# Concorde Series SERVICE MANUAL



# WARNING

**Note** : This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at own expenses.

This Class A digital apparatus complies with Canadian ICES-003 Cet appareil numerique de la classe A est conforme à la norme NMB-003 du Canada

# **IMPORTANT**

- Install this terminal in a location that is not subjected to direct radiation, unusual temperature changes, and high humidity or exposure to water or other liquids. Installation in such locations could cause damage to the cabinet and the electronic components.
- **2.** Do not drop this terminal nor subject it to any strong shock. This may cause damage to the terminal and the hard disk mounted in it.
- Do not apply excessive pressure to the display. Do not use a sharp-pointed object on the display.
   This may cause damage to the LCD display.
- **4.** The socket-outlet shall be installed near the equipment and shall be easily accessible. For a complete electrical disconnection, remove the AC plug from the wall outlet.
- **5.** The terminal plugs into any standard wall outlet (official / nominal voltage). Other electrical devices on the same electrical circuit could cause the terminal to malfunction.
- **6**. Slots and openings in the cabinet and the back have been provided for ventilation. To ensure the reliable operation of your system and protect it from overheating, these openings must not be blocked or covered.
- 7. Please observe the following when an optional drawer is used. The drawer units should be securely fitted to the supporting platform to avoid instability when the drawers are open.

**8.** Please shut down the terminal and disconnect it from the AC supply before connecting or disconnecting external devices to the COM ports or USB powered ports.

### Note:

Default voltage at Pin 9 of COM1 / COM2 is 5V.
 (You can change voltage in the inside main board change jumper(5V, 12V))

- **9.** Unplug the system from the main electrical power supply before cleaning. When cleaning this terminal, use a dry, soft cloth. Never use solvents, such as benzene or thinner. The use of such chemicals will lead to discoloration or deterioration of the cabinet.
- **10.** Don't use this product on a bed, sofa, rug or other similar surface. This product should never be placed near or over a radiator or heater.
- **11.** Never insert any object into the terminal through the cabinet openings, as they may touch dangerous voltage points or short out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
- **12.** Be aware not to damage or destroy the AC adapter and cable. Do not place any cabling at locations where people walk around.
- **13.** This equipment is for indoor use only and all the wiring must be limited to the inside of buildings.
- **14.** Do not use the system near water or touch the system, adapter and plug with wet hands
- **15.** As a countermeasure of damages due to short circuits and to avoid electric shock of the user, use only a 3-wire grounding type plug.
- **16.** In case the terminal malfunctions or the system is getting too hot, smoke rises up, or an offensive smell assails, turn off the system and call your local authorized dealer for service.
- **17.** Follow the steps shown when pluggin in the equipment.

Step2) Connect the AC input plug to an AC electrical

outlet

\* Step1) Connect the Universal AC Adaptor's DC output plug to the system's DC socket. (located at the bottom of the mainboard bracket)



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# THE PACKAGE CONTENTS





Main System

or



User Manual



Safety Sheet

AC Cord

Adaptor

# FEATURES

# **Product features**

- The product uses a high visibility (250cd/m<sup>2</sup> luminance) LED screen with a touch screen interface for input.
- The display may be tilted for the best viewing angle. The angle can be adjusted within 40 degrees up/down .
- The product has no fan and is noiseless by design.
- Hard disk supports SMART (Self Monitoring, Analysis and Reporting Technology)function, realizes a stable system configuration through the backup of OS, disk, partition, and file data, and provides disaster restoration solution by using Drive Clone software.
- This product uses Microsoft POS Ready 2009 (or similar operating system) which is designed for POS system and KIOSK applications.
- This product has the wake-on function based on Magic Packet<sup>™</sup> technology for remote booting and control through LAN.
- The Resume (wake) on LAN function of CONCORDE has the following limitations: If BIOS function [Resume on LAN] is set to "Enable" the system will wake from "Power Off" IF the normal Widows<sup>®</sup> shut down procedure is completed.
- If CONCORDE is turned off by unnatural means (other than the normal Windows<sup>®</sup> shut down procedure) the Resume on LAN will NOT "wake" the terminal. Examples of unnatural "Power Off" include:
- Press the power button to turn off
- External power loss to the terminal (unplugged, blackout, etc.)
- To enable the Resume on LAN function in the event of power loss set BIOS function Power Management setting [Restore on AC Power Loss]" to "Power On" state.
- With this setting, if power is lost, the unit will turn on when power is restored and will re-enable the [Resume on LAN] function.
- This product provides Several ports (USB, Serial, Parallel, LAN, and etc.) for facilitating the use of various POS peripheral devices.

### Note:

- $\cdot\,$  The application software will determine the usage and availability of the interfaces.
- $\cdot\,$  If the terminal is turned off by Pressing and the power button and a power loss then occurs the terminal will NOT start automatically.

# SYSTEM OVERVIEW

### **Front view**



### Operation Display (Touch Panel)

15 inch TFT-LCD screen with touch sensitive screen displays the operational status of the system and the system can be operated by touch screen.

# 2 nd LCD display (optional)

- ③ Magnetic Stripe Reader (optional) For reading magnetic stripe cards.
- IC Card Reader (optional)
   For reading IC cards.

### 5 Power Button

Push the power button to turn terminal "ON" (AC connection required). Switch the terminal "OFF" by pushing shortly the power button which initiates shutdown of Windows.

### 6 Power Indicator

LED lights up when the system is "ON."

HDD Indicator

LED lights up during hard drive activity.

# 8 USB Connectors

You can connect peripherals such as scanners, printers and keyboard to the USB (Universal Serial Bus) connectors. USB peripherals are hot swappable enabling plug and play.

# **Rear/IO Ports view**



### 1 DC Inlet Jack (AC/DC adaptor)

To supply power to the system, please connect here the supplied AC/DC power adaptor (12V / 5A).

#### SYSTEM OVERVIEW

### 2 Serial Port 1, 2, 3

Connects serial devices such as a customer display, a barcode scanner, or a receipt printer that use serial interface to the serial ports.

#### Note:

• Default voltage at Pin 9 of COM1 / COM2 is 5V (COM5 voltage at Pin 1) With VFD Module to main board inside insert header.

### 3 VGA Connector

Connects VGA cable from a 2nd monitor.

### 4 USB Connectors

You can connect peripherals such as scanners, printers and keyboard to the USB (Universal Serial Bus) connectors. USB peripherals are hot swappable enabling plug and play.

#### 6 Audio Jack

An external amplified speaker may be connected to the jack for Audio output.

### 6 Parallel Port

Connects parallel devices such as a printer to the parallel port.

- Cash Drawer Ports (2\*3 pin Molex) (optional)
   Optional cash drawers can be connected to cash drawer port.
- 8 DC Outlet Jack (DC 12V)

Can be used as 12V DC power for second monitor.

### IAN Connectors (RJ 45)

Connect RJ-45 cable for 10/100/1000 Base Ethernet connection to these ports.

- 10 Line Display (optional)
- 1 2nd LCD Display (optional)

# **Display angle**

The display may be tilted for the best viewing angle. The angle can be adjusted within 40 degrees up/down as illustrated in the picture.



Caution:

- Do not pull the display beyond the maximum tilt angle nor apply excessive pressure to the display.
- The LCD module built in this POS terminal is manufactured with highly precise technology, but bright pixels or blank pixels may appear. Also an irregular color and brightness may occur depending on the view angle. Please note that this type of phenomena is common for LCDs and may not be a malfunction.
- The backlight in the display is a consumable part. (the backlight tube or led is a part of LCDunit and not separate changeable)
- When the LCD display can no longer be adjusted and becomes darker, you should replace the LCD module. Consult your authorized SHARP dealer for further details.

# SPECIFICATIONS

# **General Specification**

Model Name	Concorde Series	
Dimensions	350(W) X 280(D) X 410(H)mm	
Weight	8.16kg	
Power source	Input : 100~240V, 1.5A, 50~60Hz	
(AC/DC Adapter)	Output : 60W (12V/5A)	
Power consumption	Operating : less than 60W	
Working temperature	5°C to 35°C	

# System specifications

ltem		Specification	Note
CPU		Intel Cedraview D2550 1.86GHz	
		Standard 2GB	Slot 1
Memory		Maximum 4GB	DDR3 800/1066/1333MHz 2GB 204 pin, MAX Memory capacity 8GB
BIOS		AMI BIOS	1.0A (AHCI Mode) Support the POS ready 7 1.0I (IDE Mode) Support the POS ready 2009
HDD		320GB * 1	2.5inch SATA2
	Size	15inch XGA	
DISPLAY	Tilt function	Up & down 45°	
Touch pa	nel	5 Wire resistive	
Main power switch		Left side	Push button type
Indicator LED		Blue/Red	OFF/ON, HDD
		СОМ	4*D-sub 9-pin connectors for COM ports
		LAN	2*RJ45 10/100/1000
		VGA	Support in M/B
External I/O	ernal Rear I/O	USB	2*USB 2.0 port (Side Port) 4*USB 2.0 port (Rear Port)
		Parallel	1*D-sub25pin connector for LPT
		Audio Jack	1 * Line-Out, 1 *MIC
		DC inlet Jack	1 * DC inlet Jack for power supply

ltem	Item Specification Note	
Magnetic card reader (optional in some sales regions)	ISO 7810, I/II/III Track /	Option can be integrated at the right hand side of the LCD cabinet side
English CDP	external rear customer display:	VFD 2line 20 character
(option)	external rear customer display:	10.4" LCD Display
	Operating Temperature	5°C to 35°C, 41°F to 95°F
<b>-</b> · · ·	Operating Humidity	20% to 90%
Environment	Storage Temperature	-20°C to 60°C
	Storage Humidity	0% to 90%
	Operating System	Windows POSReady 7
	Operating system	Windows POSReady 2009
Software	Device	Diagnostic utility and MSR, Line Display, Cash Drawer Device Drivers OPOS and Serial or PS2 by device
	Recovery	

# Lifetime Specification

LCD-Backlight tube	average lifetime about 30,000 hours (50% of performance)
Lithium batteries	average lifetime about 5~6 years (rough value with -20°C, standard load)
Touch Panel	durability of 1 million times at touching of the same position
Machine	durability of 5 years

The data in this Life time specification are not intended to make or imply any guarantee or warranty.

# LCD sub pixel inspection criteria



No	ITEMS	INSPECTION CRITERIA
1	Bright/Dark Sub Pixel Defect ( In the center of LCD panel)	N≤1
2	Bright Sub Pixel Defect	N≤3
3	Dark Sub Pixel Defect	N≤4
4	Bright + Dark Sub Pixel Defect	N≤5
5	2 Adjacent Bright Sub Pixel Defect	N≤2
6	2 Adjacent Dark Sub Pixel Defect	N≤3
7	3 Adjacent Bright Sub Pixel Defect	N≤1
8	3 Adjacent Dark Sub Pixel Defect	N≤2

# **INSTALL LOCATION & DIRECTIONS FOR USE**

Before system installation, it is important to select the safe and comfortable place which is satisfied with the following contents.

- 1. Select a hard surface with enough room to meet system requirements.
- 2. Select a place where the product is protected from electrostatic shock which could cause damage to the product or data loss.
- 3. Select a place for the product with ample ventilation to prevent heat build up.
- 4. Select the dry and cool place and avoid high temperature difference, high humidity, dense dust, or the direct rays of the sun.
- 5. Select proper electric power. Connect all the equipment to properly grounded outlet.
- 6. Keep the systems away from devices generating electricity.
- 7. Do not place heavy materials on this product, and do not put high pressure on the product.
- 8. Do not hit, drop or allow other material to drop onto the products damage may result.
- 9. Do not hit or drag on its surface with sharp instrument or pen because touch panel can be easily scratched, and the durability can be decreased due to the damage.
- 10. This product is not waterproof. Please keep this product away from liquid.
- 11. After turning the product OFF, wait for a minimum of 5 seconds before turning the product back ON
- 12. Turn off and Disconnect the machine from power when moving the product.
- 13. Do not move the product to place where the difference of temperature is more than 10 degrees because that can cause the corrosion of the product.
- 14. Microsoft POS Ready 2009 & POS Ready 7 are made specifically for use in POS systems and Kiosks. Some software may not operate as expected due to differences from Windows XP general OS by Microsoft(R).
- 15. When COM port is set to provide +5 volts through the serial pin, it is required that the unit be turned off when attaching or removing any serial from the COM port.

# **CONNECTING PERIPHERAL**

1 Remove the rear and stand covers.

1. Remove the rear cover







### 2. Remove the rear stand cover



Note

# **2** Pull up the main board kit

Slide the mainboard kit latch in the direction of the arrow and then lift up the mainboard kit.

# TO CONNECT PERIPHERALS

1. Push up lock. 2. Lift up main board bracket. 3. Move holder to fix main board bracket.



# **3** Connect the peripherals.

1. Connect USB devices



2. Connect LAN



3. Connect a CDP or 2nd display



4. Connect a serial Printer



5. Connect a receipt Printer



### 6. Connect the power cable



### Assemble rear and stand cover

When the connection of peripherals is complete, assemble the cover.



Caution:

- $\cdot\,$  Only use the CONCORDE power adapter supplied by GlobalPOS. Do not use any other power adapter.
- $\cdot\,$  The cable length of each connected device must be restricted to the maximum length of 3m.

# SYSTEM DISASSEMBLY & COMPONENT REPLACEMENT

# Disassembly of the system

To disassemble the system, follow the next steps:

- 1 Make sure the system and peripherals are off.
- 2 Remove the rear system cover and the stand cover.
- 3 Lift up the mainboard bracket.
- 4 Disconnect cables for the peripherals and DC power input jack from the system.
- 5 Pull down the mainboard bracket.
- 6 Place the system on a soft and flat surface to face down the front of the system and remove the MSR cable from the mainboard.



**7** Remove two screws fixing the MSR module and remove this from the system.





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#### SYSTEM DISASSEMBLY & COMPONENT REPLACEMENT

#### SYSTEM DISASSEMBLY & COMPONENT REPLACEMENT

### 8 Remove the CDP cover.



9 Remove screws of the rear cover and remove the rear cover from the system frame.





1 Remove the USB board cable from the USB board.



Remove screws fixing the USB board and remove the USB board from the system frame.



Remove screws fixing the optional CDP and remove the CDP from the system frame.



(B) Remove cables from the inverter board.



Remove screws fixing the inverter board and remove the inverter board from the system frame.



(E) Remove the screw of the HDD bracket.



Remove the HDD bracket and remove HDD cables from the HDD.



Remove screws of the mainboard bracket cover and lift the mainboard bracket cover up from the bracket.



(B) Remove cables from the mainboard.



Remove screws fixing the mainboard bracket and remove the mainboard bracket from the system frame.



20 Remove all screws from the I/O ports.



2 Remove screws from the mainboard and lift the mainboard from the mainboard bracket.



Remove the screw fixing the LVDS cable of the LCD panel on the system frame.



Bemove cables from the LCD panel and remove screws from the system frame fixing the front panels and lift the system frame.



#### Warning:

- Treat cable connection / disconnection with care as they may be easily damaged.
- $\cdot\,$  The touch panel may separate from LCD panel all of a sudden due to vacuum condition in between touch panel and LCD.
- Be careful of any breakage and injury.
- Be careful of dust being stuck in between the surface of the LCD unit and the touch panel which may cause scratches to them.
- 22 Remove the touch from panel.



#### Warning:

• The LCD touch panel should be assembled along the guide to fit into the LCD front cabinet. To prevent gap between the touch panels, it should be assembled flat.

Remove screws fixing the LCD module and remove the LCD module from the system frame.



26 Remove screws and separate the stand from the system frame.





# System re-assembly

System assembly can be done by reversing disassembly procedure.

# **Replacing the Hard Disk Drive**

Only 2.5 inch SATA type can be installed, hence the hard drive type should be checked before purchase.

- 1 Make sure the system and peripherals are off.
- 2 Remove the rear system cover.
- 3 Remove the screw of the HDD bracket, remove the HDD bracket, and remove HDD cable from the HDD.



4 Remove screws fixing HDD and remove the old HDD.



5 Attach the new HDD to the HDD bracket and fasten screws.



- 6 Connect the HDD cable to the HDD and install the HDD bracket to the system frame.
- Remove the screw of the HDD bracket, remove the HDD bracket, and remove HDD cables from the HDD.
- 8 Assemble in the opposite way of disassembly.

# **Replacing the main memory**

- 1 Make sure the system and peripherals are off.
- 2 Remove the rear system cover and the stand cover.
- 3 Lift up the mainboard bracket.
- Oisconnect cables for the peripherals and DC power input jack from the system.
- 5 Pull down the mainboard bracket.
- 6 Place the system on a soft and flat surface to face down the front of the system.
- Remove the MSR cable from the mainboard.
- 8 Remove screws of the rear cover and remove the rear cover from the system frame.

- Remove the screw of the HDD bracket, remove the HDD bracket, and remove HDD cable from the HDD.
- 10 Remove the HDD bracket and remove HDD cables from the HDD.
- Remove screws of the mainboard bracket cover and lift the mainboard bracket cover up from the bracket.
- Pull the lock / eject clips on both sides of the slot outward to release the currently installed memory module, and then pull the memory module out from the memory slot.



Align the notch of the DIMM memory with the slot keys of the socket. This allows the memory to be inserted. Gently insert the memory into the slot at a 30 degree angle and rotate the memory downward until both lock / eject clips engage and click into place.



Assemble it in the opposite way of disassembly.

### **Replacing the Lithium battery**

- 1 Make sure the system and peripherals are off.
- 2 Remove the rear system cover and the stand cover.
- 3 Lift up the mainboard bracket.
- ④ Disconnect cables for the peripherals and DC power input jack from the system.
- 5 Pull down the mainboard bracket.
- 6 Place the system on a soft and flat surface to face down the front of the system.
- 7 Remove the MSR cable from the mainboard.
- 8 Remove screws of the rear cover and remove the rear cover from the system frame.
- Remove the screw of the HDD bracket, remove the HDD bracket, and remove HDD cable from the HDD.
- Remove screws of the mainboard bracket cover and lift the mainboard bracket cover up from the bracket.

1 Take out Lithium battery and replace to the new Lithium battery.



Assemble it in the opposite way of disassembly.

# INSTALLATION OF OPTIONAL DEVICES

# Assembly & disassembly the CDP/Secondary LCD

### Disassembly the CDP/Secondary LCD

- 1 Make sure the system and peripherals are off.
- 2 Remove the rear system cover and the stand cover.
- 3 Lift up the mainboard bracket.
- 4 Disconnect cables for the peripherals and DC power input jack from the system.
- 5 Pull down the mainboard bracket.
- 6 Place the system on a soft and flat surface to face down the front of the system.
- Remove the MSR cable from the mainboard.
- 8 Remove two screws fixing the MSR module and remove this from the system.
- 9 Remove screws of the rear cover and remove the rear cover from the system frame.
- Remove the screw of the HDD bracket, remove the HDD bracket, and remove HDD cable from the HDD.
- Remove screws of the mainboard bracket cover and lift the mainboard bracket cover up from the bracket.
- Remove screws fixing the optional CDP or secondary LCD, remove the optional CDP or secondary LCD cable from the mainboard, and remove optional CDP or secondary LCD from the system frame.



# Assembly the CDP/Secondary LCD

The CDP/Secondary LCD assembly can be done by reversing disassembly procedure.



<Assembly the CDP>

<Assembly the Secondary LCD>

#### Note:

• When you install the optional CDP, use the QCNWV0102CTZZ VFD CABLE K1 inner cable to connect the optional CDP to the COM5 (support 5V power) port of the mainboard and change the jumper setting to use the powered COM5 port. (Main board inside header)







# SYSTEM POWER ON/OFF

# **Turning-on System**

After completing system installation, please turn on the system by following the next steps.

- Turn on the power of the peripheral devices connected to the system.
- 2 Press the power button located in the lower right side of system body.
- 3 The lamp of power display located in the lower right side of LCD panel on the system front side is turned on. After checking memory capacity of the system, self diagnostic test will be executed. These consecutive processes are to check that all the functions of the system are operated normally.
- 4 After self diagnostic test is complete, the initial screen of Windows will be displayed.

# **Turning Power-off System**

Please close all the application programs you are using.

- 1 After clicking "Start" button in the initial screen of Windows, select "Shut down".
- 2 When user clicks "exit" button in the screen of "exit system", system will be closed.



#### Note:

• Please press power button for 4 seconds in case that the system is shut down due to the sudden power supply failure or system failure.

# **OPOS DRIVER OVERVIEW**

Current OPOS Driver has been developed based on OPOS agreement Version 1.12, and the support for OPOS Version has been continued.

Supporting OS : Windows XP(E)/Windows XP Pro/POSReady2009(WEPOS) POSReady7

# Supporting peripherals devices

- Barcode Scanner (Serial type barcode scanner)
- Cash Drawer
- CDP (Display for customer)
- Magnetic Stripe Reader (Magnetic card reader)

# **OPOS installation file location**

- Barcode Scanner(Serial type barcode scanner)
- This is available on hard disk in default when user purchases the system.
- Location : D:\Drivers\OPOS

# Installation method

User should execute Setup\_OPOS\_1.0.exe and install OPOS Driver because this is distributed as install format in default.

All the computer will be registered automatically in case of installation, and additional setup will not be necessary because setup is implemented based on the system configuration.

You can refer to Readme.txt in the installation file for the detailed OPOS information.

# THE METHOD TO CHANGE LANGUAGE (MICROSOFT POS READY 2009 & POS READY 7)

The default of POS Ready 2009 & POS Ready 7 for CONCORDE is English. To change to local language such as Germany, France, Spain, and other countries. Please follow the below steps.

# The method to change language settings

[Start] - [Control Panel] - [Date, Time, Language, and Regional Options] - [Regional and Language Options]

[Regional Options]

A. Standards and formats

- Please select your local language

### B. Location

- Select the location from the list

# [Languages]

- A. Text Services and Input Languages -> Click the "Details" button
  - Default Input Language.
  - Current setting is 'English (United states US)', please change to local language.
  - Installed Services
  - Please check your keyboard of installed language
  - Click 'OK' button
- B. Language used in menus and dialogs
  - Current setting is 'English (United states US)', please change to local language.
- 3 [Advanced]
  - A. Language for non-Unicode programs
    - Current setting is 'English (United states US)', please change to local language

- B. Default user account settings
  - Select 'Apply all settings to the current user account and to the default user profile'
- 4 Please click "OK" when you finished your settings.
- 5 There will have three popup, please click "OK" button
  - Change Region Options
  - Advanced
  - Change Regional Options

[Change Region Options]

Changes to the UI language will not take effect until you log off and logon again.

=> OK

### [Advanced]

The required files are already installed on your hard disk. Setup can use there existing files, or Setup can recopy them from your original Windows CD-ROM or form a network share.

Would you like to skip copying and use the existing files? (If you click No, you will be prompted to insert your Windows CD-ROM or to supply an alternate location where the needed files may be found.)

 $\Rightarrow$  YES

### [Change Regional Options]

You must restart your computer before the new settings take effect.

Do you want to restart your computer now?

 $\Rightarrow$  YES

\* It is automatically rebooting after your setting.

# THE METHOD TO CHANGE LANGUAGE (MICROSOFT WINDOWS 7)

The default of POS Ready 2009 & POS Ready 7 for CONCORDE is English. To change to local language such as Germany, France, Spain, and other countries. Please follow the below steps.

# The method to change language settings

[Start] - [Control Panel] - [Change display language] - [Regional and Language Options]

[Format]

A. Format

- Please select your Local Date and time format

[Location]

A. Select the location from the list

[Keyboard and Languages]

A. Display language – Choose a display language - Please change to local language.

- 4 [Administrative]
  - A. Language for non-Unicode programs -> Click the "Change system locale" button
    - Select the your Current system locals
    - Click the "OK" button
- 5 There will have one popup, please click "Restart now" button - Change System Locale

\* It is automatically rebooting after your setting.

# POS TERMINAL DRIVER AND UTILITY OVERVIEW

All the drivers and data below are installed in the drivers folder of drive (D:).





# TOUCH SCREEN SET-UP

In case that there is a problem in the accuracy in using touch screen, please re-adjust calibration. This is the execution screen of PenMount Control Panel program.

# 1 You can adjust calibration in the calibrate tab.

User can adjust calibration by selecting standard calibration and advanced calibration. User can increase the value in the advanced mode in order to adjust position in full detail.



Vevice Multiple Monitors Tools About

Multiple Monitor Support

- 🗆 🔀

ОК

### User can adjust touch screen and nontouch screen in the multiple monitors tab.

#### Note:

- Multiple monitors should not be selected in case of using single monitor, and should be used when using dual monitor in order to set up touch screen and non-touch screen.
- 3 You can set up touch mode and beep sound in the setting tab and use the function.

allbrate Setting Edge Comper	nsation About	
Operation Mode	Pen Input Emulation	
Reep Sound	Kind of Sound	Buzzer Beep 💌
Beep Mode Beep on pen dgwn Beep on pen yp Beep on both	Beep Frequency Beep Duration	1000 H
Cursor Stabilizer You can use Cursor Stabilizer to remove jitter of cursor.	Use press and hold as right Delay:	nt click 2.0 sec

Map Touch Screens

### 4 < Windows XP >

User can set up Draw, Gesture Enable, Gesture Setting and Double Click Speed in the tool tab, and utilize them.

Draw	Test by drarwing on the touch screen
Right Button Icon	Show/Hide the icon for switching buttons
Gesture Enable	Gesture Setting
Double Click Speed Slow	Fast

### < Windows 7 >

User can set up Draw, Right Button Icon Enable and Double Click Speed in the tool tab, and utilize them.

Draw	Test by drawing on the touch screen
Right Button Icon	Show/Hide the icon for switching buttons

#### TOUCH SCREEN SET-UP

5 You can check the information of PenMount in the About tab.



#### Notice for using touch panel!

#### $\cdot$ In case of using touch panel

- Do not touch the panel with sharp instruments such as knife or writing pen
- Please touch the panel with the designated stylus or finger.
- Please polish the touch panel with alcohol and soft cloth only.
- Be careful to prevent alcohol from leaking into the touch panel.
- Do not use other solvent except for alcohol.
- Misuse of the touch panel can damages the product. Damage to the touch screen can cause errors in registering touch locations accurately.
- · In case of preserving touch panel
- Please keep the product under the standard temperature and humidity.
- Please keep the product in package.
- Do not stack products, and do not place any materials on it.
- Keep the product out of the direct rays of the sun.
- Keep the product away from fire.
- Misuse of product can cause exterior variation.

- · In case of assembling touch panel
- Do not use strong force on the touch panel.
- Be careful not to break touch panel, and place it on the soft materials such as sponge.
- Do not pull on touch panel FPC cable or use unnecessary force during assembly.
- If the FPC cable is damaged the touch panel will not register contact in the correct locations.

# **PCB OVERVIEW**

# System Main B/D

### System Block Diagram



# Mainboard Layout



### **Rear Panel Connectors**



- DC-12V Input Connector (Max. 5A)



### - COM1 Connector



Signal	Name	Function
1	DCD	Data Carrier Detect
2	SIN	Serial Input
3	SOUT	Serial Output
4	DTR	Data Terminal Ready
5	GND	Ground
6	DSR	Data Set Ready
7	RTS	Request to Send
8	CTS	Clear to Send
9	RI	Ring Indicator (Ring or 5V or 12V MB Jumper setting)
10	Key	No pin

### - COM2 Connector



Signal	Name	Function
1	DCD	Data Carrier Detect
2	SIN	Serial Input
3	SOUT	Serial Output
4	DTR	Data Terminal Ready
5	GND	Ground
6	DSR	Data Set Ready
7	RTS	Request to Send
8	CTS	Clear to Send
9	RI	Ring Indicator (Ring or 5V or 12V MB Jumper setting)
10	Кеу	No pin

# **Touch Control B/D**

# Block Diagram (pos terminal $\rightarrow$ main board)



### **General Specification**

I	No	ltem	Description	Remark
	1	Model Name	Touch Board	
	2 Supply Voltage		DC +5V	
	3	Interface	USB Interface	
	4 Operating Temperature		0′C~40′C	
	5	Board Dimension	WxDxH 170 x 64 x 20(mm)	

# **Components Layout**

No	Description	Part No	# of Pins	Desc. on PCB
1	Host Interface	20010WR-04 (Yeonho)	4	J1
2	4/5 Wrie Selector	2.00mm Pin Header	2	J2
3	5 Wire Touch Screen Interface	2.54mm Angle Type Pin Header	5	J3
4	4 Wire Touch Screen Interface	FCP 1.0-SMT11-4WS-1B	4	CN1



### A. CN1-20010WR-04



Pin	Description	Pin	Description
1	+5 Volt	3	USB Data D+
2	USB Data D-	4	GND

# Power USB Board

# Specification

- 80mm x 26mm x 1.6t
- Vertical USB Connector x 2
- Power LED(Blue)
- HDD LED(RED)

# **Components Layout**



No	Description	Part No	# of Pins	Desc. on PCB
1	USB Type A Connector	UB1112C-4K5-4F	4	J1
2	USB Type A Connector	UB1112C-4K5-4F	4	J2
3	Host Interface	2x10x2.54mm Pin Header	20	J3
4	Power LED	5Ø Blue LED or 5Ø Green LED	2	LED1
5	HDD LED	5Ø Red LED or 5Ø Green LED	2	LED2
6	Power On Switch	IT-1102VC	2	SW1

### **Block Diagram**

- USB Logic



### - Indicator



# HARDWARE INSTALLATION

### **Installing System Memory**

### Installing Memory Modules

This motherboard accommodates one memory modules. It can support one 204-pin DDR3 DIMM 1066/800 MHz. The total memory capacity is 2 GB.

### - DDR3 DIMM memory module table

Memory module	Memory Bus
DDR3 800	400 MHz
DDR3 1066	533 MHz

You must install one module in the slot.

### ⊳Note

» Do not remove any memory module from its antistatic packaging until you are ready to install it on the motherboard. Handle the modules only by their edges. Do not touch the components or metal parts. Always wear a grounding strap when you handle the modules.

### - Installation Procedure

Refer to the following to install the memory modules.

- 1. This motherboard supports DDR3 DIMM.
- 2. Push the latches on each side of the DIMM slot down.
- 3. Align the memory module with the slot. The DIMM slots are keyed with notches and the DIMMs are keyed with cutouts so that they can only be installed correctly.
- 4. Check that the cutouts on the DIMM module edge connector match the notches in the DIMM slot.
- 5. Install the DIMM module into the slot and press it firmly down until it seats correctly. The slot latches are levered upwards and latch on to the edges of the DIMM.
- 6. Install any remaining DIMM modules.



\* For reference only

### **Expansion Slots**

### Installing Add-on Cards

The slots on this motherboard are designed to hold expansion cards and connect them to the system bus. Expansion slots are a means of adding or enhancing the motherboard's features and capabilities. With these efficient facilities, you can increase the motherboard's capabilities by adding hardware that performs tasks that are not part of the basic system.



### - PCI Slot

This motherboard is equipped with one standard PCI slot. PCI stands for Peripheral Component Interconnect and is a bus standard for expansion cards, which for the most part, is a supplement of the older ISA bus standard. The PCI slot on this board is PCI v2.3 compliant.

#### ⊳Note

### **Jumpers**

### **Jumper Setting**

Use the motherboard jumpers to set system configuration options. Jumpers with more than one pin are numbered. When setting the jumpers, ensure that the jumper caps are placed on the correct pins.

The illustrations show a 2-pin jumper. When the jumper cap is placed on both pins, the jumper is SHORT. If you remove the jumper cap, or place the jumper cap on just one pin, the jumper is OPEN.



SHORT OPEN

This illustration shows a 3-pin jumper. Pins 1 and 2 are SHORT.



<sup>»</sup> Do not remove any memory module from its antistatic packaging until you are ready to install it on the motherboard. Handle the modules only by their edges. Do not touch the components or metal parts. Always wear a grounding strap when you handle the modules.



Jumper	Туре	Description	Setting (default)	
CLR_CMOS	CMOS 3-pin Clear CMOS		1-2: NORMAL 2-3: CLEAR Before clearing the CMOS, make sure to turn off the system.	CLR_CMOS
LVDS_PWR1	3-pin	LVDS_VDD Power Switch	1-2: 3.3V 2-3: 5V	LVDS_PWR1
VCON1	3-pin	Reserve	1-2: +VCC3 2-3: GND	VCON1 1
JP7	6-pin	LVDS S/D Channel & Output Data Format Setting	1-3: Dual channel 3-5: Signal channel 2-4: 18bit 4-6: 24bit	1 JP7

### ►Note

» To avoid the system instability after clearing CMOS, we recommend users to enter the main BIOS setting page to "Load Default Settings" and then "Save and Exit Setup".

			PIN9			Pin1		Default
PIN1, 90	UIPUI	5V	12V	RI	5V	12V	DCD	Delault
COM1	JP6	(1-3)	(3-5)	(7-9)	(2-4)	(4-6)	(8-10)	(8-10)
COM2	JP5	(1-3)	(3-5)	(7-9)	(2-4)	(4-6)	(8-10)	(1-3)
COM3	JP3	NA	NA	NA	(1-3)	(3-5)	(7-9)	(8-10)
COM5	JP3	NA	NA	NA	(2-4)	(4-6)	(8-10)	(7-9)

	COM2	JP1	(1-3) (2-4)	RS232*
	COMIS		(3-5) (4-6)	TTL
	COM5	JP4	(1-3) (2-4)	RS232*
			(3-5) (4-6)	TTL
	COM4	DM4 JP2	(1-3) (2-4)	RS232*
			(3-5) (4-6)	RS485

# Headers / Connectors





### - F\_AUDIO: Front Panel Audio Header

The front panel audio header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access. This header supports HD audio by default. If you want connect an AC' 97 front panel audio to HD onboard headers, please set as below picture.



Pin	DESCRIPTION	Pin	DESCRIPTION
1	Left channel microphone input signal	6	Microphone sensor detect
2	Analog groud	7	Analog ground
3	Right channel microphone input signal	8	No pin
4	HD Panel sensor detect	9	Left channel to front panel
5	Right channel to front panel	10	Line-in sensor detect

### - COM1~5: Onboard Serial Port Headers

Connect a serial port extension bracket to one of these headers to add a second serial port to your system.

Pin	Signal Name	Function	
1	DCD	Data Carrier Detect	
2	SIN	Serial Input	
3	SOUT	Serial Output	
4	DTR	Data Terminal Ready	
5	GND	Ground	
6	DSR	Data Set Ready	
7	RTS	Request to Send	
8	CTS	Clear to Send	
9	RI	Ring Indicator	
10	Кеу	No pin	

### - SATA1~2: Serial ATA Connectors

SATA1~2 connectors are used to support the Serial ATA 3Gb/s devices, simpler disk drive cabling and easier PC assembly.

Pin	Signal Name	Pin	Signal Name
1	Ground	5	RX-
2	TX+	6	RX+
3	TX-	7	No pin
4	Ground	8	-

### - PRINTER: Onboard Parallel Port Header

This is a header that can be used to connect to the printer, scanner or other devices.

Pin	Signal Name	Pin	Signal Name
1	STROBE	14	Ground
2	NAFD	15	PD6
3	PD0	16	Ground
4	ERROR	17	PD7
5	PD1	18	Ground
6	INIT	19	ACK
7	PD2	20	Ground
8	SLCTIN	21	BUSY
9	PD3	22	Ground
10	Ground	23	PE
11	PD4	24	Ground
12	Ground	25	SLCT
13	PD5	26	Кеу

### - DIO: DIO Header

Pin	Pin Signal Name Pin S		Signal Name
1	GPI8	5	GPI10
2	GPO24	6	GPO28
3	GPI9	7	Ground
4	GPO26	8	Ground

### - LVDS3: LVDS Header

Pin	Signal Name	Pin Signal Name		
1	+LVDS_VDD	21	LA_TX2P	
2	+LVDS_VDD	22	LB_TX2P	
3	GND	23	GND	
4	GND	24	GND	
5	+LVDS_VDD	25	LA_CLKN	
6	+LVDS_VDD	26	LB_CLKN	
7	LA_TX0N	27	LA_CLKP	
8	LB_TX0N	28	LB_CLKP	
9	LA_TX0P	29	GND	
10	LB_TX0P	30	GND	
11	GND	31	LVDS_CLK	
12	GND	32	LVDS_DAT	
13	LA_TX1N	33	GND	
14	LB_TX1N	34	GND	
15	LA_TX1P	35	LA_TX3N	
16	LB_TX1P	36	LB_TX3N	
17	GND	37	LA_TX3P	
18	GND	38	LB_TX3P	
19	LA_TX2N	39	BL_EN_CON	
20	LB_TX2N	40	VCON	

#### - KB\_MS: PS2 Header

Pin	Signal Name		Signal Name
1 VCC 5 KDATA		KDATA	
2	NC	6	MDATA
3	KCLK	7	GND
4	MCLK	8	NA

### - F\_USB1: Front Panel USB 2.0 Header

The onboard F\_USB1 header supports two USB 2.0 ports. Additionally, some computer cases have USB 2.0 ports at the front of the case. If you have this kind of case, use auxiliary USB 2.0 connector to connect the front-mounted ports to the motherboard.

Pin	Pin Signal Name		Signal Name	
1	1 Front Panel USB Power		USB Port 4 Positive Signal	
2	Front Panel USB Power	7	Ground	
3	USB Port 3 Negative Signal	8	3 Ground	
4	USB Port 4 Negative Signal	9	Not connected	
5	USB Port 3 Positive Signal	10	Not connected	



### ►Note

» Please make sure that the USB cable has the same pin assignment as indicated above. A different pin assignment may cause damage or system hang-up.

### -F\_USB2: Front Panel USB 2.0 Header

The onboard F\_USB2 header supports two USB 2.0 ports. Additionally, some computer cases have USB 2.0 ports at the front of the case. If you have this kind of case, use auxiliary USB 2.0 connector to connect the front-mounted ports to the motherboard.

Pin	Signal Name	Function	
1	USBPWR	Front Panel USB Power	
2	USBPWR	Front Panel USB Power	
3	DATA1-	USB Port 1 Negative Signal	
4	DATA2-	USB Port 2 Negative Signal	
5	DATA1+	USB Port 1 Positive Signal	
6	DATA2+	USB Port 2 Positive Signal	
7	GND	Ground	
8	GND	Ground	
9	NC	Not connected	
10	NC	Not connected	



#### ⊳Note

» Please make sure that the USB cable has the same pin assignment as indicated above. A different pin assignment may cause damage or system hang-up.

### - CPU\_FAN: CPU cooling FAN Connector

Pin	n Signal Name Functio		
1	GND	System Ground	
2	+12V	Power +12V	
3	Sense	Sensor	
4	CONTROL	CONTROL	

### - SYS\_FAN: System Cooling FAN Connector

Pin	Pin Signal Name Function		
1	GND	System Ground	
2	+12V	Power +12V	
3	Sense	Sensor	
4	CONTROL	CONTROL	

### - ATX12V: ATX 12V Power Connector

Pin	Signal Name		
1	Ground		
2	Ground		
3	+12V		
4	+12V		

### - HDD\_PWR: HDD Power Connector

Pin	Signal Name		
1	+VCC		
2	GND		
3	GND		
4	+12V		

### - ODD\_PWR: ODD Power Connector

Pin	Signal Name			
1	+VCC			
2	GND			
3	GND			
4	+12V			

### - LVDSPW\_CONN: LVDS Power Connector

Pin	Signal Name		
1	+LBKLT_12V		
2	GND		
3	BL_EN		
4	BL_CTL		
5	+LBKLT_5V		

# - Front Panel Header\*

The front panel header (F\_PANEL) provides a standard set of switch and LED headers commonly found on ATX or Micro ATX cases. Refer to the table below for information:



Pin	Signal Name	Function	Pin	Signal Name	Function
1	HD_LED_P	Hard disk LED (+)	6	PWR_SW_P	*MSG LED (+)
2	FP PWR/SLP	Hard disk LED (-)	7	RST_SW_P	*MSG LED (-)
3	HD_LED_N	Reset Switch (-)	8	PWR_SW_N	Power Switch (+)
4	FP PWR/SLP	Reset Switch (+)	9	RSVD	Power Switch (-)
5	RST_SW_N	Reserved	10	Key	No pin

# **CABLE PIN ASSIGNMENT**

# LVDS Cable



P1	P2	COLOR	PAIR	Signal	P1	P2	COLOR	PAIR	Signal
5	1	BLK	1	+3.3V	19	11	GRN	6	TX2-
6	2	BLK/WHT	1	+3.3V	21	12	GRN/BLK	6	TX2+
3	3	BRN	2	GND	23	13	BLU	7	GND
4	4	BRN/BLK	2	GND	25	14	VIO	8	CLK-
7	5	RED	3	TX0-	27	15	VIO/BLK	8	CLK+
9	6	RED/BLK	3	TX0+	29	16	BLU/BLK	7	GND
11	7	ORN	4	GND	35	17	GRY	9	TX3-
13	8	YEL	5	TX1-	37	18	GRY/BLK	9	TX3+
15	9	YEL/BLK	5	TX1+	33	19	WHT	10	GND
17	10	ORN/BLK	4	GND	34	20	WHT/BLK	10	GND

ITEM	<b>Q'TY</b>	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER	
1	1		HOUSING	DF 13-40DS-1. 25C		HRS	
2	20		TERMNIAL	DF 13-2630SCF		HRS	
3	1		HOUSING	12507HS-20		YEONHO	
4	20		TERMNIAL	12507TS		YEONHO	
5	1	395	CABLE	UL20276 AWG 30 10PR	I-VORY	TAIYOUNG OR EQ'	
6	1	20	H/S TUBE	DIA = 5mm, F4 Type	BLK	EXPOL OR EQ'	
7	1	60	H/S TUBE	DIA = 5mm, F4 Type	BLK	EXPOL OR EQ'	

# **TOUCH-USB Cable1**



No.	PART NAME	SPEC RECOUNT	Q'TY
A	CABLE	UL1007 26AWG 7/0.15TS±0.01 OD:1.3±0.05mm PVC JACKET RED BLACK	1SET
В	HOUSING	TJC8-2*5 BLACK 10Pin Key PTICH=2.54mm	1PCS
С	TERMNIAL	TJC8-T	4PCS
D	HOUSING	20022HS-04 WHITE PTICH=2.0mm	1PCS
E	TERMNIAL	YST200	4PCS

# **Parallel Cable**



P1	P2(연접#1)	P2(연접#2)	COLOR	Signal	P1	P2(연접#1)	P2(연접#2)	COLOR	Signal
1	1		BLK	STB	10	19		WHT	ACK-
2	3		WHT	DO	11	21		WHT	BUSY
3	5		WHT	D1	12	23		WHT	PE
4	7		WHT	D2	13	25		WHT	SLT
5	9		WHT	D3	14		2	BLK	AFD-
6	11		WHT	D4	15		4	WHT	ERR-
7	13		WHT	D5	16		6	WHT	PRINT-
8	15		WHT	D6	17		8	WHT	SLIN-
9	17		WHT	D7	18		10	WHT	GND

ITEM	<b>Q'TY</b>	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	1		D-SUB CONNECTOR	DS01-25F-RHR (FEMALE)		YICHANG OR EQ'
2	9		H/S TUBE	DIA = 1.5mm	BLK	EXPOL OR EQ'
3	1		HOUSING	CH254D-26		YICHANG OR EQ'
4	9		TERMNIAL	CH254T		YICHANG OR EQ'
5	1	265	FLAT WIRE	1571#28 13C FLAT	BLK/WHT-	EUNSUNG OR EQ'
	1	310	FLAT WIRE	1571#28 5C FLAT	BLK/WHT-	EUNSUNG OR EQ'

# HDD Power / SATA Cable



No.	PART NAME	DESCRIPTION	UNIT	QTY'
1	CABLE	UL21149(26AWG*1P+AL)*2F+3D 0D:7.8*22 RED JACKEWHITE LETTERING	ММ	1
2	WIER	UL1007 18AWG YELLOW	PCS	1
3	WIER	UL1007 18AWG BLACK	PCS	1
4	WIER	UL1007 18AWG RED	PCS	1
6	CONN	S-ATA 7P BLACK 镀金	PCS	1
6	CONN	S-ATA7+15 BLACK	PCS	1
7	TERMINAL	PH=2.5 TERMINAL TIN PLATED	PCS	3
8	HOUSING	HOUSING 4PIN PH=2.5 WHITE	PCS	1

# **Inverter Cable**



P1	P2	P3	COLOR	Signal
2	3		BLU	K_CLK
3	5		WHT	K_DATA
4	1		RED	VCC
5	7		BLK	GND

ITEM	Q'TY	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	1		HOUSING	20017HS-06		YEONHO
2	4		TERMNIAL	20017TS		YEONHO
3	1		HOUSING	CH254D-08		YICHANG OR EQ'
4	4		TERMNIAL	CH254T		YICHANG OR EQ'
5	4	310	WIRE	1571#28	REFER	EUNSUNG OR EQ'
6	1	260	H/S WIRE	DIA = 4mm F4	BLK	EXPOL OR EQ'

# MSR Option Cable



P1	P2	P3	COLOR	Signal
2	3		BLU	K_CLK
3	5		WHT	K_DATA
4	1		RED	VCC
5	7		BLK	GND

ITEM	Q'TY	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	1		HOUSING	20017HS-06		YEONHO
2	4	TERMNIAL 20017TS			YEONHO	
3	1		HOUSING	CH254D-08		YICHANG OR EQ'
4	4		TERMNIAL	CH254T		YICHANG OR EQ'
5	4	310	WIRE	1571#28	REFER	EUNSUNG OR EQ'
6	1	260	H/S WIRE	DIA = 4mm F4	BLK	EXPOL OR EQ'

## Front Power & USB Cable



P1	P2	P3	COLOR	Signal	P1	P2	P3	COLOR	Signal
11	1	CABLE1	RED	VOD	18	8	CABLE2	BLK	GND
13	3	CABLE1	WHT	DO_	3		1	BRN	HDD LED+
15	5	CABLE1	GRN	DO+	4		2	ORN	PWR LED+
17	7	CABLE1	BLK	GND	5		3	GRY	HDD LED-
12	2	CABLE2	RED	VOD	6		4	WHT	PWR LED-
14	4	CABLE2	WHT	DO_	8		6	RED	PWR SW+
16	6	CABLE2	GRN	DO+	10		8	BLK	PWR SW-

ITEM	<b>Q'TY</b>	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	1		HOUSING	CH254D-20		YICHANG OR EQ'
2	2		HOUSING	CH254D-10		YICHANG OR EQ'
3	28		TERMNIAL	CH254T		YICHANG OR EQ'
4	2	535	CABLE	2725 4C (1P, 2C)	BLK	TAIYOUNG
5	2	25	H/S TUBE	DIA = 12mm	BLK	EXPOL OR EQ'
6	2		H/S TIE	CT-100	BLK	UL / CSA
7	6	515	WIRE	1007#26	007#26 REFER	
8	1	440	H/S TUBE	DIA = 6.0mm	BLK	EXPOL OR EQ'

# Serial Cable (RJ, Cash Drawer COM Cable)



P1	P2	COLOR	Signal	P1	P2	COLOR	Signal
1	1	BLK	DCD	6	6	WHT	DSR
2	2	WHT	SIN	7	7	WHT	DTS
3	3	WHT	SOUT	8	8	WHT	CTS
4	4	WHT	DTR	9	9	WHT	R1
5	5	WHT	GND				

ITEM	<b>Ϙ'</b> ΤΥ	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	1		D-SUB CONNECTOR	DS01-09M-RHR (MALE)		YICHANG OR EQ'
2	9		H/S TUBE	DIA = 1.5mm	BLK	EXPOL OR EQ'
3	1		HOUSING	CH2540-10		YICHANG OR EQ'
4	9		TERMNIAL	CH254T		YICHANG OR EQ'
5	1	230	FLAT WIRE	1571#28 9C FLAT	BLK/WHT-	EUNSUNG OR EQ'

# DC (12V) OUT Cable



P1	P2	COLOR	Signal
3	2	BLK	GND
4	1	YEL	12V

ITEM	<b>Q'TY</b>	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	1		HOUSING	CH0250-04		HANLIM OR EQ'
2	2		TERMNIAL	CT0250		HANLIM OR EQ'
3	1		DC JACK	DCJ-2. 1-03(DC-021A)		UL / CSA
4	2	210	WIRE	1007#20	REFER	DAEYOUNG OR EQ'
5	2	10	H/S TUBE	DIA = 2.5mm	BLK	EXPOL OR EQ'
6	1	20	H/S TUBE	DIA = 3.0mm	BLK	EXPOL OR EQ'

# RJ45 COM Interface Board (optional)



No.	DESCRIPTION	Part No	Remark	Desc. ON PCB
1	PS232 In	BHS2.00-01-10P, 2x5, 2.0mm Pitch Box Connector	10Pin	J1
2	RS232 Out	C0073-AAYGB001R(E5J88-64LOB1)	RJ45 8Pin	J2
3	12Vdc In	YAW396-02(Yeonho)	2Pin	J3
4	12Vdc Out	DC-005	3Pin	J4

# D-SUB RJ11 DC OUT Board K1 (optional)

# **Board Layout & Dimensions**



# **Connector Descriptions**



- General Description

ltem	Description	ltem	Description
CN1	N/A	CN1	COM Port Interface from Motherboard
CN2	9Pin D-Sub COM Port	CN2	12Vdc Input
CN3	Cash Drawer Box Interface	CN3	DC-Jack(12Vdc Output)
J1	N/A	J1	Cash Drawer Control Interface

### - CN2: 9Pin D-Sub COM Port, YAW396-02V(YEONHO)

	1===5	
S	****	
	6 9	

Pin	Description
1	CDC
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

- J2 : COM Port Interface from Motherboard, RJ11-6P(DAEEUN)



Pin	Description
1	CDC
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI
10	NC

- CN3 : Cash Drawer Box Interface, RJ11-6P(DAEEUN)

6	5

Pin	Description
1	STS2
2	CTRL1
3	STS1
4	24Vdc
5	CTRL2
6	GND

### -J3:9Pin D-Sub COM Port, YAW396-02V(YEONHO)



Pin	Description
1	+12Vdc
2	GND

-J4 : DC-JACK, DC-005, Ø2.1



Pin	Description
1	+12Vdc
2	GND

### -J5 : Cash Drawer Control Interface, DC-005, Ø2.1

6		

Pin	Description
1	STS1
2	CTRL1
3	STS2
4	CTRL2
5	5Vdc
6	GND

# RJ45 Power Cable (optional)



P1	P2	COLOR	Signal	
1	4	YEL	12V	
2	3	BLK	GND	

ITEM	<b>Q'TY</b>	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	1		HOUSING	YH396-02V		YEONHO
2	2		TERMNIAL	YT396(J)		YEONHO
3	1		HOUSING	CH0250-04		HANLIM OR EQ'
4	2		TERMNIAL	CT0250		HANLIM OR EQ'
5	1	215	WIRE	1007#20	REFER	DAEYOUNG OR EQ'
6	1	20	H/S TUBE	DIA = 3mm	BLK	EXPOL OR EQ'

# RJ11 D-SUB Cable (optional)



P1	P2	P3	COLOR	Signal
1	1		YEL	GP18
2	2		ORN	GP024
3	3		RED	GP19
4	4		BRN	GP026
6	7		BLK	GND

ITE	M	Q'TY	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	I	1		HOUSING	12505HS-06		YEONHO
2	2	5		TERMNIAL	12505TS		YEONHO
3	3	1		HOUSING	CH254D-08		YICHANG OR EQ'
4	1	5		TERMNIAL	CH254T		YICHANG OR EQ'
5	5	5	310	WIRE	1571#28	REFER	EUNSUNG OR EQ'
e	5	1	260	H/S TUBE	DIA = 3mm F4	BLK	EXPOL OR EQ'

# Serial Cable (RJ, Cash Drawer COM Cable) (optional)



P1	P2	COLOR	Signal	P1	P2	COLOR	Signal
2	9	BLK	RI	7	4	WHT	DTR
3	8	WHT	CTS	8	3	WHT	TX
4	7	WHT	RTS	9	2	WHT	RX
5	6	WHT	DSR	10	1	WHT	DCD
6	5	WHT	GND				

ITEM	<b>Ϙ'</b> ΤΥ	LENGTH	DESCRIPTION	SPECIFICATION	COLOR	VENDER
1	1		HOUSING	CH204D-10-B		YICHANG OR EQ'
2	9		TERMNIAL	CH204T-G		YICHANG OR EQ'
3	1		HOUSING	CH2540-10		YICHANG OR EQ'
4	9		TERMNIAL	CH254T		YICHANG OR EQ'
5	1	265	FLAT WIRE	1571#28 9C FLAT	BLK/WHT-	UL/CSA