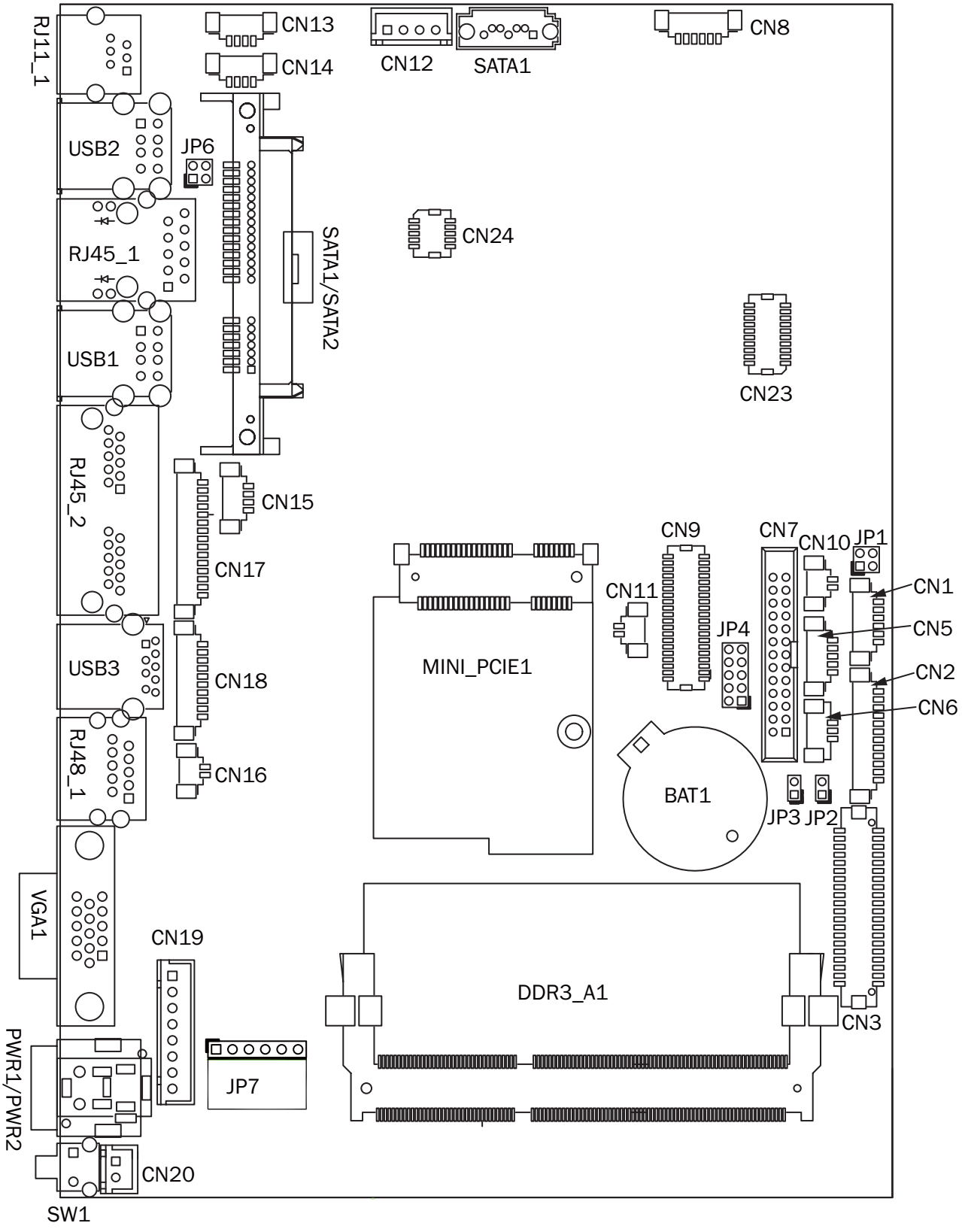
LCD ID Setting

Panel#	Resolution	LVDS		Output Interface	JP3
		Bits	Channel		
1	800 x 600	18	Single	LVDS Panel	
2	800 x 600	24	Single	LVDS Panel	
3	1024 x 768	18	Single	LVDS Panel	
4	1024 x 768	24	Single	LVDS Panel	
5	1366 x 768	18	Single	LVDS Panel	
6	1366 x 768	24	Single	LVDS Panel	
7	1024 x 600	18	Single	LVDS Panel	
8	1280 x 1024	24	Dual	LVDS Panel	
9	1440 x 900	24	Dual	LVDS Panel	
15	1920 x 1080	24	Dual	LVDS Panel	
				CRT	

 Jumper open  Jumper short

6-4. D36 Motherboard

6-4-1. Motherboard Layout



6-4-2. 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
CN16	LPT touch
CN17	MSR connector
CN18	COM5 (touch) connector
CN19	Wide Range
CN20	Power button (internal)
CN21	LCM connector
CN22	POS325 51pin 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
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

6-4-3. Jumper Setting

Inverter Selection

Function	JP1
▲LED	1 3 2 4
CCFL	1 3 2 4

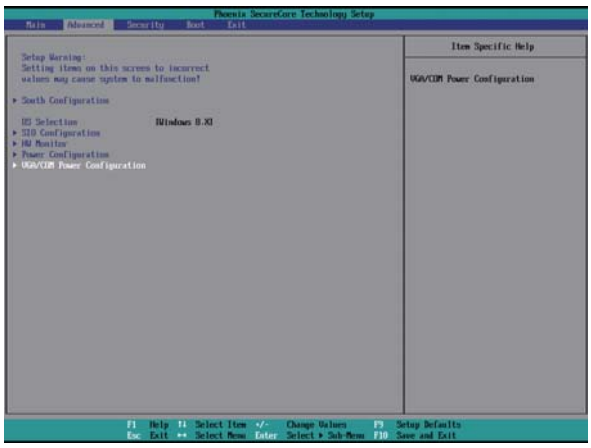
Cash Drawer Power Setting

Function	JP6
▲ +19V	1 3 2 4
+12V	1 3 2 4

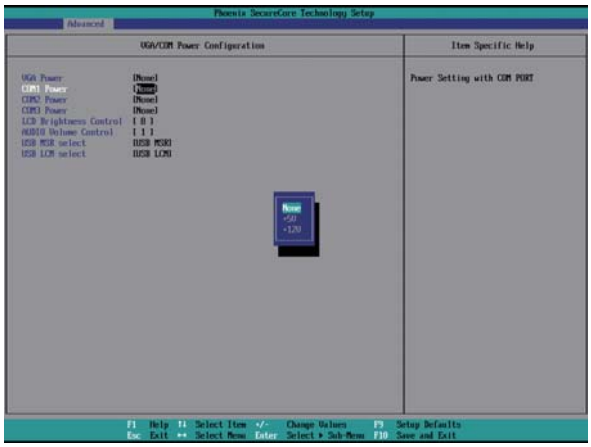
COM1/COM2/COM3 Power Setting

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

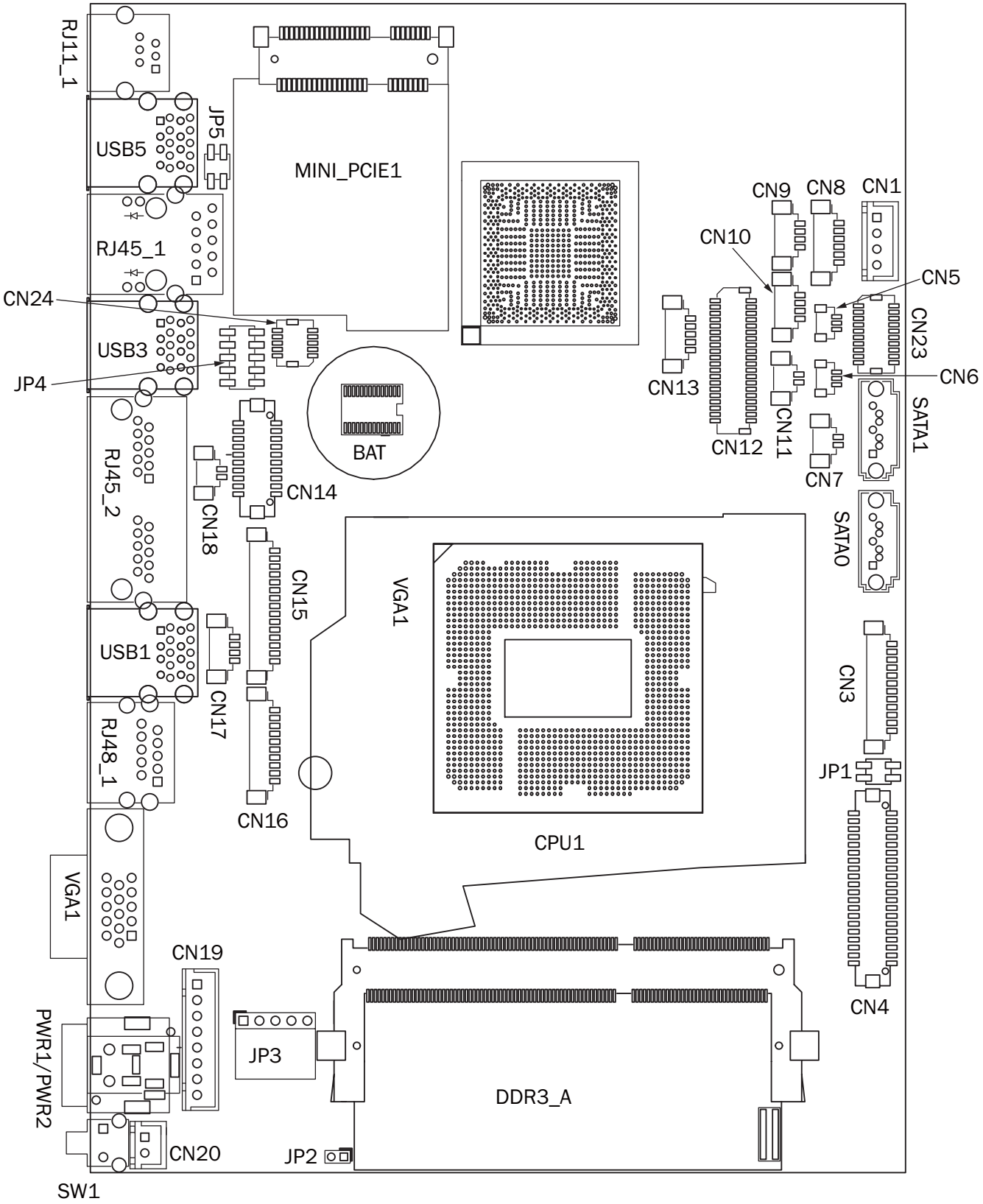
Panel#	Resolution	LVDS		Output Interface	JP3
		Bits	Channel		
1	800 x 600	18	Single	LVDS Panel	1 [3 4] [5 6] [7 8] 9 2 10
2	800 x 600	24	Single	LVDS Panel	[1 2] 3 4 [5 6] [7 8] 9 10
3	1024 x 768	18	Single	LVDS Panel	1 3 [5 6] [7 8] 9 2 4 10
4	1024 x 768	24	Single	LVDS Panel	[1 2] [3 4] 5 6 [7 8] 9 10
5	1366 x 768	18	Single	LVDS Panel	1 [3 4] 5 6 [7 8] 9 2 10
6	1366 x 768	24	Single	LVDS Panel	[1 2] 3 4 5 6 [7 8] 9 10
7	1024 x 600	18	Single	LVDS Panel	1 3 5 [7 8] 9 2 4 6 10
8	1280 x 1024	24	Dual	LVDS Panel	[1 2] [3 4] [5 6] 7 9 8 10
9	1440 x 900	24	Dual	LVDS Panel	1 3 [5 6] 7 9 2 4 8 10
15	1920 x 1080	24	Dual	LVDS Panel	1 [3 4] [5 6] 7 9 2 8 10
				CRT	1 3 5 7 [9 10] 2 4 6 8

1
2 Jumper open

[1
2] Jumper short

6-5. D66 Motherboard

6-5-1. Motherboard Layout



6-5-2. 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	Hareware Reset
JP3	Touch connector
JP4	LCD ID setting
JP5	Cash drawer power setting

6-5-3. Jumper Setting

Inverter Selection

Function	JP1
▲LED	1 3 2 4
CCFL	1 3 2 4

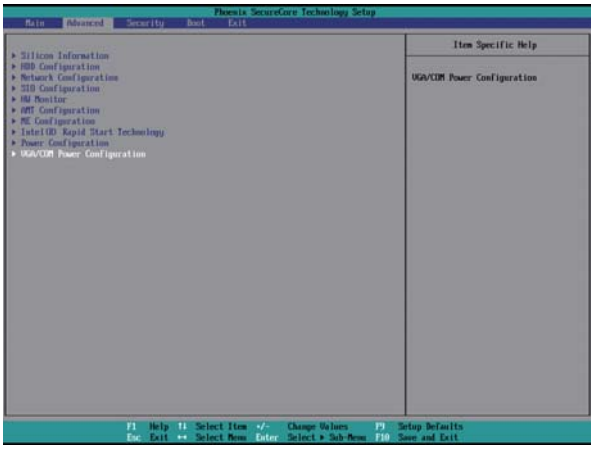
Cash Drawer Power Setting

Function	JP5
▲ +19V	1 3 2 4
+12V	1 3 2 4

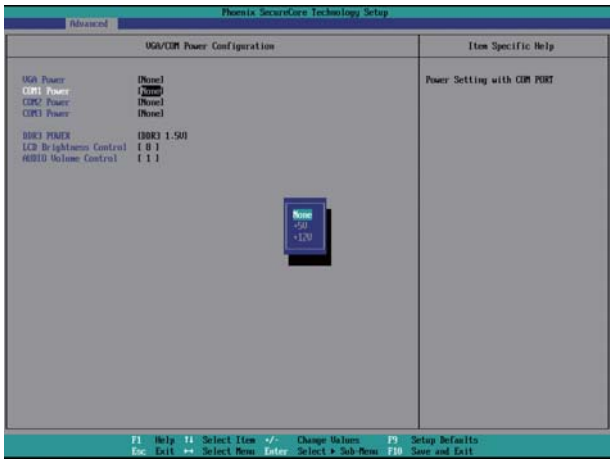
COM1/COM2/COM3 Power Setting

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 4] [5 6] [7 8] 9 2 10
2	800 x 600	24	Single	LVDS Panel	[1 2] 3 4 [5 6] [7 8] 9 10
3	1024 x 768	18	Single	LVDS Panel	1 3 [5 6] [7 8] 9 2 4 10
4	1024 x 768	24	Single	LVDS Panel	[1 2] [3 4] 5 6 [7 8] 9 10
5	1366 x 768	18	Single	LVDS Panel	1 [3 4] 5 6 [7 8] 9 2 10
6	1366 x 768	24	Single	LVDS Panel	[1 2] 3 4 5 6 [7 8] 9 10
7	1024 x 600	18	Single	LVDS Panel	1 3 5 6 [7 8] 9 2 4 10
8	1280 x 1024	24	Dual	LVDS Panel	[1 2] [3 4] [5 6] 7 8 9 10
9	1440 x 900	24	Dual	LVDS Panel	1 [3 4] [5 6] 7 8 9 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 10] 2 4 6 8

1
2 Jumper open

[1
2] Jumper short

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”.