CERTIFICATE

The TÜV CERT Certification Body for QM Systems of RWTÜV Systems GmbH

hereby certifies in accordance with TÜV CERT procedure that

ELITEGROUP COMPUTER SYSTEMS CO., LTD.
ECS MANUFACTURING (SHENZHEN) CO., LTD.
ELITE TECHNOLOGY (SHENZHEN) CO., LTD.

2F, No. 240, Sec. 1, Nei Hu Road, Taipei, Taiwan 114, R.O.C.
No. 22, Alley 38, Lane 91, Sec. 1, Nei Hu Road, Taipei, Taiwan 114, R.O.C.
No. 20 & No. 26, Free Trade Zone, Shatoujiao, Shenzhen City, GuangDong Province, China

has established and applies a quality system for

Design, Manufacturing and Sales of Mainboards, Personal Computers, Notebooks and Peripheral Cards

An audit was performed, Report No. **2.5-1585/2000**

Proof has been furnished that the requirements according to

ISO 9001 : 2000 / EN ISO 9001 : 2000 / JIS Q 9001 : 2000 / ANSI/ASQC Q9001 : 2000

are fulfilled. The certificate is valid until **27 January 2007**

Certificate Registration No. **04100 2000 1325**

The company has been certified since **2000**

TGA-ZM-30-96-00

Essen, 04.03.2004

RWTÜV

The TÜV CERT Certification Body for QM Systems of RWTÜV Systems GmbH

ISO14001 CERTIFICATE

Certificate NO.: 05-2001-065

We hereby certify that

ECS Manufacturing(Shenzhen) Co.,Ltd

by reason of its

Environmental Management System

has been awarded this certificate for
compliance with the standard

ISO14001 :1996

The Environmental Management System
applies in the following area:

The manufacture of Mother Board and Peripheral Card and interrelated management activities of ECS Manufacturing(Shenzhen) Co.,Ltd. which is located in No.20,Free Trade Zone,Shatuojiao,Shenzhen, P. R.China.

Date of issue: 30th Dec 2001
Date of expiry: 29th Dec 2004
Signed by:

SHENZHEN ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATION CENTER

Preface

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Version 1.1

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Federal Communications Commission (FCC)

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 and, if not installed and used in accordance with the instructions, 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 the receiver.
- Connect the equipment onto 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.

Shielded interconnect cables and a shielded AC power cable must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

Declaration of Conformity

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

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

Canadian Department of Communications

This class B digital apparatus meets all requirements of the Canadian Interference-causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Réglement sur le matériel brouilieur du Canada.

About the Manual

The manual consists of the following:

Chapter 1
Introducing the Motherboard
Describes features of the motherboard.
Go to ⇨ page 1

Chapter 2
Installing the Motherboard
Describes installation of motherboard components.
Go to ⇨ page 7

Chapter 3
Using BIOS
Provides information on using the BIOS Setup Utility.
Go to ⇨ page 23

Chapter 4
Using the Motherboard Software
Describes the motherboard software
Go to ⇨ page 45

Chapter 5
VIA VT8237 SATA RAID Setup Guide
Provides information about SATA RAID Setup
Go to ⇨ page 49

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Chapter 1
Introducing the Motherboard

Introduction

Thank you for choosing the 760GX-M motherboard. This motherboard is a high performance, enhanced function motherboard that supports Socket 754 AMD K8 processors for high-end business or personal desktop markets.

The motherboard incorporates the SiS760GX Northbridge (NB) and SiS964 Southbridge (SB) chipsets. The SiS760GX Northbridge features the HyperTranport™ complaint bus driver technology to support AMD K8 processors up to 1600MT/s data rate. The Northbridge supports external AGP slot with AGP 8X/4X capability and Fast Write Transactions. Plus, SiS MuTIOL, a high bandwidth and mature technology, is incorporated to connect SiS760GX and SiS964 MuTIOL Media IO together.

The SiS964 Southbridge supports Hi-Precision Event Timer (HPET) for Microsoft Windows with multiple DMA bus architecture that supports isochroous request and continuous packet transmission. It implements an EHCI compliant interface that provides 480Mb/s bandwidth for eight USB 2.0 ports, integrates AC'97 v2.3 compliant audio controller that features a 6-channels of audio speaker out and HSP v.90 modem support. The Southbridge integrates a Serial ATA host controller that is SATA v1.0 compliant, and supports 1.5Gb/s bandwidth for each serial port. It provides dual independent IDE channels and each of them support PIO mode 0,1,2,3,4 and multiword DMA mode 0,1,2 and UltraDMA 133/100/66.

There is an advanced full set of I/O ports in the rear panel, including PS/2 mouse and keyboard connectors, COM1, LPT1,VGA port and four USB ports, one optional LAN port, and audio jacks for microphone, line-in, and line-out. This motherboard is designed in a Micro ATX form factor using a four-layer printed circuit board and measures 244 mm x 244 mm.

Feature

Processor

This motherboard uses a 754-pin socket that carries the following features:

- Accommodates AMD K8 processors
- Supports HyperTransport™ interface for AMD K8 processors

HyperTransport™ Technology is a point-to-point link between two devices, it enables integrated circuits to exchange information at much higher speeds than currently available interconnect technologies.

Chipset

The SiS760GX Northbridge (NB) and SiS964 Southbridge (SB) chipset are based on an innovative and scalable architecture with proven reliability and performance.

SiS760GX(NB)

- SiS MuTIOL is incorporated to connect SiS760GX and SiS964 MuTIOL Media IO together
- Supports HyperTransport™ Technology up to 1600MT/s bandwidth
- AGP v3.0 compliant with 8X/4X and fast write transaction
- Supports up to 128MB display memory with shared memory
- Built-in a high performance 256-bit 3D Graphics engine with DirectX 8.1 supported

SiS964 (SB)

- Concurrent servicing of all DMA Devices: Dual IDE Controllers, SATA controller, three USB 2.0/1.1 host controller, LAN MAC Controller and Audio/Modem DMA Controller
- Compliant with PCI 2.3 specificaiton supporting up to 6 PCI masters
- Compliant with Serial ATA 1.0 specification, supports power saving mode
- Compliant with AC'97 v2.3 supporting 6 Channels of audio outputs
- Integrated USB 2.0/1.1 Host Controllers supporting up to eight ports

Memory

- Supports DDR400/333/266/200 memory types
- Accommodates two unbuffered 2.5V 184-pin DDR SDRAM DIMM sockets
- A total maximum capacity 2 GB

Graphics

- Built-in 32-bit floating point format VLIW triangle setup engine
- Built-in an 1T pipelined 128-bit BITBLT graphics engine
- Built-in a high quality 3D engine
- Supports up to 4 textures

AC'97 Audio CODEC

- Compliant with AC'97 v2.3 specification
- High quality differential CD input
- Supports double sampling rate (96KHz) of DVD audio playback
- Direct Sound 3D™ compatible

Expansion Options

The motherboard comes with the following expansion options:

- Three 32-bit PCI slots
- One AGP slot
- Two IDE connectors support up to four IDE devices
- One floppy disk drive interface
- Two 7-pin SATA connectors

This motherboard supports Ultra DMA bus mastering with transfer rates of 133/100/66 MB/s.

Onboard LAN (optional)

The onboard LAN provides the following features:

- Supports 10Mb/s and 100Mb/s N-Way Auto-negotiation operation
- Half/Full duplex capability
- Supports Wake-On-LAN function and remote wake-up
- Supports Full Duplex Flow Control (IEEE 802.3x)

Integrated I/O

The motherboard has a full set of I/O ports and connectors:

- Two PS/2 ports for mouse and keyboard
- One serial port
- One parallel port
- One VGA port
- Four USB ports
- One LAN port (optional)
- Audio jacks for microphone, line-in and line-out

BIOS Firmware

The motherboard uses Award BIOS that enables users to configure many system features including the following:

- Power management
- Wake-up alarms
- CPU parameters
- CPU and memory timing

The firmware can also be used to set parameters for different processor clock speeds.

Some hardware specifications and software items are subject to change without prior notice.

Motherboard Components

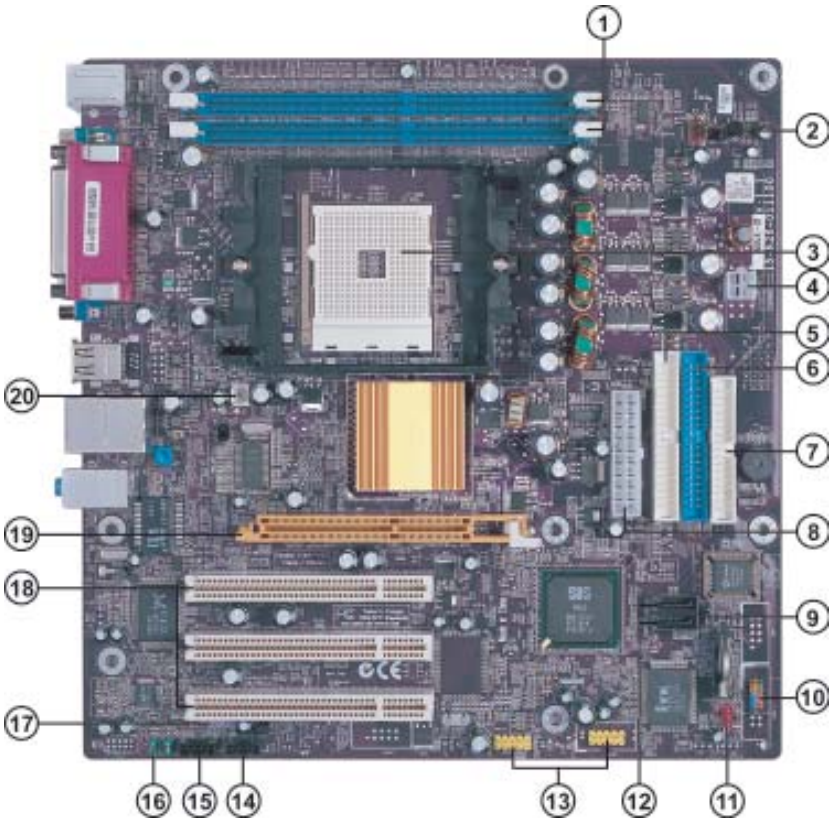


Table of Motherboard Components

LABEL	COMPONENT
1 DIMM1~2	184-pin DDR SDRAM slots
2 CPUFAN1	CPU cooling fan connector
3 CPU Socket	Socket 754 for AMD K8 processor
4 ATX2	4-pin +12V power connector
5 IDE2	Secondary IDE connector
6 IDE1	Primary IDE connector
7 FDD1	Floppy disk drive connector
8 ATX1	Standard 20-pin ATX power connector
9 JP3	BIOS flash protect jumper
10 PANEL1	Front Panel switch/LED header
11 JP1	Clear CMOS jumper
12 SATA1~SATA2	Serial ATA connectors
13 USB3 ~ 4	Front Panel USB headers
14 AUXIN1	Auxiliary in connector
15 CDIN1	Analog Audio Input connector
16 AUDIO2	Front panel audio header
17 SPDIFO2	SPDIF out header
18 PCI1~3	32-bit add-on card slots
19 AGP1	Accelerated Graphics Port Slot
20 CASFAN1	Case cooling fan connector

This concludes Chapter 1. The next chapter explains how to install the motherboard.

Memo

Chapter 2
Installing the Motherboard

Safety Precautions

- Follow these safety precautions when installing the motherboard
- Wear a grounding strap attached to a grounded device to avoid damage from static electricity
- Discharge static electricity by touching the metal case of a safely grounded object before working on the motherboard
- Leave components in the static-proof bags they came in
- Hold all circuit boards by the edges. Do not bend circuit boards

Choosing a Computer Case

There are many types of computer cases on the market. The motherboard complies with the specifications for the ATX system case. First, some features on the motherboard are implemented by cabling connectors on the motherboard to indicators and switches on the system case. Make sure that your case supports all the features required. Secondly, K8T800-A2 supports one or two floppy diskette drives and four enhanced IDE drives. Make sure that your case has sufficient power and space for all drives that you intend to install.

Most cases have a choice of I/O templates in the rear panel. Make sure that the I/O template in the case matches the I/O ports installed on the rear edge of the motherboard.

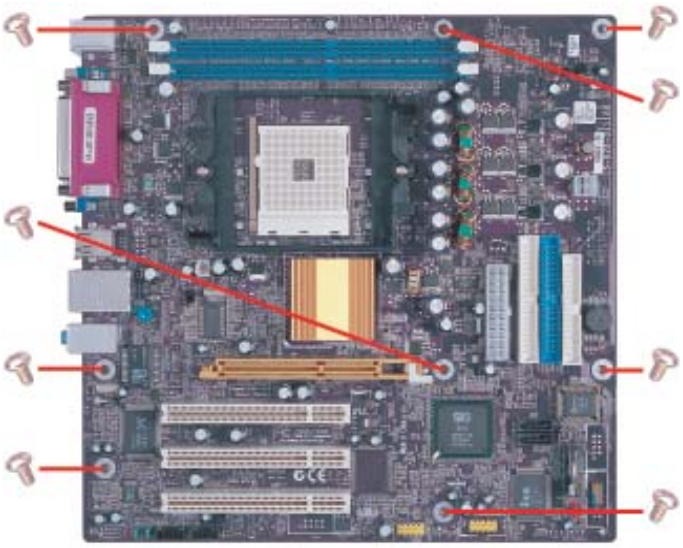
This motherboard carries a Micro-ATX form factor of 244 X 244 mm. Choose a case that accommodates this form factor.

Installing the Motherboard in a Case

Refer to the following illustration and instructions for installing the motherboard in a case.

Most system cases have mounting brackets installed in the case, which correspond the holes in the motherboard. Place the motherboard over the mounting brackets and secure the motherboard onto the mounting brackets with screws.

Ensure that your case has an I/O template that supports the I/O ports and expansion slots on your motherboard.



Do not over-tighten the screws as this can stress the motherboard.

Checking Jumper Settings

This section explains how to set jumpers for correct configuration of the motherboard.

Setting Jumpers

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.

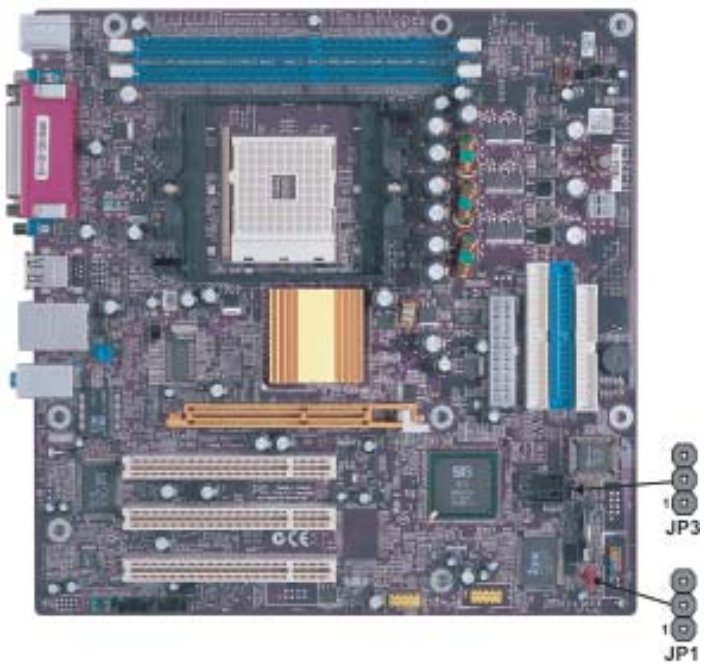
SHORT

OPEN

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

Checking Jumper Settings

The following illustration shows the location of the motherboard jumpers. Pin 1 is labeled.



Jumper Settings

Jumper	Type	Description	Setting (default)	
JP1	3-pin	CLEAR CMOS	1-2: NORMAL 2-3: CLEAR Before clearing the CMOS, make sure to turn the system off.	JP1  1
JP3	3-pin	BIOS PROTECT	1-2: DISABLE 2-3: ENABLE	JP3  1

Connecting Case Components

After you have installed the motherboard into a case, you can begin connecting the motherboard components. Refer to the following:

1 Connect the CPU cooling fan cable to **CPUFAN1**.
2 Connect the case cooling fan connector to **CASFAN1.**
3 Connect the case switches and indicator LEDs to the **PANEL1**.
4 Connect the standard power supply connector to **ATX1**.
5 Connect the auxiliary case power supply connector to **ATX12V**.

CPUFAN1/CASFAN1: FAN Power Connectors

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

ATX1: ATX 20-pin Power Connector

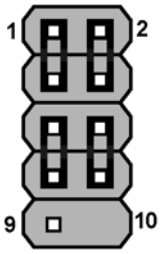
Pin	Signal Name	Pin	Signal Name
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	Ground	13	Ground
4	+5V	14	PS ON#
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	PWRGD	18	-5V
9	+5VSB	19	+5V
10	+12V	20	+5V

ATX12V: ATX 12V Power Connector

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

Front Panel Header

The front panel header (PANEL1) provides a standard set of switch and LED headers commonly found on ATX or micro-ATX cases. Refer to the table below for information:



PANEL1

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

** MSG LED (dual color or single color)*

Hard Drive Activity LED

Connecting pins 1 and 3 to a front panel mounted LED provides visual indication that data is being read from or written to the hard drive. For the LED to function properly, an IDE drive should be connected to the onboard IDE interface. The LED will also show activity for devices connected to the SCSI (hard drive activity LED) connector.

Power/Sleep/Message waiting LED

Connecting pins 2 and 4 to a single or dual-color, front panel mounted LED provides power on/off, sleep, and message waiting indication.

Reset Switch

Supporting the reset function requires connecting pin 5 and 7 to a momentary-contact switch that is normally open. When the switch is closed, the board resets and runs POST.

Power Switch

Supporting the power on/off function requires connecting pins 6 and 8 to a momentary-contact switch that is normally open. The switch should maintain contact for at least 50 ms to signal the power supply to switch on or off. The time requirement is due to internal de-bounce circuitry. After receiving a power on/off signal, at least two seconds elapses before the power supply recognizes another on/off signal.

Installing Hardware

Installing the Processor

Caution: When installing a CPU heatsink and cooling fan make sure that you DO NOT scratch the motherboard or any of the surface-mount resistors with the clip of the cooling fan. If the clip of the cooling fan scrapes across the motherboard, you may cause serious damage to the motherboard or its components.

On most motherboards, there are small surface-mount resistors near the processor socket, which may be damaged if the cooling fan is carelessly installed.

Avoid using cooling fans with sharp edges on the fan casing and the clips. Also, install the cooling fan in a well-lit work area so that you can clearly see the motherboard and processor socket.

Before installing the Processor

This motherboard automatically determines the CPU clock frequency and system bus frequency for the processor. You may be able to change these settings by making changes to jumpers on the motherboard, or changing the settings in the system Setup Utility. We strongly recommend that you do not over-clock processors or other components to run faster than their rated speed.

Warning: Over-clocking components can adversely affect the reliability of the system and introduce errors into your system. Over-clocking can permanently damage the motherboard by generating excess heat in components that are run beyond the rated limits.

This motherboard has a Socket 754 processor socket. When choosing a processor, consider the performance requirements of the system. Performance is based on the processor design, the clock speed and system bus frequency of the processor, and the quantity of internal cache memory and external cache memory.

CPU Installation Procedure

The following illustration shows CPU installation components.

1 Install your CPU. Pull up the lever away from the socket and lift up to 90-degree angle.
2 Locate the CPU cut edge (the corner with the pin hold noticeably missing). Align and insert the CPU correctly.
3 Press the lever down and apply thermal grease on top of the CPU.
4 Put the CPU Fan down on the retention module and snap the four retention legs of the cooling fan into place.
5 Flip the levers over to lock the heat sink in place and connect the CPU cooling Fan power cable to the CPUFAN connector. This completes the installation.

To achieve better airflow rates and heat dissipation, we suggest that you use a high quality fan with 4800 rpm at least. CPU fan and heatsink installation procedures may vary with the type of CPU fan/heatsink supplied. The form and size of fan/heatsink may also vary.

Installing Memory Modules

This motherboard accommodates two 184-pin 2.5V unbuffered Double Data Rate (DDR) SDRAM (Synchronous Dynamic Random Access Memory) memory modules, and can support DDR400/333/266/200 memory types. Each module can be installed with 1GB of memory, and its total maximum memory size is 4 GB.

DDR SDRAM memory module table

Memory module	Memory Bus
DDR200	100MHz
DDR266	133MHz
DDR333	166MHz
DDR400	200MHz

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 unbuffered DDR SDRAM only.
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.

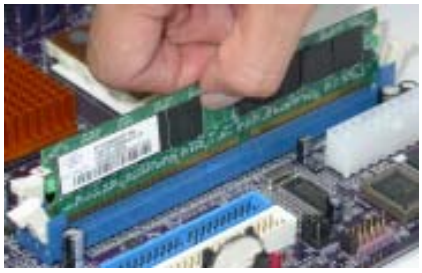


Table A: Unbuffered DIMM Support for 754-pin

Numbers of DIMMs	DIMM 1[4.1.]	DIMM 2[2]	Maximum DRAM Speed	
			1 T	2 T[3]
1	single rank	empty	DDR400	DDR400
1	empty	single rank	DDR400	DDR400
1	double rank	empty	DDR400	DDR400
1	empty	double rank	DDR400	DDR400
2	single rank	single rank	DDR400	DDR400
2	single rank	double rank	DDR400	DDR400
2	double rank	single rank	DDR400	DDR400
2	double rank	double rank	DDR333	DDR333

1 *DIMM 1 connects to command/address pins MEMADDA [13:0], MEMBANKA [1:0], MEMRASA_L, MEMCASA_L, MEMWEA_L, MEMCKEA.*

2 *DIMM 2 connects to command/address pins MEMADDB [13:0], MEMBANKB [1:0], MEMRASB_L, MEMCASB_L, MEMWEB_L, MEMCKEB.*

3 *2T timing is supported in CG and later silicon revisions. Refer to the AMD Athlon™ 64 Processor Power and Thermal Data Sheet, order #30430, for silicon revision determination.*

4 *The maximum allowable DRAM speed under these high load conditions may be reduced with certain DIMMs due to signal integrity degradation.*

Table B: DDR (memory module) QVL (Qualified Vendor List)

The following memory modules have been tested and qualified for use with this motherboard.

Size	Vendor	Model Name
256MB	Apacer	AM3A568ACT-5A
	CORSAIR	CMX256 3200C2PT
	GEIL	G208L364D1TG5NKT3C
	GEIL	GE08L3264D1WL5NKT3H71
	HYNIX	HY5DU5656822BT-D43
	Kingston	D3208DL2T-5 0323PT01
	Kingston	K4H560838D-TCC4
	Kingston	W942508BH-5
	Ramaxel	MT-46V32M8 TG-5BC
	Ramaxel	K4H560838D-TCC4
	Samsung	K4H560838D-TCCC
	Samsung	K4H560838E-TCCC
512MB	CORSAIR	CMX512-3200C2PT
	GEIL	GE16L6464D2WL5NKT3H66
	HYNIX	HY5DU56822BT-D43
	Kingmax	KDL388P4EA-50
	Kingston	K4H560838D-TCC4
	Samsung	K4H560838E-TCCC

Installing a Hard Disk Drive/CD-ROM/SATA Hard Drive

This section describes how to install IDE devices such as a hard disk drive and a CD-ROM drive.

About IDE Devices

Your motherboard has a primary and secondary IDE channel interface (IDE1 and IDE2). An IDE ribbon cable supporting two IDE devices is bundled with the motherboard.

You must orient the cable connector so that the pin1 (color) edge of the cable correspoinds to the pin 1 of the I/O port connector.

IDE1: Primary IDE Connector

The first hard drive should always be connected to IDE1.

IDE2: Secondary IDE Connector

The second drive on this controller must be set to slave mode. The cinfiguration is the same as IDE1.

IDE devices enclose jumpers or switches used to set the IDE device as MASTER or SLAVE. Refer to the IDE device user's manual. Installing two IDE devices on one cable, ensure that one device is set to MASTER and the other device is set to SLAVE. The documentation of your IDE device explains how to do this.

About UltraDMA

This motherboard supports UltraDMA 133/100/66. UDMA is a technology that accelerates the performance of devices in the IDE channel. To maximize performance, install IDE devices that support UDMA and use 80-pin IDE cables that support UDMA 133/100/66.

About SATA Connectors

Your motherboard features two SATA connectors supporting a total of two drives. SATA refers to Serial ATA (Advanced Technology Attachment) is the standard interface for the IDE hard drives which are currently used in most PCs. These connectors are well designed and will only fit in one orientation. Locate the SATA connectors on the motherboard (see page 21) and follow the illustration below to install the SATA hard drives.

Installing Serial ATA Hard Drives

To install the Serial ATA (SATA) hard drives, use the SATA cable that supports the Serial ATA protocol. This SATA cable comes with an SATA power cable. You can connect either end of the SATA cable to the SATA hard drive or the connector on the motherboard.

SATA cable (optional)

SATA power cable (optional)

Refer to the illustration below for proper installation:

1 Attach either cable end to the connector on the motherboard.
2 Attach the other cable end to the SATA hard drive.
3 Attach the SATA power cable to the SATA hard drive and connect the other end to the power supply.

This motherboard does not support the "Hot-Plug" function.

Installing a Floppy Diskette Drive

The motherboard has a floppy diskette drive (FDD) interface and ships with a diskette drive ribbon cable that supports one or two floppy diskette drives. You can install a 5.25-inch drive and a 3.5-inch drive with various capacities. The floppy diskette drive cable has one type of connector for a 5.25-inch drive and another type of connector for a 3.5-inch drive.

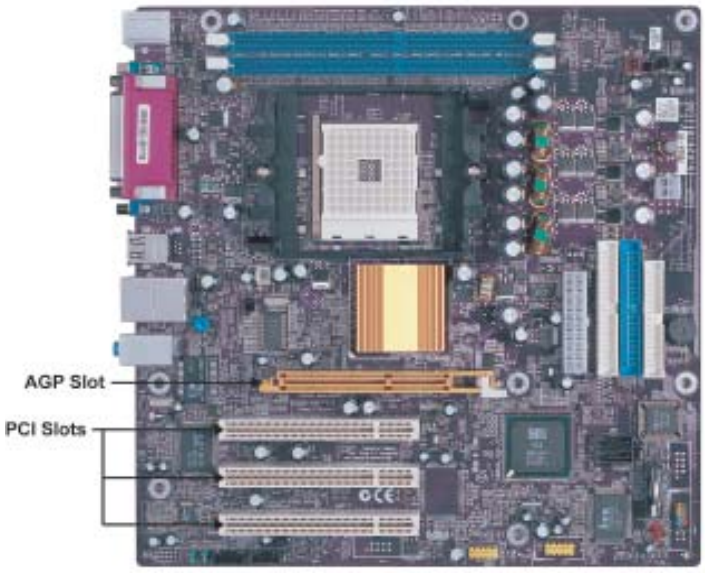
You must orient the cable connector so that the pin 1 (color) edge of the cable corresponds to the pin 1 of the I/O port connector.

FDD1: Floppy Disk Connector

This connector supports the provided floppy drive ribbon cable. After connecting the single end to the onboard floppy connector, connect the remaining plugs on the other end to the floppy drives correspondingly.

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.



AGP Slot The AGP slot is used to install a graphics adapter that supports the 8X/4X AGP specification. It is AGP 3.0 compliant.

PCI Slots This motherboard is equipped with three standard PCI slots. 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 slots on this board are PCI v2.3 compliant.

Before installing an add-on card, check the documentation for the card carefully. If the card is not Plug and Play, you may have to manually configure the card before installation.

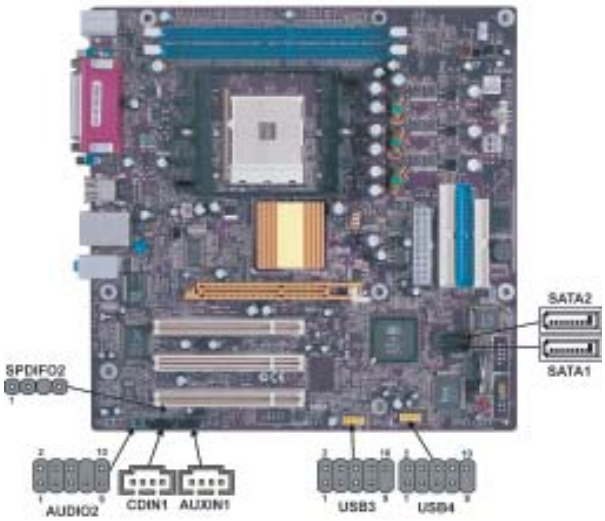
Follow these instructions to install an add-on card:

1 Remove a blanking plate from the system case corresponding to the slot you are going to use.
2 Install the edge connector of the add-on card into the expansion slot. Ensure that the edge connector is correctly seated in the slot.
3 Secure the metal bracket of the card to the system case with a screw.

For some add-on cards, for example graphics adapters and network adapters, you have to install drivers and software before you can begin using the add-on card.

Connecting Optional Devices

Refer to the following for information on connecting the motherboard's optional devices:



SPDIFO2: SPDIF out header

This is an optional header that provides an S/PDIF (Sony/Philips Digital Interface) output to digital multimedia device through optical fiber or coaxial connector.

Pin	Signal Name	Function
1	SPDIF	SPDIF digital output
2	+5VA	5V analog Power
3	Key	No pin
4	GND	Ground

AUDIO2: Front Panel Audio header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal Name	Function
1	AUD_MIC	Front Panel Microphone input signal
2	AUD_GND	Ground used by Analog Audio Circuits
3	AUD_MIC_BIAS	Microphone Power
4	AUD_VCC	Filtered +5V used by Analog Audio Circuits
5	AUD_F_R	Right Channel audio signal to Front Panel
6	AUD_RET_R	Right Channel Audio signal to Return from Front Panel
7	REVD	Reserved
8	Key	No Pin
9	AUD_F_L	Left Channel Audio signal to Front Panel
10	AUD_RET_L	Left Channel Audio signal to Return from Front Panel

SATA1/SATA2: Serial ATA connectors

These connectors are use to support the new Serial ATA devices for the highest date transfer rates (150 MB/s), simpler disk drive cabling and easier PC assembly. It eliminates limitations of the current Parallel ATA interface. But maintains register compatibility and software compatibility with Parallel ATA.

Pin	Signal Name	Pin	Signal Name
1	Ground	2	TX+
3	TX-	4	Ground
5	RX-	6	RX+
7	Ground	-	-

USB3/USB4: Front Panel USB headers

The motherboard has four USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you have this kind of case, use auxiliary USB 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	USB_FP_P0-	USB Port 0 Negative Signal
4	USB_FP_P1-	USB Port 1 Negative Signal
5	USB_FP_P0+	USB Port 0 Positive Signal
6	USB_FP_P1+	USB Port 1 Positive Signal
7	GND	Ground
8	GND	Ground
9	Key	No pin
10	NC	Not connected

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.

AUXIN1: Auxiliary In connector

This connector is an additional line-in audio connector. It allows you to attach a line-in cable when your rear line-in jack is set as line out port for 4-channel function.

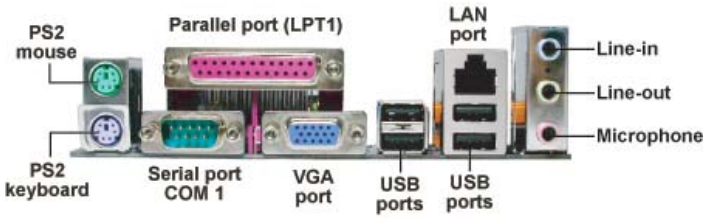
Pin	Signal Name	Function
1	AUX_L	AXU In left channel
2	GND	Ground
3	GND	Ground
4	AUX_R	AXU In right channel

CDIN1: Analog Audio Input connector

Pin	Signal Name	Function
1	CD in_L	CD In left channel
2	GND	Ground
3	GND	Ground
4	CD in_R	CD In right channel

Connecting I/O Devices

The backplane of the motherboard has the following I/O ports:



PS2 Mouse Use the upper PS/2 port to connect a PS/2 pointing device.

PS2 Keyboard Use the lower PS/2 port to connect a PS/2 keyboard.

Parallel Port (LPT1) Use LPT1 to connect printers or other parallel communications devices.

Serial Port (COM1) Use the COM port to connect serial devices such as mice or fax/modems. COM1 is identified by the system as COM1/3.

VGA Port Connect your monitor to the VGA port.

LAN Port (optional) Connect an RJ-45 jack to the LAN port to connect your computer to the Network.

USB Ports Use the USB ports to connect USB devices.

Audio Ports Use the three audio ports to connect audio devices. The first jack is for stereo line-in signal. The second jack is for stereo line-out signal. The third jack is for microphone.

This concludes Chapter 2. The next chapter covers the BIOS.

Chapter 3
Using BIOS

About the Setup Utility

The computer uses the latest Award BIOS with support for Windows Plug and Play. The CMOS chip on the motherboard contains the ROM setup instructions for configuring the motherboard BIOS.

The BIOS (Basic Input and Output System) Setup Utility displays the system's configuration status and provides you with options to set system parameters. The parameters are stored in battery-backed-up CMOS RAM that saves this information when the power is turned off. When the system is turned back on, the system is configured with the values you stored in CMOS.

The BIOS Setup Utility enables you to configure:

- Hard drives, diskette drives and peripherals
- Video display type and display options
- Password protection from unauthorized use
- Power Management features

The settings made in the Setup Utility affect how the computer performs. Before using the Setup Utility, ensure that you understand the Setup Utility options.

This chapter provides explanations for Setup Utility options.

The Standard Configuration

A standard configuration has already been set in the Setup Utility. However, we recommend that you read this chapter in case you need to make any changes in the future.

This Setup Utility should be used:

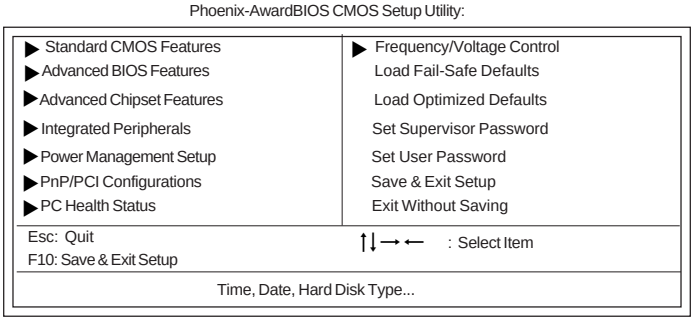
- when changing the system configuration
- when a configuration error is detected and you are prompted to make changes to the Setup Utility
- when trying to resolve IRQ conflicts
- when making changes to the Power Management configuration
- when changing the password or making other changes to the Security Setup

Entering the Setup Utility

When you power on the system, BIOS enters the Power-On Self Test (POST) routines. POST is a series of built-in diagnostics performed by the BIOS. After the POST routines are completed, the following message appears:

Press DEL to enter SETUP

Pressing the delete key accesses the BIOS Setup Utility:



BIOS Navigation Keys

The BIOS navigation keys are listed below:

KEY	FUNCTION
←↑↓→	Move
Enter	Select
+/-/PU/PD	Value
ESC	Exits the current menu
F1	General Help
F2	Item Help
F5	Previous Values
F6	Fail-Safe Defaults
F7	Optimized Defaults
F9	Menu in BIOS
F10	Save

Updating the BIOS

You can download and install updated BIOS for this motherboard from the manufacturer's Web site. New BIOS provides support for new peripherals, improvements in performance, or fixes for known bugs. Install new BIOS as follows:

1. If your motherboard has a BIOS protection jumper, change the setting to allow BIOS flashing.
2. If your motherboard has an item called Firmware Write Protect in Advanced BIOS features, disable it. (Firmware Write Protect prevents BIOS from being overwritten.
3. Create a bootable system disk. (Refer to Windows online help for information on creating a bootable system disk.)
4. Download the Flash Utility and new BIOS file from the manufacturer's Web site. Copy these files to the system diskette you created in Step 3.
5. Turn off your computer and insert the system diskette in your computer's diskette drive. (You might need to run the Setup Utility and change the boot priority items on the Advanced BIOS Features Setup page, to force your computer to boot from the floppy diskette drive first.)
6. At the A:\ prompt, type the Flash Utility program name and press <Enter>.
7. Type the filename of the new BIOS in the "File Name to Program" text box. Follow the onscreen directions to update the motherboard BIOS.
8. When the installation is complete, remove the floppy diskette from the diskette drive and restart your computer. If your motherboard has a Flash BIOS jumper, reset the jumper to protect the newly installed BIOS from being overwritten.

Using BIOS

When you start the Setup Utility, the main menu appears. The main menu of the Setup Utility displays a list of the options that are available. A highlight indicates which option is currently selected. Use the cursor arrow keys to move the highlight to other options. When an option is highlighted, execute the option by pressing <Enter>.

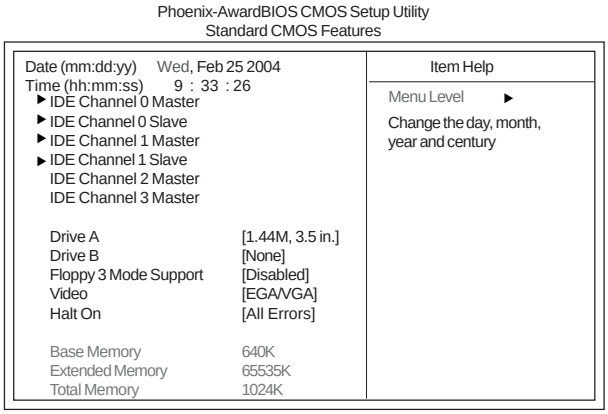
Some options lead to pop-up dialog boxes that prompt you to verify that you wish to execute that option. Other options lead to dialog boxes that prompt you for information.

Some options (marked with a triangle ▶) lead to submenus that enable you to change the values for the option. Use the cursor arrow keys to scroll through the items in the submenu.

In this manual, default values are enclosed in parenthesis. Submenu items are denoted by a triangle ▶.

Standard CMOS Features

This option displays basic information about your system.



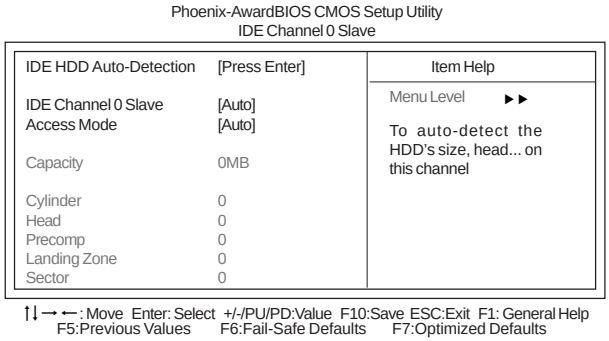
Date and Time

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

▶IDE Devices (None)

Your computer has two IDE channels (Primary and Secondary) and each channel can be installed with one or two devices (Master and Slave). Use these items to configure each device on the IDE channel.

Press <Enter> to display the IDE submenu:



IDE HDD Auto-Detection

Press <Enter> while this item is highlighted to prompt the Setup Utility to automatically detect and configure an IDE device on the IDE channel.

If you are setting up a new hard disk drive that supports LBA mode, more than one line will appear in the parameter box. Choose the line that lists LBA for an LBA drive.

IDE Channel 0/1 Master/Slave/Extended IDE Drive(Auto)

Leave this item at Auto to enable the system to automatically detect and configure IDE devices on the channel. If it fails to find a device, change the value to Manual and then manually configure the drive by entering the characteristics of the drive in the items described below. Please noted that if you choose IDE Channel 2/3 Master, the item may change to Extended IDE Drive.

Refer to your drive's documentation or look on the drive casing if you need to obtain this information. If no device is installed, change the value to None.

Before attempting to configure a hard disk drive, ensure that you have the configuration information supplied by the manufacturer of your hard drive. Incorrect settings can result in your system not recognizing the installed hard disk.

Access Mode (Auto)

This item defines ways that can be used to access IDE hard disks such as LBA (Large Block Addressing). Leave this value at Auto and the system will automatically decide the fastest way to access the hard disk drive. If you choose IDE Channel 2/3 Master, the item only have Large and Auto.

Press <Esc> to return to the Standard CMOS Features page.

Drive A/Drive B (1.44M, 3.5 in./None)

These items define the characteristics of any diskette drive attached to the system. You can connect one or two diskette drives.

Floppy 3 Mode Support (Disabled)

Floppy 3 mode refers to a 3.5-inch diskette with a capacity of 1.2 MB. Floppy 3 mode is sometimes used in Japan.

Video (EGA/VGA)

This item defines the video mode of the system. This motherboard has a built-in VGA graphics system; you must leave this item at the default value.

Halt On (All Errors)

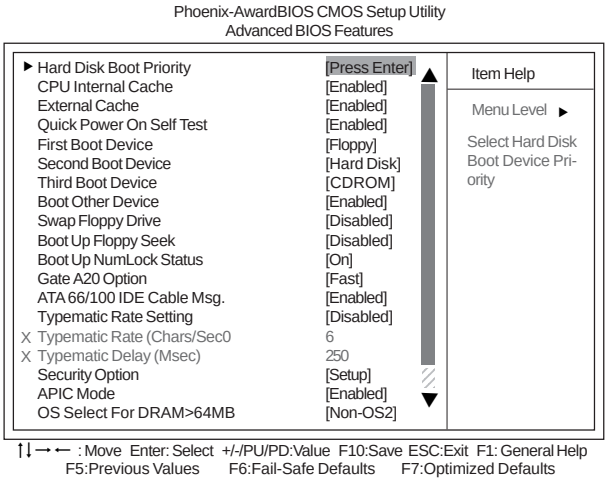
This item defines the operation of the system POST (Power On Self Test) routine. You can use this item to select which types of errors in the POST are sufficient to halt the system.

Base Memory, Extended Memory, and Total Memory

These items are automatically detected by the system at start up time. These are display-only fields. You cannot make changes to these fields.

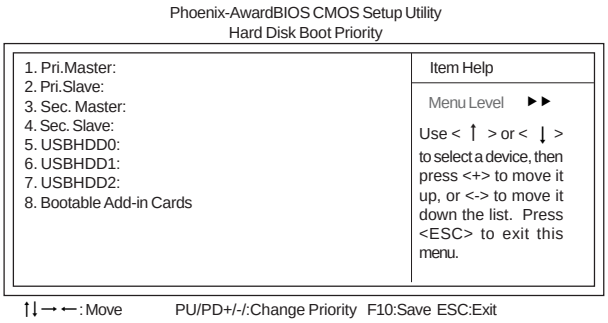
Advanced BIOS Features

This option defines advanced information about your system.



▶Hard Disk Boot Priority (Press Enter)

Scroll to this item and press <Enter> to view the following screen:



CPU Internal Cache (Enabled)

All processors that can be installed in this motherboard use internal level 1 (L1) cache memory to improve performance. Leave this item at the default value for better performance.

External Cache (Enabled)

Most processors that can be installed in this system use external level 2 (L2) cache memory to improve performance. Leave this item at the default value for better performance.

Quick Power On Self Test (Enabled)

Enable this item to shorten the power on testing (POST) and have your system start up faster. You might like to enable this item after you are confident that your system hardware is operating smoothly.

First/Second/Third Boot Device (Floppy/Hard Disk/CDROM)

Use these three items to select the priority and order of the devices that your system searches for an operating system at start-up time.

Boot Other Device (Enabled)

When enabled, the system searches all other possible locations for an operating system if it fails to find one in the devices specified under the First, Second, and Third boot devices.

Swap Floppy Drive [Disabled]

If you have two floppy diskette drives in your system, this item allows you to swap the assigned drive letters so that drive A becomes drive B, and drive B becomes drive A.

Boot Up Floppy Seek (Disabled)

If this item is enabled, it checks the size of the floppy disk drives at start-up time. You don't need to enable this item unless you have a legacy diskette drive with 360K capacity.

Boot Up NumLock Status (On)

This item defines if the keyboard Num Lock key is active when your system is started.

Gate A20 Option (Fast)

This item defines how the system handles legacy software that was written for an earlier generation of processors. Leave this item at the default value.

ATA 66/100 IDE Cable Msg. (Enabled)

This item enables or disables the display of the ATA 66/100 Cable MSG.

Typematic Rate Setting (Disabled)

If this item is enabled, you can use the following two items to set the typematic rate and the typematic delay settings for your keyboard.

- **Typematic Rate (Chars/Sec)**: Use this item to define how many characters per second are generated by a held-down key.
- **Typematic Delay (Msec):** Use this item to define how many milliseconds must elapse before a held-down key begins generating repeat characters.

Security Option (Setup)

If you have installed password protection, this item defines if the password is required at system start up, or if it is only required when a user tries to enter the Setup Utility.

APIC Mode (Enabled)

This item allows you to enable or disable the APIC (Advanced Programmable Interrupt Controller) mode. APIC provides symmetric multi-processing (SMP) for systems, allowing support for up to 60 processors.

OS Select For DRAM > 64 MB (Non-OS2)

This item is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this item at the default.

HDD S.M.A.R.T Capability [Disabled]

The S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) system is a diagnostics technology that monitors and predicts device performance S.M.A.R.T. software resides on both the disk drive and the host computer.

The disk drive software monitors the internal performance of the motors, media, heads and electronics of the drive. The host software monitors the overall reliability status of the drive. If a device failure is predicted, the host software, through the Client WORKS S.M.A.R.T applet, warns the user of the impending condition and advises appropriate action to protect the data.

Report No FDD For WIN 95 (Yes)

Set this item to the default if your are running a system with no floppy drive and using Windows 95; this ensures compatibility with the Windown 95 logo certification.

Video BIOS Shadow (Enabled)

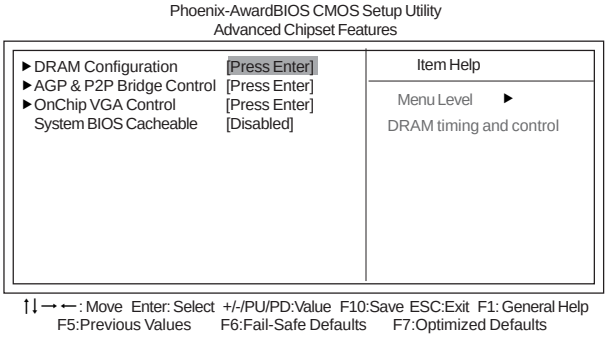
This item determines whether the BIOS will be copied to RAM for faster execution.

Small Logo (EPA) Show [Disabled]

Enables or disables the display of the EPA logo during boot.

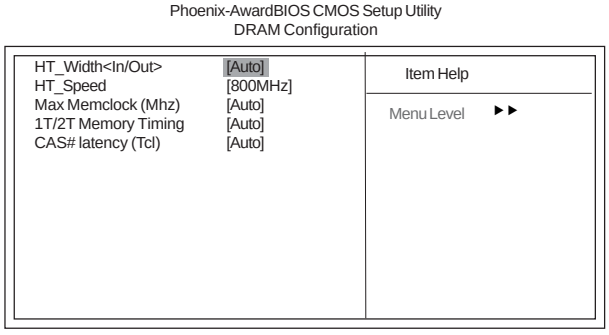
Advanced Chipset Features

These items define critical timing parameters of the motherboard. You should leave the items on this page at their default values unless you are very familiar with the technical specifications of your system hardware. If you change the values incorrectly, you may introduce fatal errors or recurring instability into your system.



▶DRAM Configuration (Press Enter)

Scroll to this item and press <Enter> to view the following screen:



HT_Width<In/Out> (Auto)

This item shows HyperTransport™'s bus size of Local Descriptor Table (LDT). The bus size is automatically calculated by the CPU. Therefore, We strongly recommend that you do not change this setting.

HT-Speed (800 MHz)

This item shows the bus frequency of Local Descriptor Table. Its default is set as 800 MHz.

Max Memclock (Mhz)(Auto)

When DDR Timing Setting by is set to Manual, use this item to set the DRAM frequency.

1T/2T Memory Timing (Auto)

This item allows you to adjust the DRAM timing. Please note that it only support the K8 CG version and the following version. We recommend that you leave this item at the default value.

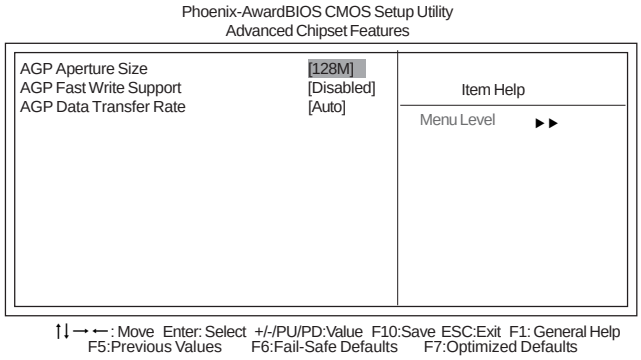
CAS# latency (Tcl) (Auto)

This item determines the operation of SDRAM memory CAS (column address strobe). It is recommended that you leave this item at the default value. The 2T setting requires faster memory that specifically supports this mode.

Press <Esc> to return to the Advanced Chipset Features page.

▶AGP & P2P Bridge Control (Press Enter)

Scroll to this item and press <Enter> to view the following screen:



AGP Aperture Size (128M)

This item defines the size of aperture if you use an AGP graphics adapter. The AGP aperture refers to a section of the PCI memory address range used for graphics memory. We recommend that you leave this item at the default value.

AGP Fast Write Support (Disabled)

This item controls the AGP bus Fast Write capability. Fast Write allows the AGP device to act like a PCI device. This allows it to skip the main memory and directly access the data that improves the AGP read performance.

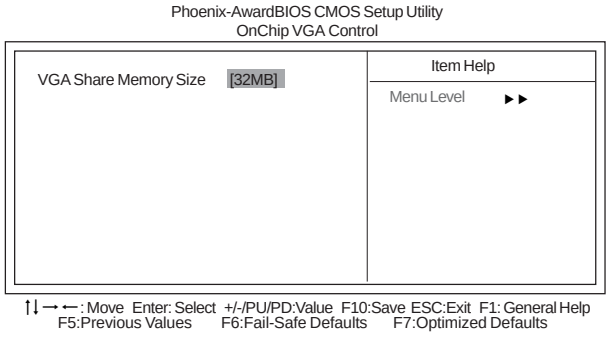
AGP Data Transfer Rate (Auto)

You can select the AGP device data transfer rate capability.

Press <Esc> to return to the Advanced Chipset Features page.

►OnChip VGA Control (Press Enter)

Scroll to this item and press <Enter> to view the following screen:



VGA Share Memory Size (32 MB)

This item allows you to select the shared memory size for VGA usage.

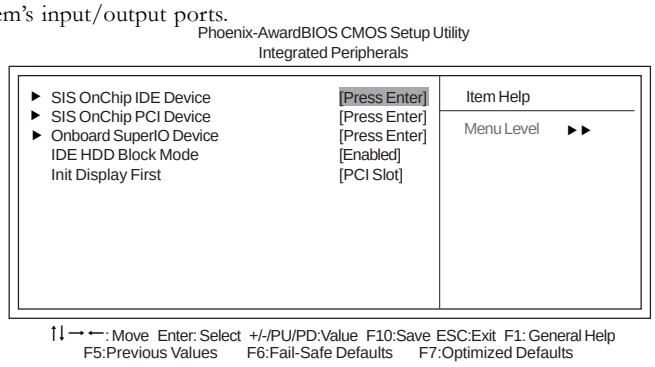
Press <Esc> to return to the Advanced Chipset Features page.

System BIOS Cacheable (Disabled)

This feature is only valid when the system BIOS is shadowed. It enables or disables the caching of the system BIOS ROM at F0000h-FFFFFh via the L2 cache. This greatly speeds up accesses to the system BIOS.

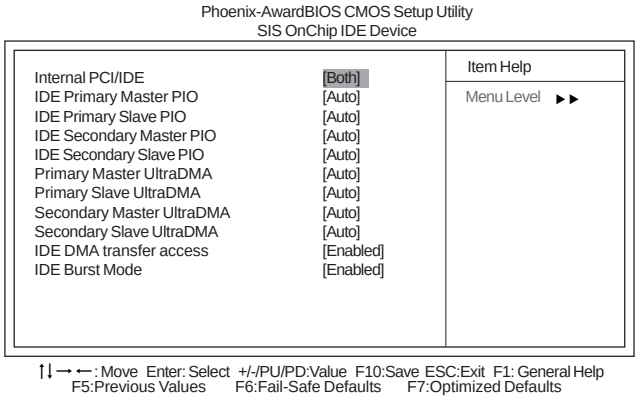
Integrated Peripherals

These options display items that define the operation of peripheral components on the system's input/output ports.



▶ SIS OnChip IDE Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:



Internal PCI/IDE (Both)

Use these items to enable or disable the internal PCI IDE channels that are integrated on the motherboard.

IDE Primary/Secondary Master/Slave PIO (Auto)

Each IDE channel supports a master device and a slave device. These four items let you assign the kind of PIO (Programmed Input/Output) was used by the IDE devices. Choose Auto to let the system auto detect which PIO mode is best, or select a PIO mode from 0-4.

Primary/Secondary Master/Slave UltraDMA (Auto)

Each IDE channel supports a master device and a slave device. This motherboard supports UltraDMA technology, which provides faster access to IDE devices.

If you install a device that supports UltraDMA, change the appropriate item on this list to Auto. You may have to install the UltraDMA driver supplied with this motherboard in order to use an UltraDMA device.

IDE DMA transfer access (Enabled)

This item allows you to enable the transfer access of the IDE DMA then burst onto the PCI bus and nonburstable transactions do not.

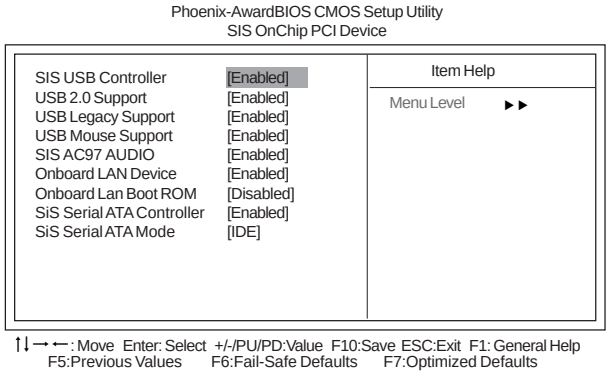
IDE Burst Mode (Enabled)

This option, when enabled will instruct the system to send every write transaction to the write buffer. Burstable transactions then burst onto the PCI bus and nonburstable transactions do not.

Press <Esc> to return to the Integrated Peripherals page.

▶ SIS OnChip PCI Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:



SIS USB Controller (Enabled)

This item enables the USB controller. Leave this at the default “Enabled” if you want to connect USB devices to your computer.

USB 2.0 Support (Enabled)

Enable this item if your system supports USB 2.0

USB Legacy Support (Enabled)

Use this item to enable or disable support for legacy USB devices. Setting to Auto allows the system to detect the presence of USB devices at startup. If detected, the USB controller legacy mode is enabled. If no USB device is detected, the legacy USB support is disabled.

USB Mouse Support (Disabled)

Enable this item if you plan to use a mouse connected through the USB port in a legacy operating system (such as DOS) that does not support Plug and Play.

SIS AC’ 97 AUDIO (Enabled)

This option allows you to control the onboard AC’ 97 audio. Disable this item if you are going to install a PCI audio add-on card.

Onboard LAN Device (Enabled)

This option allows you to control the onboard LAN device.

Onboard LAN Boot ROM (Disabled)

Use this item to enable and disable the booting from the onboard LAN or a network add-in card with a remote boot ROM installed.

SiS Serial ATA Controller (Enabled)

This item allows you to controller SiS Serial ATA controller.

SiS Serial ATA Mode (IDE)

This item allows you to change SiS Serial ATA mode.

Press <Esc> to return to the Advanced Chipset Features page.

IDE HDD Block Mode (Enabled)

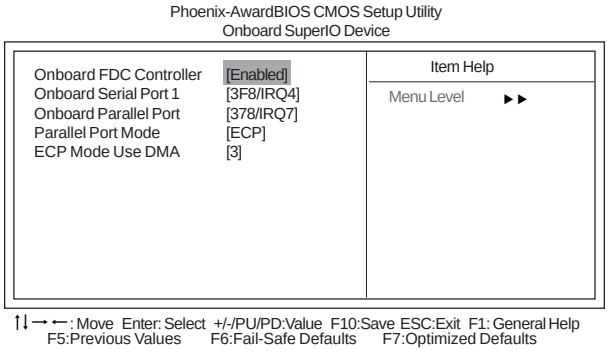
Enable this field if your IDE hard drive supports block mode. Block mode enables BIOS to automatically detect the optimal number of block read and writes per sector that the drive can support. It also improves the speed of access to IDE devices.

Init Display First (PCI Slot)

Use this item to specify whether your graphics adapter is installed in one of the PCI slots or is integrated on the motherboard.

▶ Onboard SuperIO Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:



Onboard FDC Controller (Enabled)

This option enables the onboard floppy disk drive controller.

Onboard Serial Port 1 (3F8/IRQ4)

This option is used to assign the I/O address and interrupt request (IRQ) for onboard serial port 1 (COM1).

Onboard Parallel Port (378/IRQ7)

This option is used to assign the I/O address and interrupt request (IRQ) for the onboard parallel port.

Parallel Port Mode (ECP)

Enables you to set the data transfer protocol for your parallel port. There are four options: SPP (Standard Parallel Port), EPP (Enhanced Parallel Port), ECP (Extended Capabilities Port) and ECP+EPP.

SPP allows data output only. Extended Capabilities Port (ECP) and Enhanced Parallel Port (EPP) are bi-directional modes, allowing both data input and output. ECP and EPP modes are only supported with EPP- and ECP-aware peripherals.

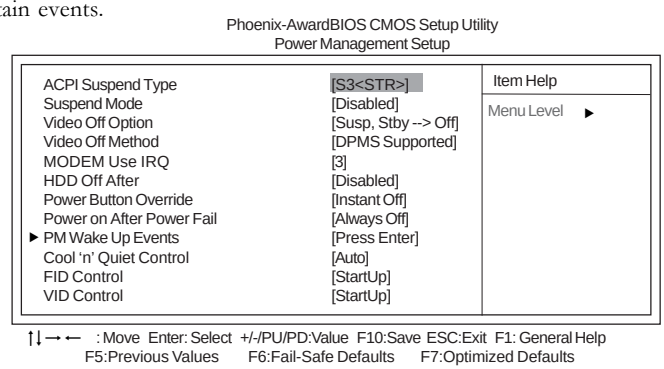
ECP Mode Use DMA (3)

When the onboard parallel port is set to ECP mode, the parallel port can use DMA 3 or DMA 1.

Press <Esc> to return to the Integrated Peripherals page.

Power Management Setup

This option lets you control system power management. The system has various power-saving modes including powering down the hard disk, turning off the video, suspending to RAM, and software power down that allows the system to be automatically resumed by certain events.



ACPI Suspend Type (S3(STR)

Use this item to define how your system suspends. In the default, S3 (STR), the suspend mode is a suspend to RAM, i.e., the system shuts down with the exception of a refresh current to the system memory.

Suspend Mode (Disable)

The CPU clock will be stopped and the video signal will be suspended if no Power Management events occur for a specified length of time. Full power function will return when a Power Management event is detected. Options are from 1 Min to 1 Hour and Disable.

Video Off Option (Susp, Stby —> Off)

This option defines if the video is powered down when the system is put into suspend mode.

Video Off Method (DPMS Supported)

This item defines how the video is powered down to save power. This item is set to DPMS (Display Power Management Software) by default.

MODEM Use IRQ (3)

If you want an incoming call on a modem to automatically resume the system from a power-saving mode, use this item to specify the interrupt request line (IRQ) that is used by the modem. You might have to connect the fax/modem to the motherboard Wake On Modem connector for this feature to work.

HDD Off After (Disabled)

The IDE hard drive will spin down if it is not accessed within a specified length of time. Options are from 1 Min to 15 Min and Disable.

Power Button Override (Instant Off)

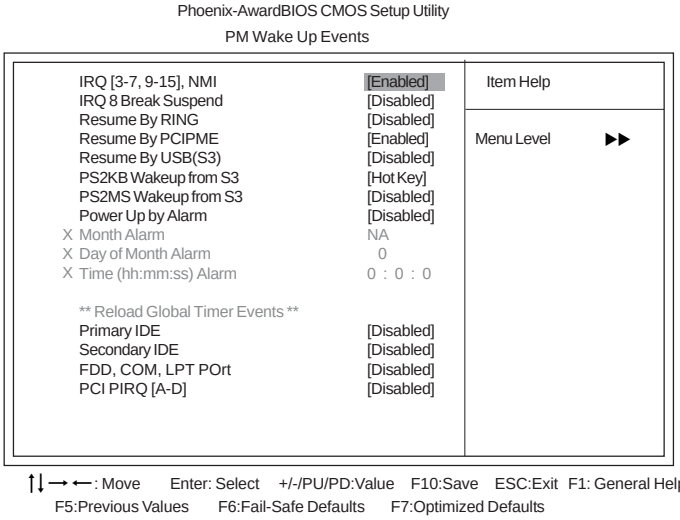
Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, the system can be resumed by Wake Up Alarms. This item lets you install a software power down that is controlled by the power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to Delay 4 Sec. then you have to hold the power button down for four seconds to cause a software power down.

Power On After Power Fail (Always Off)

This item enables your computer to automatically restart or return to its last operating status after power returns from a power failure.

▶ PM Wake Up Events (Press Enter)

Scroll to this item and press <Enter> to view the following screen:



This item opens a submenu that enables you to set events that will resume the system from a power saving mode.

IRQ [3-7, 9-15], NMI (Enabled)

This option determines whether any activity for IRQ 3-7/9-15 will cause the system to wake from a power saving mode.

IRQ 8 Break Suspend (Disabled)

Determines whether the system will monitor IRQ 8 activity and wake the system from a power saving mode when IRQ 8 is activated.

Resume by RING (Disabled)

An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.

Resume by PCI PME (Enabled)

This item specifies whether the system will be awakened from power saving modes when activity or input signal of the specified hardware peripheral or component is detected.

Resume by USB (S3) (Disabled)

This option allows the activity fo the USB devices (keyboard and mouse) to wake up the system from S3 sleep state.

PS2KB Wakeup from S3 (Hot Key)

This option allows you to set hot key combination to turn on the system by keyboard.

PS2MS Wakeup from S3 (Disabled)

This option allows you to set the mouse action to turn on the system.

Power Up by Alarm (Disabled)

When set to Enabled, the following three fields become available: Month Alarm, Day of Month Alarm, and Time Alarm Upon arrival of the alarm time, it will instruct the system to wake up. When set to 0 (zero) for the day of the month, the alarm will power on your system every day at the specified time.

***** Reload Global Timer Events *****

These fields determine which events waken the system from power saving mode.

Primary/Secondary IDE (Disabled)

When this item is enabled, the system power will resume the system from a power saving mode if there is any activity on primary or secondary IDE channels 0 or 1.

FDD, COM, LPT Port (Disabled)

When this item is enabled, the system will restart the power-saving timeout counters when any activity is detected on the floppy disk drive, serial ports, or the parallel port.

PCI PIRQ[A-D]# (Disabled)

When this item is enabled, any activity from one of the listed devices wakes up the system.

Press <Esc> to return to the Power Management Setup screen.

Cool'n'Quiet control (Auto)

This item helps the system to lower the frequency when CPU idles. When the frequency decreases, the temperature will drop automatically as well.

FID Control (StartUp)

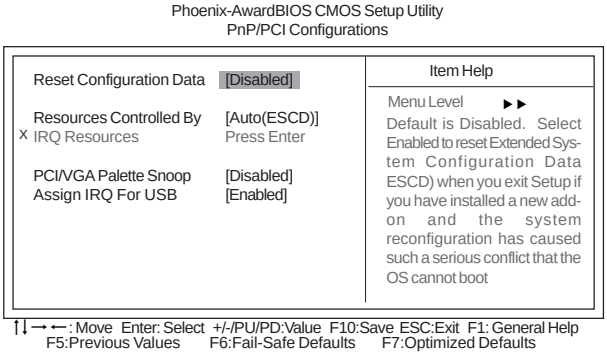
This item allows users to adjust the CPU frequency; the range will be varied according to different CPUs. We strongly recommend you leave this item at its default value.

VID Control (StartUp)

This item allows users to adjust the CPU voltage. We strongly recommend you leave this item at its default value.

PNP/PCI Configurations

These options configure how PnP (Plug and Play) and PCI expansion cards operate in your system. Both the the ISA and PCI buses on the motherboard use system IRQs (Interrup ReQuests) and DMAs (Direct Memory Access). You must set up the IRQ and DMA assignments correctly through the PnP/PCI Configurations Setup utility for the motherboard to work properly. Selecting PnP/PCI Configurations on the main program screen displays this menu:



Reset Configuration Data [Disabled]

If you enable this item and restart the system, any Plug and Play configuration data stored in the BIOS Setup is cleared from memory.

Resources Controlled By Auto [Auto(ESCD)]

You should leave this item at the default Auto (ESCD). Under this setting, the system dynamically allocates resources to Plug and Play devices as they are required.

If you cannot get a legacy ISA (Industry Standard Architecture) expansion card to work properly, you might be able to solve the problem by changing this item to Manual, and then opening up the IRQ Resources submenu.

- **IRQ Resources [Press Enter]:** In the IRQ Resources submenu, if you assign an IRQ to Legacy ISA, then that Interrupt Request Line is reserved for a legacy ISA expansion card. Press <Esc> to close the IRQ Resources submenu.

PCI/VGA Palette Snoop [Disabled]

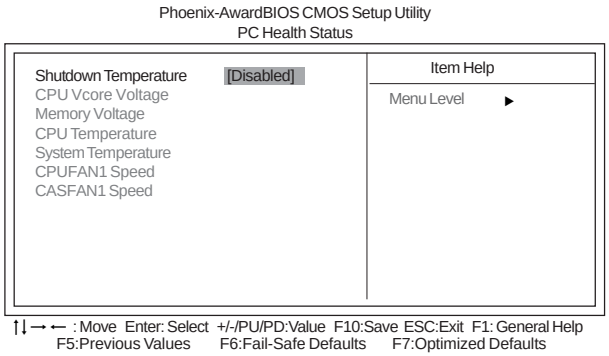
This item is designed to overcome problems that can be caused by some non-standard VGA cards. This board includes a built-in VGA system that does not require palette snooping so you must leave this item disabled.

Assign IRQ For USB [Enabled]

Names the interrupt request (IRQ) line assigned to the USB on your system. Activity of the selected IRQ always awakens the system.

PC Health Status

On motherboards that support hardware monitoring, this item lets you monitor the parameters for critical voltages, temperatures and fan speeds.



Shutdown Temperature [Disabled]

Enables you to set the maximum temperature the system can reach before powering down.

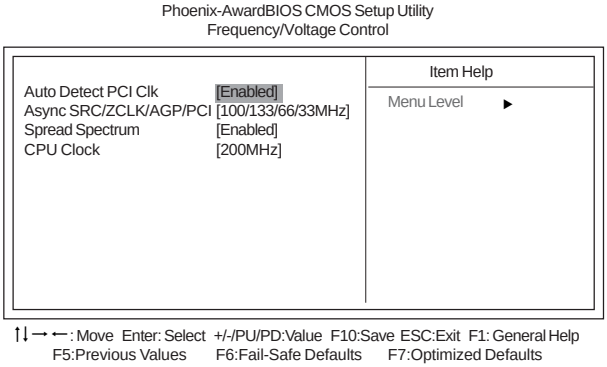
System Component Characteristics

These fields provide you with information about the systems current operating status. You cannot make changes to these fields.

- CPU Vcore Voltage
- Memory Voltage
- CPU Temperature
- System Temperature
- CPUFAN1 Speed
- CASFAN1 Speed

Frequency/Voltage Control

This item enables you to set the clock speed and system bus for your system. The clock speed and system bus are determined by the kind of processor you have installed in your system.



Auto Detect PCI Clk (Enabled)

When this item is enabled, BIOS will disable the clock signal of free PCI slots.

Async SRC/ZCLK/AGP/PCI (100/133/66/33MHz)

This item enables or disables users to asychronously overclock the frequency of SRC/ZCLK/AGP/PCI.

Spread Spectrum (Enabled)

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by the system.

CPU Clock(200MHz)

Use the CPU Host Clock to set the frontside bus frequency for the installed processor (The default value is 200MHz; the frequency ranges from 200MHz to 255MHz).

Load Fail-Safe Defaults

This option opens a dialog box that lets you install fail-safe defaults for all appropriate items in the Setup Utility: Press <Y> and the <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The fail-safe defaults place no great demands on the system and are generally stable. If your system is not functioning correctly, try installing the fail-safe defaults as a first step in getting your system working properly again. If you only want to install fail-safe defaults for a specific option, select and display that option, and then press <F6>.

Load Optimized Defaults

This option opens a dialog box that lets you install optimized defaults for all appropriate items in the Setup Utility. Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press <F7>.

Set Supervisor/User Password

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection.

To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter BIOS Setup freely.

PASSWORD DISABLED

If you have selected "**System**" in "Security Option" of "BIOS Features Setup" menu, you will be prompted for the password every time the system reboots or any time you try to enter BIOS Setup.

If you have selected "**Setup**" at "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password only when you enter BIOS Setup.

Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the
system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

Save & Exit Setup

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the main menu.

Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. When the Exit Without Saving dialog box appears, press <Y> to discard changes and exit, or press <N> to return to the main menu.

If you have made settings that you do not want to save, use the "Exit Without Saving" item and press <Y> to discard any changes you have made.

This concludes Chapter 3. Refer to the next chapter for information on the software supplied with the motherboard.

Memo

Chapter 4
Using the Motherboard Software

About the Software CD-ROM

The support software CD-ROM that is included in the motherboard package contains all the drivers and utility programs needed to properly run the bundled products. Below you can find a brief description of each software program, and the location for your motherboard version. More information on some programs is available in a README file, located in the same directory as the software.

Never try to install all software from folfer that is not specified for use with your motherboard.

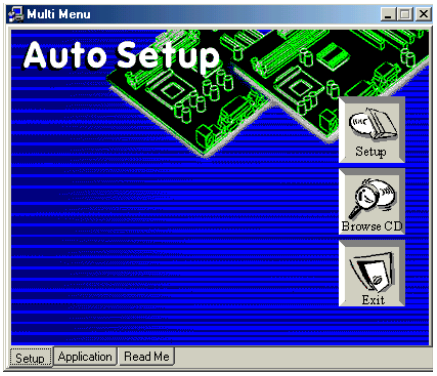
Before installing any software, always inspect the folder for files named README.TXT, INSTALL.TXT, or something similar. These files may contain important information that is not included in this manual.

Auto-installing under Windows 98/ME/2000/XP

The Auto-install CD-ROM makes it easy for you to install the drivers and software for your motherboard.

If the Auto-install CD-ROM does not work on your system, you can still install drivers through the file manager for your OS (for example, Windows Explorer). Refer to the Utility Folder Installation Notes later in this chapter.

The support software CD-ROM disc loads automatically under Windows 98/ME/2000/XP. When you insert the CD-ROM disc in the CD-ROM drive, the autorun feature will automatically bring up the install screen. The screen has three buttons on it, Setup, Browse CD and Exit.



If the opening screen does not appear; double-click the file "setup.exe" in the root directory.

Setup Tab

Setup	Click the **Setup** button to run the software installation program. Select from the menu which software you want to install.
Browse CD	The **Browse CD** button is the standard Windows command that allows you to open Windows Explorer and show the contents of the support CD. Before installing the software from Windows Explorer, look for a file named README.TXT, INSTALL.TXT or something similar. This file may contain important information to help you install the software correctly. Some software is installed in separate folders for different operating systems, such as DOS, WIN NT, or WIN98/95. Always go to the correct folder for the kind of OS you are using. In install the software, execute a file named SETUP.EXE or INSTALL.EXE by double-clicking the file and then following the instructions on the screen.
Exit	The **EXIT** button closes the Auto Setup window.

Application Tab

Lists the software utilities that are available on the CD.

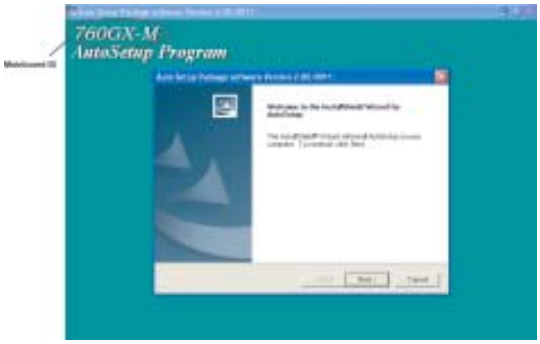
Read Me Tab

Displays the path for all software and drivers available on the CD.

Running Setup

Follow these instructions to install device drivers and software for the motherboard:

1. *Click **Setup**. The installation program begins:*

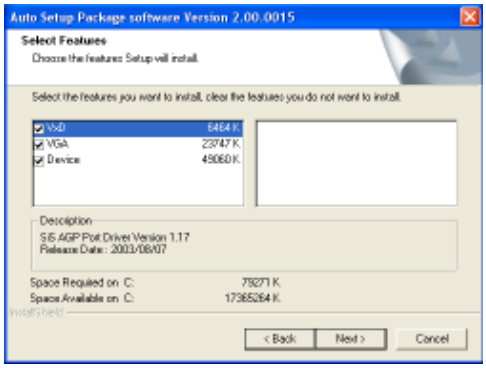


The following screens are examples only. The screens and driver lists will be different according to the motherboard you are installing.

The motherboard identification is located in the upper left-hand corner.

2. *Click **Next.** The following screen appears:*

3. *Check the box next to the items you want to install. The default options are recommended.*
4. *Click **Next** run the Installation Wizard. An item installation screen appears:*



5. *Follow the instructions on the screen to install the items.*

Drivers and software are automatically installed in sequence. Follow the onscreen instructions, confirm commands and allow the computer to restart a few times to complete the installation.

Manual Installation

Insert the CD in the CD-ROM drive and locate the PATH.DOC file in the root directory. This file contains the information needed to locate the drivers for your motherboard.

Look for the chipset and motherboard model; then browse to the directory and path to begin installing the drivers. Most drivers have a setup program (SETUP.EXE) that automatically detects your operating system before installation. Other drivers have the setup program located in the operating system subfolder.

If the driver you want to install does not have a setup program, browse to the operating system subfolder and locate the readme text file (README.TXT or README.DOC) for information on installing the driver or software for your operating system.

Utility Software Reference

All the utility software available from this page is Windows compliant. They are provided only for the convenience of the customer. The following software is furnished under license and may only be used or copied in accordance with the terms of the license.

These software(s) are subject to change at anytime without prior notice. Please refer to the support CD for available software.

AMI/AWARD Flash Memory Utility

This utility lets you erase the system BIOS stored on a Flash Memory chip on the motherboard, and lets you copy an updated version of the BIOS to the chip. Proceed with caution when using this program. If you erase the current BIOS and fail to write a new BIOS, or write a new BIOS that is incorrect, your system will malfunction. Refer to Chapter 3, Using BIOS *for more information.*

WinFlash Utility

The Award WinFlash utility is a Windows version of the DOS Award BIOS flash writer utility. The utility enables you to flash the system BIOS stored on a Flash Memory chip on the motherboard while in a Windows environment. This utility is currently available for WINXP\ME\2000\98SE. To install the WinFlash utility, run WINFLASH.EXE from the following directory: \UTILITY\WINFLASH 1.51

This concludes Chapter 4. Refer to the next chapter for information about SATA RAID Setup.

Chapter 5
SiS964 SATA RAID Setup Guide

Introduction for SiS964 SATA RAID Function

The SiS964 S-ATA controller only support two serial ATA on two independent ports. The Serial ATA RAID is designed to provide a cost-effective, high performance RAID solution that adds performance and/or reliability to PC desktops and/or servers using Serial ATA/150 hard disks.

Serial ATA RAID function supports striping (RAID 0), mirroring (RAID 1), and span (JBOD). Please note that the function supports hard disk drives only and the SiS964 S-ATA controller don't support Striping + mirroring (Raid 0+1).

With striping, identical drives can read and write data in parallel to increase performance. Mirroring increases read performance through load balancing and elevator sorting while creating a complete backup of your files. Span would increase the logic hard disk space.

Serial ATA RAID striped arrays can double the sustained data transfer rate of Serial ATA/150. Serial ATA RAID fully supports Serial ATA/150 specification of up to 150MB/sec per drive, depending on individual drive specifications.

Features

- The SiS964 controller only support two Serial ATA (Serial ATA RAID) drivers.
- Support RAID function: RAID 0, RAID 1, JBOD.
- Support bootable disk.
- Windows-based RAID Utility software tool (only support Windows XP and 2000).
- BIOS Utility.

Support Operating Systems

Support Microsoft Windows 98/98SE/ME/2000 Professional and Server/XP.

What is RAID?

This section will give you an overview about the RAID system and introduce the basic background and glossary which you need to know before using "SiS RAID Controller Application".

1 **RAID:** (Redundant Array of Independent Disk Drives) use jointly several hard drives to increase data transfer rates and data security. It depends on the number of drives present and RAID function you select to fulfill the security or performance purposes or both.

2 **RAID 0:** Also known as "Stripping". All of the data are distributed evenly to all of the existing drives. You gain benefits on performance because the data transfer rate is multiplied by the number of drives. However, RAID 0 has high risks of data security. All of the stored data will be lost if even any one drive in the RAID set crashes.

3 **RAID 1:** Also known as "Mirroring". Two hard drives are required. The goal of RAID 0 is to ensure data security. Data is written to two or more drives synchronously. That is, 100% duplication of data from one drive to another.

4 **JBOD:** (Just a Bunch of Drives). Also known as “Spanning”. Two or more hard drives are required. Several hard disk types configured as a single hard disk. The hard drives are simply hooked up in series. This expands the capacity of your drive and results in a useable total capacity. However, JBOD will not increase any performance or data security.

Installing Software Drivers

SiS provides RAID driver for SiS964 SATA with RAID function.

1 For RAID function, SiS964 support RAID0, RAID1 and JBOD by software RAID driver only.
2 Support the function of installing windows to RAID array.

New Windows 2000/XP Installation

1 Start the installation:
Boot from the CD-ROM. Press F6 when the message “Press **F6** key if you need to install third party SCSI or RAID driver” appears.
2 When the Windows 2000/XP Setup window is generated, press **S** key to specify an Additional Device(s).
3 Insert the driver diskette into drive A: and press Enter.
4 Choose one of the following items:
***“WinXP SiS Raid/IDE Controller”*,**
***“Win2000 SiS Raid/IDE Controller”*,**
that appears on screen, and then press the Enter key.
5 Press Enter to continue with installation or if you need to specify any additional devices to be installed, do so at this time. Once all devices are specified, Press Enter to continue with installation.
6 From the Windows 2000/XP Setup screen, press the Enter key. Setup will now load all device files and then continue the Windows 2000/XP installation.
7 Please install the driver package again (ex. SiS RAID driver v1.00) while the operation system has been setup.

If you would like to install windows to any RAID set, you should create RAID from BIOS utility or SiS964 RAID Utility first and then follow the steps above.

Existing Windows 2000/XP/98/Me Installation

1 Install the driver by executing SiS driver setup utility.
2 The drivers will be automatically installed.

Confirming Windows 2000/XP Driver Installation

1 From Windows 2000/XP, open the Control Panel from “My Computer” followed by the System icon.
2 Choose the “Hardware” tab, then click the “Device Manager” tab.
3 Click the “+” in front of “SCSI and RAID Controllers” hardware type. The driver **“SiS 180 Raid Controller”** should appear.

Confirming Windows 98/Me Driver Installation

1 From Windows 98/Me, open the Control Panel from “My Computer” followed by the System icon.
2 Choose the “Device Manager” tab.
3 Click the “+” in front of “IDE ATA/ATAPI Controllers” hardware type. The driver **“SiS 180 IDE Dual Channel”** and **“SiS 180 IDE/RAID Controller”** should appear.

BIOS Utility Operation

BIOS Utility supports windows 2000/XP/98/Me.

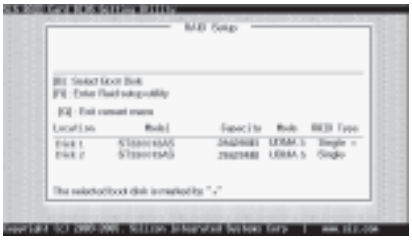
Starting BIOS Utility

1 Boot your system. If this is the first time you have booted with the SiS964 and the drives installed, the BIOS will display the following:

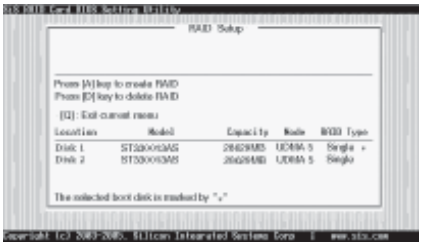
```
Silicon Integrated Systems Corp. RAID BIOS Setting Utility v0.XX
(c) 2003-2005 Silicon Integrated Systems Corp. All Rights Reserved.

Press <Ctrl.<S> to run BIOS Setting Utility
```

2 Press <Ctrl-S> keys to display the SiS964 Utility Main Menu.



3 You can press <B> key to select the boot disk on the SiS964 controller. The yellow highlight will show on the disk and you can switch it to select the disk you wanted. Press “Enter” key to select it and the selected boot device will be marked by “*”. The default boot device will be set as **Disk 1**.
4 Press <R> to display the RAID setup menu below. This is the fastest and easiest method to creating your first array.



Create RAID

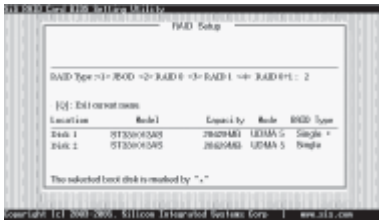
- SiS964 controller support RAID 0, RAID 1 and JBOD.

Creating a RAID 0 (Stripe) Array for Performance

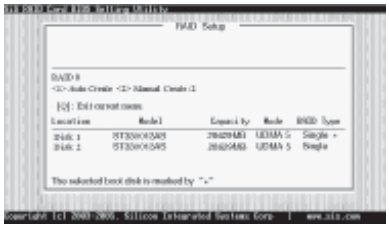
- SiS180 enables users to create striped arrays with 2, 3, or 4 drives.
- SiS964 only supports 2 SATA drivers to create a stripe array.

To create an array for best performance, follow these steps:

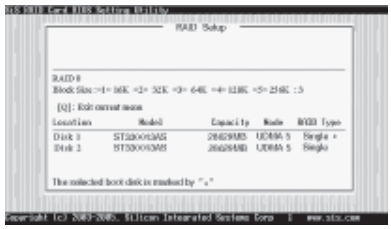
1 Press <A> to start creating a RAID array.
2 Press <2> and <Enter> to select RAID 0.



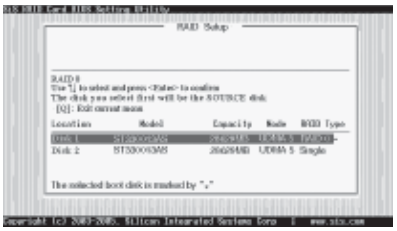
3 You will have two selections to create a RAID 0 array. **The default value is <1>**. If you select **<1>Auto Create**, you can create a RAID 0 array faster and easier. The Blocksize will be selected by its default value “64K”. The result after creating will be show on **step 8**. Besides, you also can select **<2>Manual Create**, see following steps.



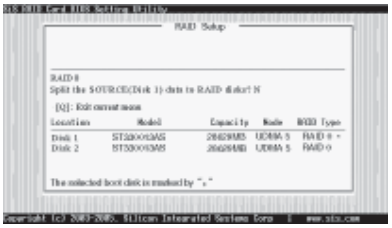
4 Press <1>-<5> keys and <Enter> to select Block Size. (Default:64K)



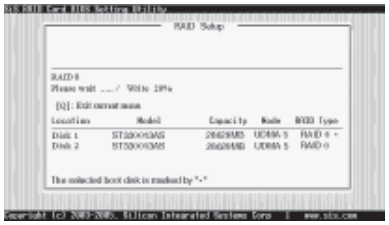
5 Use <↑ > < ↓ > to select disk, and press <Enter> to select disk, <Q> to exit. When you press <Enter> on the disk you wanted, the RAID Type will be changed from Single to RAID 0. An the disk you select first will be the SOURCE disk.



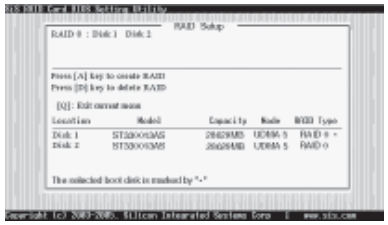
6 Next, you will see a message “Split the SOURCE(DISK x) data to RAID disks?”. Press <N> and <Enter> to create RAID 0 array only or press <Y> and <Enter> to split the data from source disk to other disks.



7 Starting splitting action, the following frame will be shown.

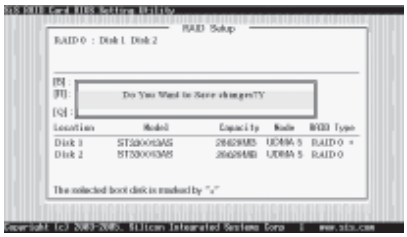


8 After all steps finished, press ,<Q> until escape the setup menu and RAID 0 array will be show on the top of the main frame.



9 Press <Q> again to exit this BIOS utility and the red message frame will show. Press <Y> and <Enter> to save changes.

10 Once the array has been created, you will need to FDISK and format the array as if it were a new single hard drive.



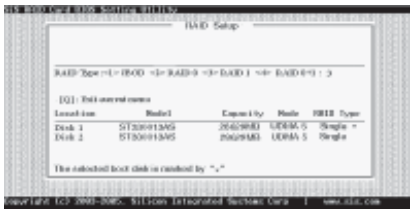
Creating a RAID 1 (Mirror) Array

SIS964/180 enables users to create Mirror arrays with 2 drives only.

To create a Mirror array, follow these steps:

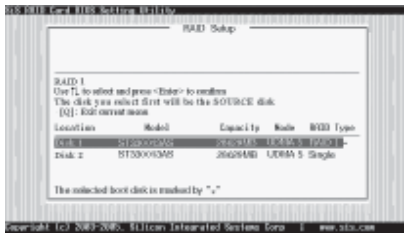
1 Press <A> to start creating a RAID array.

2 Press <3> and <Enter> to select Mirror.

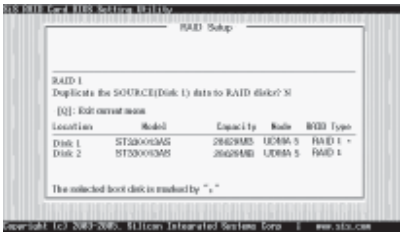


3 You will have two selections to create a RAID 1 array. **The default value is <1>**. If you select **<1>Auto Create**, you can create a RAID 1 array faster and easier. The result after creating will be show on **step 7**. Besides, you also can select **<2>Manual Create**, see following steps.

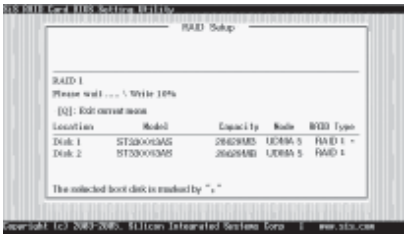
4 Use <↑ > < ↓ > to select disk, and press <Enter> to select disk, <Q> to exit. When you press <Enter> on the disk you wanted, the RAID Type will be changed from **Single** to **RAID 1**. The same as RAID 0, the disk you select first will be the SOURCE disk.



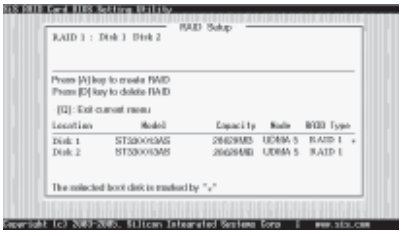
5 Next, you will see a message “Duplicate the SOURCE (DISK x) data to RAID disks?”. Press <N> and <Enter> to create RAID 1 array only or press <Y> and <Enter> to duplicate the data from source disk to mirror disk.



6 Starting duplicating action, the following frame will be showing.



7 After all steps finished, press <Q> until escape the setup menu and RAID 1 array will be show on the top of the main frame.



8 Press <Q> again to exit this BIOS utility and the red message frame will show as the same as the creation of the RAID 0 array. Press <Y> and <Enter> to save changes.

9 Once the array has been created, you will need to FDISK and format the array as if it were a new single hard drive.

Creating a JBOD Array

1 SiS180 enables users to create JBOD arrays with 2,3, or 4 drives.

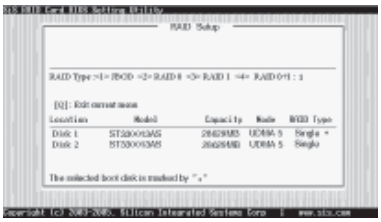
2 SiS964 only supports 2 SATA drivers to create a JBOD arrays.

To create an JBOD array, follow these steps:

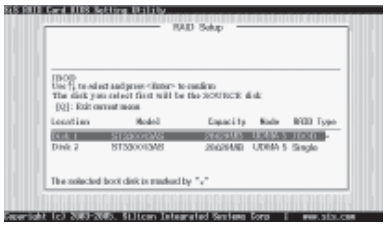
1 Press <A> to start creating a RAID array.

2 Press <1> and <Enter> to select JBOD.

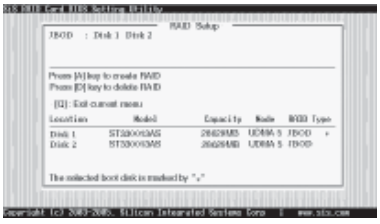
3 You will have two selections to create a JBOD array. **The default value is <1>**. If you select **<1>Auto Create**, you can create a JBOD array faster and easier. The result after creating will be show on **step 5**. Besides, you also can select **<2>Manual Create**, see following steps.



4 Use <↑> < ↓ > to select disk, and press <Enter> to select disk, <Q> to exit. When you press <Enter> on the disk you wanted, the RAID Type will be changed from **Single** to **JBOD**.



5 After all steps finished, press <Q> until escape the setup menu and JBOD array will be show on the top of the main frame.



6 Press <Q> again to exit this BIOS utility and the red message frame will show as the same age as the creation of the RAID 0 array. Press <Y> and <Enter> to save changes.

7 Once the array has been created, you will need to FDISK and format the array as if it were a new single hard drive.

This concludes Chapter 5.

Caractéristiques

Processeur

Cette carte mère utilise un socket de 754 broches ayant les caractéristiques suivantes :

- Reçoit des processeurs AMD K8
- Prend en charge l'interface HyperTransport™ pour les processeurs AMD K8

La Technologie HyperTransport™ est une liaison point à point entre deux matériels, elle permet à des circuits intégrés d'échanger des informations à des vitesses bien plus élevées que ne le permettent les technologies à interconnexions actuellement disponibles.

Chipset

Les chipsets SiS760GX Northbridge (NB) et SiS964 Southbridge (SB) sont basés sur une architecture novatrice et dimensionnable avec une fiabilité et des performances prouvées.

SiS760GX(NB)

- SiS MuTIOL est incorporé pour connecter les ES Médias MuTIOL SiS760GX et SiS964
- Prend en charge la Technologie HyperTransport ™ jusqu'à une bande passante de 1600MT/s
- AGP v3.0 conforme à 8X/4X et à la transaction d'écriture
- Prend une mémoire d'affichage allant jusqu'à 128Mo avec mémoire partagée
- Intégré dans un moteur Graphique 3D 256 bits de haute performance avec prise en charge de DirectX 8.1

SiS964 (SB)

- Entretien simultané pour tous les Périphériques DMA: Contrôleurs IDE Doubles, contrôleur SATA, trois contrôleurs d'hôte USB 2.0/1.1, Contrôleur MAC LAN et Contrôleur DMA Audio/Modem
- Conforme aux spécifications PCI 2.3 prenant en charge jusqu'à 6 maîtres PCI
- Conforme aux spécifications ATA 1.0 Série, supporte le mode d'économie d'énergie
- Conforme à AC'97 v2.3 prenant en charge 6 Canaux de sorties audio
- Contrôleur d'Hôte USB 2.0/1.1 intégré prenant en charge jusqu'à huit ports

Mémoire

- Prend en charge les types de mémoire DDR400/333/266/200
- Reçoit deux sockets DIMM SDRAM DDR de 184 broches 2,5V sans mémoire tampon
- Une capacité maximum totale de 2 Go

Graphique

- Moteur d'installation en triangle VLIW au format de virgule flottante en 32 bits intégré
- Moteur graphique BITBLT 128 bits en pipeline en 1T intégré
- Intègre un moteur 3D de haute qualité
- Prend en charge jusqu'à 4 textures

CODEC Audio AC'97

- Conforme aux spécifications AC'97 v2.3
- Entrée CD différentielle de haute qualité
- Prend en charge la vitesse d'échantillonnage double (96KHz) de la lecture audio DVD
- Compatible Direct Sound 3D™

Options d'extension

La carte mère est livrée avec les options d'extensions suivantes:

- Trois logements PCI 32 bits
- Un logement AGP
- Deux connecteurs IDE prenant en charge jusqu'à quatre périphériques IDE
- Une interface de lecteur de disquette
- Deux connecteurs SATA à 7 broches

Cette carte mère prend en charge la maîtrise de bus Ultra DMA avec des vitesses de transfert de 133/100/66 Mo/s.

LAN interne (optionnel)

Le LAN interne offre les caractéristiques suivantes:

- Supporte le fonctionnement en Auto-négociation N-Way en 10Mb/s et 100Mb/s
- Capacité Half/Full duplex
- Prend en charge la fonction Wake-On-LAN (WOL) (réveil par appel réseau) et le réveil à distance
- Prend en charge le Contrôle de Flux Full Duplex (IEEE 802.3x)

E/S intégrées

La carte mère possède un jeu complet de ports d'E/S et de connecteurs:

- Deux ports PS/2 pour souris et clavier
- Un port série
- Un port parallèle
- Un port VGA
- Quatre ports USB
- Un port LAN (optionnel)
- Prises audio pour microphone, ligne d'entrée et ligne de sortie

Microprogramme BIOS

La carte mère utilise Award BIOS qui permet aux utilisateurs de configurer de nombreuses caractéristiques du système comprenant les suivantes:

- Gestion de l'alimentation
- Alarmes de réveil
- Paramètres de CPU
- Synchronisation du CPU et de la mémoire

Le microprogramme peut aussi être utilisé pour définir les paramètres pour les vitesses d'horloges de différents processeurs.

Certaines spécifications matérielles et éléments de logiciels peuvent être modifiés sans avertissement.

Feature

Prozessor

Dieses Motherboard verwendet einen 754-Pin Socket mit den folgenden Eigenschaften:

- Nimmt AMD K8-Prozessoren auf
- Unterstützt HyperTransport™ Interface für AMD K8- Prozessoren

HyperTransport ™ Technologie ist ein Punkt-zu-Punkt Link zwischen zwei Geräten. Es ermöglicht integrierten Schaltkreisen einen Informationsaustausch mit wesentlich höherer Geschwindigkeit als bei gängigen Interconnect-Technologien.

Chipsatz

Die SiS760GX Northbridge (NB) und SiS964 Southbridge (SB) Chipsätze basieren auf einer innovativen und skalierbaren Architektur mit bewiesener Zuverlässigkeit und Leistung

SiS760GX(NB)

- SiS MuTIOL verbindet SiS760GX und SiS964 MuTIOL Media IO
- Unterstützt HyperTransport ™Technologie mit einer Bandbreite von bis zu 1600MT/s
- Entspricht AGP v3.0 mit 8X/4X und Fast Write Transaction
- Unterstützt bis zu 128MB Anzeigenspeicher mit Shared Memory
- Integrierter hochleistungsfähiger 256-Bit 3D-Grafik-Engine mit DirectX 8.1 Unterstützung

SiS964 (SB)

- Gleichzeitige Bearbeitung aller DMA-Geräte: Duale IDE-Controller, SATA-Controller, drei USB 2.0/1.1 Host-Controller, LAN MAC-Controller und Audio/Modem DMA-Controller
- Entspricht PCI 2.3 Spezifikation und unterstützt bis zu 6 PCI-Masters
- Entspricht Serial ATA 1.0 Spezifikation und unterstützt Energiesparmodus
- Entspricht AC'97 v2.3 und unterstützt 6-Kanal-Audioausgaben
- Integrierte USB 2.0/1.1 Host-Controller unterstützten bis zu acht Ports

Speicher

- Unterstützt DDR400/333/266/200 Speichertypen
- Nimmt zwei ungepufferte 2.5V 184-Pin DDR SDRAM DIMM-Steckplätze auf
- Die maximale Kapazität liegt bei 2 GB

Grafik

- Integrierter 32-Bit Fließkomma VLIW-Triangle Setup Engine
- Integrierter 1T pipelined 128-Bit BITBLT-Grafik-Engine
- Integrierter Hochleistungs-3D-Engine
- Unterstützt bis zu 4 Texturen

AC'97 Audio CODEC

- Entspricht AC'97 v2.3 Spezifikation
- Qualitativ hochwertiger Differential-CD-Eingang
- Unterstützt bei der DVD-Audiowiedergabe die doppelte Samplingrate (96KHz)
- Kompatibel mit Direct Sound 3D™

Erweiterungsoptionen

Das Motherboard bietet die folgenden Erweiterungsoptionen:

- Drei 32-Bit PCI-Steckplätze
- Ein AGP-Steckplatz
- Zwei IDE-Stecker, die bis zu vier IDE-Geräte unterstützen
- Ein Steckplatz für ein Diskettenlaufwerk
- Zwei 7-Pin SATA-Stecker

Dieses Motherboard unterstützt Ultra DMA Bus-Mastering mit Transferraten von 133/100/66MB/s.

Integriertes LAN (optional)

Das integrierte LAN bietet folgende Features:

- Unterstützt den Betrieb bei 10Mb/s und 100Mb/s N-Way Auto-Negotiation
- Halb-/Vollduplex-Fähigkeit
- Unterstützt Wake-On-LAN-Funktion und Remote-Wake-up
- Unterstützt Vollduplex-Flusskontrolle (IEEE 802.3x)

Integrierte I/O-Schnittstellen

Das Motherboard verfügt über einen kompletten Satz von I/O-Schnittstellen und Anschlüssen:

- Zwei PS/2-Schnittstellen für Tastatur und Maus
- Eine serielle Schnittstelle
- Eine parallele Schnittstelle
- Eine VGA- Schnittstelle
- Vier USB- Schnittstellen
- Eine LAN-Schnittstelle (optional)
- Audiobuchsen für Mikrofon, Line-In und Line-Out

BIOS Firmware

Dieses Motherboard setzt das Award BIOS ein, mit dem der Anwender viele Systemeigenschaften selbst konfigurieren kann, einschließlich der folgenden:

- Energieverwaltung
- Wake-up Alarm
- CPU-Parameter
- CPU- und Speichertiming

Mit der Firmware können auch Parameter für verschiedene Prozessortaktgeschwindigkeiten eingestellt werden.

Einige Hardware- und Software-Spezifikationen können jederzeit und ohne vorherige Ankündigung geändert werden.

Caratteristiche

Processore

La scheda madre utilizza una presa a 754 pin che offre le seguenti caratteristiche:

- Compatibilità con processori AMD K8
- Supporto di interfaccia HyperTransport™ per processori AMD K8

La tecnologia HyperTransport™ consente il collegamento point-to-point fra due dispositivi e quindi un trasferimento di informazioni tra circuiti integrati molto più veloce di quanto sia possibile con le attuali tecnologie di interconnessione.

Chipset

I chipset SiS760GX Northbridge (NB) e SiS964 Southbridge (SB) sono basati su un'innovativa architettura scalabile e offrono collaudata affidabilità e prestazioni comprovate.

SiS760GX(NB)

- La tecnologia SiS MuTIOL incorporata consente di collegare insieme MuTIOL Media I/O SiS 760GX e SiS 964
- Supporto di tecnologia HyperTransport™ con larghezza di banda fino a 1600 MT/s
- AGP v3.0 conforme a 8X/4X e funzionalità fast write
- Supporto di memoria video fino a 128MB con memoria condivisa
- Avanzato motore grafico 3D a 256 bit integrato con supporto di DirectX 8.1

SiS964 (SB)

- Supporto simultaneo di tutti i componenti DMA: doppio controller IDE, controller SATA, tre host controller USB 2.0/1.1, controller LAN MAC e controller DMA Audio/Modem
- Conforme alle specifiche PCI 2.3, in grado di supportare fino a 6 master PCI.
- Conforme alla specifica ATA Seriale 1.0 con supporto di modalità di risparmio energia
- Conforme alla specifica AC'97 v2.3 con supporto di 6 canali audio in uscita
- Controller USB 2.0/1.1 integrati con supporto di un massimo di otto porte

Memoria

- Supporto di memorie DDR 400/333/266/200
- Compatibile con due prese DIMM per DDR SDRAM da 2,5 V a 184 pin prive di buffer
- Capacità totale massima di 2 GB

Grafica

- Motore triangle setup con architettura VLIW a virgola mobile a 32 bit integrato
- Motore grafico BITBLT a 128 bit con pipeline 1T integrato
- Motore 3D di qualità avanzata integrato
- Supporto di fino a 4 texture

CODEC Audio AC'97

- Conforme alla specifica AC'97 v2.3
- Ingresso CD differenziale di qualità superiore
- Supporto di velocità di campionamento doppia (96 KHz) per la riproduzione audio di DVD
- Compatibile con Direct Sound 3D™

Opzioni di espansione

La scheda madre è dotata delle seguenti opzioni di espansione:

- Tre slot PCI a 32 bit
- Uno slot AGP
- Due connettori IDE per il supporto di fino a quattro dispositivi IDE
- Un'interfaccia per unità disco floppy
- Due connettori SATA a 7 pin

La scheda madre supporta la funzionalità di bus mastering Ultra DMA con velocità di trasferimento di 133/100/66 MB/s.

LAN integrata (opzionale)

La funzionalità LAN integrata sulla scheda offre le seguenti caratteristiche:

- Supporto di NWay Auto-negotiation a 10 Mb/s e 100 Mb/s
- Funzionalità half/Full duplex
- Supporto di funzionalità Wake-On-LAN e riattivazione remota del sistema
- Supporto di controllo flusso full duplex (IEEE 802.3x)

I/O integrati

La scheda madre offre una serie completa di porte e connettori I/O:

- Due porte PS/2 per mouse e tastiera
- Una porta seriale
- Una porta parallela
- Una porta VGA
- Quattro porte USB
- Una porta LAN (opzionale)
- Prese jack audio per microfono, line-in e line-out

Firmware BIOS

La scheda madre si avvale del BIOS Award che consente la configurazione personalizzata di molte funzionalità del sistema, tra cui:

- Gestione dell'alimentazione
- Allarmi di attivazione
- Parametri CPU
- Sincronizzazione di CPU e memoria

Il firmware consente inoltre di impostare i parametri per diverse velocità di clock del processore.

Alcune specifiche hardware e voci di software possono essere modificate senza preavviso.

Característica

Procesador

Esta placa principal usa un zócalo de 754-pin que lleva las sigtes. características:

- Acomoda procesadores AMD K8
- Soporta la interfaz HyperTransport™ para procesadores AMD K8

La Tecnología HyperTransport ™ es un vínculo punto a punto entre dos dispositivos, habilita circuitos integrados para intercambiar la información en velocidades más rápidas que las tecnologías de interconexión disponibles actualmente.

Chipset

El chipset SiS760GX Northbridge (NB) y SiS964 Southbridge (SB) se basan de una arquitectura innovadora y escalable con fiabilidad y rendimiento comprobados.

SiS760GX(NB)

- SiS MuTIOL está incorporado para conectar SiS760GX y SiS964 MuTIOL Media IO
- Soporta la HyperTransport ™Technology hasta una ancha de banda de 1600MT/s
- Conformidad AGP v3.0 con 8X/4X y transacción de escritura rápida
- Soporta hasta la memoria de muestra de 128MB con memoria compartida
- Un motor de Gráficas 3D de 256-bit de alto rendimiento con soporte de DirectX 8.1

SiS964 (SB)

- Servicio concurrente de todos los Dispositivos DMA : Controladores IDE Dual, controlador SATA, tres controladores anfitriones USB 2.0/1.1, controlador LAN MAC y Controlador DMA Audio/Modem
- Conformidad de la especificación PCI 2.3 que soporta hasta 6 másters PCI
- Conformidad con la especificación Serial ATA 1.0, soporta el modo ahorro de energía
- Conformidad con AC'97 v2.3 que soporta 6 Canales de salidas de audio
- Controladores Anfitriones USB 2.0/1.1 integrados que soporta hasta ocho puertos

Memoria

- Soporta los tipos de memoria DDR400/333/266/200
- Acomoda dos zócalos 2.5V 184-pin DDR SDRAM DIMM sin buffer
- Capacidad máxima total de 2 GB

Graphics

- Motor de setup triangular VLIW de formato de punto flotante de 32-bit incoporado
- Un motor de gráficas BITBLT de 128-bit a línea de tubo 1T incorporado
- Un motor 3D de alta calidad incorporado
- Soporta hasta 4 texturas

CODEC de audio AC'97

- Conformidad con la especificación AC'97 v2.3
- Entrada CD diferencial de alta calidad
- Soporta índice de muestreo doble (96KHz) de la reproducción de audio DVD
- Compatible con Direct Sound 3D™

Opciones de Expansión

La placa principal viene con las sigtes. opciones de expansión:

- Tres ranuras PCI de 32-bit
- Una ranura AGP
- Dos conectores IDE que soporta hasta cuatro dispositivos IDE
- Una interfaz de la unidad de disco floppy
- Dos conectores SATA de 7-pin

Esta placa principal soporta Ultra DMA bus mastering con índices de transferencia de 133/100/66MB/s.

LAN Abordo (optativo)

El LAN abordo provee las sigtes. características:

- Soporta operación de Autonegociación N-Way de 10Mb/s y 100Mb/s
- Capacidad de duplex Medio/Completo
- Soporta la función Wake-On-LAN y despertar remoto
- Soporta Full Duplex Flow Control (IEEE 802.3x)

I/O Integrado

La placa principal tiene un juego completo de puertos y conectores I/O:

- Dos puertos PS/2 para ratón y teclado
- Un puerto serial
- Un puerto paralelo
- Un puerto VGA
- Cuatro puertos USB
- Un puerto LAN (optativo)
- Clavijas de audio para micrófono, entrada y salida de línea

BIOS Firmware

La placa principal usa Award BIOS que habilita usuarios para configurar muchas características de sistema que incluyen las sigtes:

- Administración de Alimentación
- Alarmas para despertar
- Parámetros de CPU
- Cronometraje de CPU y de memoria

También se lo puede usar el firmware para configurar los parámetros para diferentes velocidades de reloj de procesador.

Algunas especificaciones de hardware e ítems de software son sujetos a cambio sin aviso previo.

Características

Processador

Esta motherboard usa uma ficha de 754 pin que possui as seguintes características:

- Acomoda processadores AMD K8
- Suporta interface de HyperTransport™ para processadores AMD K8

Tecnologia de HyperTransport™ Té um link ponto-a-ponto entre dois dispositivos, permite circuitos integrados para trocar informação a velocidades muito mais elevadas que as disponíveis actualmente em tecnologias de interconexão.

Conjunto de Chips

O conjunto de chips SiS760GX Northbridge (NB) e SiS964 Southbridge (SB) é baseado numa arquitectura inovadora e escalável com fiabilidade e performance provadas.

SiS760GX(NB)

- O SiS MuTIOL vem incorporado para ligar SiS760GX e SiS964 MuTIOL Media IO juntamente
- Suporta Tecnologia de HyperTransport ™ de largura de banda até 1600MT/s
- AGP v3.0 compatível com 8X/4X e transação de escrita rápida
- Suporta memória de visualização até 128MB com memória partilhada
- Incorporado com um dispositivo de Gráficos 3D de 256 bit de elevada performance suportado com DirectX 8.1

SiS964 (SB)

- Manutenção concorrente de todos os dispositivos DMA: Controladores IDE Duplos, controlador SATA, três controladores host USB 2.0/1.1, Controlador LAN MAC e Controlador DMA Áudio/Modem
- Cumpre com especificação PCI 2.3 suportando até 6 PCI masters
- Cumpre com especificação ATA 1.0 de Série, suporta modo de poupança de energia
- Cumpre com AC'97 v2.3 suportando 6 Canais de saídas áudio
- Controladores Host USB 2.0/1.1 integrados suportando até oito portas

Memória

- Suporta tipos de memória DDR400/333/266/200
- Acomoda duas fichas DIMM SDRAM DDR de 184 pin 2.5 V sem buffers
- Uma capacidade máxima total de 2 GB

Gráficos

- Incorporado com dispositivo de configuração triangular VLIW com formato de ponto flutuante de 32 bit
- Incorporado com dispositivo de gráficos BITBLT de 128 bit em paralelo 1T
- Incorporado com dispositivo 3D de alta qualidade
- Suporta até 4 texturas

Codec Áudio AC'97

- Cumpre com especificação AC'97 v2.3
- Entrada para CD com diferencial de alta qualidade
- Suporta taxa de amostragem dupla (96KHz) de reprodução áudio de DVD
- Compatível com Direct Sound 3D™

Opções de Expansão

A motherboard é fornecida com as seguintes opções de expansão:

- Três ranhuras PCI de 32 bit
- Uma ranhura AGP
- Dois conectores IDE que suportam até quatro dispositivos IDE
- Um interface com drive de disco flexível
- Dois conectores SATA de 7 pin

Esta motherboard suporta mastering bus Ultra DMA com taxas de transferência de 133/100/66MB/s.

Onboard LAN (opcional)

O onboard LAN fornece as seguintes características:

- Suporta operação de Auto-negociação N-Way 100Mb/s e10Mb/s
- Capacidade de Duplex pela metade/ou na totalidade
- Suporta função LAN de Despertar e despertar remoto
- Suporta Controlo de Fluxo Duplo Completo (IEEE 802.3x)

I/O Integrado

A motherboard possui um conjunto completo de portas I/O e conectores:

- Duas portas PS/2 para rato e teclado
- Uma porta de série
- Uma porta paralela
- Uma porta VGA
- Quatro portas USB
- Uma porta LAN (opcional)
- Fichas áudio para microfone, entrada de linha e saída de linha

Microprogramação BIOS

Esta motherboard usa Award BIOS que permitem aos utilizadores configurar muitas características do sistema incluindo as seguintes:

- Gestão de corrente
- Alarmes de despertar
- Parâmetros CPU
- Temporização de memória e CPU

A microprogramação poderá ser também usada para estabelecer parâmetros para diferentes velocidades de relógio do processador.

Algumas especificações de hardware e itens de software poderão ser sujeitos a alteraçõessem aviso prévio.

機能

プロセッサ

このマザーボードには、次の機能を持った754ピンソケットが一つあります：

- AMD K8プロセッサ対応
- AMD K8 プロセッサのHyperTransport™ インターフェース対応

HyperTransport™技術とは、二つのデバイスを1対1(point-to-point)で接続する技術であり、従来のインターコネクト技術に比較して、集積回路同士の情報交換を高速化します。

チップセット

SiS760GX Northbridge (NB)とSiS964 Southbridge (SB)チップセットは、実証された信頼性と性能を持つ革新的で拡張性のあるアーキテクチャに基づいています。

SiS760GX(NB)

- SiS MuTIOL でMuTIOL Media IOチップセットであるSiS760GXとSiS964 とを接続
- HyperTransport™ 技術をサポートで最大1600MT/秒の帯域幅を提供
- AGP v3.0 で8X/4X とFast Write転送モードを対応
- 最大128MBまでの表示メモリをサポート(共有メモリ方式可能)
- 1つの高性能256ビット3D グラフィックエンジンを内蔵でDirectX 8.1をサポート

SiS964 (SB)

- すべてのDMAデバイスの同時稼動が可能、これらのデバイスにはデュアルIDE コントローラ、SATA コントローラ、3つのUSB 2.0/1.1 ホストコントローラ、LAN MAC コントローラ、およびオーディオ/モデム DMA コントローラがある
- PCI2.3規格に準拠することで、最大6つまでのPCIマスター設備の取り付けが可能
- シリアルATA 1.0仕様に準拠し、省電力モードをサポート
- AC'97 v2.3に準拠し、6 チャネルオーディオ出力をサポート
- 内蔵のUSB 2.0/1.1 コントローラーで、8つのポートを提供

メモリ

- DDR400/333/266/200 メモリの装着が可能
- バッファなし2.5V 184ピンDDR SDRAM DIMMソケットを2つ搭載
- 合計で最大2GBまでの容量に対応可能

グラフィック

- 32ビット浮動小数点形式VLIWトライアングルセットアップエンジンを内蔵
- 1つの1T パイプライン化128ビットBITBLT グラフィックエンジンを内蔵
- 1つの高性能3Dエンジンを内蔵
- 最大4つまでのテクスチャをサポート可能

AC'97 Audio CODEC

- AC'97 v2.3仕様に準拠
- 高品質の差動式CD入力をサポート
- DVDオーディオ信号再生のダブルサンプリングレート(96KHz) をサポート
- Direct Sound 3D™ に対応

拡張オプション

本マザーボードでは、次の拡張機能が利用できます。

- 32ビットPCIスロット x3
- AGPスロット x1
- IDEヘッダー x2 (4つのIDEデバイスの接続を可能)
- フロッピーディスクドライブインターフェイス x1
- 7ピンSATAコネクタ X2

このマザーボードは、133/100/66MB/秒の転送速度でのUltra DMAバスマスタリングをサポートします。

オンボードLAN (オプション)

オンボードLANは、次の機能を提供します。

- 10Mb/秒および100Mb/秒N-way自動ネゴシエーション操作をサポート
- 半/全二重動作をサポート
- Wake-On-LANと遠隔wake-up機能をサポート
- 全二重フロー制御(IEEE 802.3x)をサポート

統合の入出力ポート

マザーボードには、次のI/Oポートやコネクタを揃えています。

- マウスとキーボード用のPS/2ポート x2
- シリアルポート x1
- パラレルポート x1
- VGAポート x1
- USBポート x4
- LANポート x1(オプション)
- マイク、ラインイン、ラインアウト用オーディオジャック

BIOSファームウェア

本マザーボードはAward BIOSを採用し、次の機能を含む多様なシステムの構成ををサポートします。

- 電源管理
- ウェークアップアラーム
- CPUパラメータ
- CPUとメモリとのタイミング

さらに、所定のパラメータを設定することによって、プロセッサのクロック速度を変更することもできます。

一部のハードウェア仕様とソフトウェアアイテムは、予告なしに変更することがあります。

특성

프로세서

본 마더보드는 다음과 같은 특성을 지닌 754 핀 소켓을 사용합니다:

- AMD K8 프로세서와 부합
- AMD K8 프로세서용 HyperTransport™ 인터페이스 지원

HyperTransport ™ 기술은 두 장치간의 point-to-point 링크로, 집적 회로가 기존의 상호 연결 기술 보다 더 빠른 속도로 정보를 교환할 수 있다.

칩셋

SiS760GX Northbridge (NB) 및 SiS964 Southbridge (SB) 칩셋은 혁신적이고 범위성을 지닌 아키텍처를 기반으로 인정된 신뢰성과 성능을 지닌다.

SiS760GX(NB)

- SiS MuTIOL로 SiS760GX 와 SiS964 MuTIOL 미디어 IO 연결
- HyperTransport ™Technology 에 최대 대역폭 1600MT/s 지원
- AGP v3.0 은 8X/4X 및 fast write transaction 부합
- 공유 메모리와 함께 최대 128MB 디스플레이 메모리 지원
- DirectX 8.1 지원 고 성능 256 비트 3D 그래픽 엔진 내장

SiS964 (SB)

- 모든 DMA 장치의 동시 사용: 듀얼 IDE 컨트롤러, SATA 컨트롤러, 3 개의 USB 2.0/1.1 호스트 컨트롤러, LAN MAC 컨트롤러 및 오디오/모뎀 DMA 컨트롤러
- 최대 6 개의 PCI 마스터를 지원하는 PCI 2.3 사양과 부합
- 시리얼 ATA 1.0 사양과 부합, 절전 모드 지원
- 6 개의 오디오 출력 채널을 지원하는 AC'97 v2.3 과 부합
- 최대 8 개 포트를 지원하는 통합 USB 2.0/1.1 호스트 컨트롤러

메모리

- DDR400/333/266/200 메모리 타입 지원
- 2 개의 unbuffered 2.5V 184 핀 DDR SDRAM DIMM 소켓 사용
- 총 최대 용량 2 GB

그래픽

- 32 비트 플로팅 포인트 포맷 VLIW 트라이앵글 셋업 엔진 내장
- 1T pipelined 128 비트 BITBLT 그래픽 엔진 내장
- 고품질 3D 엔진 내장
- 최대 4 텍스처 지원

AC'97 오디오 코덱

- AC'97 v2.3 사양 부합
- 고품질 차동 CD 입력
- DVD 오디오 재생에 더블 샘플링 속도 (96KHz) 지원
- Direct Sound 3D™ 호환

확장 옵션

본 마더보드의 확장 옵션은 다음과 같다:

- 32 비트 PCI 슬롯 3 개
- AGP 슬롯 1 개
- 최대 4개의 IDE 장치를 지원하는 IDE 커넥터 2 개
- 플로피 디스크 드라이브 인터페이스 1 개
- 7 핀 SATA 커넥터 2 개

본 마더보드는 전송 속도 133/100/66MB/s 로 Ultra DMA 버스 마스터링을 지원한다.

보드 내장 LAN (선택 사항)

보드 내장 LAN 은 다음과 같은 특성이 있다:

- 10Mb/s 및 100Mb/s N-Way Auto-negotiation 작업 지원
- Half/Full 듀플렉스 성능
- Wake-On-LAN 기능 및 원격 wake-up 지원
- Full Duplex Flow Control (IEEE 802.3x) 지원

통합 I/O

본 마더보드는 풀 셋트의 I/O 포트 및 커넥터가 있다:

- 마우스 및 키보드용 PS/2 포트 2 개
- 시리얼 포트 1 개
- 패러럴 포트 1 개
- VGA 포트 1 개
- USB 포트 4 개
- LAN 포트 1 개 (선택 사항)
- 마이크, 라인 입력 및 라인 출력용 오디오 잭

BIOS 펌웨어

본 마더보드는 다음과 같은 시스템 특성을 구성할 수 있는 Award BIOS 를 사용한다:

- 전원 관리
- Wake-up 알람
- CPU 파라미터
- CPU 및 메모리 타이밍

펌웨어로 다른 프로세서 클록 속도의 파라미터를 설정할 수도 있다.

몇 하드웨어 사양 및 소프트웨어 아이템은 사전 통보 없이 변경될 수 있습니다.

功能

處理器

本主機板配備具有如下功能的754針插槽:

- 支援AMD K8處理器；
- 支援AMD K8 處理器的HyperTransport™ 介面。

HyperTransport™技術為以點對點方式連接兩台設備的技術，藉此，積體電路間能夠以後高於現有各種內部連接技術(interconnect technology)技術的速度來交換資訊。

晶片組

SiS760GX北橋(NB)及SiS964南橋(SB)晶片組在研發設計上採用了創新且具擴充性之架構，具備優良的可靠性及性能。

SiS760GX(NB)

- 設置有SiS MuTIOL，用以連接SiS760GX 及SiS964 MuTIOL Media IO晶片組；
- 支援 HyperTransport™ 技術，提供高達1600MT/s 的頻寬；
- AGP v3.0 相容於8X/4X及快寫功能；
- 支援高達128MB的顯示記憶體(採共享記憶體方式)；
- 內建一高效能256位元3D繪圖引擎，支援DirectX 8.1。

SiS964(SB)

- 所有DMA設備可同時提供服務，這些設備包括：Dual IDE 控制器、SATA 控制器、3個USB 2.0/1.1 主控器、LAN MAC 控制器、及音效/數據機 DMA 控制器；
- 相容於 PCI 2.3規格，支援6個PCI主控器；
- 符合序列ATA 1.0規格，並支援省電模式；
- 符合AC′97 v2.3規格，支援6聲道音訊輸出；
- 內建USB 2.0/1.1控制器，提供8個連接埠。

記憶體

- 支援 DDR400/333/266/200 記憶體；
- 2個無緩衝的 2.5V 184針DDR SDRAM DIMM插槽；
- 最大容量 2 GB。

繪圖卡

- 內建32位元浮點方式VLIW 幾何運算圖形加速引擎(triangle setup engine)；
- 內建一1T 管線化128位元BITBLT繪圖引擎；
- 內建一高品質3D引擎；
- 支援高達4個材質(texture)。

AC′97 音頻編碼器

- 相容於AC′97 v2.3規格；
- 高品質差動CD輸入；
- 支援DVD音訊播放時的雙採樣率 (96KHz)；
- Direct Sound 3D™ 相容。

擴充選項

本主機板包括下列擴充選項：

- 3 個 32-bit PCI 插槽；
- 1 個 AGP 插槽 ；
- 2 個 IDE 接頭，支援 4個 IDE 裝置；
- 1 個軟碟機介面；
- 2個7針SATA插頭。

本主機板支援傳輸率133/100/66 MB/秒下的Ultra DMA 匯流排主控功能。

內建區域網路 (選購)

內建區域網路提供下列功能：

- 支援 10Mb/s 及 100Mb/s N-way 自動協調作業；
- 支援半/全雙工功能；
- 支援區域網路喚醒(Wake-On-LAN)及遠端喚醒功能；
- 支援全雙工流量控制(IEEE 802.3x)。

整合 I/O

主機板具有一組齊全的 I/O 連接埠及連接頭：

- 2 個 PS/2 埠，供滑鼠與鍵盤使用；
- 1 個串列埠；
- 1 個平行埠；
- 1 個VGA埠；
- 4 個USB埠；
- 1 個區域網路埠(選購)；
- 麥克風音頻插座、線級輸入及線級輸出。

BIOS 韌體

本主機板使用Award BIOS，使用者可以組態設定許多系統功能，包括如下：

- 電源管理；
- 喚醒警鈴；
- CPU參數；
- CPU及記憶體的時脈定時。

此外，也可藉由參數的設定，調整處理器的時脈速度。

部份硬體規格和軟體內容可能會在未經通知的情況下更動，敬請見諒。

功能

处理器

主板使用一个 754-pin 插座，此插座具有以下特点：

- 支持 AMD K8 处理器
- 支持用于AMD K8 处理器的 HyperTransport™ 接口

HyperTransport™ 技术是一种在两台设备间进行点到点连接的技术，它可以让集成电路使用比当前互连技术更高的速度进行信息交换。

芯片组

SiS760GX 北桥 (NB) 和 SiS964 南桥 (SB) 芯片组是基于一种新型的、可扩展的架构，能提供已经证明的可靠性和高性能。

SiS760GX(NB)

- SiS MuTIOL 将 SiS760GX 和 SiS964 MuTIOL Media IO 结合
- 支持 HyperTransport ™ 技术，带宽可达 1600MT/s
- 符合 AGP v3.0，支持 8X/4X 和快写处理能力
- 最大支持 128MB 显存，共享内存
- 内建高性能 256 位 3D 图形引擎，支持 DirectX 8.1

SiS964 (SB)

- 所有 DMA 设备的并发服务：双 IDE 控制器、SATA 控制器、3 个 USB 2.0/1.1主控器、LAN MAC 控制器和音频/调制解调器 DMA 控制器。
- 符合 PCI 2.3 规格，最多支持 6 个 PCI 主控器
- 符合串行 ATA 1.0 规格，支持节电模式
- 符合 AC'97 v2.3 规格，支持 6 声道音频输出
- 集成 USB 2.0/1.1 主控器，最多支持 8 个端口

内存

- 支持 DDR400/333/266/200 内存
- 支持非缓冲 2.5V 184-pin DDR SDRAM DIMM 插槽
- 总共最大可支持 2 GB

图形

- 内建 32 位浮点式 VLIW 三角设置引擎
- 内建一个 1T 管道 128 位 BITBLT 图形引擎
- 内建高质量 3D 引擎
- 支持 4 纹理

AC'97 音频编解码器

- 兼容 AC' 97 v2.3 规格
- 高质量差分 CD 输入
- 支持 DVD 音频播放的双采样速率 (96KHz)
- 符合 Direct Sound 3D™ 规格

扩展选项

此主板提供如下扩展选项：

- 3 个 32 位 PCI 扩展插槽
- 1 个AGP 槽
- 2 个 IDE 接口，可支持 4 个 IDE 设备
- 1 个软驱接口
- 2 个 7-pin SATA 接口

主板支持 Ultra DMA 总线控制，传输速率可达 133/100/66MB/s。

Onboard LAN（可选）

板上集成的 LAN 提供以下功能：

- 支持 10Mb/s 和 100Mb/s N 路自协商工作
- 半双工/全双工功能
- 支持 LAN 唤醒 (WOL) 功能和远程唤醒功能
- 支持全双工流控制 (IEEE 802.3x)

集成 I/O

此主板具有完整的 I/O 端口和插孔：

- 2 个用于连接鼠标和键盘的 PS/2 端口
- 1 个串口
- 1 个并口
- 1 个 VGA 端口
- 4 个 USB 端口
- 1 个 LAN 端口（可选）
- 麦克风、线入和线出声音插孔

BIOS

此主板使用 Award BIOS，可以让用户自己配置以下系统功能：

- 电源管理
- 唤醒报警
- CPU 参数
- CPU 和记忆定时

还可用于设置不同处理器时钟速度的参数。.

某些硬件规格和软件项目若有更改恕不另行通知。

Характеристики

Процессор

Плата использует сокет 754-pin и обладает следующими характеристиками:

- Поддерживает процессоры AMD K8
- Поддерживает интерфейс HyperTransport™ для процессоров AMD K8

Технология HyperTransport™ обеспечивает связь двух устройств по протоколу point-to-point, позволяя гораздо более быстрый обмен информацией между интегральными микросхемами, чем тот, который обеспечивается существующими технологиями.

Чипсет

Чипсеты SiS760GX «Северный мост» (Northbridge, NB) и SiS964 «Южный мост» (Southbridge, SB) построены с использованием инновационной масштабируемой архитектуры, обеспечивающей высокую надежность и производительность.

SiS760GX(NB)

- Для соединения мостов SiS760GX и SiS964 MuTIOL Media IO используется шина SiS MuTIOL
- Поддерживается технология HyperTransport ™, обеспечивающая пропускную способность до 1600MT/s
- AGP v3.0, поддерживающая 8X/4X и быструю запись
- Поддержка видеопамяти до 128MB (разделенная память)
- Интегрированный высокопроизводительный 256-битовый модуль трехмерной графики с поддержкой DirectX 8.1

SiS964 (SB)

- Параллельное обслуживание всех DMA-устройств : Двойной IDE-контроллер, SATA-контроллер, три USB 2.0/1.1 хост-контроллера, контроллер LAN MAC и аудио/модем DMA-контроллер
- Совместимость со спецификацией PCI 2.3, поддерживающей до 6 PCI master-устройств
- Совместимость со спецификацией Serial ATA 1.0, поддержка режима энергосбережения
- Совместимость с AC'97 v2.3, поддержка 6-канального аудиовыхода
- Интегрированный хост-контроллер USB 2.0/1.1 с поддержкой до 8 портов

Память

- Поддержка памяти типов DDR400/333/266/200
- Два слота для небуферизованной памяти 2.5V 184-pin DDR SDRAM DIMM
- Общий объем памяти 2 GB

Графика

- Интегрированный 32-битовый модуль VLIW triangle setup для вычислений в режиме плавающей запятой
- Интегрированный графический модуль 1T pipelined 128-bit BITBLT
- Интегрированный модуль высококачественной трехмерной графики
- Поддержка до 4 текстур

AC'97 Аудио CODEC

- Совместим со спецификацией AC'97 v2.3
- Высококачественный дифференциальный вход с CD
- Поддержка режима двойного сэмплирования (96KHz) при прослушивании аудио-DVD
- Совместимость с Direct Sound 3D™

Возможности расширения

Существуют следующие опции расширения данной материнской платы:

- Три 32-битовых слота PCI
- Один слот AGP
- Два разъема IDE с поддержкой до четырех устройств IDE
- Один разъем для накопителя на гибких дисках
- Два разъема 7-pin SATA

Плата поддерживает захват управления шиной Ultra DMA со скоростью передачи 133/100/66МБ/с.

Встроенный сетевой адаптер LAN (опционально)

Встроенный сетевой адаптер LAN обладает следующими характеристиками:

- Поддерживает автоматическое определение скорости и режима соединения 10Mb/s и 100Mb/s
- Поддерживает режимы Half/Full duplex
- Поддерживает функции Wake-On-LAN и remote wake-up
- Поддерживает режим управления потоком Full Duplex Flow Control (IEEE 802.3x)

Интегрированный вход/выход

Плата снабжена полным набором портов входа/выхода и разъемов:

- Два порта PS/2 для подключения мыши и клавиатуры
- Один серийный порт
- Один параллельный порт
- Один порт VGA
- Четыре порта USB
- Один порт LAN (опционально)
- Гнездо для подключения микрофона, гнезда аудио-входа и выхода

BIOS

Плата работает под Award BIOS, который позволяет пользователю конфигурировать различные характеристики системы:

- Управление питанием
- Сигналы пробуждения системы
- Параметры CPU
- Время доступа для CPU и памяти

BIOS допускает также установку параметров для различных частот процессора.

Некоторые параметры платы и характеристики ее программного обеспечения могут быть изменены без предварительного уведомления.

Cechy

Procesor

Ta płyta główna zaopatrzona jest w podstawkę dla procesorów z 754 nóżkami i charakteryzuje się następującymi cechami:

- Pomieszcza procesory AMD K8
- Zabezpiecza interfejs Hiper Transportu™ dla procesora AMD K8

Technologia HiperTransportu ™ jest protokołem komunikacji między dwoma urządzeniami, który umożliwia układom zcalonym wymieniać informację z dużo większymi szybkościami niż dotychczas stosowane technologie wzajemnych połączeń.

Chipset

Mostek północny (NB) SiS760GX i mostek południowy (SB) SiS964 chipsetu oparty jest na nowatorskiej i skalowalnej architekturze o sprawdzonej niezawodności i funkcjonalnoœci.

SiS760GX(NB)

- SiS MuTIOL jest włączony w celu zapewnienia połączenia między urządzeniami SiS760GX i SiS964 MuTIOL Media IO
- Zabezpiecza technologię HiperTransportu ™ w paśmie do 1600MT/s
- AGP v3.0 zgodna z protokołem 8X/4X i szybkiego zapisu
- Zabezpiecza do 128 MB pamięci wideo z pamięci wspólnej
- Wbudowana wysokosprawna 256-bitowa grafika 3D współpracująca z DirectX 8.1

SiS964 (SB)

- Obsługuje wszystkie współczesne urządzenia DMA: kontrolery dual IDE, kontrolery SATA, trzy kontrolery USB 2.0/1.1, kontroler LAN MAC i kontroler audio/modem DMA
- Zgodnie z protokołem PCI 2.3 obsługuje do 6 urządzeń PCI typu masters
- Zgodnie z protokołem Serial ATA 1.0 zapewnia tryb oszczędności energii
- Zgodnie z protokołem AC'97 v2.3 zapewnia 6 kanałowe wyjście audio
- Zcalony kontroler USB 2.0/1.1 obsługuje do ośmiu portów USB

Pamięć

- Obsługuje pamięci typu DDR400/333/266/200
- Zaopatrzony w dwa gniazda niebuforowanej pamięci typu 2.5V 184-nóżek DDR SDRAM DIMM
- Maksymalnie obsługuje 2GB pamięci

Grafika

- Wbudowany 32-bitowy procesor formatu zmiennoprzecinkowego VLIW triangle setup
- Wbudowany 128-bitowy procesor graficzny 1Tpipelined BITBLT
- Wbudowany wysokiej jakości procesor grafiki 3D
- Obsługuje do 4 tekstur

AC'97 audio CODEC

- Zgodny z AC'97 w wersji 2.3
- Wysokiej jakości różniczkowe wejscie CD
- Obsługuje podwójne próbkowanie (96KHz) DVD audio playback
- Zgodny z Direct Sound 3D™

Możliwości rozbudowy

Płyta główna wyposażona jest w następujące gniazda:

- Trzy 32-bitowe gniazda PCI
- Jedno gniazdo AGP
- Dwa złącza IDE mogące obsłużyć do czterech urządzeń IDE
- Jedno złącze obsługujące stacje dyskietek
- Dwa 7-nóżkowe złącza SATA

Płyta główna obsługuje magistralę Ultra DMA o szybkościach przesyłu 133/100/66MB/s.

Zintegrowana obsługa sieci LAN (opcjonalnie)

Zintegrowana obsługa sieci LAN posiada następujące właściwości:

- Obsluguje N-drożne automatycznie ustalane operacje z szybkościami 10Mb/s i 100Mb/s
- Zdolność Half/Full duplex
- Obsługuje funkcję Wake-On-LAN i zdalnie sterowane wake-up (uruchamianie komputera)
- Obsługuje Full Duplex Flow Control (zgodnie ze standardem IEEE 802.3x)

Zintegrowane We/Wy

Płyta główna wyposażona jest w pełny zestaw gniazd i złączy We/Wy:

- Dwa gniazda PS/2 dla myszy i klawiatury
- Jedno gniazdo szeregowe
- Jedno gniazdo równoległe
- Jedno gniazdo VGA
- Cztery gniazda USB
- Jedno gniazdo LAN (opcjonalnie)
- Gniazdo wejściowe mikrofonowe, gniazdo wejściowe i wyjściowe dzwięku (audio)

Firmowy BIOS

Płyta główna wyposażona jest w BIOS firmy Award, który pozwala użytkownikowi konfigurować wiele cech systemu włączając w to następujące właściwości:

- Zarządzanie poborem mocy
- Alarmy typu Wake-up
- Parametry pracy procesora
- Ustalenia szybkoœci pracy procesora i pamiêci

BIOS może być używany do ustalania parametrów wpływających na szybkości pracy zegara procesora.

Niektóre parametry dotyczące płyty i jej oprogramowania mogą ulec zmianie bez uprzedniego powiadomienia.

Vlastnosti

Procesor

Tato základní deska využívá 754kolíkovou patici nabízející následující vlastnosti:

- Připojení procesorů AMD K8
- Podpora rozhraní HyperTransport™ pro procesory AMD K8

Technologie HyperTransport ™ je přímým spojením mezi dvěma zařízeními, umožňující integrovaným obvodům výměnu informací vyššími rychlostmi, než jaké nabízejí současné technologie.

Čipová sada

Čipy northbridge (NB) SiS760GX a southbridge (SB) SiS964 jsou založeny na inovativní a škálovatelné architektuře s ověřenou spolehlivostí a výkonností.

SiS760GX(NB)

- SiS MuTIOL je určen ke vzájemnému propojení SiS760GX a SiS964 MuTIOL Media IO
- Podpora technologie HyperTransport ™ s maximální šířkou pásma 1600MT/s
- Rozhraní dle standardu AGP v3.0 s přenosouvou rychlostí 8x/4x a rychlým zápisem
- Podpora až 128MB paměti grafického systému (sdílená paměť)
- Vestavěné, vysoce výkonné 256bitové 3D grafické jádro s podporou DirectX 8.1

SiS964 (SB)

- Současná obsluha všech zařízení DMA: duální řadiče IDE, řadič SATA, tři hostitelské řadiče USB 2.0/1.1, řadič LAN MAC a řadič audio/modemu DMA
- Splňuje požadavky standardu PCI 2.3 s podporou 6 hlavních kanálů PCI
- Splňuje požadavky standardu Serial ATA 1.0, podporuje režim řízení spotřeby energie
- Splňuje požadavky standardu AC'97 v2.3, podporuje 6 výstupních audio kanálů
- Integrované hostitelské řadiče USB 2.0/1.1 podporující až osm portů

Paměť

- Podpora pamětí typu DDR 400/333/266/200
- K dispozici jsou dvě patice 2,5 V, 184 kolíků DDR SDRAM DIMM bez vyrovnávací paměti
- Celková maximální kapacita paměti 2 GB

Grafika

- Vestavěné 32bitové jádro pracující s formátem VLIW s plovoucí desetinnou čárkou
- Vestavěné grafické jádro 1T se 128bitovou pipeline BITBLT
- Vestavěné vysoce kvalitní 3D grafické jádro
- Podpora až 4 textur

Zvukový kodek AC'97

- Splňuje požadavky standardu AC'97 v2.3
- Vysoce kvalitní diferenční vstup CD
- Podpora dvojnásobné vzorkovací frekvence (96 kHz) pro přehrávání DVD audio
- Kompatibilita s Direct Sound 3D™

Možnosti rozšíření

Základní deska je dodávána s následujícími možnostmi rozšíření

- Tři 32bitové patice PCI
- Jedna patice AGP
- Dva konektor IDE podporující až čtyři zařízení IDE
- Jedno rozraní pro disketovou mechaniku
- Dva 7kolíkové konektor SATA

Tato základní deska podporuje řízení sběrnice Ultra DMA s přenosovými rychlostmi 133/ 100/66 MB/s.

Vestavění síťové rozhraní LAN (volitelně)

Vestavěné síťové rozhraní LAN nabízí následující možnosti:

- Podpora 10Mb/s a 100Mb/s N–cestného automatického přepínání provozu
- Možnost polovičního a plného duplexu
- Podpora funkce Wake–On–LAN a aktivace na dálku
- Podpora plně duplexního řízení toku dat (IEEE 802.3x)

Integrovaný vstup/výstup

Základní deska je vybavena kompletní sadou vstupních portů a konektorů I/O:

- Dva porty PS/2 pro myš a klávesnici
- Jeden sériový port
- Jeden paralelní port
- Jeden port VGA
- Čtyři porty USB
- Jeden port LAN (volitelně)
- Zvukové konektory pro mikrofon, zvukový vstup a výstup

Firmware BIOS

Základní deska využívá BIOS formy Award, který uživateli umožňuje nakonfigurovat mnoho systémových parametrů, včetně následujících:

- Řízení spotřeby
- Alarmy při spouštění systému
- Parametry CPU
- Časování CPU a paměti

Firmware může být rovněž použit k nastavení parametrů pro různé taktovací frekvence procesoru.

Některé technické parametry hardware a software se mohou měnit bez předchozího upozornění.

Caracteristici

Procesorul

Această placă de bază utilizează un soclu 754, având următoarele caracteristici:

- Este destinată procesoarelor AMD K8
- Suportă interfața HyperTransport™ pentru procesoare AMD K8

Tehnologia HyperTransport™ este o legătură punct-la-punct între două aparate, care permite viteze mult mai mari de schimb al informațiilor între circuitele integrate, decât cel asigurat de tehnologiile de interconectare actuale.

Setul de chipuri

Seturile de chipuri SiS760GX Northbridge (NB) şi SiS964 Southbridge (SB) se bazează pe o arhitectură inovatoare şi scalabilă, care s-a impus deja prin fiabilitate şi performanță.

SiS760GX(NB)

- SiS MuTIOL este incorporat pentru a conecta SiS760GX şi SiS964 MuTIOL Media IO
- Suportă tehnologia HyperTransport™ cu lățime de bandă de cel mult 1600 MT/s
- AGP, versiunea 3.0, cu 8X/4X şi tranzacții rapide de scriere
- Suportă o memorie video de cel mult 128MB cu memorie partajată
- Motor grafic 3D incorporat de 256 de biți, de înaltă performanță, care suportă DirectX 8.1

SiS964 (SB)

- Deservire concurentă a tuturor aparatelor DMA: controlere IDE duale, controler SATA, trei controlere gazdă USD 2.0/1.1, controler LAN MAC şi controler DMA Audio/Modem
- Compatibil cu specificația PCI, versiunea 2.3, care suportă cel mult 6 module PCI master
- Compatibil cu specificația Serial ATA 1.0, suportând modul de funcționare economicos
- Compatibil cu AC'97, versiunea 2.3, suportând 6 canale audio de ieşire
- Controleri gazdă USB 2.0/1.1 integrați, care suportă cel mult opt porturi

Memoria

- Suportă tipurile de memorie DDR400/333/266/200
- Poate suporta două sloturi 184 DDR SDRAM DIMM fără zonă tampon, de 2,5 V
- Capacitatea maximă este de 2 GB

Grafică

- Format VLIW de calcul în triunghi în virgulă mobilă, de 32 biți, incorporat
- Motor grafic BITBLT de 128 biți, cu canal de prelucrare 1T, incorporat
- Motor 3D de înaltă calitate, incorporat
- Suportă cel mult 4 texturi

AC'97 Audio CODEC

- Compatibil cu specificația AC'97, versiunea 2.3
- Intrare CD diferențială de înaltă calitate
- Suportă frecvență de comutare dublă (96 kHz) pentru redarea audio de pe DVD
- Compatibil cu Direct Sound 3D™

Opţiuni de extindere

Placa de bază este dotată următoarele posibilităţi de extindere:

- Trei sloturi PCI de 32 biţi
- Un slot AGP
- Două conectoare IDE care suport cel mult 4 instrumente IDE
- O interfaţă pentru unitate floppy
- Două conectoare SATA 7

Această placă de bază suportă Ultra DMA bus mastering cu viteza de transfer de 133/100/66MB/s.

Onboard LAN (opţional)

Onboard LAN are următoarele caracteristici:

- Suportă operaţii de autonegociere N-way de 10Mb/s şi 100Mb/s
- Posibilitate de semi-duplex sau duplex total
- Suportă funcţia Wake-On-LAN şi trezirea de la distanţă
- Suportă controlul proceselor de duplex total (IEEE 802.3x)

I/O integrată

Placa de bază este dotată cu un set complet de porturi şi conectoare I/O:

- Două porturi PS/2, pentru mouse şi tastatură
- Un port serial
- Un port paralel
- Un port VGA
- Patru porturi USB
- Un port LAN (opţional)
- Mufe audio pentru microfon, intrare şi ieşire audio

Firmware BIOS

Placa de bază utilizează Award BIOS, care permite utilizatorului să configureze mai mulţi parametri ai sistemului, cum ar fi:

- Gestionarea energiei
- Alarme de trezire
- Parametri CPU
- Temporizare CPU şi memorie

Acest firmware poate fi utilizat şi pentru a seta parametrii diferitelor frecvenţe de comandă ale procesorului.

Anumite specificaţii hardware şi elemente de software pot fi modificate fără înştiinţare prealabilă.

Спецификация

Процесор

Тази дънна платка използва 754-щифтов цокъл (754-pin socket) със следните параметри:

- поддръжка на процесори AMD K8
- поддръжка на интерфейс HyperTransport™ за процесори AMD K8

Технологията HyperTransport ™ е връзка точка-до-точка (point-to-point) между две устройства, която предоставя възможност интегрираните вериги да обменят информация на много по-висока скорост от досегашно съществуващите технологии.

Чипсет

Чипсетът със северен мост SiS760GX (NB) и южен мост SiS964 (SB) е изграден на базата на оригинална архитектура с възможност за надстройка с доказана надеждност и производителност.

SiS760GX(NB)

- Интегрирана система SiS MuTIOL за връзка между мостовете SiS760GX и SiS964 MuTIOL Media IO
- поддръжка на технологията HyperTransport ™ със скорост до 1600MT/s
- AGP v3.0 съвместим с 8X/4X и fast write transaction
- поддръжка на видео памет до 128MB със споделена памет.
- интегрирано високопроизводително 256-bit 3D графично ядро с поддръжка на DirectX 8.1

SiS964 (SB)

- Едновременна поддръжка на всички DMA устройства: два IDE контролера, SATA контролер, три USB 2.0/1.1 host контролера, LAN MAC контролер и Audio/Modem DMA контролер.
- съвместимост със спецификацията PCI 2.3 с поддръжка до 6 PCI мастъра
- съвместимост със спецификацията Serial ATA 1.0 с поддръжка на икономичен режим на захранване
- съвместимост с AC'97 v2.3 с поддръжка на 6-канален звук
- интегрирани USB 2.0/1.1 Host контролери, поддържащи до осем USB порта

Памет

- поддръжка на DDR400/333/266/200
- два небуферирани цокъла DDR SDRAM DIMM 184-щифта 2.5V
- общ максимален капацитет 2 GB

Графичен чип

- интегриран triangle setup engine с 32-bit формат на плаваща запетая VLIW
- интегрирано графично ядро 1T pipelined 128-bit BITBLT
- интегрирано висококачествено 3D ядро
- поддръжка до 4 текстури

AC'97 Audio CODEC

- съвместимост със спецификацията AC'97 v2.3
- висококачествен диференциален CD вход
- едновременно възпроизвеждане на 2 звукови потока (96KHz) на DVD аудио
- съвместимост с Direct Sound 3D™

Възможности за разширяване

Дънната платка има следните разширителни възможности:

- три 32-bit PCI слота
- един AGP слот
- два IDE конектора с поддръжка до четири IDE устройства
- един конектор за флопидисково устройство
- два 7-щифтови SATA конекторas

Дънната платка поддържа шина Ultra DMA 133/100/66MB/s.

Интегриран мрежов контролер (опция)

Спецификация на интегрирания мрежов контролер:

- поддръжка на 10Mb/s и 100Mb/s, N-Way Auto-negotiation operation
- Half/Full duplex
- поддръжка на функция за "събуждане" Wake-On-LAN и дистанционен wake-up
- поддръжка на Full Duplex Flow Control (IEEE 802.3x)

Интегриран Вход/Изход контролер

Дънната платка има пълен набор от I/O портове и конектори:

- два PS/2 порта за мишка и клавиатура
- един сериен порт
- един паралелен порт
- един VGA порт
- четири USB порта
- един LAN порт (опция)
- Аудио жакове за микрофон, линеен вход и линеен изход

BIOS Firmware

Дънната платка използва Award BIOS с възможност за различни системни настройки, включително

- управление на захранването
- Wake-up аларми
- параметри на процесора
- синхронизиране на процесора и паметта

настройка на скоростта на часовника на процесора

Хардуерните и софтуерни спецификации и параметри могат да бъдат изменени без предупреждение.

Jellemző

Processzor

Ez az alaplap 754 tűs foglalattal rendelkezik, ennek jellemzői pedig a következők:

- AMD K8-as processzornak szánták
- támogatja az AMD K8-as processzorok HyperTransport™ interfészét

A HyperTransport™ technológia egy ponttól pontig való kapcsolat két készülék között, és segítségével az integrált áramkörök közötti információcsere sebessége sokkal nagyobb, mint a jelenleg rendelkezésre álló összekapcsolási technológiák esetében.

Lapkakészlet

A SiS760GX Northbridge (NB) és SiS964 Southbridge (SB) lapkakészletek egy új és méretezhető, nagy megbízhatóságú és teljesítőképességű architektúrára épülnek.

SiS760GX(NB)

- beépített SiS MuTIOL a SiS760GX és SiS964 MuTIOL Media IO összekapcsolására
- Támogatja a max. 1600MT/s sávszélességű HyperTransport™ technológiát
- Az AGP 3.0-s változata, amely a 8X/4X és gyors írásművelettel kompatibilis
- Maximum 128MB képernyő-memóriát támogat, megosztott memóriával
- Beépített, nagy teljesítményű 256 bites 3D grafikus motor, amely a DirectX 8.1-es változatát támogatja

SiS964 (SB)

- Az összes DMA eszköz egyidejű kiszolgálása: duál IDE vezérlők, a SATA vezérlő, három 2.0/1.1 USB gazda vezérlő, LAN MAC vezérlő, valamint Audio/Modem DMA vezérlő
- a PCI 2.3 szabvánnyal kompatibilis, maximum 6 PCI mastert támogat
- Kompatibilis a soros ATA 1.0 szabvánnyal, az energiatakarékos üzemmódot is támogatja
- Kompatibilis az AC”97 2.3-as verziójával, maximum 6 audio kimenet csatornát támogat
- Beépített USB 2.0/1.1 gazda vezérlők, legtöbb nyolc portot támogatnak

Memória

- A DDR400/333/266/200 memóriatípusokat támogatja
- Két puffermentes, 2,5 V-os, 184 tűs DDR SDRAM DIMM foglalattal rendelkezik
- Maximális kapacitása 2 GB

Grafika

- Beépített 32 bites VLIW lebegőpontos háromszög számítás
- Beépített 1T csővonalas 128 bites BITBLT grafikus motor
- Beépített kiváló minőségű 3D motor
- Maximális 4 mintázatot támogat

AC’97 Audio CODEC

- Kompatibilis az AC”97 2.3-as változatának szabványával
- kiváló minőségű differenciált Cd bemenet
- DVD audio lejátszás dupla mintavételezési arányú (96 kHz)
- kompatibilis a Direct Sound 3D™ technológiával

Bővítési lehetőségek

Az alaplap a következő bővítési lehetőségekkel rendelkezik:

- Három 32 bites PCI foglalat
- Egy AGP foglalat
- Két IDE csatlakozó, amely összesen négy IDE eszközt támogat
- Egy hajlékonylemez meghajtó interfész
- Két 7 tűs SATA csatlakozó

Ez az alaplap a 133/100/66MB/s átviteli sebességű Ultra DMA 'bus mastering' megoldást is támogatja.

Alaplapon levő LAN (választható)

Az alaplapon levő LAN jellemzői:

- 10Mb/s és 100Mb/s N-Way automatikus beállítással
- Teljes/fél duplex lehetőség
- Támogatja a Wake-On-LAN funkciót és a távoli ébresztést
- Támogatja a teljes duplex folyamatvezérlést (IEEE 802.3x)

Beépített I/O

Az alaplapot az I/O portok és csatlakozók teljes készletével szerelték fel:

- Két PS/2 port az egér és a billentyűzet számára
- Egy soros port
- Egy párhuzamos port
- Egy VGA port
- Négy USB port
- Egy LAN port (választható)
- Audio csatlakozók mikrofon, bemenet és kimenet számára

BIOS Firmware

Az alaplapon levő Award BIOS segítségével a felhasználó a rendszer sok paraméterét állíthatja be, például:

- Energiagazdálkodás
- Ébresztési riasztások
- CPU paraméterek
- CPU és memória időzítés

A firmware segítségével a processzor órajel-frekvenciáinak paramétereit is beállíthatják.

Bizonyos hardverjellemzők és szoftverelemek előzetes bejelentés nélkül módosulhatnak.