

S1689

**ULi M1689
Micro-ATX Motherboard**

User's Guide



Declaration of Conformity

According to 47 CFR, Parts 2 and 15 of the FCC Rules

The following designated product:

EQUIPMENT: MAINBOARD

is a Class B digital device that complies with 47 CFR Parts 2 and 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.**


This declaration is given to the manufacturer:

CHAINTECH AMERICA CORP.

4427 Enterprise St. Fremont, CA 94538, U.S.A.

<http://www.chaintechusa.com>

Chaintech President: Simon Ho

Signature: 

Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- * This device may not cause harmful interference.
- * This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If this equipment is not installed and used in accordance with the manufacturer's instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- * Reorient or relocate the receiving antenna.
- * Increase the separation between the equipment and receiver.
- * Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- * Consult the dealer or an experienced radio/TV technician for help.

The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canadian Department of Communications Statement

This digital apparatus does not exceed the Class B limits for audio noise emissions from digital apparatuses set out in the Radio Interference Regulations of the Canadian Department of Communications.

Manufacturer's Disclaimer Statement

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Revision History

Revision	Description	P/N
V.1_M	Original Issue	9413507010

Chapter 1 Introduction

1-1 Product Specifications

CPU


- Supports AMD Socket-939 Althon 64 / Sempron CPU
- Processor interface via 2000MT/s HyperTransport bus

Chipset

- ULi M1689

Memory

- Four 184- pin DDR DIMMs up to 4GB
- Supports Dual Channel DDR266/333/400 memory

	Due to CPU specifications limitation, two DDR400 memory modules inserted into DIMM1/3, three DDR400 into DIMM1/2/3, or four DDR400 into DIMM1/2/3/4 is not recommended.
---	--

Expansion Slots

- One AGP slot for 8X/4X AGP
- Five 32-Bit PCI slots (v2.2 compliant)

5.1 Channel Audio

- With external high quality 5.1-channel AC'97 Codec
- Complete software driver supports for Windows OS

SATA

- Supports four native SATA 1.5Gb/s devices
- Hot-swap capability, allowing disks to be changed without powering down the system.
- Supports SATA ATAPI devices

IDE

- Supports 2 UltraDMA-66/100/133 IDE Ports

FDD

- One FDD connector supports up to 2.88 MB

USB 2.0

- Built-in VT8237R supports total 8 USB 2.0/1.1 ports
- Supports USB 2.0 High-Speed Device @480 Mb/s Transfer Rates

Fast Ethernet

- Supports 10/100Mb Fast Ethernet with external Realtek PHY

Boot-Block Flash ROM

- Award system BIOS supports PnP, APM, DMI, ACPI, & Multi-device Booting features

Rear Panel I/O ports

- PS/2 Mouse and Keyboard port
- Four USB ports and one RJ45 connector
- Two 9-pin D-Sub male Serial ports
- 25-pin D-Sub female Parallel port
- Audio I/O jacks (Line-in, Line-out and Mic-in)

Internal I/O connectors

- Two 3x1 pin fan connectors
- Two 5x2 pin USB connectors for additional 4 USB ports
- 3x1 pin wake on LAN connector with housing
- Two 4x1 pin CD-in connectors
- 5x2 pin Front Audio connector
- 10x2 pin Front Panel connector
- 8x2 pin Game/Midi Port connector
- 20 pin ATX Power connector
- 4 pin ATX 12V Power connector

Form Factor

- ATX Form Factor 305mm x 200 mm

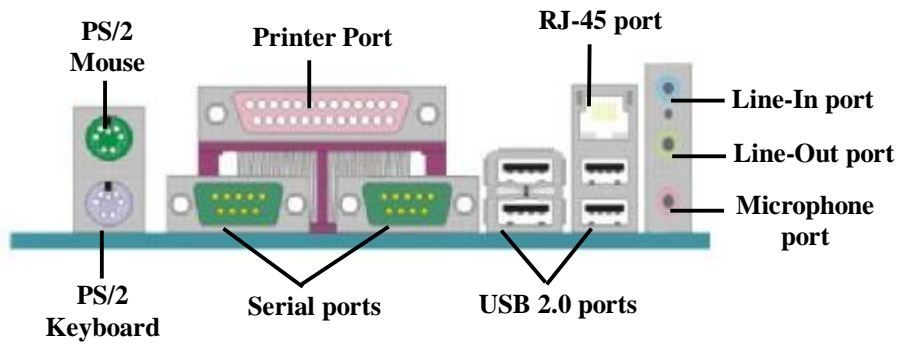
1-2 Package Contents

This product comes with the following components:

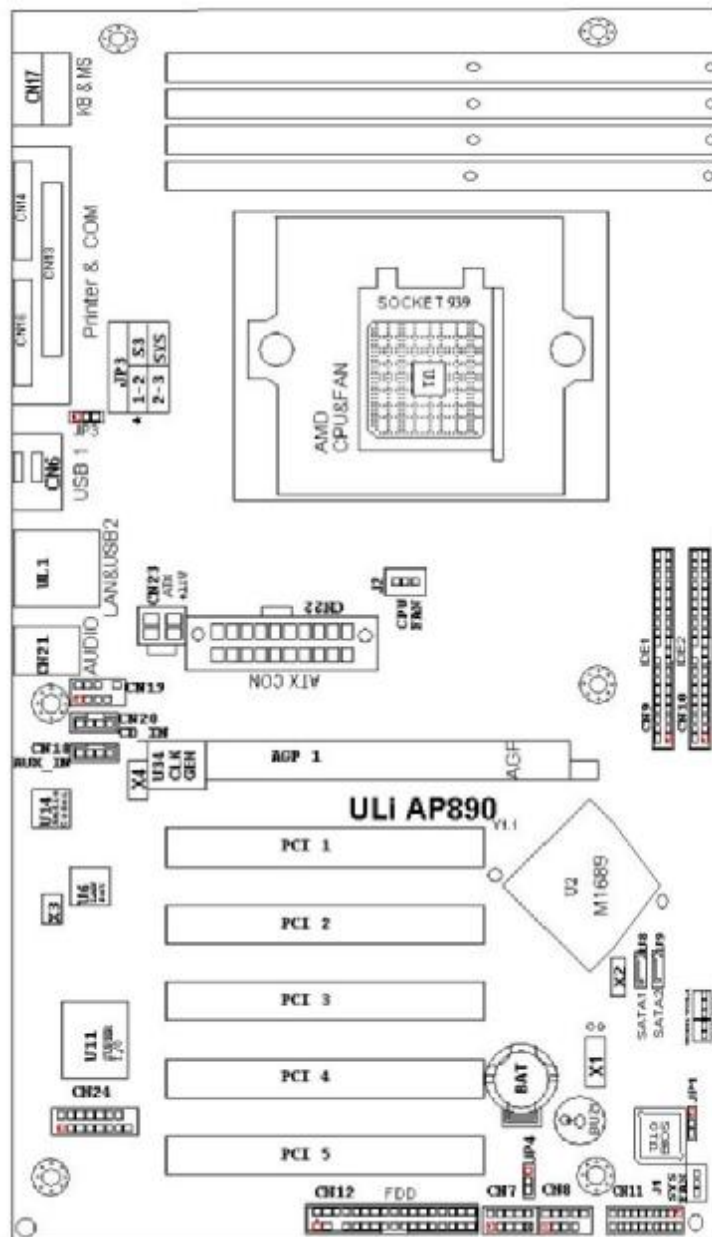
1. 1x Motherboard
2. 1x 40-Pin UDMA-100 IDE Cable
(**Blue** to motherboard, **Gray** to Master and **Black** to Slave)
3. 1x 34-Pin floppy Disk Drive Cable
4. 1x Serial ATA Cable
5. 1x SATA Power Cable
6. 1x User's Guide
7. 1x Driver CD
8. 1x Value Pack 2005

1-3 Back Panel

S1689



1-4 Motherboard Layout



Chapter 2 Hardware Setup

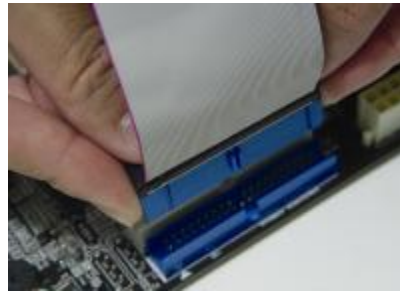
2-1 PC D.I.Y. Assembly Instructions

1. Jumper Setting:

Set the CPU External Clock, Frequency Ratio and the CPU voltage according to the instruction printed on the manual or silkscreen printed on the mainboard.

2. Installing FDD and IDE devices:

Aligned the red colored edge of the cable with the pin 1 of the drive connector on the mainboard and gently attached it. Attach the other end of the cable by aligning the colored edge to the pin 1 of the device connector. Make sure that all drives are securely fastened.



3. Installing a CPU:

Locate a noticeable notch in the CPU's corner. This marking indicate Pin 1 of the CPU. Gently insert the CPU with Pin 1 at the same corner of the socket that contains the end of the lever.



4. Installing System Memory:

Push module downward until side clips are properly secure to the module.



5. Mounting a Mainboard into a Chassis:

Use standoffs and screws to securely mount the mainboard and make sure that all the mounting holes are properly screwed.



6. Adding an expansion card:

Gently fasten the card to the proper slot.



7. Connecting I/O ports and device connectors:

Simply plug the cable into the respective device port or connector as shown in the manual or silkscreen printed on the mainboard.

8. Connecting the Power Supply Cables:

Plug in the ATX power cable to the mainboard's power connector and make sure the cable is connected.



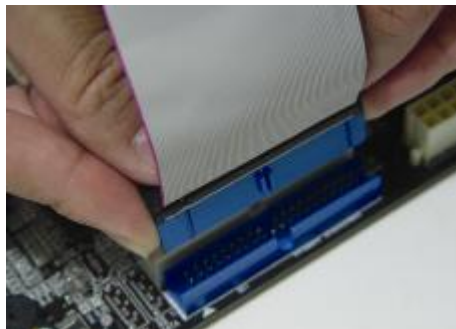
2-2 自行組裝電腦之作業指導重點 (Chinese)

1. 主機板硬體組態設定:

依據使用手冊上面的指令或印刷在主機板上的文字來設定 CPU 外頻，倍頻及電壓或其它設定。

2. 安裝 FDD 和 IDE 裝置:

將排線較長一端的排線插入主機板 IDE 插槽並且紅色線對準插槽的第一針腳 (Pin 1)，檢視排線接頭是否完全插入插槽，同時排線較短的一端也依序插入軟碟機，硬碟機等儲存裝置。



3. 安裝 CPU:

將 CPU 的缺角對準 CPU 腳座的缺角並小心地將 CPU 插在腳座上，按下旁邊的固定桿以固定 CPU。



4. 安裝系統記憶體:

先確定記憶體模組金手指的方向，慢慢插入記憶體插槽並小心地將記憶體模組往下壓，直到插槽的固定卡榫卡住記憶體模組兩端的缺口。



5. 主機板固定:

用銅柱及螺絲將主機板安裝在機殼底座並確定每個孔洞均已被鎖上，尤其注意主機板底下不可有多餘的銅柱以避免造成短路。



6. 增加介面卡:

將介面卡(例：網路卡，音效卡等)插在適當的介面卡擴充插槽，並將卡上的鐵片鎖緊在機殼上。



7. 連接 I/O 埠和其他設備的接頭:

適當地將排線插入各設備的插槽，記得必須將排線與插座的第一針腳互相對準，請參照使用者手冊的主機板平面圖。

8. 連接電源供應器:

將電源接頭與主機板上之插座對準插入，並確定卡榫已緊扣。



2-3 Français Instructions de montage du PC D.I.Y (French)

1. Positionnement des cavaliers (jumpers)

Positionnez les cavaliers de la fréquence d'horloge externe du microprocesseur, du rapport de fréquence et de la tension d'alimentation du microprocesseur, suivant les instructions qui figurent dans le manuel ou qui sont sérigraphiées sur la carte mère.

2. Installation du disque dur et des périphériques IDE

Alignez le côté coloré en rouge du câble avec la broche n°1 du connecteur de la carte mère, et fixez le câble en douceur. Raccordez l'autre extrémité du câble en alignant le côté coloré en rouge du câble avec la broche n°1 du connecteur du périphérique. Vérifiez que tous les périphériques sont correctement fixés.



3. Installation d'un microprocesseur

Repérez l'encoche qui se trouve dans l'un des coins du microprocesseur. Cette encoche indique la broche n°1 du microprocesseur. Insérez en douceur le microprocesseur dans son support, en plaçant la broche n°1 du côté du support où se trouve l'extrémité du levier de blocage.



4. Installation de la mémoire vive

Poussez la barrette dans son logement jusqu'à ce que les deux clips latéraux soient correctement bloqués par le support module.



5. Montage d'une carte mère dans son châssis

A l'aide des jauges d'espacement et des vis fournies, fixez fermement la carte mère dans son emplacement, et vérifiez que tous les trous destinés à la fixation sont utilisés et les vis sont correctement serrées.



6. Ajout d'une carte d'extension

Fixez avec précaution la carte dans le logement adapté.



7. Raccordement des ports d'E/S et des connecteurs des périphériques

Branchez simplement le câble dans le port ou le connecteur du périphérique concerné, suivant les instructions qui figurent dans le manuel ou qui sont sérigraphiées sur la carte mère.

8. Raccordement des câbles de l'alimentation électrique

Raccordez le câble d'alimentation ATX au connecteur d'alimentation de la carte mère, et vérifiez qu'ils sont bien verrouillés en place.



2-4 Deutsch PC D.I.Y.-Montageanleitung (German)

1. Steckbrücken Konfigurieren

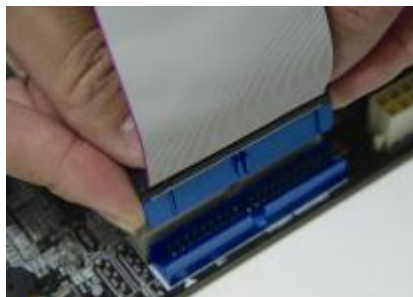
Die Anweisungen zum Einstellen des externen Prozessortakts, der Taktfrequenz und der Prozessorspannung finden Sie im Handbuch oder direkt auf dem Motherboard.

2. Disketten- und Festplattenlaufwerke Installieren

Schließen Sie die rot markierte Kabelseite an Stift 1 des Laufwerksanschlusses auf dem Motherboard an. Bringen Sie das andere Kabelende am Geräteanschluss.

Richten Sie dabei die rot markierte Kabelseite mit Stift 1 aus.

Überprüfen Sie den stabilen Sitz aller Laufwerk-Kabel.



3. Prozessor Installieren

Der Prozessor ist an einer Stelle eingekerbt. Mit dieser Kerbe wird Stift 1 des Prozessors gekennzeichnet. Setzen Sie den Prozessor vorsichtig in den Sockel ein, und richten Sie dabei Stift 1 mit dem Hebelende aus.



4. Arbeitsspeicher einsetzen

Drücken Sie das Modul nach unten, bis die seitlichen Steckplatzhalterungen im Modul einrasten.



5. Motherboard im Gehäuse montieren

Verwenden Sie das modul nach Schrauben und Abstandhalter, um das Motherboard stabil im Gehäuse zu montieren. Achten Sie darauf, daß sämtliche Montagöffnungen korrekt mit einer Schraube versehen werden.



6. Steckkarte einbauen

Führen Sie die Karte vorsichtig in einen geeigneten Steckplatz ein.



7. Vo- und Geräteanschlüsse verbinden

Verbinden Sie das Kabel mit dem entsprechenden Geräteanschluß. Folgen Sie dabei den Anweisungen im Handbuch oder direkt auf dem Motherboard.

8. Netzkabel anschließen

Verbinden Sie das ATX-Netzkabel korrekt mit dem Netzanschluß auf dem Motherboard.



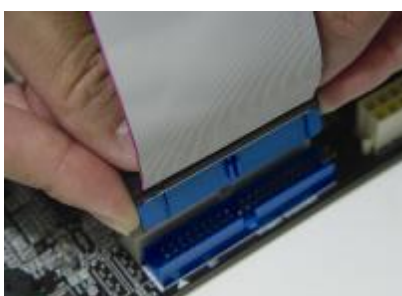
2-5 Самостоятельная сборка ПК (Russian)

1. Установка перемычек

Установите параметры Вашего таймера ЦПУ, значение частоты и напряжение ЦПУ согласно инструкциям, приведенным в руководстве, или надписям на системной плате.

2. Установка Накопителя на гибких дисках и IDE устройств

Совместите кромку красного цвета кабеля и PIN1 разъема накопителя на системной плате, затем аккуратно соедините их. Присоедините другой конец кабеля к разъему накопителя, совместив кромку красного цвета с PIN1 накопителя. Убедитесь, что все накопители правильно подсоединены.



3. Установка ЦПУ

Найдите отметку у одного из углов. Данная маркировка указывает на PIN1 процессора. Аккуратно вставьте ЦПУ, совместив PIN1 процессора с соответствующим углом гнезда, расположенным у окончания рычага.



4. Установка системной памяти

С небольшим нажатием вставьте модули в банки до момента надежного закрепления модулей зажимами.



5. Монтаж системной платы на шасси

Для надежного монтажа системной платы используйте крепления и винты. Убедитесь, что все монтажные отверстия закреплены винтами.



6. Установка карт расширения

Аккуратно установите карту в соответствующий слот



7. Подсоединение портов ввода/вывода и разъемов устройств

Подсоедините кабель к соответствующему порту или разъему согласно инструкциям, приведенным в руководстве или напечатанным на системной плате.

8. Подсоединение кабелей источника питания

Подсоедините кабель питания ATX к разъему питания системной платы и убедитесь в надежности крепления



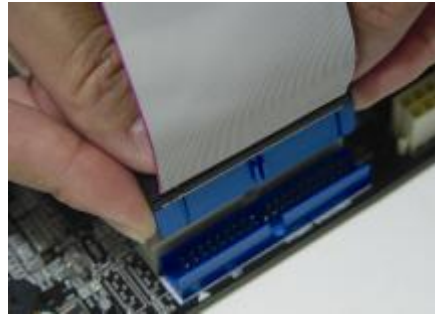
2-6 PC D. I. Y. 조립 설명 (Korean)

1. 점퍼설정

매뉴얼이나 메인보드에 나와있는 설정방법을 참고하여 **CPU**의 외부클럭, 주파수, 전압 등을 설정합니다.

2. 메인보드 장착

드라이버를 이용하여 케이스에 정확하게 메인보드를 장착합니다.



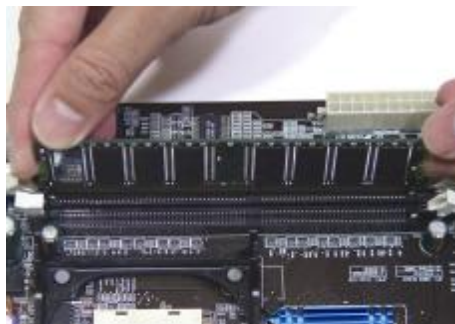
3. CPU 장착

CPU의 모서리를 보면 표시가 되어있습니다. 이 부분이 **1**번 핀입니다. 이 부분을 메인보드의 **CPU**소켓에 맞추어 **CPU**를 장착합니다.



4. 메모리 장착

메모리의 금색부분이 보이지 않을 때까지 메모리 슬롯에 메모리를 꽂습니다. 완벽하게 꽂히면 슬롯 옆에 있는 고정핀이 자동으로 올라옵니다.



5. 플로피 디스크, 하드디스크 케이블 연결

케이블의 1 번선은 빨간색입니다. 이 선을 기준으로 하여 메인보드의 1 번핀에 정확하게 장착합니다. 커넥터가 확실하게 연결될 수 있도록 하십시오.



6. 외부 카드의 장착

비디오카드 및 다른 외부 장착용 카드를 장착합니다.



7. I/O 포트, 기타장치 연결

매뉴얼이나 메인보드에 나와있는 설정방법을 참고하여 I/O 장치와 기타장치를 연결합니다.

8. 파워 썬플라이 케이블 연결

ATX 파워케이블을 메인보드에 연결합니다. 감사합니다.



2-7 Connector and Jumper Settings

Connectors are used to link the system board with other parts of the system, including power supply, keyboard, and the various controllers on the front panel of the system case.

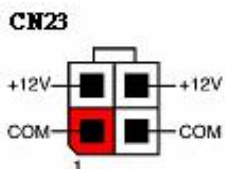


The power supply connector is the last connection to be made while installing a motherboard. Before connecting the power supply, please make sure it is not connected to the power source.

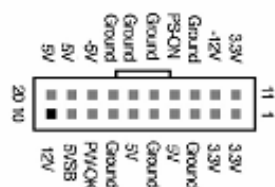


All cables that provided by CHAINTECH come with a security-proof.

CN23 / 22 (ATX Power Supply Connector):



CN22



The power cord leading from the system's power supply to the external power source must be the very last part connected when assembling a system. The ATX power supply provides a single 20-pin connector interface, which incorporates standard +/-5V, +/-12V, optional 3.3V and Soft-power signals. The Soft power signal, a 5V trickle supply is continuously supplied when AC power is available. When the system is in Soft-Off mode, this trickle supply maintains the system in its minimum power state.

The ATX 12V power supply has a new +12V (4-pin) and +5V / 3.3V (6-pin) auxiliary power connector to enable the delivery of more +12 VDC and + 5/ 3.3V VDC current to the motherboard.

Power-On By Modem:

While in Soft-Off state, if an external modem ring-up signal is detected, the system will be activated and therefore can be remotely accessed. You may enable this function in BIOS's Power Management Setup menu. (See section 3.5)

Blinking LED in Suspend Mode:

While in Suspend mode, the LED light on the front panel of your computer will flash. Suspend mode is entered by pressing the Green Override Power Button on your ATX case, or by enabling the Power Management and Suspend Mode options in BIOS's Power Management menu. (See section 3.5)

Poly-fuse Over Current Protection:

The poly-fuse protects the system from dangerous voltages that the system might be exposed to via keyboards or USB connectors. In case of such an exposure, the poly-fuse will immediately be disconnected from the circuit just like a normal fuse.

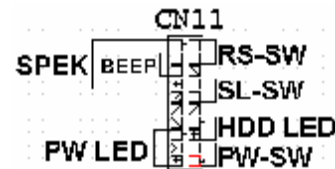
After being disconnected for a certain period of time, the poly-fuse will return to its normal state and the keyboard or USB connector can function properly again. Unlike conventional fuses, the poly-fuse will not need to be replaced, relieving users from such inconveniences.

CN11 (Front Panel Connector):

PWR-SW (Over-ride Power Button Connector):

The power button on the ATX chassis can be used as a normal power switch as well as a device to activate the Advanced Power Management Suspend mode. This is a power-saving mode used for saving electricity when the computer is idle for long periods of time. The Soft-OFF by PWR-BTTN function in BIOS's Power Management Setup menu must be set to **[Delay 4 Sec.]** to activate this function.

When the Soft-OFF by PWR-BTTN function is enabled, pressing the power button rapidly will switch the system to Suspend mode. Any occurrence of external activities such as pressing any keys on the keyboard or moving the mouse will bring the system back to Full-On. Pushing the button while in Full-On mode for more than **[4 seconds]** will switch the system completely off. See Over-ride Power Button Operation diagram.



1. **P-LED** (Power LED Connector):

The power indicator LED shows the system's power status. It is important to pay attention to the correct cable and pin orientation (i.e. Be careful not to reverse the order of these two connectors.)

2. **SL-SW** (Sleep Switch):

Some ATX cases provide a Sleep switch, which is used to put the system in Suspend mode. While in Suspend mode, the power supply to the system is reduced to a trickle, the CPU clock is stopped, and the CPU core is in its minimum power state. The system is activated whenever the keyboard or mouse is touched. The system will resume in various ways as defined by Power Management Setup screen in BIOS.

3. **RESET** (System Reset Switch Connector):

This connector should be connected to the reset switch on the front panel of the system case. The reset switch allows you to restart the system without turning the power off.

4. **SPEAKER** (Speaker Connector):

This 4-pin connector connects to the case-mounted speakers.

If you want to use the On-board Beep function, as shown in the above figure, please insert the jumper into this port.

5. HD-LED (IDE - Activity LED Connector):

The IDE- activity LED lights up whenever the system reads/writes to the IDE devices.

FDD1 (Floppy Connector):



The motherboard provides a standard floppy disk drive connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. It is connected to a floppy disk drive of 34 pins.

IDE 1/2 (IDE Hard-Disk Connector):

The motherboard has a 32-bit Enhanced PCI IDE and Ultra ATA66/100/133 controller that provides PIO mode 0~4, Bus Master, and Ultra ATA66/100/133



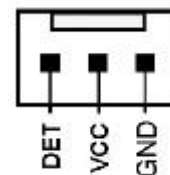
function. This connector is used for connecting 40 pins of ATAPI devices.

IDE 1 only connects two IDE devices. (**Primary** Master/Slave)

IDE 2 only connects two IDE devices. (**Secondary** Master/Slave)

FAN1/2 (CPU/System Connectors):

The board's hardware management is able to detect the CPU and system fan speed in rpm (revolutions per minute). The wiring and plugging may vary depending on the manufacturer. On standard fans, the red is positive (+12V), the black is ground, and the yellow wire is the rotation signal.



JP1 (CMOS Clear Jumper):

There is a CMOS RAM on board that has a power supply from external battery to keep the data and system configuration. To clear the contents of the CMOS, please follow the steps below.



Pin	Definition
1-2	Normal (default)
2-3	Clear CMOS Data

1. Disconnect the system power supply from the power source.
2. Set the jumper cap at location [2-3] for <5 seconds>, and then set it back to the default position.
3. Connect the system's power and then start the system.
4. Enter BIOS's CMOS Setup Utility and choose Load Optimized Defaults.
5. Type [Y] and then press [Enter] to continue.
6. Set the system configuration in the Standard CMOS Setup menu.

JP3/4 (Power On by USB 0/1/2/3, 4/5/6/7):**JP3 -> USB 0/1/2/3, JP4 -> USB 4/5/6/7**

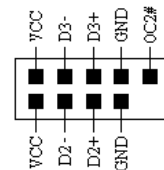
An USB keyboard hot key or an USB mouse-click can activate this board. To use this function, select a hot key of your choice at the USB Resume from S3 option under Wake Up Events in the BIOS's Power On Management screen.



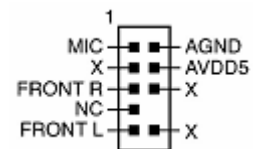
Pin	JP3	JP4
1-2 (default)	Enable	Disable
2-3	Disable	Enable

CN7 / 8 (USB Connector for USB 6/7 and 4/5):**USB Port 4/5 à CN7, USB Port 6/7 à CN8**

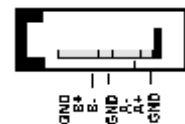
If you want to use a USB Keyboard, you must enable the USB keyboard support function in BIOS's Integrated Peripherals menu (See Section 3.4). This board contains a USB Host controller and a root hub with two connectors is also included for an optional USB Adaptor (USB 6/7 and 4/5).

**CN19 (Front Audio Connector):**

This connector gives you the option of a front-panel audio-jack cable ext. to be plugged into a special custom-designed system case.

**U8 / U9 Serial ATA Connectors (7-pin SATA1/2)**

The motherboard provides 2 SATA connectors, which can be used to connect the SATA IDE hard disk drive (HDD) cables for HDD devices. RAID 0 and RAID 1 are supported. For more detailed information, please refer to Appendix.



Chapter 3 BIOS Setup Program

Phoenix-Award BIOS ROM has a built-in setup program that allows users to modify the basic system configuration. This information is stored in CMOS RAM so that it can retain the setup information even when the power is turned off. Press **[Delete]** when you Power on or Reboot the computer system. The primary screen as shown in Figure 3-1 is a list of the menus and functions available in the setup program. Select the desired item by using arrow keys and press **[Enter]** to make the changes. Operating commands are located at the bottom of this and all other BIOS screens. When a field is highlighted, on-line help information is displayed on the right side of the screen.

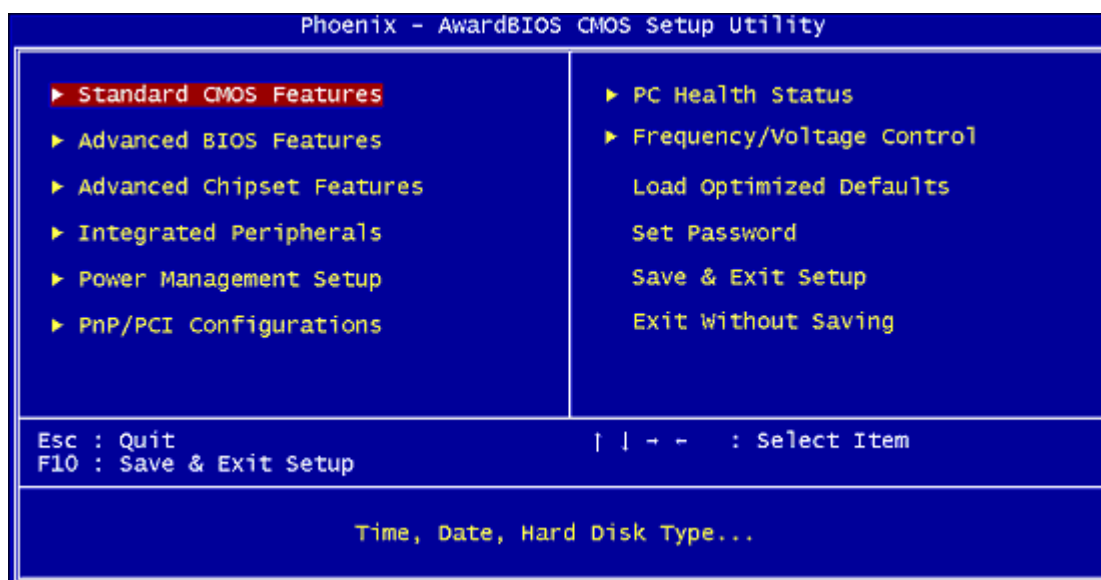


Figure 3-1 Setup Program Initial Screen

3-1 Standard CMOS Setup

The Standard CMOS Setup allows users to configure system components such as hard-disk drive, floppy-disk drive and video display as well as date, time and boot up error signaling. This configuration menu should be changed when installing a motherboard for the first time, or changing hardware such as HDD, FDD, and video display in your system, or when the CMOS data was lost or corrupted.

3-2 Advanced BIOS Features

By choosing the Advanced BIOS Features option from the CMOS Setup Utility menu (Figure 3-1), the screen that lists the manufacturer's default values for the motherboard is displayed.

3-3 Advanced Chipset Features

In this section a list of advanced chipset functions are provided to users. By choosing the [**Advanced Chipset Features**] option from the CMOS Setup Utility menu (Figure 3-1), the screen below is displayed. This sample screen contains the manufacturer's default values for the motherboard.

3-4 Integrated Peripherals

This section provides information on setting up the peripheral devices.

3-5 Power Management Setup

This section provides information on the Green PC power management functions.

3-6 PNP/PCI Configurations

This section provides IRQ and DMA settings information.

3-7 PC Health Status

This field shows you the current CPU temperature/external voltages input and the current CPU FAN operating speed.

3-8 Frequency/Voltage Control

This section allows users to adjust the frequency/voltage control of the motherboard.

3-9 Load Optimized Defaults

Load Optimized Defaults loads the default system values directly from the CMOS Setup Utility menu (Figure 3-1). If user-defined BIOS settings are corrupted and therefore unusable, these defaults will be loaded automatically when you turn on the computer.

3-10 Set Password

There are four different variables that control password settings. When the Security Option function is set to **Setup**, a password is required to enter BIOS and change BIOS settings. When the Security Option function is set to **System**, a password is required to enter both BIOS and computer's operating system (For example, Windows XP) found on the boot drive.

3-11 Save and Exit Setup

If you select this and type **[Y]** followed by **[Enter]**, the values entered in the setup utilities will be recorded in the CMOS memory of the BIOS chip.

3-12 Exit Without Saving

Selecting this option and pressing **[Y]** followed by **[Enter]** lets you exit the Setup program without recording any new values or changing old ones.

Chapter 4 Software

Insert the support CD that comes with your motherboard into your CD-ROM drive or double-click the CD drive icon in [My computer] to enter the setup screen.

4-1 Driver Setup

We begin with the installation of drivers. To do so, simply follow the instructions below.

Step-by-step guide

1. Make certain that your computer and display are powered on.
2. Insert the support CD into the CD-ROM and the autorun screen will automatically pop up, as shown in the following image. If the autorun screen does not show up, please jump to the Step 3.
3. Double-click My Computer, find out the CD-ROM you are using, double-click it, then the autorun screen shall appear.



Integrated Driver

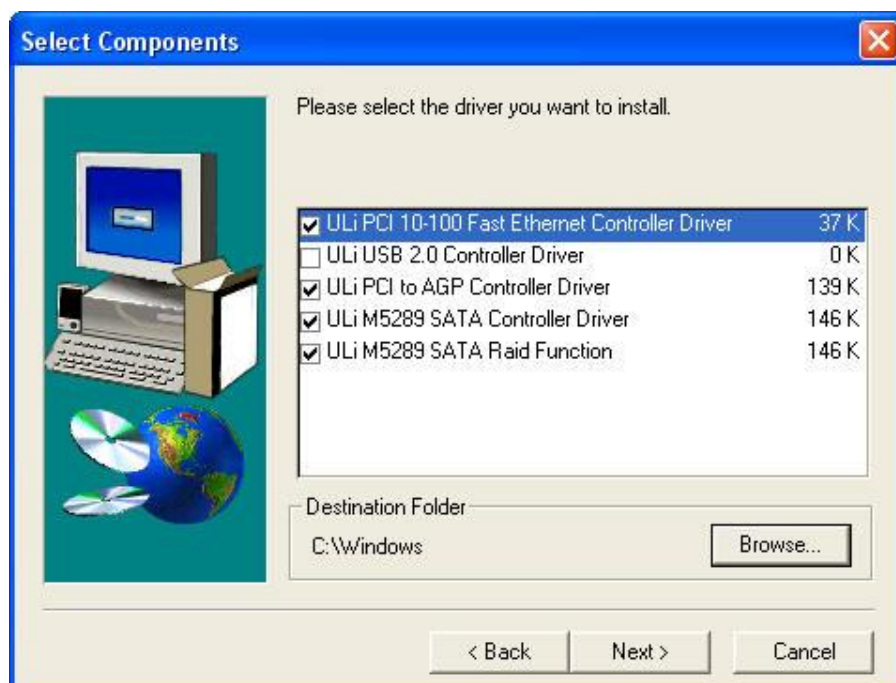
Five drivers are integrated into the item. They are ULi PCI 10-100 Fast Ethernet Controller Driver, ULi USB 2.0 Controller Driver, ULi PCI to AGP Controller Driver, ULi M5289 SATA Controller Driver, ULi M5289 SATA Raid Function. To install them, simply follow the instructions below

Step-by-step guide

1. Click Integrated Driver, then the Welcome screen will show up.
2. After reading the contents, click Next> to proceed with the Setup program.



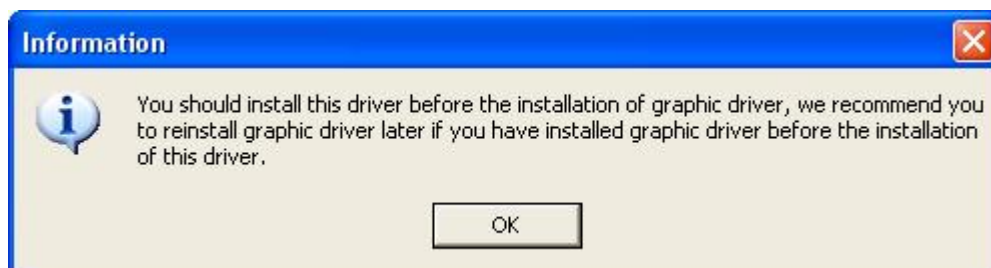
3. The drivers that have been checked are defaults, simply click Next> to proceed.



4. Ignore the message below and click Continue Anyway.



5. The following message simply tells you that it is better to install the driver prior to the potential installation of the graphics driver.



6. Choose Yes, I want to restart my computer now and click OK to restart the computer.



DirectX 9.0c

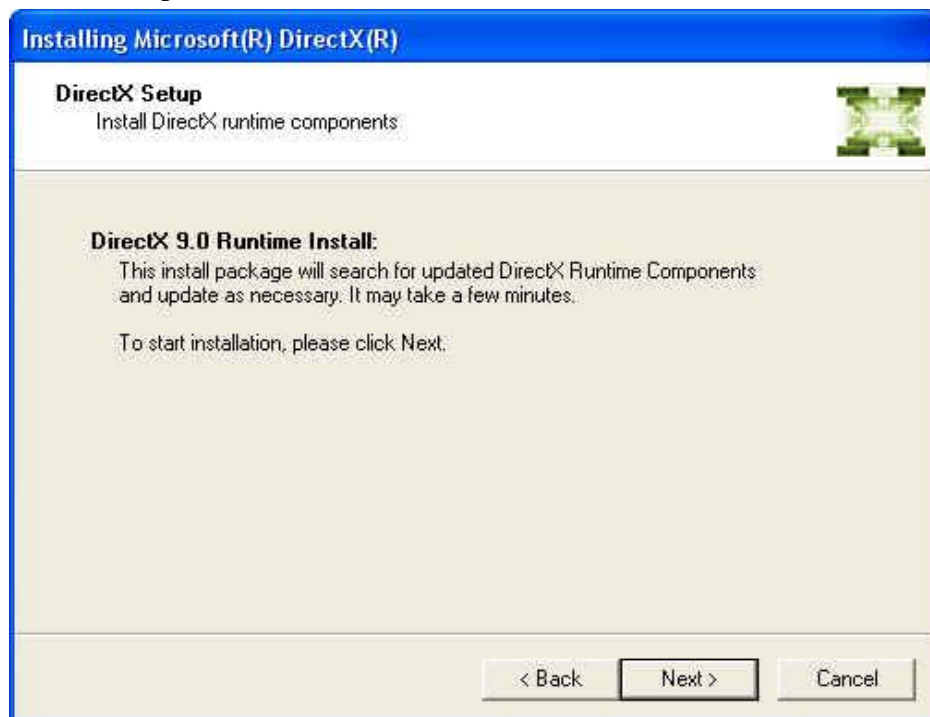
Allows you to install the latest DirectX 9.0c Driver. To do so, please follow the instructions below.

Step-by-step guide

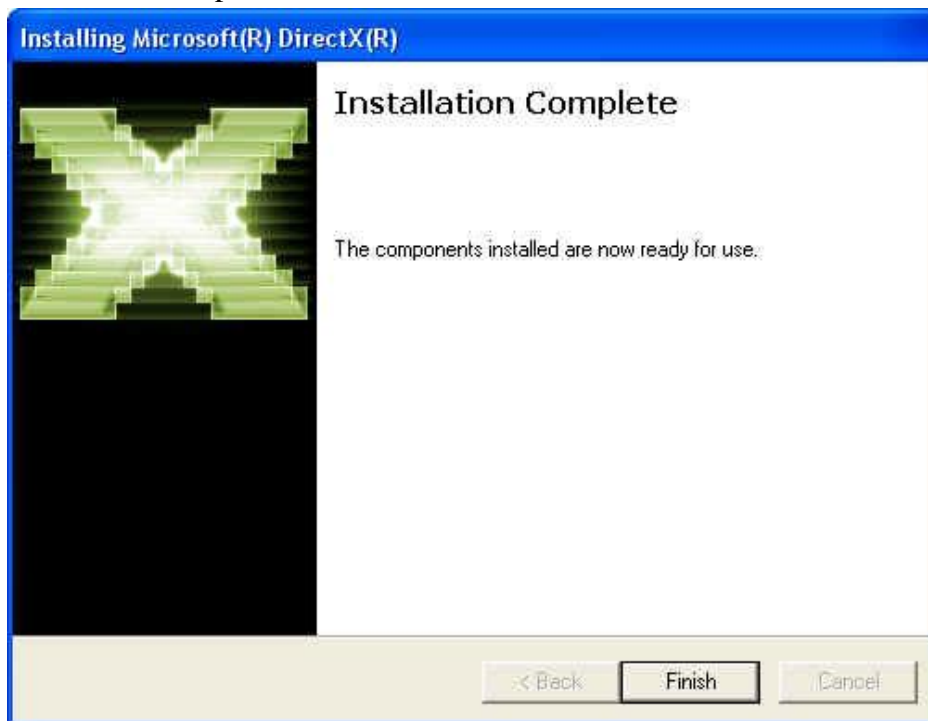
1. Click DirectX 9.0c to enter the Installing Microsoft DirectX. After reading the license agreement, choose I accept the agreement then click Next>.



2. Click Next> to proceed with the installation.



3. Click Finish to complete the installation.



Realtek Codec Audio Driver

To install this, simply follow the instructions below.

Step-by-step guide

1. Click **Realtek Codec Audio Driver** and wait until the figure below pops up.
2. Select **Yes, I want to restart my computer now** then click **Finish** to complete the process.



Appendix

How to Install Windows 2000/XP On a SATA Drive

- a) Copy the SATA drivers from the driver CD. (CDROM: \Raid\Integrated Driver\sata 50xx\Driver Disk\Raid;Txtsetnr.oem) into a floppy disk
- b) When the message “Press F6 if you need to install a third party SCSI or RAID driver” shows up during Win2000/XP installation, press “F6”
- c) Put the floppy disk in and wait for a little while.
- d) Press “S” to install other drivers when next screen pops up.
- e) Select “Ali ATA SATA RAID Controller Driver Diskette” and press ENTER
- f) Windows XP will ask you again whether to specify additional device, just press ENTER

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How To Contact CHAINTECH

Please do not hesitate to contact us if you have any problem about our products. Any opinion will be appreciated.

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