

# USER MANUAL

VERSION 1.3 December 2015

## QK10 All-in-One



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Part Number:

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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.

# Sécurité

## INSTRUCTIONS IMPORTANTES RELATIVES À LA SECURITE

1. Pour débrancher la machine de l'alimentation électrique, éteignez l'interrupteur d'alimentation et retirez le cordon d'alimentation de la prise murale. La prise murale doit être facilement accessible et à proximité de la machine.
2. Lisez attentivement ces instructions. Conservez ces instructions pour une référence future.
3. Suivez tous les avertissements et les instructions indiquées sur le produit.
4. Ne pas utiliser ce produit à proximité de l'eau.
5. Ne pas placer ce produit sur un chariot, un support ou une table. Le produit peut tomber, causant de graves dommages à l'appareil.
6. Les fentes et les ouvertures dans le boîtier, l'arrière ou le fond sont prévues pour la ventilation afin d'assurer un fonctionnement fiable du produit et le protéger de la surchauffe. Ces ouvertures ne doivent pas être obstruées ou couvertes. Les ouvertures ne doivent jamais être bloquées en plaçant l'appareil sur un lit, un canapé, un tapis ou autre surface similaire. Ce produit ne doit jamais être placé : à proximité ou sur un radiateur, sur un registre de chaleur ou dans une installation intégrée à moins qu'une ventilation adéquate soit prévue.
7. Ce produit doit être utilisé avec le type d'alimentation indiqué sur l'étiquette. Si vous n'êtes pas sûr du type d'alimentation disponible, consultez votre revendeur ou représentant local de l'entreprise.
8. Ne laissez rien reposer sur le cordon d'alimentation. Ne placez pas ce produit là où des personnes peuvent marcher sur le cordon.
9. N'introduisez jamais d'objets d'aucune sorte dans ce produit à travers les fentes du coffret car ils pourraient entrer en contact avec des points sous tension dangereux ou court-circuiter des pièces. Ne renversez jamais de liquide d'aucune sorte sur le produit.



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

## **AVERTISSEMENT SUR LES BATTERIES AU LITHIUM**

Il y a un danger d'explosion si la batterie n'est pas remplacée correctement. Remplacez-la uniquement par une batterie identique ou de type équivalent recommandée par le fabricant.les batteries usagées doivent être mises au rebut conformément aux instructions du fabricant.



### **Avertissement Batterie**

Risque d'explosion si la batterie est remplacée par un élément incompatible. Jetez les batteries usagées selon les instructions des dispositions locales .



### **Avertissement de sécurité**

Remarque: Pour répondre à la norme IEC60950-1 alinéa 2.5 (sources d'énergie limitées, LPS) liés la législation, les périphériques doivent être conforme 4.7.3.2 "Matériaux pour enceinte coupe-feu»

#### **4.7.3.2 "Matériaux pour équipements coupe-feu"**

Pour les équipements mobiles ayant une masse totale n'excédant pas 18kg :

Les matériaux d'un équipement coupe-feu, dans l'épaisseur de paroi retenue la plus significativement mince, doivent être des matériels de CLASSE V-1 ou doivent passer le test de l'article A.2.

Pour équipements mobiles ayant une masse totale supérieure à 18 kg et pour tous les équipements FIXES :

Les matériaux d'un équipement coupe-feu dans l'épaisseur de paroi retenue la plus significativement mince, doivent être des matériels de CLASSE V-1, doivent être de classe Matériel 5VB ou doivent passer le test de l'article 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>	March 2013
1.1	<ul style="list-style-type: none"><li>Ivy bridge board added</li></ul>	November 2013
1.2	<ul style="list-style-type: none"><li>J1900 board added</li></ul>	May 2015
1.3	<ul style="list-style-type: none"><li>Remove RJ11 port and relevant setting from J1900</li></ul>	December 2015

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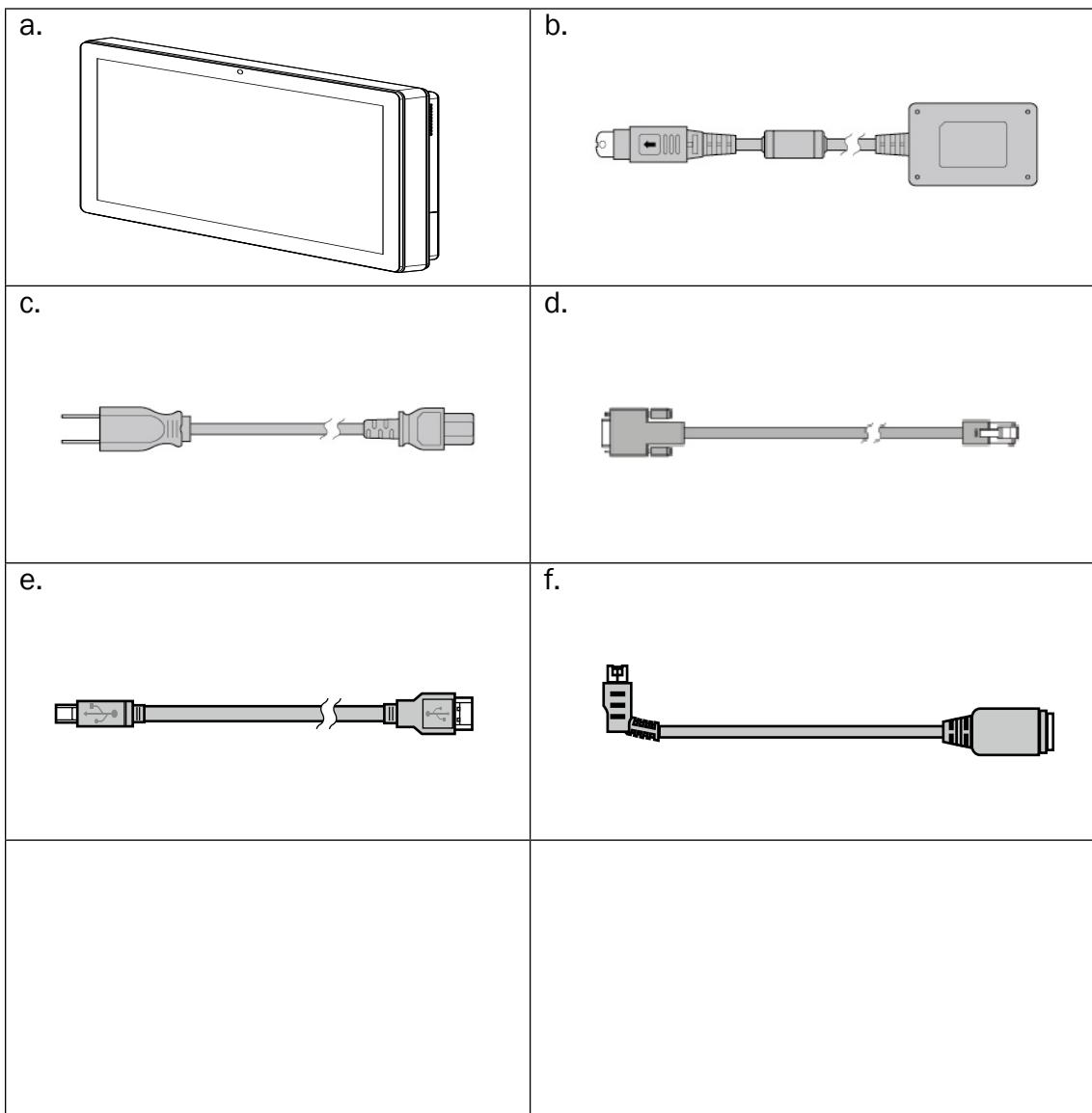
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# 1. Packing List

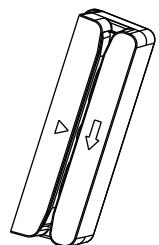
## 1-1. Standard Items



- a. System
- b. Power adapter
- c. Power cord
- d. RJ45-DB9 cable (x2)
- e. USB cable (x2)
- f. Power extended cable

Note: Power cord will be supplied differently according to various region or country.

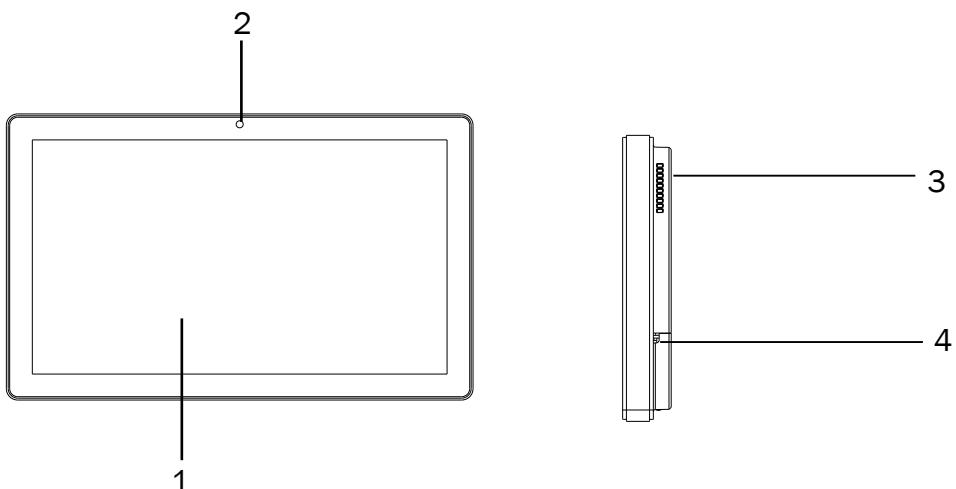
## 1-2. Optional Items



MSR

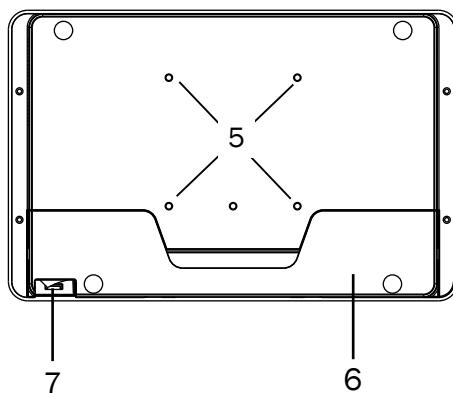
# 2. System View

## 2-1. Front & Side View



Item No.	Description
1	Touch screen
2	Built-in web cam
3	Ventilation
4	MSR cable hole

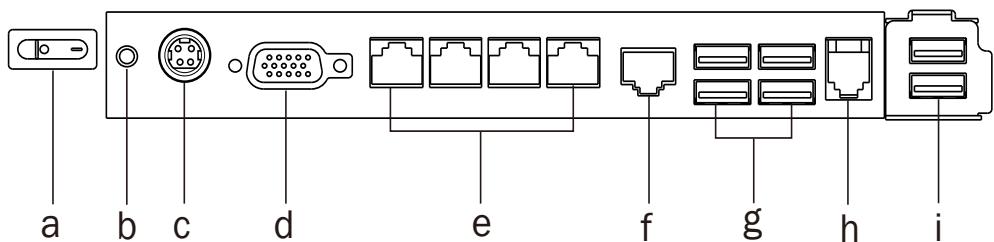
## 2-2. Rear View



Item No.	Description
5	VESA mounting holes
6	Cable cover
7	Power button

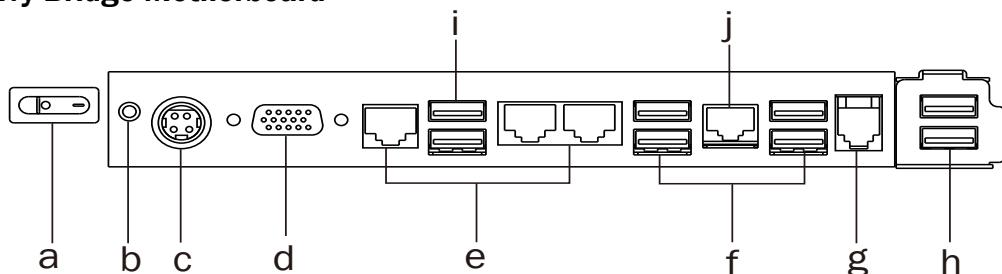
## 2-3. I/O view

D2550 Motherboard



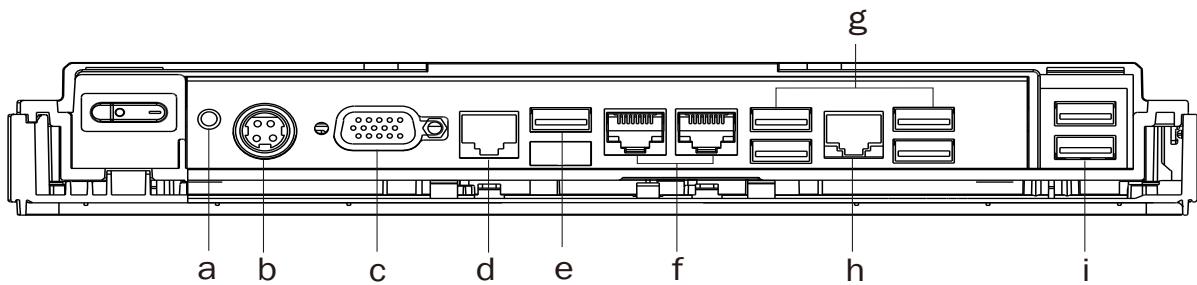
Item No.	Description
a	2 <sup>nd</sup> power button
b	Power button
c	DC IN
d	VGA
e	COM port 1, 2, 3, 4 (from left to right)
f	LAN
g	USBx4 (two optional USB)
h	Cash drawer
i	USB (x2)

Ivy Bridge Motherboard



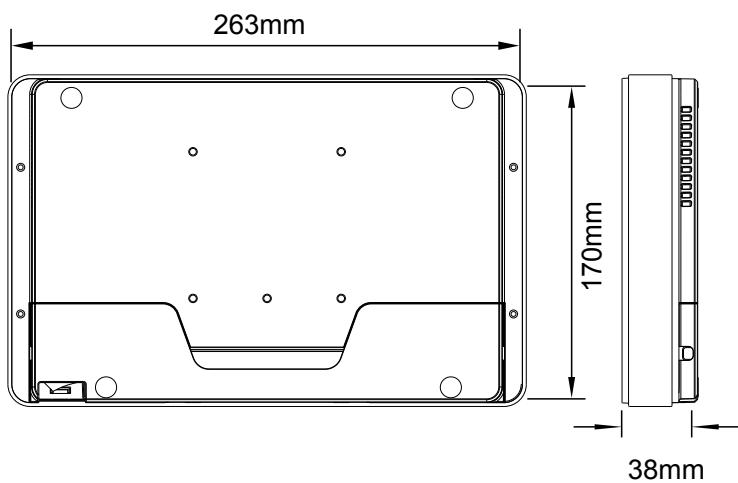
Item No.	Description
a	2 <sup>nd</sup> power button
b	Power button
c	DC IN
d	VGA
e	COM port 1, 2, 3 (from right to left)
f	USB 2.0 (x4) (two optional USB)
g	Cash drawer
h	USB (x2)
i	USB 3.0 (x2)
j	LAN

## J1900 Motherboard



Item No.	Description
a	Power button
b	DC Jack 19V
c	VGA
d	COM3
e	USB2
f	COM1~COM2 (from right to left)
g	USB 2.0 (x4) (two optional USB)
h	LAN
i	USB3/USB4

## 2-4. Dimensions

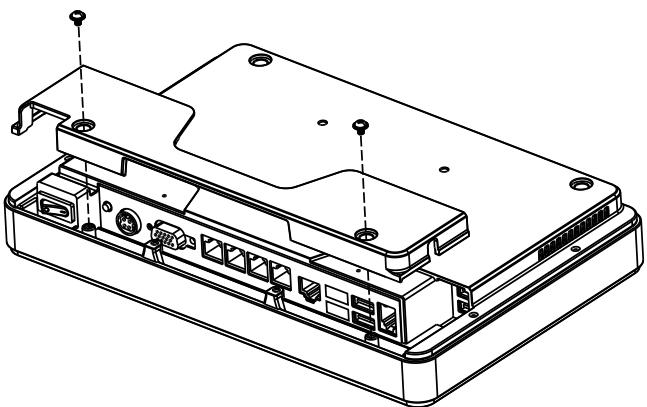


# 3. System Assembly

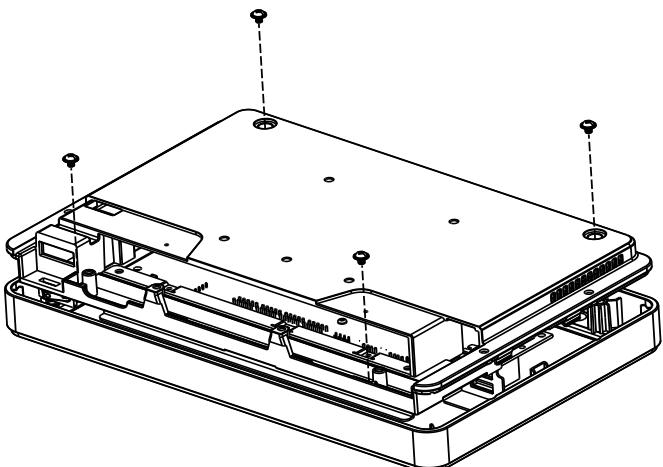
## 3-1. Open the Chassis Cover

The motherboard and RAM module can be replaced by opening the chassis cover, which is located on the back side of the system. Please follow the steps below to open the chassis cover.

1. Turn to the back side of the system and loosen the screws (x2) to release the cable cover first.



2. Loosen the screws (x4) to open the back cover of the system.

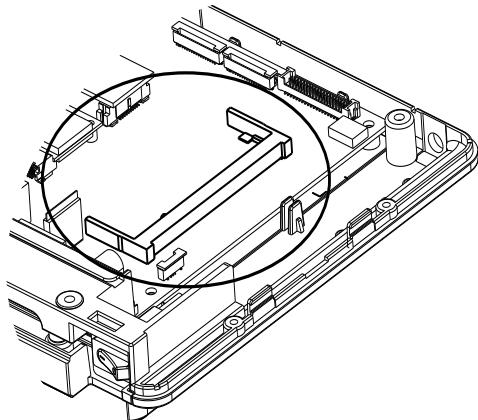


## 3-2. RAM Module Replacement

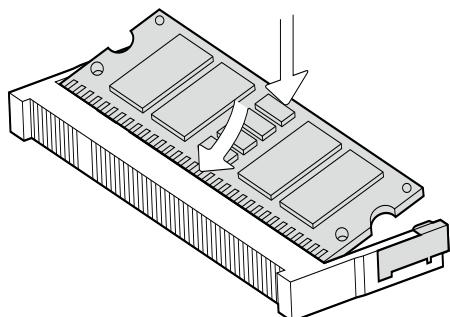
To remove and replace the RAM module, please open the chassis cover firstly as steps described in chapter 3-1.

### Removing a RAM module

1. Find the memory slot at the right side of the motherboard.

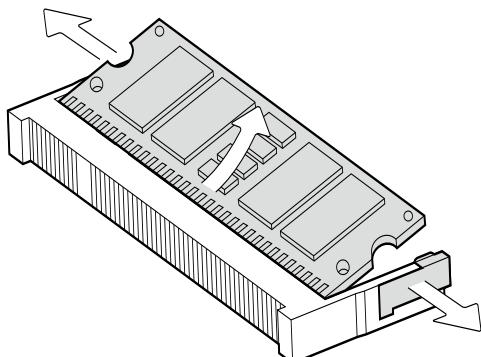


2. Flip the ejector clips outwards to remove the memory module from the memory slot.



### Installing a RAM module

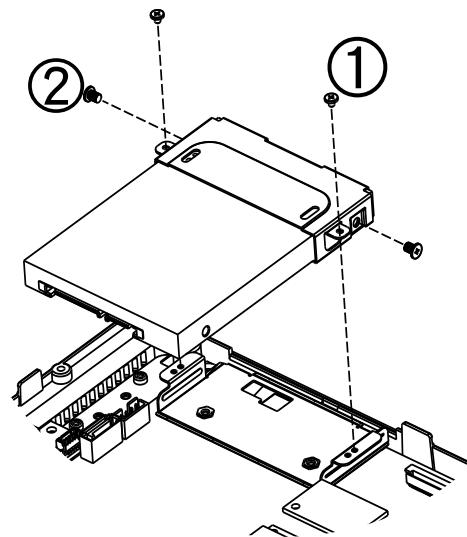
3. Slide the memory module into the memory slot and press down until the ejector clips snap in place.



### 3-3. HDD Replacement

To remove and replace the HDD, please open the cable cover firstly as stpes dscribed in chapter 3-1-1.

1. Loosen the screws(x2) to remove the HDD bracket from the system
2. The HDD is secured by the bracket, remove the screws(x2) to release the bracket and replace the HDD.

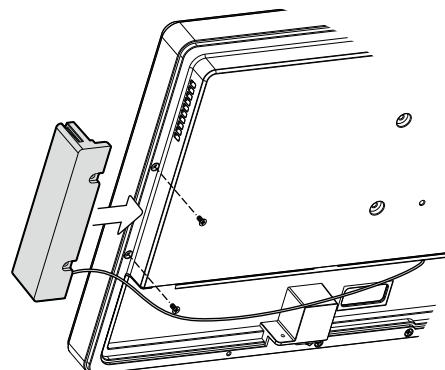


# 4. Peripherals Installation

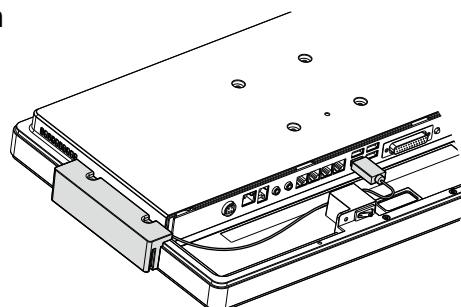
## 4-1. MSR Installation

To install MSR, please open the cable cover firstly as steps described in chapter 3-1-1.

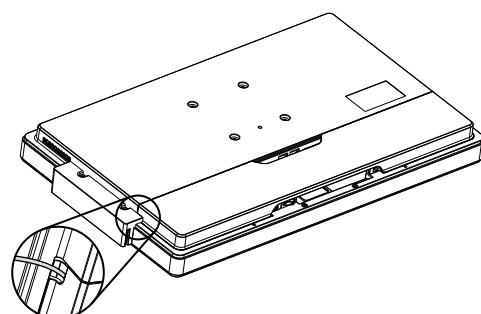
1. Insert MSR module in place and fasten the screws (x2) on the back to secure the module.



2. Connect MSR cable to the connector on system side.



3. Close the cable cover and fasten screws (x2). Make sure the MSR cable is threaded through the MSR cable hole on the system.

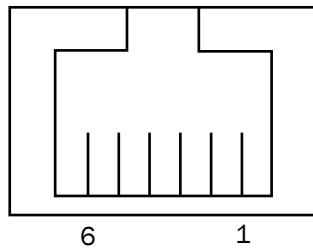


## 4-2. Cash Drawer Installation

### For D2550/Ivy Bridge 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

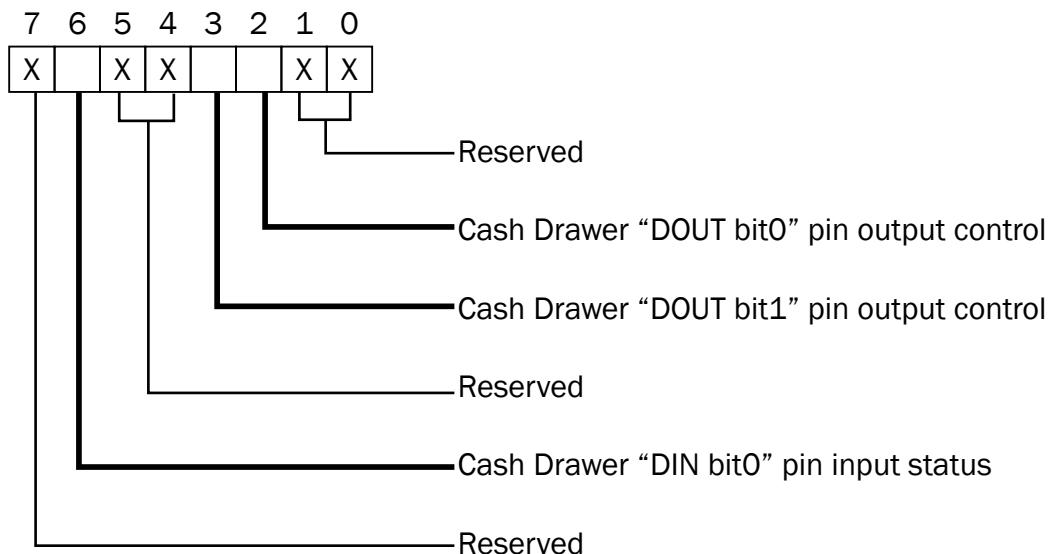
The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

**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

<b>Command</b>	<b>Cash Drawer</b>
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.

<b>Command</b>	<b>Cash Drawer</b>
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.

# 5. Specification

QK10 AIO		
Mainboard	D2550	Ivy Bridge
CPU	Intel Cedarview D2550 Dual Core 1.86G, L2 1M, 10W	Intel Ivy Bridge CPU Celeron 1037U 1.8G, LLC 2MB, 17W
Chipset	CPU integrated graphic + NM10, 2W	CPU integrated graphic + Intel HM76 PCH, 4.1W
System Memory	1 x DDR3 SO-DIMM socket up to 4G, FSB 1066MHz	1 x DDR3 SO-DIMM up to 8GB, 1333/1600MHz
Graphic Memory	Intel GMA 3650 (Gfx frequency up to 640MHz), DX9	Intel HD Graphics 4000/2500, integrated in CPU, DX11
LCD/Touch Panel		
LCD Size	10.1" LED LCD	
Brightness	200 nits	
Maximal Resolution	1366 x 768	
Touch Screen Type	True flat resistive touch / True flat projected capacitive touch	
Storage		
HDD	1 x slim HDD bay (SATA)	
Flash Memory	SATA SSD Flash memory card 8G/16G/32G/64G (option)	
Peripherals		
Web Cam (Build-in)	2M Web Cam	
WiFi (Optional)	802.11 b/g/n WLAN card	
MSR-right side(Optional)	3 Track(USB)	
Device Box(Optional)	Smart IC card Reader / Scanner / Function Key Pad / Line Out /Mic In	
Expansion		
Mini PCI-E Socket	1	
External I/O Ports		
USB	4 x USB Type A (2 with special cables)	4 x USB 2.0 Type A2 x USB 3.0/2.0 Type A (2 with special cables)
Serial COM	4 x RJ45 COM ports (COM1 standard RS232; COM2/3/4 powered RS232; COM2 default OV; COM3 default 5V; COM4 default 12V by BIOS setting)	3 x RJ45 COM ports (COM1/2/3 powered RS232; COM1 and COM2 default 5V, COM3 default 12V by BIOS setting)
LAN (10/100/1000)	1 x RJ-45	
2nd LAN (10/100/1000)	1 (Option, either one solution w/ 2x USB 2.0 Type A)	
2nd VGA	1 (with optional special cable)	
Cash Drawer	1 x RJ-11 (12V or 19V)	
DC Jack	1 (19V)	
Power Button	1	
Thermal Solution		
Thermal Solution	Fanless	
Audio		
Speaker	2 x 2W	
Power		
Power Adapter	DC 19V / 65W	

<b>Environment</b>		
EMC & Safety	FCC /CE Class A/ LVD / EN 60601-1-2/ UL	FCC /CE Class A/ LVD
Operating Temperature	0 °C ~ 35 °C ( 32 °F ~ 95 °F )	
Storage Temperature	-20 °C ~ 60 °C (-4 °F ~ 140 °F)	
Humidity	20% ~ 85% RH non condensing	
Dust & Water Proof	IP 54 (front panel)	
Dimensions (W x D x H)	263 x 170 x 38 mm	
Weight (N.W./G.W.)	1.5kg / 2.5kg	
Mounting	75mm x 75mm Standard VESA / Panel Mount	
<b>OS Support</b>	Windows® XP Professional, POSReady 2009, Windows XP Embedded, Windows XP Professional for Embedded, Windows 7 (32 bit for C56), Linux	Windows® XP Professional, POSReady 2009, Windows XP Embedded, Windows XP Professional for Embedded, Windows 7, Windows 8, Linux

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

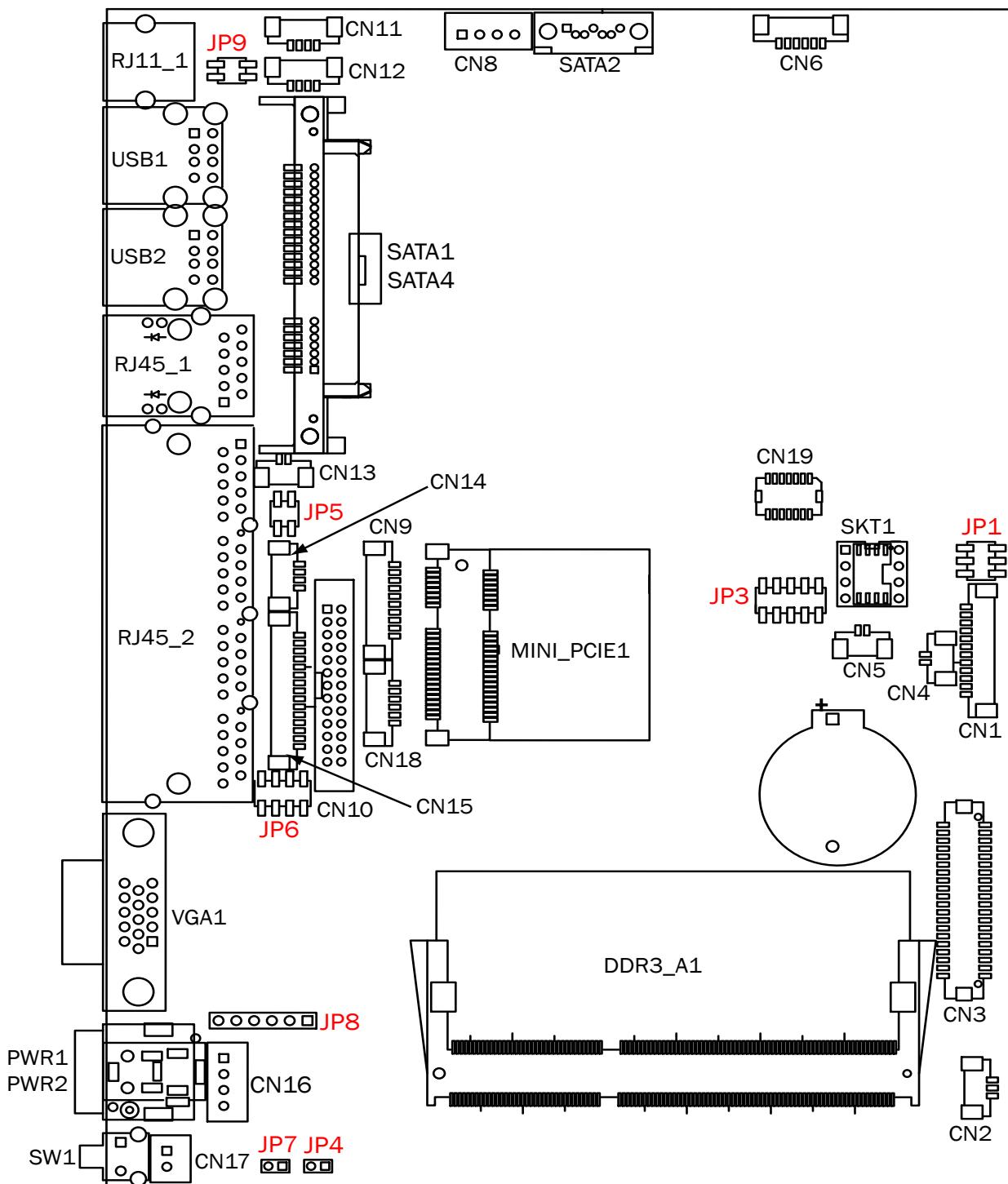
<b>Model Name</b>	QK10 AIO
<b>Mainboard</b>	<b>J1900</b>
CPU	Intel Baytrail QC J1900 2.0G (Turbo 2.41G), L2 2M, 10W
Chipset	Integrated in CPU (SoC)
System Memory	1 x DDR3L, SO-DIMM x1 , FSB 1066 / 1333Mhz, max. 8G
Graphic Memory	Intel Gen7@>300MHz
<b>LCD/Touch Panel</b>	
LCD Size	10.1" LED LCD
Brightness	370 nits
Maximal Resolution	1920 x 1200
Touch Screen Type	True flat projected capacitive touch
<b>Storage</b>	
HDD	1 x slim HDD bay (SATA)
Flash Memory	128GB-1TB
<b>Peripherals</b>	
WiFi (Optional)	802.11 b/g/n/ac WLAN card
MSR-right side(Optional)	3 Track(USB)
Device Box(Optional)	Smart IC card Reader / Scanner / Function Key Pad / Line Out /Mic In
<b>Expansion</b>	
Mini PCI-E Slot	1
<b>External I/O Ports</b>	
USB 3.0	1
USB 2.0	4 x USB Type A
Serial COM	3 x RJ48 (0V/5V/12VI default by BIOS setting 0V)
LAN (10/100/1000)	1 x RJ-45
2nd VGA	1 x DB 15F
DC Jack	1 x Latch Type (4pin)
Power Button	1
<b>Thermal Solution</b>	
Thermal Solution	Fanless
<b>Audio</b>	
Speaker	2 x 2W
<b>Power</b>	
Power Adapter	DC 19V / 65W
<b>Environment</b>	
EMC & Safety	FCC/CE Class A/LVD
Operating Temperature	0°C ~ 35°C ( 32°F ~ 95°F )
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
Humidity	20% ~ 85% RH non condensing
Dust & Water Proof	IP 54 (front panel)
<b>Dimensions (W x D x H)</b>	263 x 170 x 38 mm
<b>Weight (N.W./G.W.)</b>	1.5kg / 2.5kg
<b>Mounting</b>	75mm x 75mm Standard VESA / Panel Mount
<b>OS Support</b>	POSReady 7, Windows 10 IOT and Pro, Linux

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

# 6. Jumper Setting

## 6-1. D2550 Motherboard

### 6-1-1. Motherboard Layout



## 6-1-2. Connectors & Functions

Connector	Function
CN1	LVDS Inverter Connector
CN2	System FAN Connector
CN3	LVDS Connector
CN4	Power LED Connector
CN5	SATA LED Connector
CN6	Speaker & MIC Connector
CN8	SATA Power Connector
CN9	COM5(Touch) Connector
CN10	Printer Port Connector
CN11/12	USB Port(Internal)
CN13	LAN LED Connector
CN14	PS2 Keyboard Connector
CN15	Card Reader Connector(COM6)
CN16	+19V DC IN Connector
CN17	Power button(Internal)
CN18	Front I/O Connector(USB/power LED/ Power button)
PWR2/3	+19V DC JACK
RJ11_1	Cash Drawer Connector
RJ45_1	LAN Connector
RJ45_2	COM1/ COM2/ COM3/ COM4
DDR3_A1	DDR3 SO-DIMM
SATA1/2/4	SATA Connector
SKT1	BIOS Connector
USB1	USB6 USB7
USB2	USB4 USB5
VGA1	VGA Connector
SW1	Power Button
JP1	Inverter Select
JP2	CMOS Operation Mode
JP3	LCD ID Setting
JP4	H/W Reset
JP5	COM2 Power Setting
JP6	COM3/COM4 Power Setting
JP7	Auto Button Setting
JP8	Touch Connector
JP9	CASH DRAWER Power Setting

## 6-1-3. Jumper Setting

### Cash Drawer Power Setting

Function	JP9
▲ +19V	1 3 2 4
+12V	1 3 2 4

### Inverter Selection

Function	JP1
CCFL	1 3 5 2 4 6
▲LED	1 3 5 2 4 6

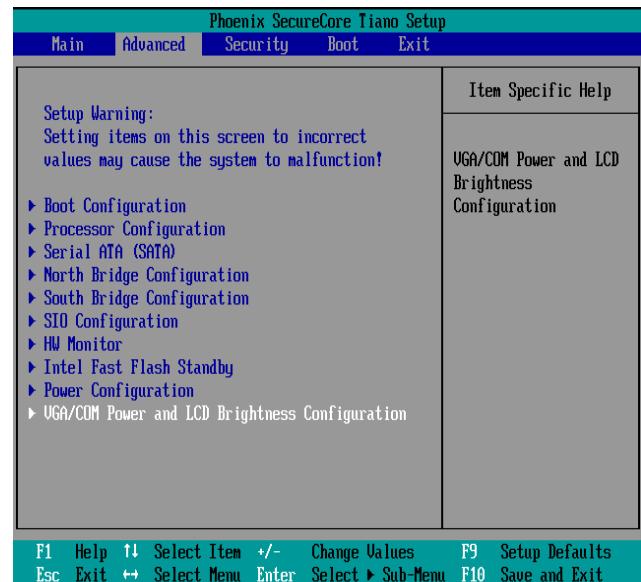
### COM2/COM3/COM4 Power Setting

COM2, COM3 and COM4 can be set to provide power to your serial device.

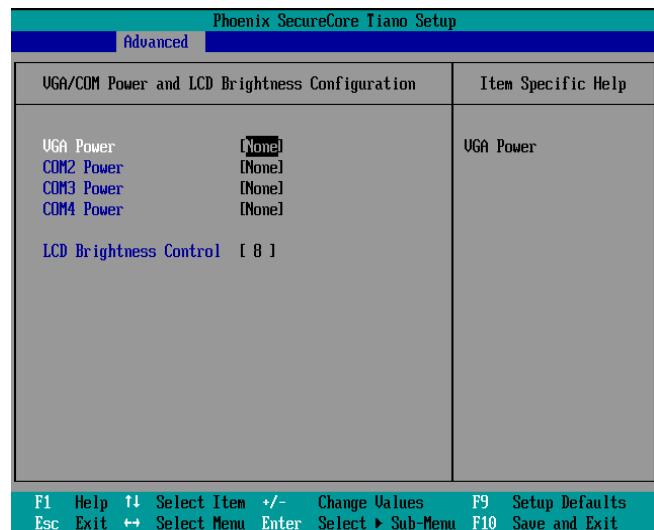
The voltage can be set to +5V or +12V by setting jumper JP5 and JP6 on the motherboard. When enabled, the power is available on pin 10 of the RJ45 serial connector. If you use the serial RJ45 to DB9 adapter cable, the power is on pin 9 of the DB9 connector. By default, the power option is disabled in the BIOS.

Enable COM2/ 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 **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.



### COM2 Power Setting

Function	JP5
▲No Power	1 3 2 4
COM2 +5V	1 3 2 4
COM2 +12V	1 3 2 4

### COM3/COM4 Jumper setup

Function	JP6
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

## LCD ID Setting

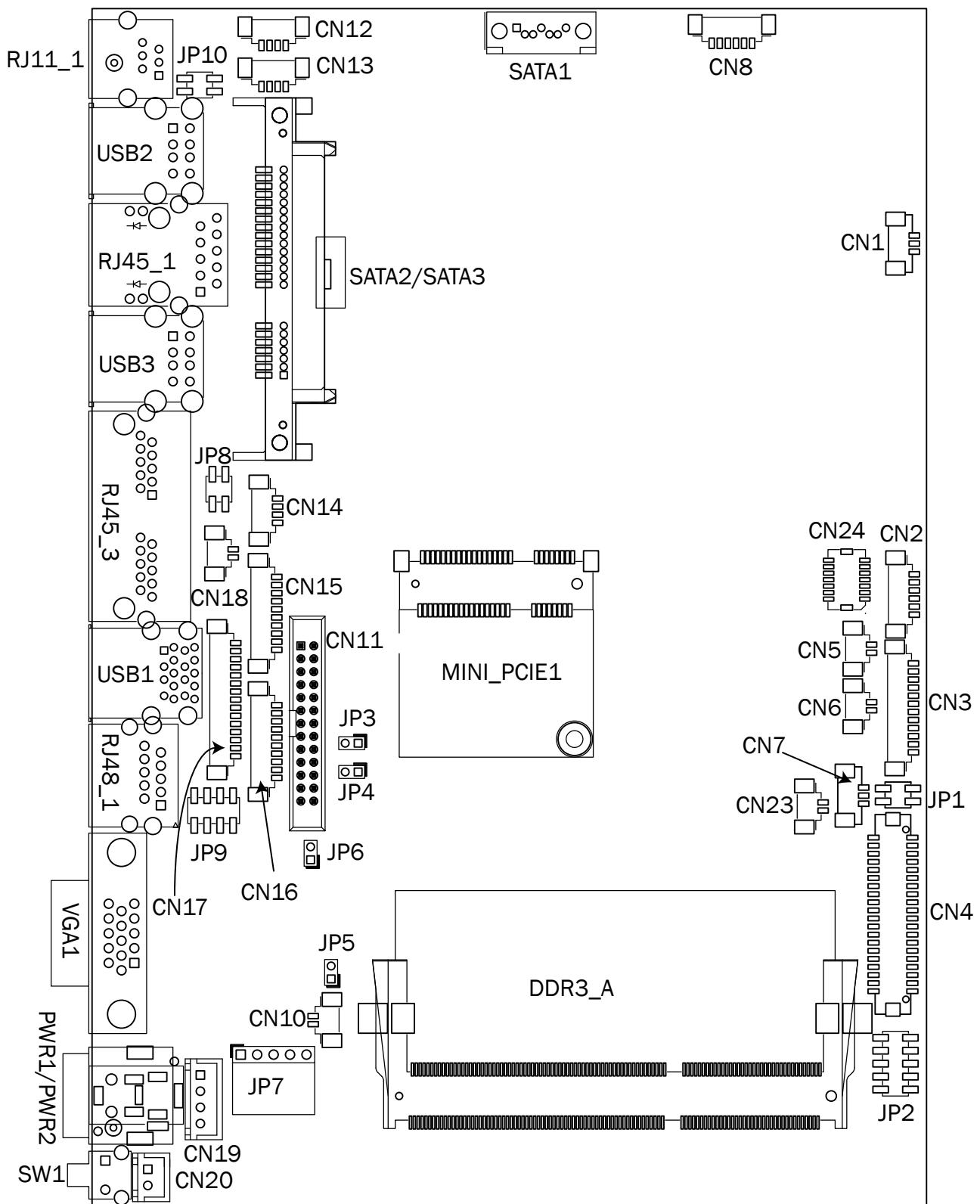
Panel#	Resolution	LVDS		Output Interface	JP3
		Bits	Channel		
1	800 x 600	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
2	800 x 600	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
3	800 x 600	24	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
4	1024 x 600	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10
5	1024 x 768	18	Single	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
10	1366 x 768	18	Single	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 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  
2 Jumper short

1 Jumper short  
2 Jumper open

## **6-2. Ivy Bridge Motherboard**

## **6-2-1. Motherboard Layout**



## 6-2-2. Connectors & Functions

<b>Connector</b>	<b>Function</b>
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

### 6-2-3. Jumper Setting

#### Inverter Selection

Function	JP1				
▲LED	<table border="1" style="margin-left: auto; margin-right: auto;"> <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" style="margin-left: auto; margin-right: auto;"> <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	JP10				
▲ +19V	<table border="1" style="margin-left: auto; margin-right: auto;"> <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" style="margin-left: auto; margin-right: auto;"> <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 Power Setting

Function	JP8				
▲COM1 +5V	<table border="1" style="margin-left: auto; margin-right: auto;"> <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 +12V	<table border="1" style="margin-left: auto; margin-right: auto;"> <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				

#### COM2/COM3 Jumper setup

Function	JP6							
COM2	▲+5V							
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td> <td>3</td> <td>5</td> <td>7</td> </tr> <tr> <td>2</td> <td>4</td> <td>6</td> <td>8</td> </tr> </table>	1	3	5	7	2	4	6
1	3	5	7					
2	4	6	8					
COM3	+12V							
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td> <td>3</td> <td>5</td> <td>7</td> </tr> <tr> <td>2</td> <td>4</td> <td>6</td> <td>8</td> </tr> </table>	1	3	5	7	2	4	6
1	3	5	7					
2	4	6	8					
	+5V							
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td> <td>3</td> <td>5</td> <td>7</td> </tr> <tr> <td>2</td> <td>4</td> <td>6</td> <td>8</td> </tr> </table>	1	3	5	7	2	4	6
1	3	5	7					
2	4	6	8					
	▲+12V							
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td> <td>3</td> <td>5</td> <td>7</td> </tr> <tr> <td>2</td> <td>4</td> <td>6</td> <td>8</td> </tr> </table>	1	3	5	7	2	4	6
1	3	5	7					
2	4	6	8					

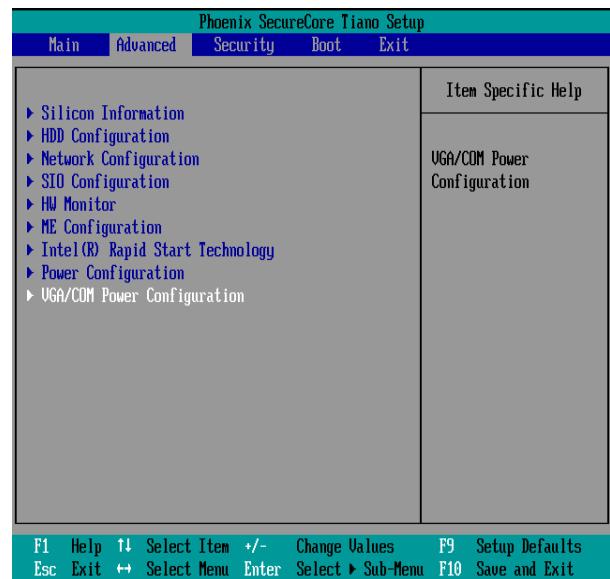
▲ = Manufacturer Default Setting

## **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

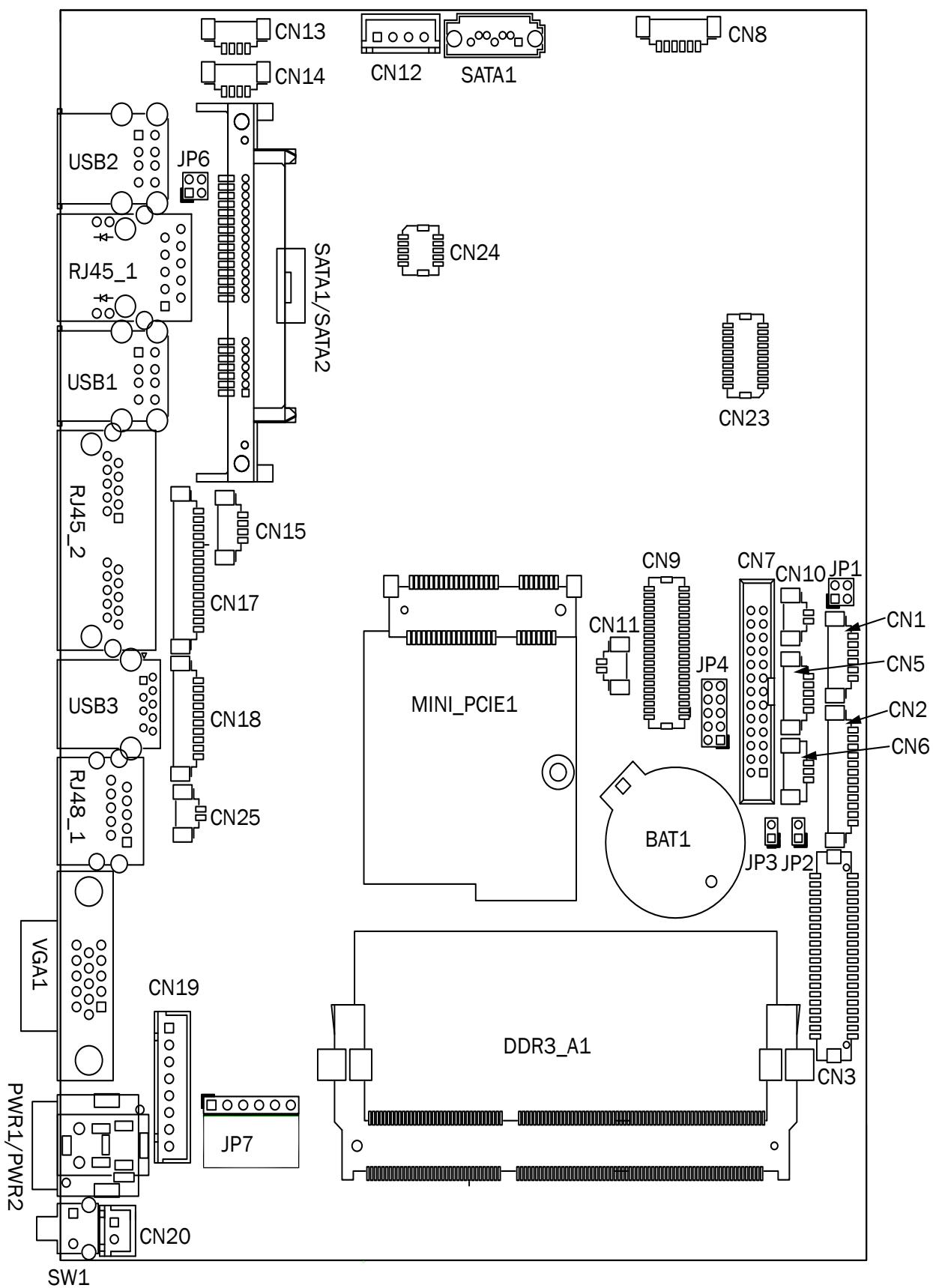
Panel#	Resolution	LVDS		Output Interface	JP3	
		Bits	Channel			
1	800 x 600	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10	
2	800 x 600	24	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10	
3	1024 x 768	18	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10	
4	1024 x 768	24	Single	LVDS Panel	1 3 5 7 9 2 4 6 8 10	
5	1366 x 768	18	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  
2 Jumper short

1 Jumper short  
2 Jumper open

## 6-3. J1900 Motherboard

### 6-3-1. Motherboard Layout



## 6-3-2. 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
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
JP7	Touch connector

### 6-3-3. Jumper Setting

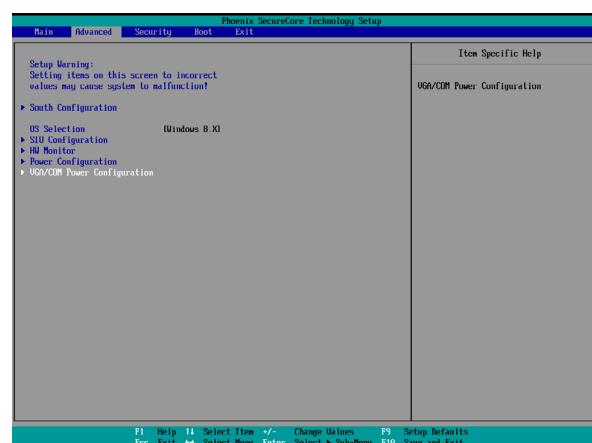
#### Inverter Selection

Function	JP1
▲LED	
CCFL	

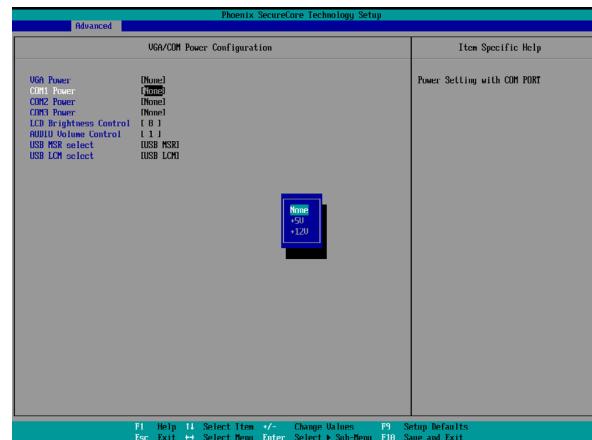
#### COM1/COM2/COM3 Power Setting

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 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  
2 Jumper open

1  
2 Jumper short

