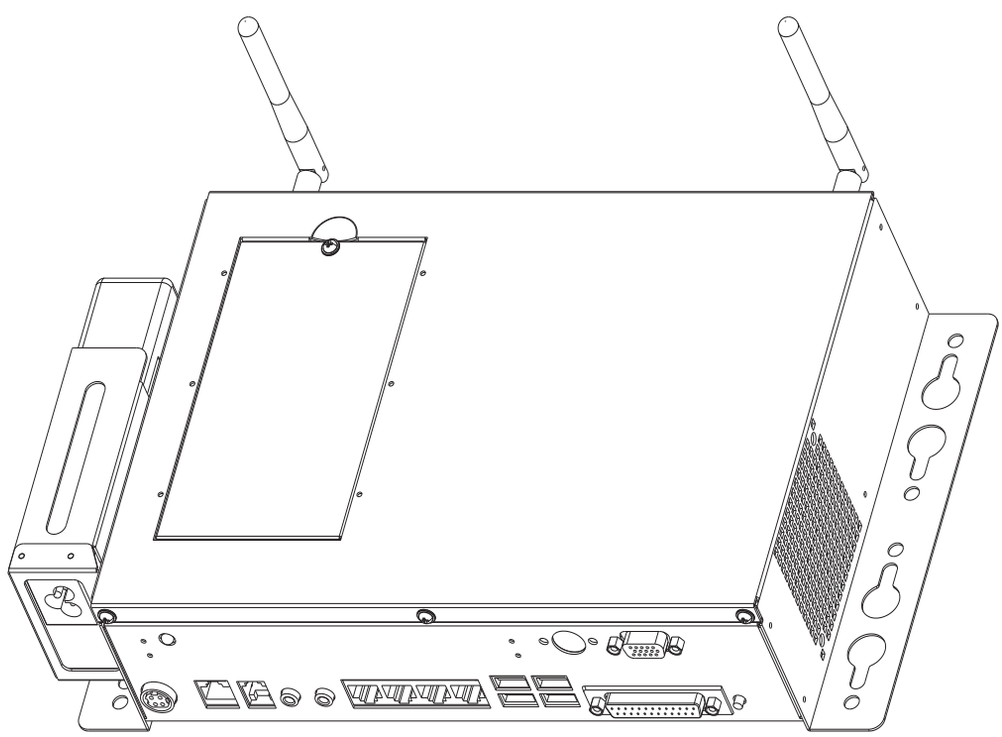
USER MANUAL

VERSION 1.3 JANUARY 2011

Jupiter PC



Manual Version 1.3
Part Number:

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

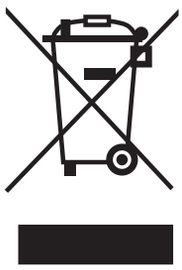
Note: To comply with IEC60950-1 Clause 2.5 (limited power sources, L.P.S) related legislation, peripherals shall be 4.7.3.2 “Materials for fire enclosure” compliant.

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

2002/96/EC 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	2009 March
1.1	• B68 motherboard added • Jumper setting updated	2009 December
1.2	• C48 motherboard added • Specification updated • B68, B98 Jumper Setting updated • Safety message updated • Cash Drawer Controller Register updated	2010 October
1.3	• Model name changed • C48 motherboard updated to V2.1	2011 January

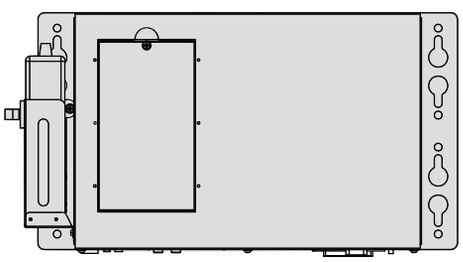
Table of Contents

1. Packing List

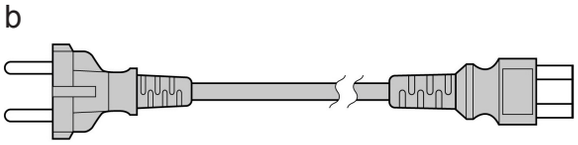
1-1. Standard Accessories

a. System box
b. Power Cord
c. RJ45 to DB9 cable
d. Driver bank

a



b



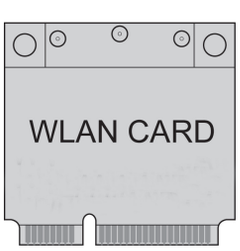
c

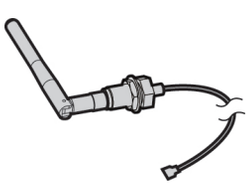
d

1-2. Optional Accessories

a. WLAN Card + internal antenna
b. pSSD card module

a





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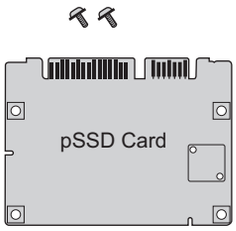
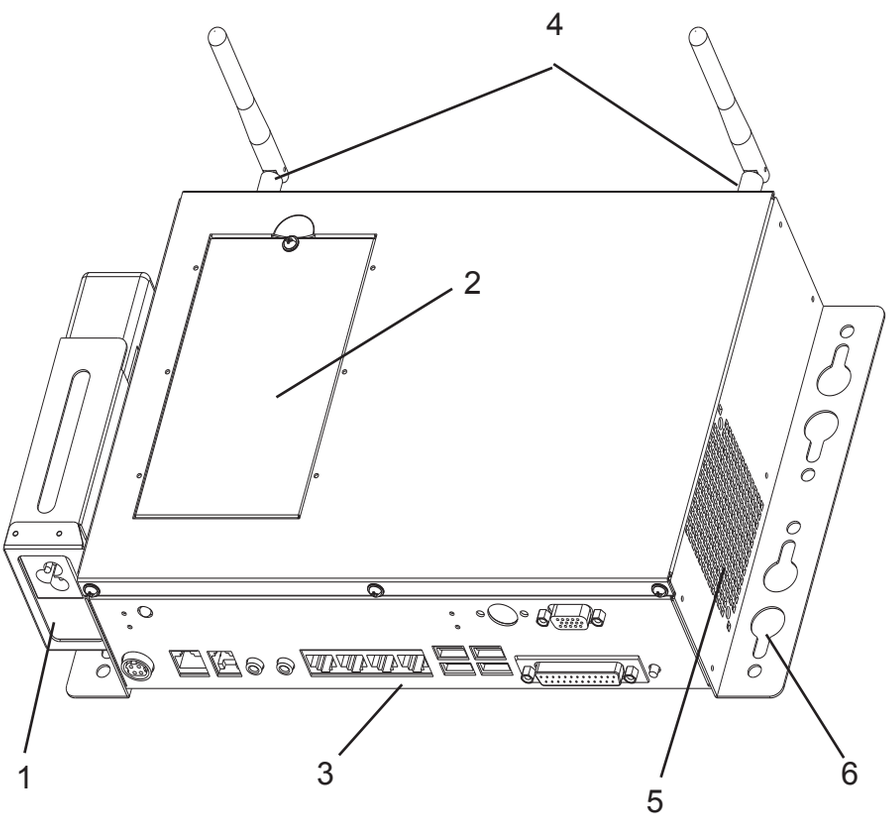


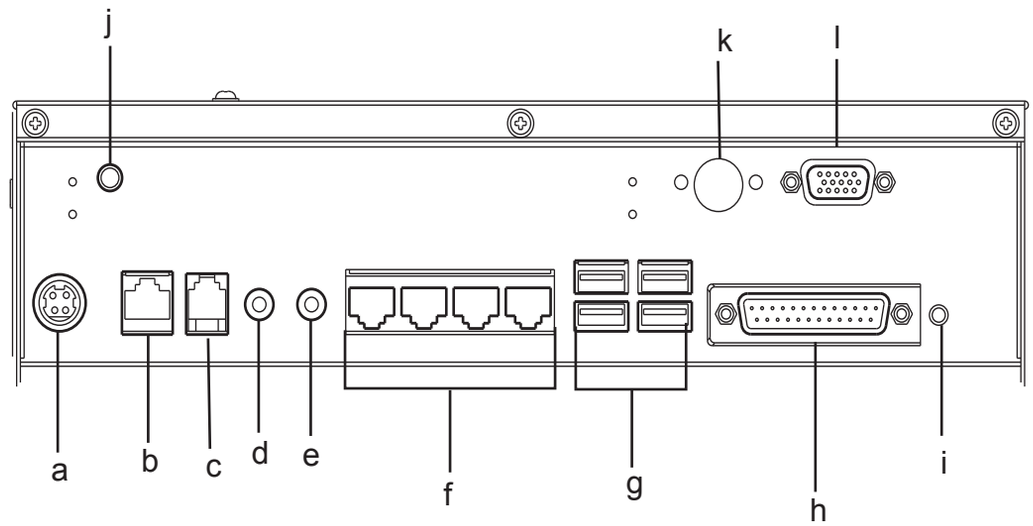
2. System View

2-1. Front and Side View



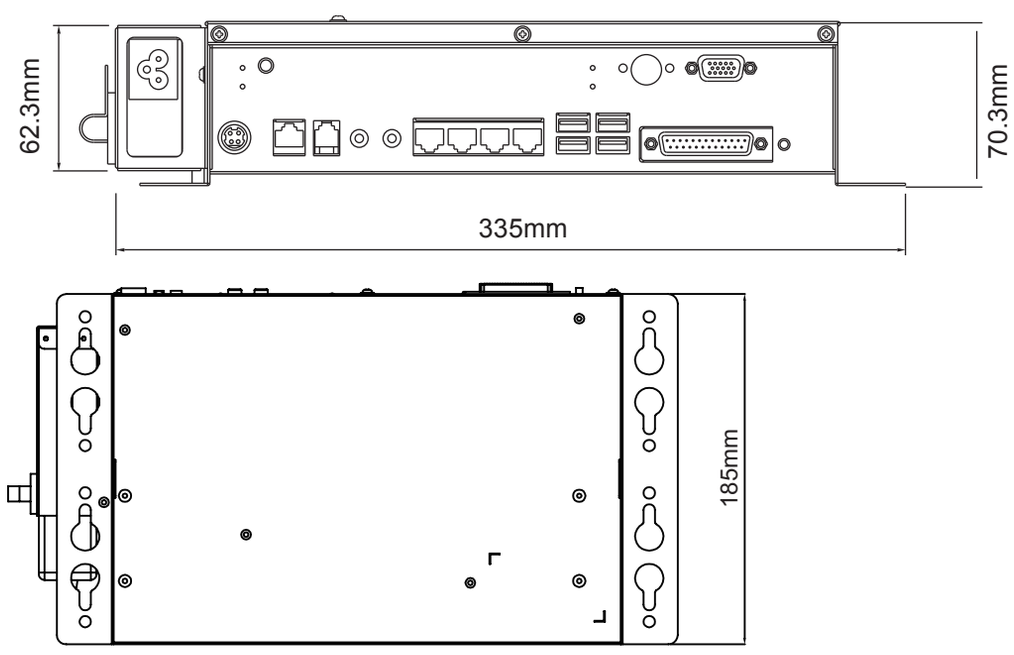
1. Power adapter holding bracket
2. HDD Door
3. I/O Placement
4. External antennas (Options) (installing for either one)
5. Ventilation holes
6. VESA and wall-mount mounting holes

2-2. I/O view



Item No.	Description
a	DC Jack
b	LAN Port
c	Cash Drawer Port
d	MIC-in
e	Line-Out
f	COM Port 1, 2, 3, 4 (from left to right)
g	USB x 4
h	Parellel Port
i	Power Button
j	Power LED Indicator
k	PS/2
l	VGA Port

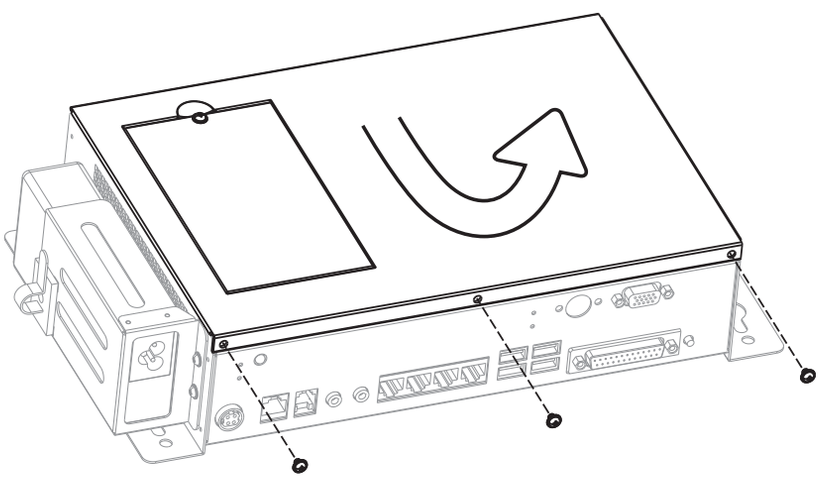
2-3. Dimensions

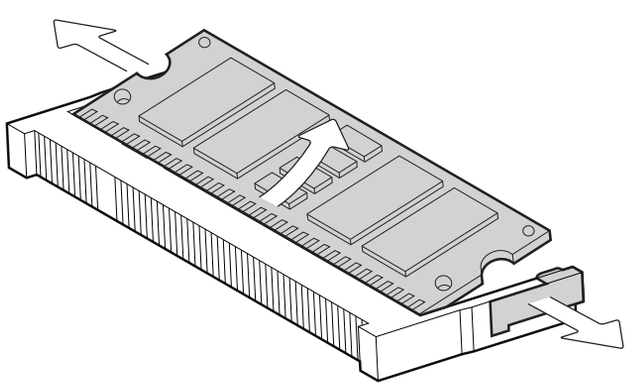


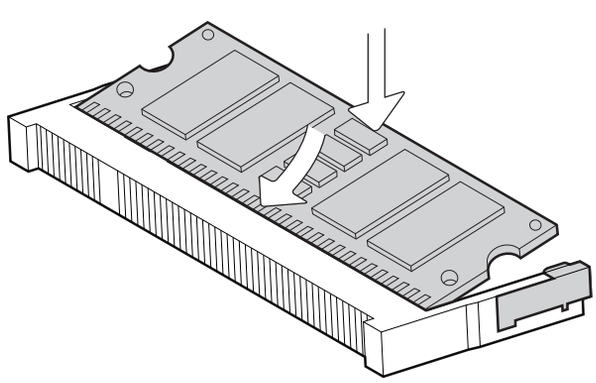
3. Components Replacing

3-1. RAM Module Replacing

Please unfasten the screws (x3) and **gently** flip up the rear cover to access the motherboard first, please refer to the motherboard layout to find the RAM module place.







Removing a RAM module

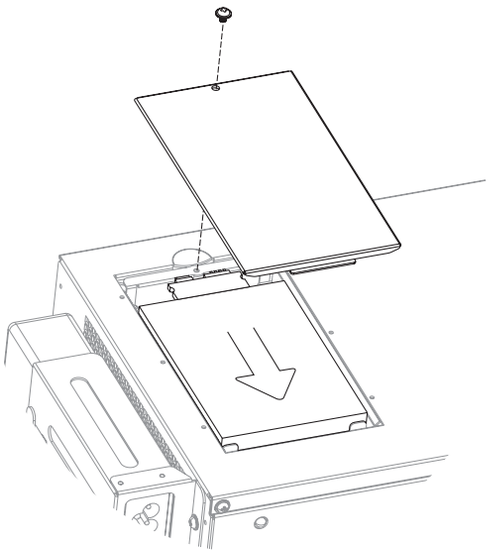
1. Use both fingers to pull the ejector clips out of the sides of the module.
2. Slide out to remove the memory module from the memory slot.

Installing a RAM module

1. Slide the memory module into the memory slot and press down until the ejector clips click in place.

3-2. HDD Replacing

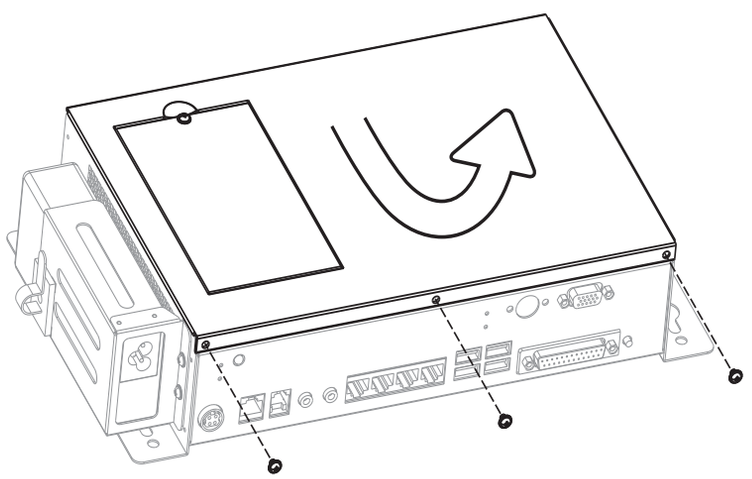
If your system is equipped with HDD as storage device, please replace it as following steps.



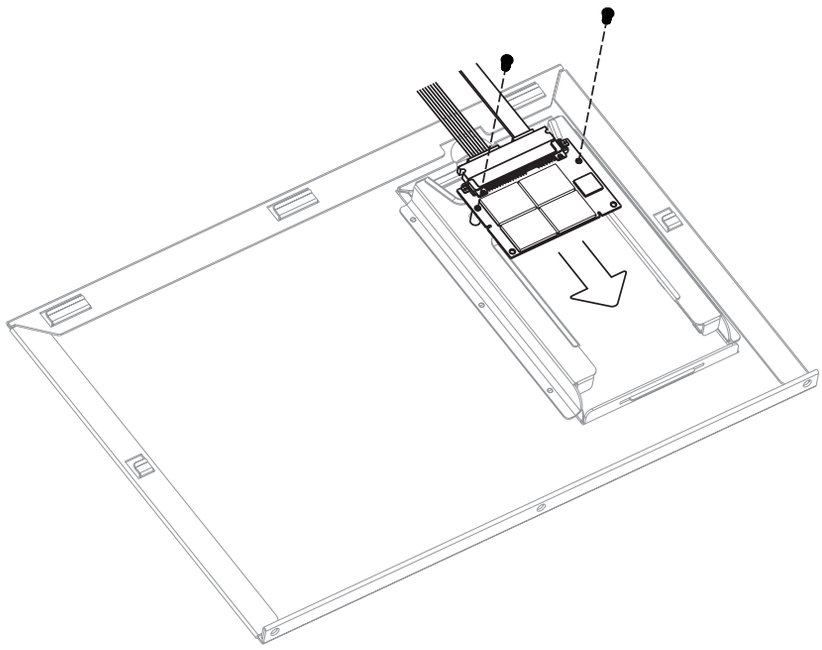
1. Open the HDD door by unfastening the screw (x1).
2. Disconnect the HDD connectors (x2) and replace the hard drive disk.

3-3. pSSD Card Module Replacing

If your system is equipped with a pSSD card as storage device, please replace it as following steps.



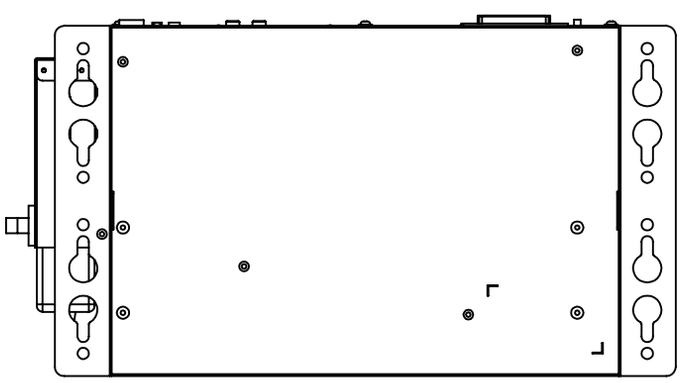
1. Please unfasten the screws (x3) and **gently** flip up the top cover.



2. Turn the inside out and disconnect the SATA cable.
3. Unscrew the screws (x2) to remove and replace the pSSD card from the inside of the top cover.

3-4. Wall-mount module installing

You can assemble the system box with your wall-mount bracket, please refer to the steps below.

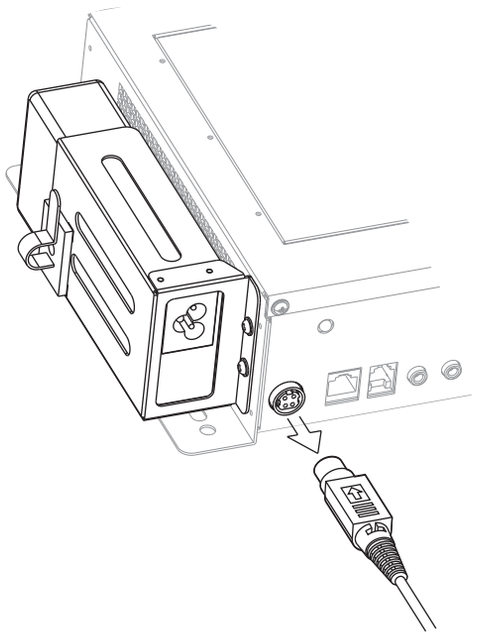


You can assemble the system box with your wall-mount bracket, please refer to the steps below.

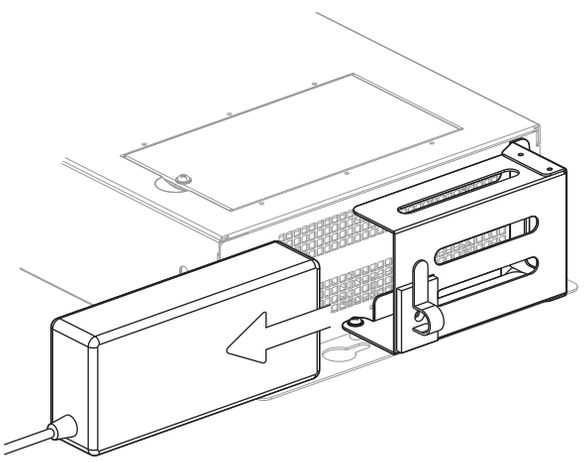
1. There are 8 holes at both sides (4 with tear-drop shaped holes and 4 with circle shaped holes) for securing your own wall-mount bracket or screws to fix the system box onto the wall.

3-5. Power Adapter Replacing

The system is equipped with a 90W power adapter that is held securely in a power holding bracket. Please replace the power adapter as below steps.



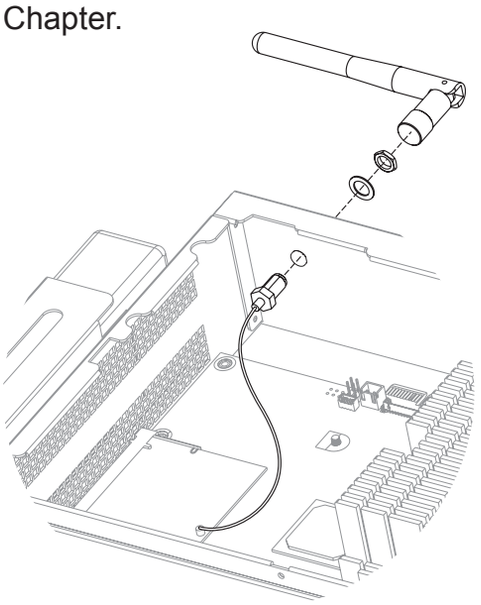
1. Disconnect the power cord from the adapter and the I/O panel.



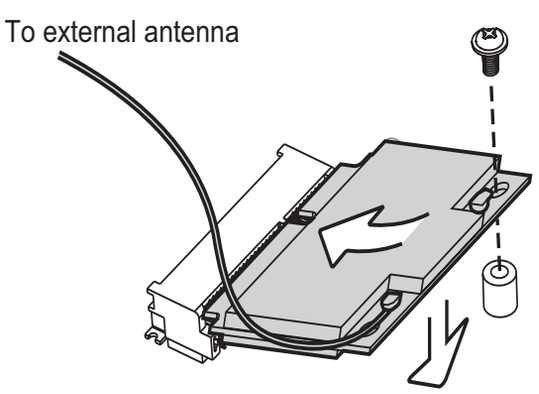
2. Slide the power adapter out of the holding bracket.

3-6. Wireless LAN Installing

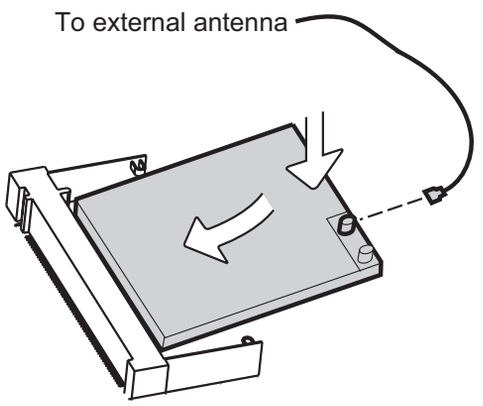
If you install the wireless LAN module after manufacturer, please buy wireless LAN module with external antenna from your local distributor or dealer.
The installation procedure is slightly different depending on which motherboard your system is equipped with. Please refer the location of motherboard layout on Chapter.



1. Please open the rear cover first. (See Chapter 3-1).
2. Press-out the blind hole on the enclosure before starting to assemble the external antenna and the antenna coaxial cable.
3. Assemble the coaxial cable, nut, washer and the external cable as above picture instructs.



For B68/C48 Motherboard



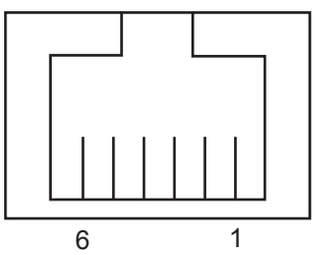
For B98 Motherboard

4. **For B68/C48 motherboard:** Insert the WLAN card into the mPCI-e slot on the motherboard. Press down the WLAN card and fix it to the motherboard by fastening the screw (x1) provided.
   For B98 motherboard: Insert the WLAN card into the mPCI slot until the ejector clips lock it in place.
5. Connect the other end of the antenna coaxial cable to the “Main” connector on the WLAN card.

3-7. Cash Drawer Installing

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

Cash Drawer Pin Assignment



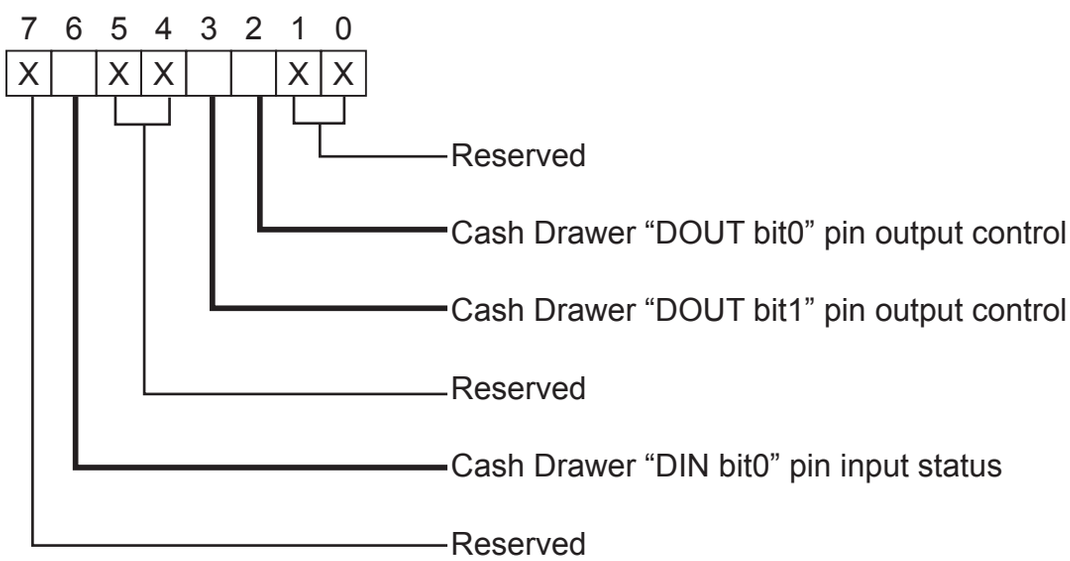
Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V / 19V
5	DOUT bit1
6	GND

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. Specification

Mainboard	C48	B68	B98
CPU	Intel Pineview D525 dual core 1.8G L2 1M, FSB800Mhz	Intel® Atom™ N270 Processor 1.6GHz L2 512K FSB 533MHz	Intel® Celeron® M 1.86G, Core™ 2 Duo 1.66G, Core™ Duo 2.0G
Chipset	CPU with Graphic built-in + ICH 8M	Intel® 945GSE + ICH 7M	Intel® 945GME + ICH 7M
System Memory	2 x DDR3 DIMM up to 4GB, FSB 800Mhz	2 x DDR2 DIMM up to 2GB FSB 533MHz	2 x DDR2 DIMM socket up to 4GB FSB 400/533/667MHz
Graphic Memory	Intel GMA 3150 share system memory up to 256MB	Intel GMA 950 share system memory up to 224MB	
BIOS	AMI	AWARD PnP	
Storage Device			
Hard Drive	2.5" SATA HDD bay		
Flash Memory	pSSD™ Modular Solid State Drive (optional)		
	Compact Flash Card (optional)		
Expansion			
Mini PCI Socket	N/A		1
Mini PCI-E Socket	1		N/A
I/O Ports			
USB Port	4 x USB 2.0		
Serial / COM	4 x RJ 45 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 ports RJ-45 connectors (COM1 & COM2 standard RS-232; COM3 & COM4 pin9 with 5V /12V power by jumper)	
Parallel	1		
LAN Port	1 x RJ-45 (10/100/1000Mbps Giga LAN)		
VGA	1		
Cash Drawer Port	1 (12V / 24V)		
MIC-in	1		
Line-out	1		
DC Jack	1		
Power Button	1		
LED indicators			
Power LED	1		

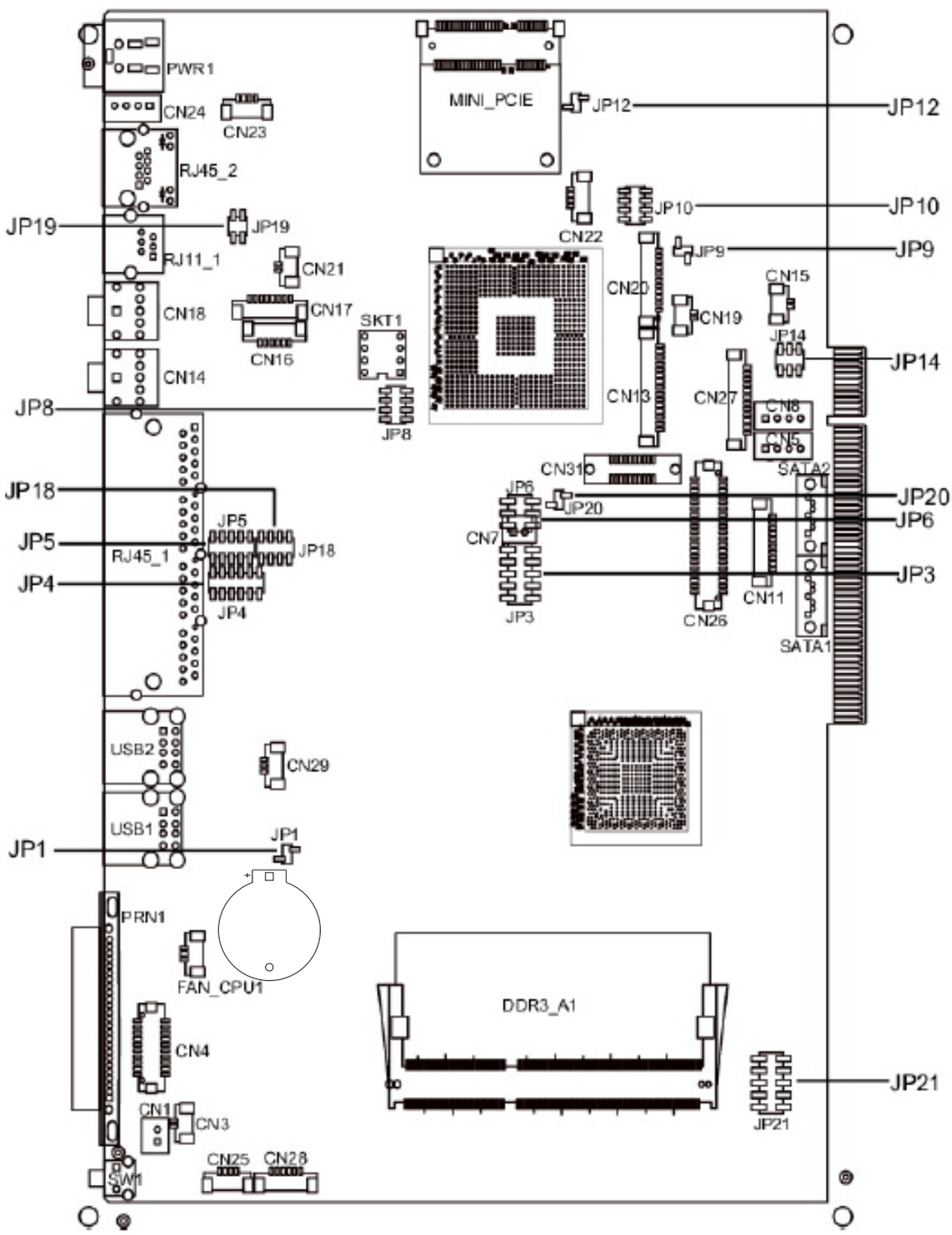
Mainboard	C48	B68	B98
Power	19V /90W ext. power adapter		
Certificate			
EMC & Safety	FCC / CE Class A, LVD, UL		
Environment			
Operating Temperature	5°C ~ 35°C (41°F ~ 95°F)		
Storage Temperature	-20°C ~ 55°C (-4°F ~ 140°F)		
Operating Humidity	20% ~ 80% RH non-condensing		
Storage Humidity	20% ~ 85% RH non-condensing		
Communication			
Wireless LAN	802.11 b/g/n wireless LAN card		
System color	Black		
Dimensions (W x D x H)	335 x 185 x 70.3 mm (13.2" x 7.3" x 2.8")		
Weight (N.W./G.W.)	3kgs / 3.5kgs		
OS Supported	Windows® XP Professional, Windows Embedded POSReady 2009, WePOS, Windows XP Professional for Embedded, Windows 7, Linux		

* This specification is subject to change without prior notice.

5. Jumper Setting

5-1. For C48 Motherboard

5-1-1. Motherboard Layout



5-1-2. Connectors & Functions

Connector	Purpose
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

5-1-3. Jumper Setting

COM2 RS232/485/422 Setting

Function	JP5	JP4
▲RS232	1 3 5 7 9 2 4 6 8 10	1 3 5 7 9 11 2 4 6 8 10 12
RS485	1 3 5 7 9 2 4 6 8 10	1 3 5 7 9 11 2 4 6 8 10 12
RS422	1 3 5 7 9 2 4 6 8 10	1 3 5 7 9 11 2 4 6 8 10 12

COM3 & COM4 Power Setting

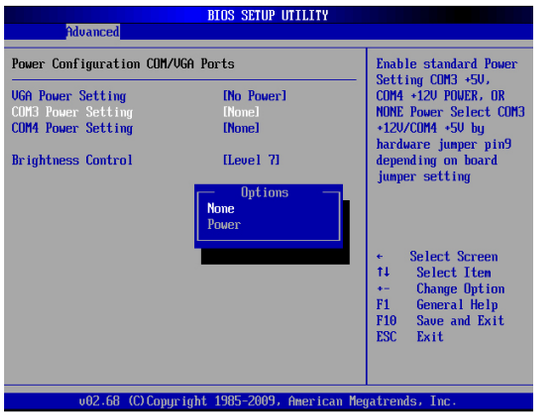
COM3 and COM4 can be set to provide power to your serial device.
The voltage can be set to +5V or 12V by setting jumper JP18 on the mother-board.
When enabled, the power is available on pin 10 of the RJ45 serial connector..
If you use the serial RJ45 to DB9 adapter cable, the power is on pin 9 of the DB9 connector.

By default, the power option is disabled in the BIOS.

BIOS/Utility setup

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 "Power". Please save the change before exiting BIOS so as to go for physical jumper adjustment.



COM3/COM4 Jumper setup

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]

Cash Drawer Power Setting

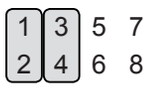
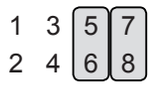
Function	JP19
▲+19V (for +24V Cash Drawer)	[1] 3 [2] 4
+12V	1 [3] 2 [4]

Power Mode Setting

Function	JP9
▲ATX Power	[1] [2]
AT Power	[1] [2]

▲ = Manufacturer Default Setting

System Indicator

Function	JP10
▲Disable	
Enable	

CMOS Operation Mode

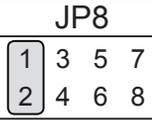
CMOS Reset

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	

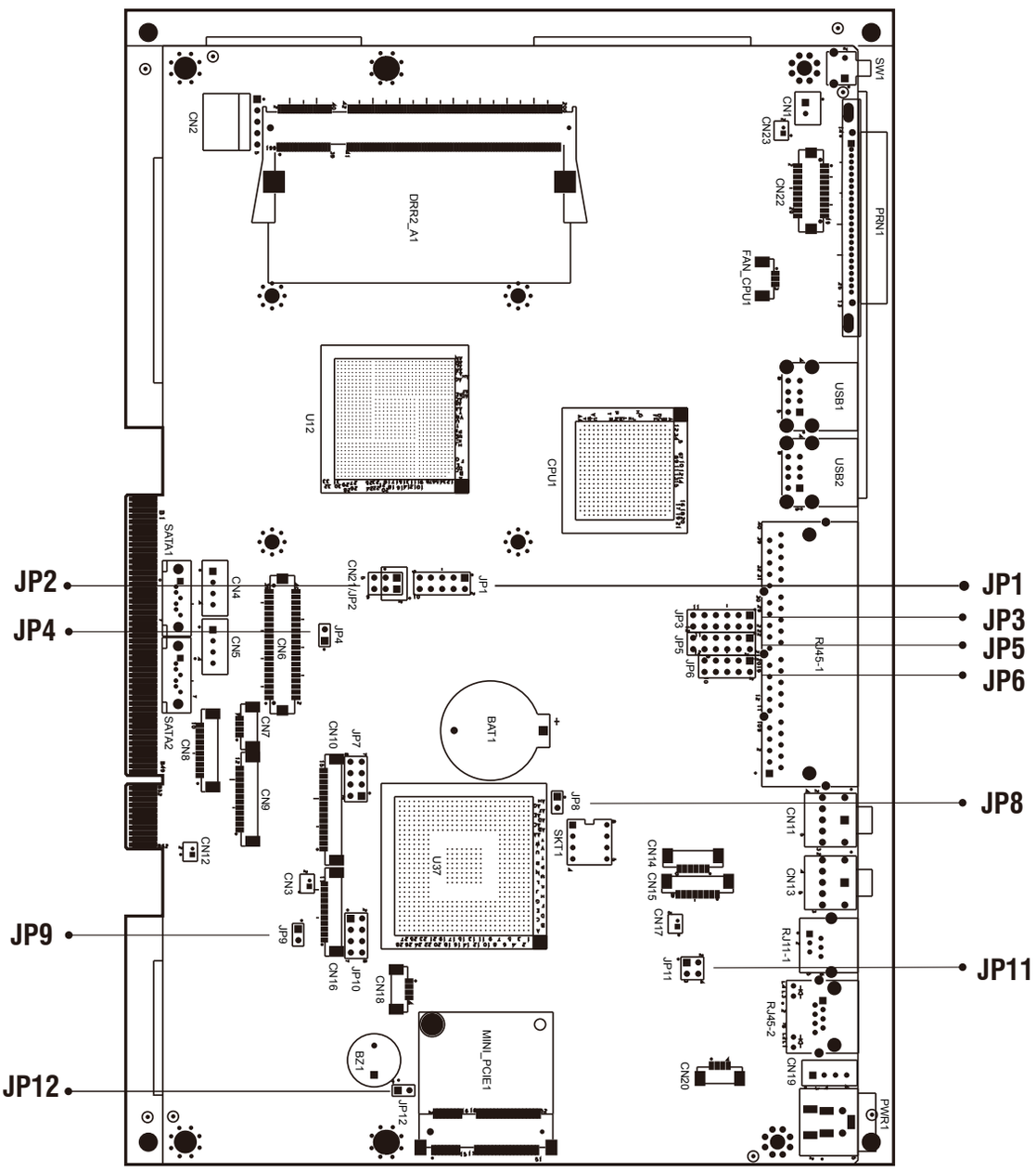
LCD ID Setting

Output Interface	JP8
▲CRT (Pineview CRT Only)	

▲ = Manufacturer Default Setting

5-2. For B68 Motherboard

5-2-1. Motherboard Layout



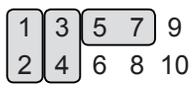
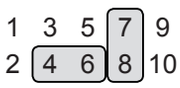
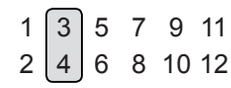
5-2-2. Connectors & Functions

Connector	Purpose
BAT1	CMOS Battery Base (Use CR2023)
CN1	Power On Button
CN2	Touch Sensor
CN3	Power LED
CN4	SATA1 HDD Power Connector
CN5	SATA2 HDD Power Connector
CN6	LCD Interface Connector
CN7	IrDA Connector
CN8	For External Touch Connector
CN9	Inverter Connector
CN10	Card Reader Connector
CN11	Line Out
CN12	LED Power
CN13	MIC In
CN14	Speaker & MIC CONN
CN18	USB5
CN19	DC-Jack
CN20	PS2 KEYBOARD
DDR2_A1	DDR2 SO-DIMM1
DDR2_A2	DDR2 SO-DIMM2
PRN1	Parallel Port
PWR1	+19V Power Adaptor
RJ11_1	Cash Drawer Connector
RJ45_1	COM1, COM2, COM3, COM4
RJ45_2	LAN
SATA1	SATA Connector
SATA2	SATA Connector
SKT1	SPI ROM
USB1	USB1, USB2
USB2	USB3, USB4
SW1	Power On Bottom
JP1	CRT Connector

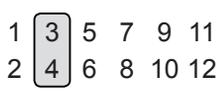
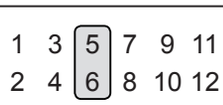
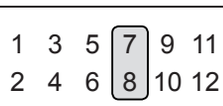
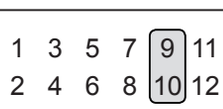
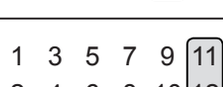
Connector	Purpose
JP2	CRT Power/I2C Connector
JP3	COM3/COM4 Power Setting
JP4	VGA Power Setting
JP5 / JP6	COM2 RS232/422/485 Setting
JP7	LCD ID Setting
JP8	COMS Operation Mode
JP9	Power Mode Setting
JP11	Cash Drawer Power Setting (+12V,+19V)
JP12	Hardware Reset

5-2-3. Jumper Setting

COM2 RS232/485/422 Setting

Function	JP6	JP5
▲RS232		
RS485		
RS422		

COM3 & COM4 Power Setting

Function		JP3
COM3 Pin10	▲RI	
	+5V	
	+12V	
COM4 Pin10	▲RI	
	+5V	
	+12V	

Hardware Reset

Function	JP12
▲System Normal	
System Reset	

▲ = Manufacturer Default Setting

Cash Drawer Power Setting

Function	JP11
+12V	
▲+19V (for +24V Cash Drawer)	

Power Mode Setting

Function	JP9
▲ATX Power	
AT Power	

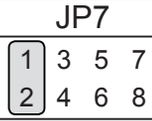
CMOS Operation Mode

Function	JP8
▲CMOS Normal	
CMOS Reset	

VGA Power Setting

Function	JP4
▲No Power	
+12V	

LCD ID Setting

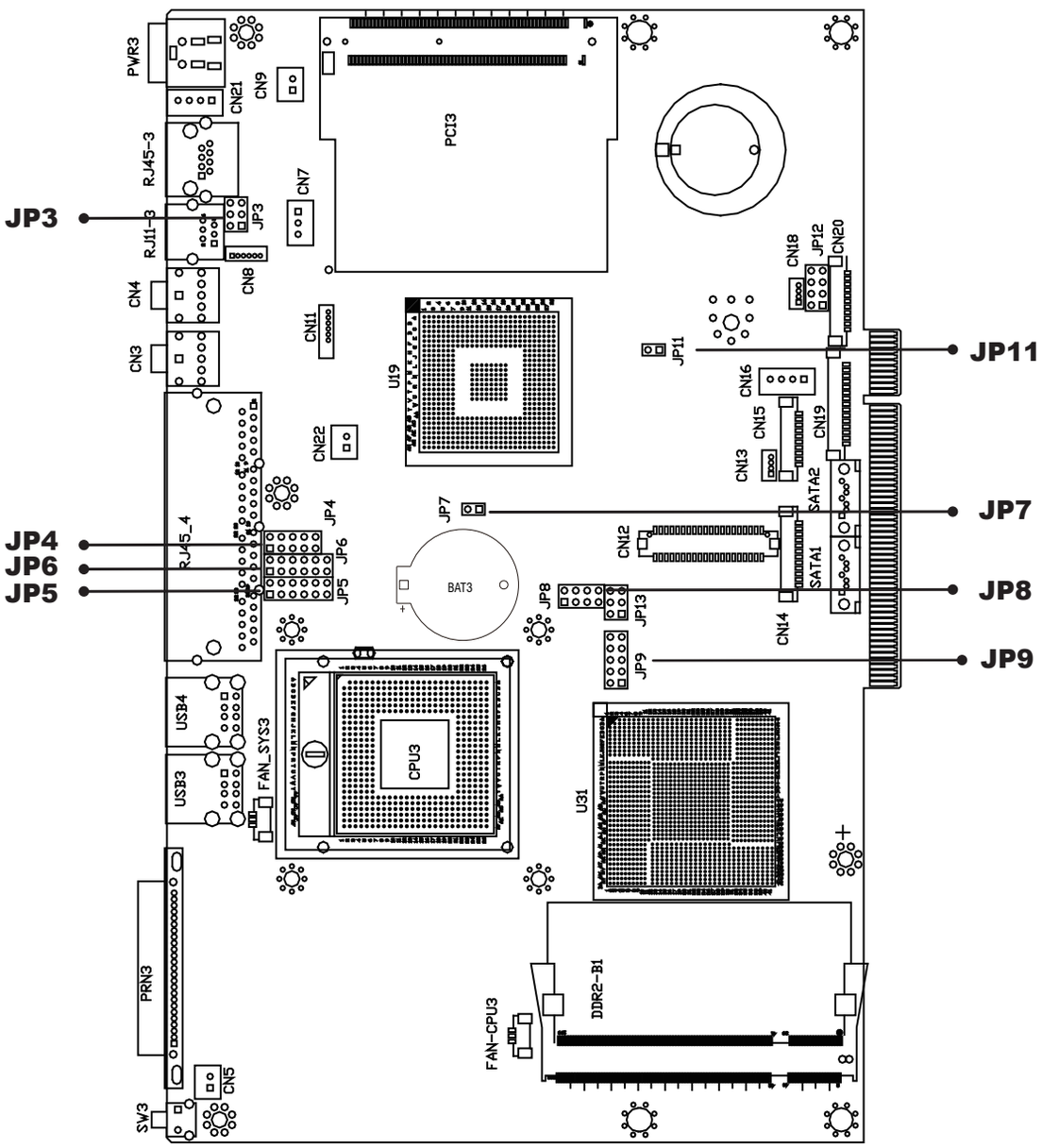
Output Interface	JP7
▲CRT	

▲ = Manufacturer Default Setting

 Jumper open  Jumper short

5-3. For B98 Motherboard

5-3-1. Motherboard Layout

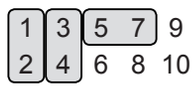
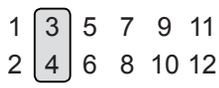
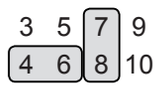
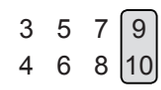


5-3-2. Connectors & Functions

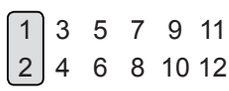
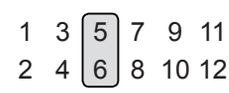
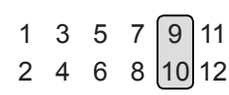
Connector	Purpose
BAT3	CMOS Battery Base (Use CR2023)
CN3	Audio Line Out
CN4	MIC In
CN5	Internal Power On Switch Connector
CN8	Speaker & MIC Connector
CN11	CD-IN / Line-In Connector
CN12	LCD Interface Connector
CN14	Inverter Connector
CN15	COM5 for Touch
CN16	Power Connector For HDD
CN18	USB5
CN19	Card Reader Connector
CN21	Internal Input Power Connector
CN22	Hardware Reset
DDR2_A1	DDR2 SO-DIMM
DDR2_B1	DDR2 SO-DIMM
FAN_CPU3	CPU FAN Connector
FAN_SYS3	System FAN Connector
MINI_PCIE3	Mini PCI-E Socket
PCI3	Mini PCI Socket
PRN3	Parallel Port
PWR3	+19V Power Adaptor
RJ11_3	Cash Drawer Connector
RJ45_3	LAN (On Board)
RJ45_4	COM1, COM2, COM3, COM4
SATA1	SATA Connector
SATA2	SATA Connector
SKT1	SPI ROM
SW3	Power On Button
USB3	USB1, USB2
USB4	USB3, USB4
JP3	Cash Drawer Power Setting
JP4/JP6	COM2 RS232/485/422 Setting
JP5	COM3/COM4 Power Setting
JP7	CMOS Operation Mode
JP8	LCD ID Setting
JP9	VGA Port
JP11	Power Mode Setting

5-3-3. Jumper Setting

COM2 RS232/485/422 Setting

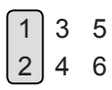
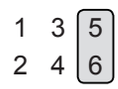
Function	JP6	JP4
▲RS232		
RS485		
RS422		

COM3 & COM4 Power Setting

Function		JP5
COM3 Pin10	▲RI	
	+5V	
	+12V	
COM4 Pin10	▲RI	
	+5V	
	+12V	

▲ = Manufacturer Default Setting

Cash Drawer Power Setting

Function	JP3
+12V	
▲+19V (for +24V Cash Drawer)	

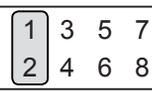
Power Mode Setting

Function	JP11
▲ATX Power	
AT Power	

CMOS Operation Mode

Function	JP7
▲CMOS Normal	
CMOS Reset	

LCD ID Setting

Output Interface	JP8
▲CRT	

▲ = Manufacturer Default Setting

 Jumper open  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”.