

FI7SM
SiS 630 Flex ATX Motherboard

User's Manual

Version 1.0

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Chapter 1 Introduction

This manual is designed to give you information on the FI7SM motherboard. It is divided into the following sections:

- **Introduction**
- **Specifications**
- **Hardware Description**
- **Configuring the Motherboard**
- **Installation**
- **BIOS Configuration**
- **Drivers Installation Guide**

Checklist

Please check that your package is complete and contains the items below. If you discover damaged or missing items, please contact your dealer.

- The FI7SM Motherboard
- 1 IDE ribbon cable
- 1 floppy ribbon cable
- 1 COM port ribbon cable
- 1 CD containing a system monitoring utility, drivers and utilities.



The ATA-66 IDE cable that is used in conjunction with Ultra DMA/66 hard disks is optional. Refer to the figure below on how to connect the cable.



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Chapter 2 Specifications

The FI7SM is a high-performance Flex ATX motherboard with a Socket 370 connector for Intel 370 processors. The integrated SiS 630 chipset has built-in VGA, audio, Ethernet and hardware monitoring functions. The main features of FI7SM consist of the following:

CPU Socket

Socket 370

System Speed

300MHz~800MHz

Bus Speed

66MHz~133MHz

Processor

Intel Celeron

Intel Pentium III

Cyrix Joshua

L2 Cache

Integrated on the Socket 370 processor

Main Memory

Two 168-pin DIMM sockets

Memory type: SDRAM (Synchronous DRAM), VCM

Memory size: 32MB, 64MB, 128MB, 256MB

Chipset

SiS 630 chipset

Super I/O

Winbond W83697HF

- Two 16550 UART compatible serial ports
- One parallel port (ECP/EPP compatible)
- One floppy controller (2.88MB compatible)
- One IrDA port

BIOS

Award BIOS with ISA Plug and Play (PnP) extension, DMI, bootable CD-ROM and power-management features. The BIOS is Y2K (Year 2000) compliant.

Fast PCI IDE Master/Slave Controller

Supports PCI Bus Mastering, PIO mode 0/1/2/3/4 and Ultra DMA 33/66 for with two connectors for up to four IDE devices in two channels.



Note: a UDMA66 cable should be used for UDMA66 interface. Under Windows NT 4.0, you need to install Windows NT Service Pack 4 or the latest version available.)

Advanced Power Management

- Meets ACPI 1.0 / 1.2 requirements
- System Power-Up Events

Onboard Audio

Built-in SiS 630 chipset with:

- Advanced wavetable synthesizer
- High quality audio and AC'97/98 support
- Full legacy compatibility

Onboard VGA

Built-in SiS 630 chipset that supports advanced features such as:

- AGP 2.0 standards
- Shared System Memory Area up to 64MB
- Direct DVD to TV playback

Onboard Ethernet

Built-in SiS 630 chipset that supports:

- 10/100 Mbps fast Ethernet data transfer rates
- Supports PnP, 10base-T, 100base-Tx

USB Connector

Two stacked ports and two ports on pin header

Keyboard and Mouse Connectors

PS/2 type

Expansion Slots

- One ADIMM slot
- One 32-bit PCI slot
- One AMR slot supporting a modem riser card

Form Factor

Flex ATX, 9" x 7.5" (22.8cm x 19cm)

Chapter 3 Hardware Description

This chapter briefly describes each of the major features of the FI7SM motherboard. The layout of the board in Figure 1 shows the location of the key components. The topics covered in this chapter are as follows:

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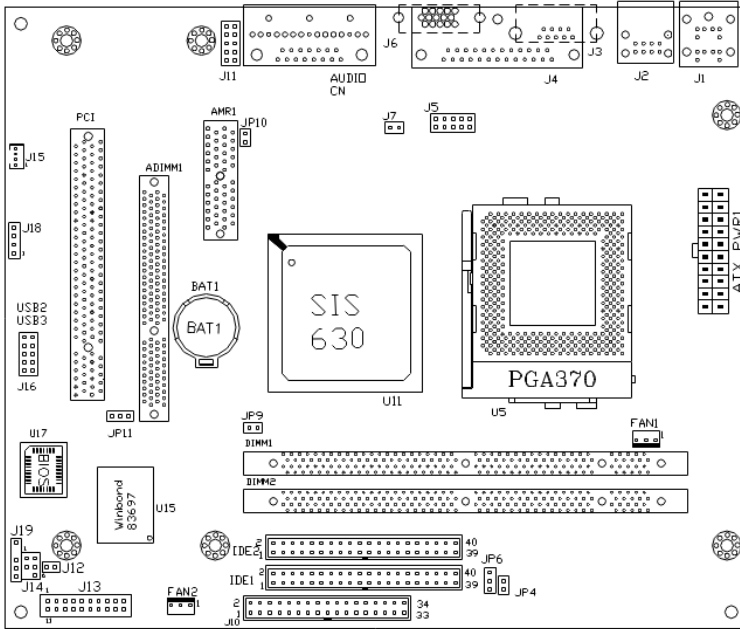


Figure 1: Layout of the FI7SM Motherboard

3.1 Processor

The FI7SM motherboard is designed to take Socket 370 processors with system speeds up to 800MHz at a bus speed of 66MHz~133MHz.

3.2 L2 Cache

The L2 cache is integrated in the Socket 370 processor.

3.3 Main Memory

The FI7SM motherboard supports two 168-pin DIMM (Dual In-line Memory Module) sockets to form a memory configuration from 32MB to 512MB. DIMM modules can be 32MB, 64M, 128MB and 256MB SDRAM. Refer to the following table on how to do the memory configuration.

(DIMM1)	(DIMM2)	Total Memory
32MB	-----	32MB
64MB	-----	64MB
128MB	-----	128MB
256MB	-----	256MB
32MB	32MB	64MB
64MB	32MB	96MB
128MB	32MB	160MB
256MB	32MB	288MB
64MB	64MB	128MB
128MB	64MB	192MB
256MB	64MB	320MB
128MB	128MB	256MB
256MB	128MB	384MB
256MB	256MB	512MB

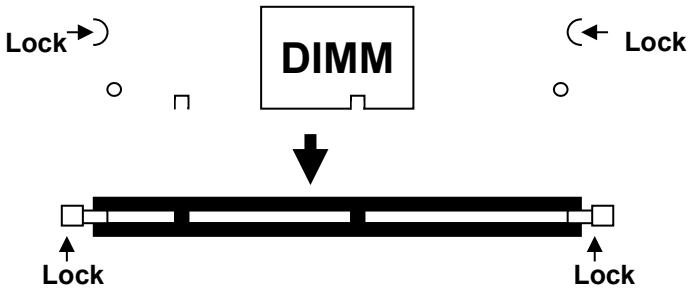
Notes:

- Memory modules specified for the motherboard are 168-pin SDRAM DIMMs and all sizes may be currently available.
- Other DIMM combinations may also result in the same totals.
- This is not an exhaustive list of possible combinations.
- With 133MHz bus speed, use SDRAM modules with PC133 specification. When using 100MHz bus speed, use SDRAM modules with PC133/100 specification. When using 66MHz bus speed, use SDRAM modules with PC100 or PC66 specification.

Installing and Removing DIMMs

To install the DIMMs, locate the memory slots on the motherboard and perform the following steps:

1. Hold the DIMM so that the two keys of the DIMM align with those on the memory slot.
2. Gently push the DIMM in an upright position until the clips of the slot close to hold the DIMM in place when the DIMM touches the bottom of the slot.
3. To remove the DIMM, press the clips with both hands.



Top View of DIMM Socket

3.4 BIOS

The BIOS on the FI7SM motherboard provides the standard BIOS functions plus the following additional features:

1. ISA Plug and Play (PnP) Extension

Unlike PCI cards that are Plug and Play, ISA cards require setting jumpers to resolve hardware conflicts. To make a computer system PnP, an ISA PnP standard is established and supported by new operating systems, such as Windows 95. Under Windows 95, the motherboard BIOS must have an ISA PnP extension to support new ISA PnP cards.

2. Power Management

The power management feature provides power savings by slowing down the CPU clock, turning off the monitor screen and stopping the HDD spindle motor. The BIOS fully conforms to ACPI (Advanced Configuration and Power Interface) specifications.

3.5 Onboard VGA

The SiS 630 chipset comes with integrated ultra AGP VGA for hardware 2D/3D Video/graphics accelerators. It supports 66MHz~133MHz host interface to VGA to speed up GUI performance and video playback frame rate. It features shared system memory area up to 64MB and provides a flexible and high performance solution for video playback acceleration in various resolution modes.

3.6 Onboard Audio

The onboard audio is built in the SiS 630 chipset. It supports advance wave table synthesizer, DirectSound 3D and full legacy compatibility.

3.7 Hardware Monitoring

The Winbond W83697HF multi I/O chipset has built-in hardware monitoring function on board that monitors several hardware parameters including power supply voltages, fan speeds, and temperatures, which are very important for a high-end computer system to work stable and properly. This function is used together with System Monitor utility or the optional Intel LANDesk Client Manager utility.

3.8 Onboard Multi-I/O

The multi-I/O function is built in the Winbond W83697HF chipset supporting, two serial ports, one parallel port, one floppy controller and one IrDA port. The serial ports are 16550 UART compatible. The parallel port features high-speed EPP/ECP mode. The floppy controller supports up to 2.88MB format.

3.9 Interrupt Request (IRQ) Lines

There is a total of 15 IRQ lines available on the motherboard. Peripheral devices use an interrupt request to notify the CPU for the service required. The following table shows the IRQ lines used by the devices on the motherboard:

<u>Level</u>	<u>Function</u>
IRQ0	System Timer Output
IRQ1	Keyboard
IRQ2	Interrupt Cascade
IRQ8	Real Time Clock
IRQ9	Software Redirected to Int 0Ah
IRQ10	Reserved
IRQ11	Reserved
IRQ12	Reserved
IRQ13	Co-Processor
IRQ14	Primary IDE
IRQ15	Secondary IDE
IRQ3	Interrupt
IRQ4	Serial Port #1
IRQ5	Interrupt
IRQ6	Floppy Disk Controller
IRQ7	Parallel Port #1

3.10 Onboard PCI-IDE

The SiS 630 chipset's built-in PCI-IDE controller supports PIO mode 0/1/2/3/4 and bus mastering Ultra DMA 33/66. The peak transfer rate of PIO mode 3/4 can be as high as 17MB/sec. Using HDDs that support Ultra DMA66, the peak transfer rate can reach 66MB/sec. There are two IDE connectors - primary IDE and secondary IDE. With two devices per connector, up to four IDE devices can be supported.

3.11 DMA Channels

There are seven DMA channels available on the motherboard; only DMA2 is used by the floppy controller. In the case that ECP mode on the parallel port is utilized, DMA1 or DMA3 will be used.

3.12 I/O Port Address Map

Each peripheral device in the system is assigned a set of I/O port addresses which also becomes the identity of the device. There is a total of 1K port address space available. The following table lists the I/O port addresses used on the motherboard.

Address	Device Description
000h - 01Fh	DMA Controller #1
020h - 03Fh	Interrupt Controller #1
040h - 05Fh	Timer
060h - 06Fh	Keyboard Controller
070h - 07Fh	Real Time Clock,, NMI
080h - 09Fh	DMA Page Register
0A0h - 0BFh	Interrupt Controller #2
0C0h - 0DFh	DMA Controller #2
0F0h	Clear Math Coprocessor Busy Signal
0F1h	Reset Math Coprocessor
1F0h - 1F7h	IDE Interface
2F8h - 2FFh	Serial Port #2(COM2)
378h - 3FFh	Parallel Port #1(LPT1)
3F0h - 3F7h	Floppy Disk Controller
3F8h - 3FFh	Serial Port #1(COM1)



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Chapter 4 Configuring the Motherboard

The following sections describe the necessary procedures and proper jumper settings to configure the FI7SM motherboard. For the locations of the jumpers, refer to Figure 2.

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The following examples show the conventions used in this chapter.

	Jumper Open
	Jumper Closed/Short

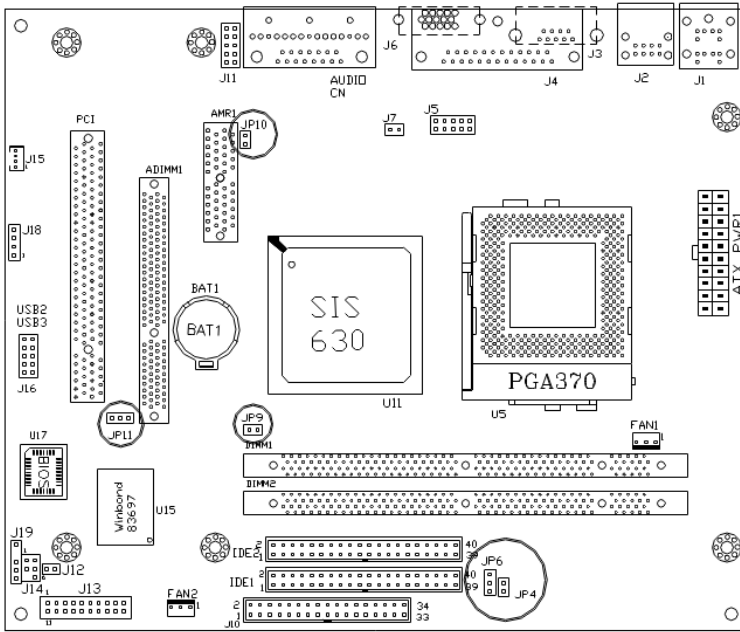


Figure 2: Jumper Location on the FI7SM

Jumpers:

- JP10: Primary/Secondary Codec Select
- JP11: Clear CMOS
- JP4, JP6: Intel / VIA CPU Select
- JP9: TV-Out NTSC/PAL Select

4.1 CPU Frequency and CPU Bus Speed



The CPU frequency and CPU bus speed, also known as front side bus, must be configured in the BIOS setup. See page 45 of the BIOS configuration chapter. The CPU Host/SDRAM clocks can be configured as follows.

Disabled (default) 66/66MHz
100/100MHz
133/100MHz
100/133MHz
133/133/33

On the other hand, the CPU clock ratio can be set as 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5 or 8.0.



4.2 JP9: TV-Out NTSC/PAL Select

Use JP9 to configure the TV-Out for NTSC or PAL mode.

JP9	Setting	Function
	Short	PAL
	Open	NTSC

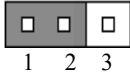

4.3 JP10: Primary/Secondary Codec Select

Use JP10 to configure the codec as primary or secondary.

JP10	Setting	Function
	Short	Primary
	Open	Secondary

4.4 JP11: Clear CMOS

Use JP11, a 3-pin header, to clear the contents of the CMOS RAM. Do not clear the CMOS RAM unless it is absolutely necessary. You will lose your password, etc.

JP11	Setting	Function
 1 2 3	pin 1-2: short	Normal
 1 2 3	pin 2-3: short	Clear CMOS

Follow the steps below to clear CMOS data.

1. Disconnect the AC power cord.
2. Short JP11 (2-3) and wait for 3 seconds.
3. Short JP11 (1-2) and replace the AC power cord.
4. Turn on the system.

4.5 JP4, JP6: Intel / VIA CPU Select

Set the JP4 (2-pin) and JP6 (3-pin) jumpers based on the processor inserted in the Socket 370 processor socket.

CPU Type	JP4	JP6
Intel CPU	Short	Pin 1-2 short
VIA CPU	Short	Pin 2-3 short

Chapter 5 Installation

This chapter describes the interface that the FI7SM provides for creating a working system. Refer to Figure 3 for the location of the connectors.

The following items are covered in this chapter:

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5.1 I/O Connectors

The I/O connectors connect the FI7SM to the most common peripherals. To attach cables to these connectors, carefully align Pin 1 of the cables to that of the connectors. Refer to Figure 4 for the location and orientation of the connectors.

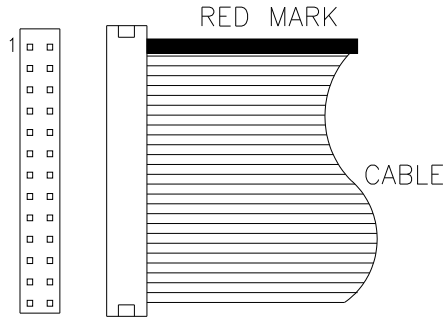


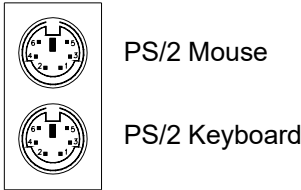
Figure 4: Orientation of the I/O Connector

5.2 ATX_PWR1: ATX Power Supply Connector

ATX_PWR1 is a 20-pin ATX power supply connector. Refer to the following table for the pin out assignments.

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

5.3 J1: PS/2 Keyboard and PS/2 Mouse Connectors

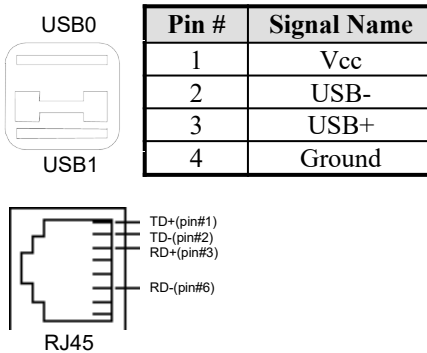


Below are the pin-out assignments of the connectors.

Signal Name	Keyboard	Mouse	Signal Name
Keyboard data	1	1	Mouse data
N.C.	2	2	N.C.
GND	3	3	GND
5V	4	4	5V
Keyboard clock	5	5	Mouse clock
N.C.	6	6	N.C.

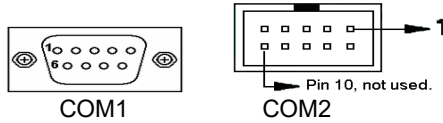
5.4 J2: USB and RJ45 Connectors

J2 consists of two stacked USB ports and an RJ-45 connector on top. USB support allows connections of up to 64 plug and play external peripherals per channel. The RJ-45 Ethernet connector supports 10/100Mbps data transfer rates.



5.5 J3, J5: Serial Ports

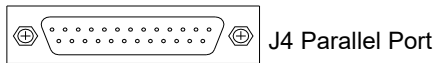
The onboard serial ports are J3, a DB-9 connector which is COM1 and J5, a 10-pin header connector which is COM2. The following table shows the pin-out assignments of these connectors.



Signal Name	Pin #	Pin #	Signal Name
DCD, Data carrier detect	1	6	DSR, Data set ready
RXD, Receive data	2	7	RTS, Request to send
TXD, Transmit data	3	8	CTS, Clear to send
DTR, Data terminal ready	4	9	RI, Ring indicator
GND, ground	5	10	Not Used

5.6 J4: Parallel Port Connector

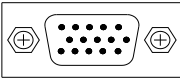
J4 is a DB-25 external connector as shown below. The following table describes the pin-out assignments of this connector.



Signal Name	Pin #	Pin #	Signal Name
Line printer strobe	1	14	AutoFeed
PD0, parallel data 0	2	15	Error
PD1, parallel data 1	3	16	Initialize
PD2, parallel data 2	4	17	Select
PD3, parallel data 3	5	18	Ground
PD4, parallel data 4	6	19	Ground
PD5, parallel data 5	7	20	Ground
PD6, parallel data 6	8	21	Ground
PD7, parallel data 7	9	22	Ground
ACK, acknowledge	10	23	Ground
Busy	11	24	Ground
Paper empty	12	25	Ground
Select	13	N/A	N/A

5.7 J6: VGA Port Connector

J6 is a DB-15 VGA connector located beside the COM1 port. The following table shows the pin-out assignments of this connector.



Signal Name	Pin #	Pin #	Signal Name
Red	1	2	Green
Blue	3	4	N.C.
GND	5	6	GND
GND	7	8	GND
N.C.	9	10	GND
N.C.	11	12	N.C.
HSYNC	13	14	VSYNC
NC	15		

5.8 J7: SPDIF Connector

The J7 SPDIF connector is a 2-pin jumper that is used in conjunction with the digital audio output connector.

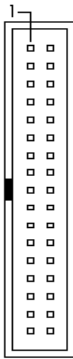
5.9 J8, J9: Line Out, Line In, Mic In / Game Port

J8 consists of the connectors for audio line out, audio line in, and microphone, while J9 is the game port.



5.10 J10: Floppy Drive Connector

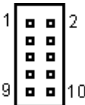
J10 of the FI7SM is a 34-pin header and will support up to 2.88MB floppy drives. The following table shows its pin-out assignments.



Signal Name	Pin #	Pin #	Signal Name
Ground	1	2	RM/LC
Ground	3	4	No connect
Ground	5	6	No connect
Ground	7	8	Index
Ground	9	10	Motor enable 0
Ground	11	12	Drive select 1
Ground	13	14	Drive select 0
Ground	15	16	Motor enable 1
Ground	17	18	Direction
Ground	19	20	Step
Ground	21	22	Write data
Ground	23	24	Write gate
Ground	25	26	Track 00
Ground	27	28	Write protect
Ground	29	30	Read data
Ground	31	32	Side 1 select
Ground	33	34	Diskette change

5.11 J11: Front Plane Line Out/Line In/Mic Connector

J11 is a 10-pin jumper supporting the Line Out/Line In/Mic connectors on a front plane. Refer to the pin assignments on the table below.



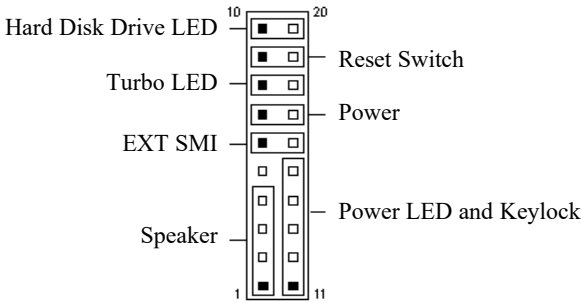
Signal Name	Pin #	Pin #	Signal Name
Line Out L	1	2	Line Out R
Ground	3	4	Ground
Line In L	5	6	Line In R
Ground	7	8	Precaution Pin
Mic In	9	10	MIC VREF

5.12 JP12: Chassis Intrusion Detect

JP12 is a 2-pin header that is used to connect to a sensor detecting any chassis intrusion. In such an event, the system would sound an alarm.

5.13 J13: Front Bezel Connectors

The front bezel of the case has a control panel which provides light indication of the computer activities and switches to change the computer status. J13 is a 20-pin header that provides interfaces for the following functions.



Speaker: Pins 1 - 4

This connector provides an interface to a speaker for audio tone generation. An 8-ohm speaker is recommended.



Pin #	Signal Name
1	Speaker out
2	No connect
3	Ground
4	+5V

Power LED and Keylock: Pins 11 - 15

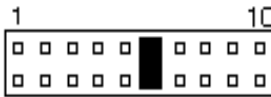
The power LED indicates the status of the main power switch.



Pin #	Signal Name
11	Power LED
12	No connect
13	Ground
14	Keylock
15	Ground

EXT SMI: Pins 6 and 16

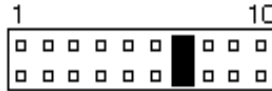
This 2-pin connector is for the “Green Switch” on the control panel, which, when pressed, will force the system immediately into the power saving (sleep) mode.



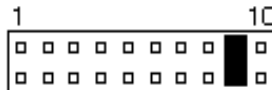
Pin #	Signal Name
6	Sleep
16	Ground

Power: Pins 7 and 17

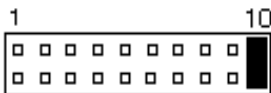
This 2-pin connector is the *ATX Power Supply On/Off Switch* on the motherboard that connects to the power switch on the case. When pressed, the power switch will force the motherboard to power on. When pressed again, it will force the motherboard to power off.

**Reset Switch: Pins 9 and 19**

The reset switch allows the user to reset the system without turning the main power switch off and then on again. Orientation is not required when making a connection to this header.

**Hard Disk Drive LED Connector: Pins 10 and 20**

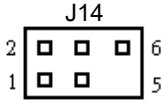
This connector connects to the hard drive activity LED on control panel. This LED will flash when the HDD is being accessed.



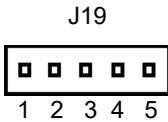
Pin #	Signal Name
10	HDD LED
20	5V

5.14 J14, J19: IrDA Connectors

There are two IrDA connectors on FI7SM that support infrared wireless communication.



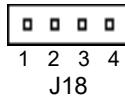
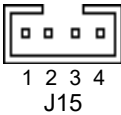
Pin #	Signal Name
1	IRRX
2	+5V
3	IRTX
4	Ground
5	Precaution Pin
6	No Connect



Pin #	Signal Name
1	+5V
2	Precaution Pin
3	IRRX
4	Ground
5	IRTX

5.15 J15, J18: CD-IN and AUX-IN Audio Connectors

J15 and J18 are the onboard CD-IN and AUX-IN connectors. Below are their pin assignments.



Signal Name	Pin #	Pin #	Signal Name
Ground	1	1	Left
Left	2	2	Ground
Ground	3	3	Ground
Right	4	4	Right

5.16 J16: USB2/3 for Front Plane

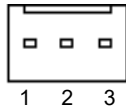
J16 is a 10-pin headers supporting two USB ports on the front plane. Below are the pin assignments of this connector.



Signal Name	Pin #	Pin #	Signal Name
+5V	1	2	Ground
Data-	3	4	Ground
Data+	5	6	Data+
Ground	7	8	Data-
Ground	9	10	+5V

5.17 FAN1: CPU Fan Power Connector

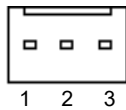
FAN1 CPU fan power connector is a 3-pin header supporting a 12V fan.



Pin #	Signal Name
1	Rotation
2	+12V
3	Ground

5.18 FAN2: System Fan Power Connector

FAN2 system fan power connector is a 3-pin header supporting a 12V fan.



Pin #	Signal Name
1	Rotation
2	+12V
3	Ground

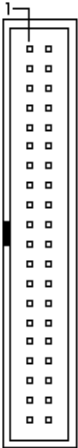
5.19 ADIMM1: ADIMM Connector

The ADIMM slot is used with daughter cards to support various functions. The following are the daughter cards supported:

- EXT301 and EXT301S: supports TV-Out, Panel link and secondary CRT

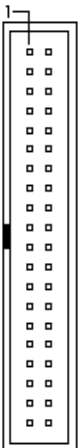
5.20 IDE1, IDE2: EIDE Connectors

IDE1: Primary IDE Connector



Signal Name	Pin #	Pin #	Signal Name
Reset IDE	1	2	Ground
Host data 7	3	4	Host data 8
Host data 6	5	6	Host data 9
Host data 5	7	8	Host data 10
Host data 4	9	10	Host data 11
Host data 3	11	12	Host data 12
Host data 2	13	14	Host data 13
Host data 1	15	16	Host data 14
Host data 0	17	18	Host data 15
Ground	19	20	Key
DRQ0	21	22	Ground
Host IOW	23	24	Ground
Host IOR	25	26	Ground
IOCHRDY	27	28	Host ALE
DACK0	29	30	Ground
IRQ14	31	32	No connect
Address 1	33	34	UDMA66 Enable
Address 0	35	36	Address 2
Chip select 0	37	38	Chip select 1
Activity	39	40	Ground

IDE2: Secondary IDE Connector



Signal Name	Pin #	Pin #	Signal Name
Reset IDE	1	2	Ground
Host data 7	3	4	Host data 8
Host data 6	5	6	Host data 9
Host data 5	7	8	Host data 10
Host data 4	9	10	Host data 11
Host data 3	11	12	Host data 12
Host data 2	13	14	Host data 13
Host data 1	15	16	Host data 14
Host data 0	17	18	Host data 15
Ground	19	20	Key
DRQ0	21	22	Ground
Host IOW	23	24	Ground
Host IOR	25	26	Ground
IOCHRDY	27	28	Host ALE
DACK1	29	30	Ground
MIRQ0	31	32	No connect
Address 1	33	34	UDMA66 Enable
Address 0	35	36	Address 2
Chip select 0	37	38	Chip select 1
Activity	39	40	Ground

Chapter 6 BIOS Configuration

This chapter describes the different settings available in the Award BIOS. The topics covered in this chapter are as follows:

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6.1 BIOS Introduction

The Award BIOS (Basic Input/Output System) installed in your computer system's ROM supports Intel Celeron processors. The BIOS provides critical low-level support for a standard device such as disk drives, serial and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

6.2 BIOS Setup

The Award BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the Award BIOS is immediately activated. Pressing the key immediately allows you to enter the Setup utility. If you are a little bit late pressing the key, POST(Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

```
Press <DEL> to Enter Setup
```

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

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Standard CMOS Features	Frequency / Voltage Control
Advance BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Password
Power Management Setup	Save & Exit Setup
PnP/PCI Configurations	Exit Without Saving
PC Health Status	
ESC : Quit	↑ ↓ → ← : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Time, Date, Hard Disk Type	

The section below the setup items of the Main Menu displays the control keys for this menu. At the bottom of the Main Menu just below the control keys section, there is another section which displays information on the currently highlighted item in the list.



If your computer cannot boot after making and saving system changes with Setup, the Award BIOS supports an override to the CMOS settings that resets your system to its default.

We strongly recommend that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both Award and your system manufacturer to provide the absolute maximum performance and reliability.

6.3 Standard CMOS Setup

“Standard CMOS Setup” choice allows you to record some basic hardware configurations in your computer system and set the system clock and error handling. If the motherboard is already installed in a working system, you will not need to select this option. You will need to run the Standard CMOS option, however, if you change your system hardware configurations, the onboard battery fails, or the configuration stored in the CMOS memory was lost or damaged.

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Software

Date (mm:dd:yy) : Fri, Jan 14, 2000		Item Help
Time (hh:mm:ss) : 00 : 00 : 00		Menu Level
IDE Primary Master	Press Enter 22606 MB	To enter next page for detail hard drive settings
IDE Primary Slave	Press Enter None	
IDE Secondary Master	Press Enter None	
IDE Secondary Slave	Press Enter None	
Drive A	1.44M, 3.5 in.	
Drive B	None	
Video	EGA/VGA	
Halt On	All Errors	
Extended Memory	252928K	
Total Memory	253952K	

At the bottom of the menu are the control keys for use on this menu. If you need any help in each item field, you can press the <F1> key. It will display the relevant information to help you. The memory display at the lower right-hand side of the menu is read-only. It will adjust automatically according to the memory changed. The following describes each item of this menu.

Date

The date format is:

Day : Sun to Sat
Month : 1 to 12
Date : 1 to 31
Year : 1994 to 2079

To set the date, highlight the “Date” field and use the PageUp/PageDown or +/- keys to set the current time.

Time

The time format is: **Hour : 00 to 23**
Minute : 00 to 59
Second : 00 to 59

To set the time, highlight the “Time” field and use the <PgUp>/<PgDn> or +/- keys to set the current time.

Primary HDDs / Secondary HDDs

The onboard PCI IDE connectors provide Primary and Secondary channels for connecting up to four IDE hard disks or other IDE devices. Each channel can support up to two hard disks; the first is the “Master” and the second is the “Slave”.

To enter the specifications for a hard disk drive, you must select first a “Type”. There are 45 predefined types and 4 user definable types are for Enhanced IDE BIOS. Type 1 to 45 are predefined. Type “User” is user-definable. For the Primary Master/Slave as well as Secondary Master/Slave, you can select “Auto” under the TYPE and MODE fields. This will enable auto detection of your IDE drives and CD-ROM drive during POST.

Press <PgUp>/<PgDn> to select a numbered hard disk type or type the number and press the <Enter> key. The hard disk will not work properly if you enter incorrect information for this field. If your hard disk drive type is not matched or listed, you can use Type User to define your own drive type manually. If you select Type User, related information is asked to be entered to the following items.

CYLS : Number of cylinders
HEAD : Number of read/write heads
PRECOMP : Write precompensation
LANDZ : Landing zone
SECTOR : Number of sectors
SIZE : Automatically adjust according to the configuration
MODE (for IDE HDD only) : Auto
Normal (HD < 528MB)
Large (for MS-DOS only)
LBA (HD > 528MB and supports Logical Block Addressing)



The specifications of your drive must match with the drive table. The hard disk will not work properly if you enter incorrect information in these fields. If your hard disk drive type is not matched or listed, you can use Type User to define your own drive type manually.

Drive A / Drive B

These fields identify the types of floppy disk drive A or drive B that has been installed in the computer. The available specifications are:

360KB	1.	2MB	720KB	1.	44M	2.	88M
5.25 in.		5.25 in.	3.5 in.		B		B
					3.5 in.		3.5 in.

Video

This field selects the type of video display card installed in your system. You can choose the following video display cards:

EGA/VGA	For EGA, VGA, SEGA, SVGA or PGA monitor adapters. (default)
CGA 40	Power up in 40 column mode.
CGA 80	Power up in 80 column mode.
MONO	For Hercules or MDA adapters.

Halt On

This field determines whether or not the system will halt if an error is detected during power up.

No errors	The system boot will not be halted for any error that may be detected.
All errors	Whenever the BIOS detects a non-fatal error, the system will stop and you will be prompted.
All, But Keyboard	The system boot will not be halted for a keyboard error; it will stop for all other errors.
All, But Diskette	The system boot will not be halted for a disk error; it will stop for all other errors.
All, But Disk/Key	The system boot will not be halted for a keyboard or disk error; it will stop for all others.

6.4 Advanced BIOS Features Setup

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.

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Advance BIOS Features

Virus Warning	: Disabled	Item Help
CPU Internal Cache	: Enabled	
External Cache	: Enabled	
CPU L2 Cache ECC Checking	: Enabled	Menu Level
Processor Number Feature	: Enabled	
Quick Power On Self Test	: Enabled	
First BOOT Device	: Floppy	
Second Boot Device	: HDD-0	
Third Boot Device	: LS/ZIP	
Boot Other Device	: Enabled	
Swap Floppy Drive	: Disabled	
Boot Up Floppy Seek	: Enabled	
Boot Up Numlock Status	: On	
Gate A20 Option	: Fast	
Typematic Rate Setting	: Disabled	
Typematic Rate (chars/Sec)	: 6	
Typematic Delay (Msec)	: 250	
Security Option	: Setup	
PCI /VGA Palette Snoop	: Disabled	
OS Select For DRAM>64MB	: Non-OS2	
Report No FDD for WIN 95	: No	
Video BIOS Shadow	: Enabled	

Virus Warning

Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will show a warning message on screen and alarm beeps. The default setting is **Disabled**.

CPU Internal Cache / External Cache

Cache memory is additional memory that is much faster than conventional DRAM (system memory). CPUs from 486-type contain internal cache memory, and most, but not all, modern PCs have additional (external) cache memory. When the CPU requests data, the system transfers the requested data from the main DRAM into cache memory, for even faster access by the CPU. These fields allow you to enable (speed up memory access) or disable the cache function. The default settings are **Enabled**.

Processor Number Feature

The field appears only if the processor, such as Pentium !!!, installed supports this feature. It can be enabled or disabled.

CPU L2 Cache ECC Checking

This field allows you to enable the parity/ECC checking function of the memory module if it is supported. The default setting is *Enabled*.

Quick Power On Self Test

When enabled, this field speeds up the Power On Self Test (POST). If it is set to *Enabled*, BIOS will skip some items.

First/Second/Third Boot Device

This field determines the drive that the system searches first for an operating system. The default settings, according to their order, are *Floppy*, *HDD-0*, and *LS/ZIP*.

Boot Other Device

This field allows you to boot from other devices other than those set in the First/Second/Third Boot Device.

Swap Floppy Drive

Allows the BIOS to swap floppy drive assignments so that Drive A becomes Drive B, and vice versa. The default setting is *Disabled*.

Boot Up Floppy Seek

When enabled, the BIOS will seek whether or not the floppy drive installed has 40 or 80 tracks. 360K type has 40 tracks while 760K, 1.2M and 1.44M all have 80 tracks. The default setting is *Enabled*.

Boot Up NumLock Status

This allows you to activate or deactivate the NumLock function after you power up the system.

Gate A20 Option

Gate A20 is a device used to address memory above 1 MB. The default setting of Gate A20 is *Fast*.

Typematic Rate Setting

When disabled, continually holding down a key on your keyboard will generate only one instance. When enabled, you can set the two typematic controls listed next. The default setting is *Disabled*.

Typematic Rate (Chars/Sec)

When the typematic rate is enabled, the system registers repeated keystrokes speeds. Settings are from 6 to 30 characters per second.

Typematic Delay (Msec)

When the typematic rate is enabled, this item allows you to set the time interval for displaying the first and second characters. By default, this item is set to *250msec*.

Security Option

This field allows you to limit access to the System and Setup. The default value is *Setup*. When you select *System*, the system prompts for the User Password every time you boot up. When you select *Setup*, the system always boots up and prompts for the Supervisor Password only when the Setup utility is called up.

OS Select for DRAM > 64MB

This option allows the system to access greater than 64MB of DRAM memory when used with OS/2 that depends on certain BIOS calls to access memory. The default setting is *Non-OS/2*.

Report No FDD For WIN 95

This option allows Windows 95 to share with other peripherals IRQ6, which is assigned to a floppy disk drive if the drive is not existing.

Video BIOS Shadow

This item allows you to change the Video BIOS location from ROM to RAM. Video Shadow will increase the video speed.

6.5 Advanced Chipset Features Setup

This Setup menu controls the configuration of the motherboard chipset mainly pertaining to the SDRAM memory. The figure shows the different options and their default settings.

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Advance Chipset Features

Auto Configuration	Auto	Item Help
SDRAM RAS Active Time	6T	Menu Level
SDRAM RAS Precharg Time	3T	
RAS to CAS Delay	3T	
DRAM Background Command	Delay 1T	
LD-Off DRAM RD/WR Cycles	Delay 1T	
Write Recovery Time	1T	
VCM REF To ACT/REF Delay	9T	
VCM ACCT – ACT/REF Delay	8T	
Early CKE Delay 1T Cntrl	Normal	
Early CKE Delay Adjust	1ns	
Mem Command Output Time	Delay 1T	
SDRAM/VCM CAS Latency	3T	
System BIOS Cacheable	Enabled	
Video RAM Cacheable	Enabled	
Memory Hotel at 15M-16M	Disabled	
AGP Aperture Size	64MB	
Graphic Window WR Combin	Enabled	
Concurrent Function (MEM)	Enabled	
Concurrent function (PCI)	Enabled	
SDRCLK Control	+2.0ns	
SDWCLK control CS#/CKE	+2.0ns	
SDWCLK Control MA/SRAS	+0.0ns	
SDWCLK Control DWM/MD	+0.0ns	
EGMRCk Control	+1.5ns	
EGMWCLK Control	+2.0ns	
PCI Delay Transaction	Enabled	
Memory Parity Check	Disabled	

Auto configuration

The default setting of this field is set to *Auto*. When set to User, subfields are opened for configuration. These include SDRAM RAS Active Time, SDRAM RAS Prechargd Time, RAS to CAS Delay, DRAM Background Command, LD-Off DRAM RD/WR Cycles, Write Recovery Time, VCM REF To ACT/REF Delay, VCM ACCT – ACT/REF Delay, Early CKE Delay 1T Cntrl, and VCM ACCT – ACT/REF Delay.

System BIOS Cacheable

Select *Enabled* to allow caching of the system BIOS ROM at F000h-FFFFh, resulting in better system performance.

Video RAM Cacheable

Selecting *Enabled* allows caching of the video BIOS ROM at C0000h to C7FFFh, resulting in better video performance. However, if any program writes to this memory area, a memory access error may result.

Memory Hole at 15MB - 16MB

In order to improve performance, certain space in memory can be reserved for ISA cards. This field allows you to reserve 15MB to 16MB of memory address space to ISA expansion cards. This makes memory from 15MB and up unavailable to the system. Expansion cards can only access memory up to 16MB. By default, this field is set to *Disabled*.

AGP Aperture Size (MB)

The field sets aperture size of the graphics. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation. The options available are 4, 8, 16, 32, 64, 128M and 256. The default setting is *64*.

PCI Delay Transaction

When enabled, this option delays PCI data transaction. By default, this field is set to *Enabled*.

Memory Parity Check

Enable this field if the memory module installed supports Parity Check.

6.6 Integrated Peripherals

This part of the BIOS Setup allows you to make settings pertaining to your hard disk drive, USB, FDD, serial port, parallel port, game port, VGA memory, audio and Ethernet function. Refer to the figure below showing this setup with the fields available and their default settings.

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Integrated Peripherals

		Item Help
Internal PCI/IDE	Both	
IDE Primary Master PIO	Auto	
IDE Primary Slave PIO	Auto	
IDE Secondary Master PIO	Auto	
IDE Secondary Slave PIO	Auto	
Primary Master UltraDMA	Auto	
Primary Slave UltraDMA	Auto	
Secondary Master UltraDMA	Auto	
Secondary Slave UltraDMA	Auto	
IDE Burst Mode	Enabled	
SIS-7018 AC97 Audio	Enabled	
SIS-7013 S/W Modem	Disabled	
SIS-900 10/100M Ethernet	Enabled	
USB Controller	Enabled	
USB Keyboard Support	Disabled	
IDE HDD Block Mode	Enabled	
Onboard FDC Controller	Enabled	
Onboard Serial Port 1	3F8/IRQ4	
Onboard Serial Port 2	2F8/IRQ3	
URT Mode Select	Normal	
RxD , TxD Active	Hi, Lo	
IR Transmission Delay	Enabled	
UR2 Duplex Mode	Half	
Use IR Pins	IR-Rx2Tx2	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	SPP	
EPP Mode Select	EPP1.7	
ECP Mode Use DMA	3	
Game Port Address	201	
Midi Port Address	330	
Midi Port IRQ	5	
Init Display First	PCI Slot	
System Share Memory Size	8MB	
Extend Graphics Memory	0 MB	
VGA TV/LCD Display Type	H/W Trapping	
		Menu Level

6.7 Power Management Setup

The Power Management Setup allows you to save energy of your system effectively. It will shut down the hard disk and turn off video display after a period of inactivity.

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Power Management Setup

		Item Help
ACPI Function	Enabled	
ACPI Suspend Type	S1 (POS)	
Video Off Option	Susp, Stby -> Off	Menu Level
Video Off Method	V/H SYNC+Black	
Switch Function	Break/Wake	
MODEM Use IRQ	3	
Hot Key Function As	Power Off	
HDD Off After	Disabled	
IRQ [3-7, 9-15], NMI	Enabled	
Power Button Override	Instant Off	
Ring Power Up Control	Disabled	
MACPME Power Up Control	Disabled	
PCIPME Power Up Control	Disabled	
KB Power ON Password	Enter	
Power Up by Alarm	Disabled	
Month Alarm	NA	
Day of Month Alarm	0	
Time (hh:mm:ss) Alarm	0 0 0	

ACPI Function

This field allows you to enabled or disable the ACPI function on the motherboard.

ACPI Suspend Type

The default setting for ACI Suspend Type is **S1(POS)**.

Video Off Option

The default setting of the Video Off Option is **Susp, Stby -> Off**.

Video Off Method

This field defines the Video Off features. There are three options.

- V/H SYNC + Blank Default setting, blank the screen and turn off vertical and horizontal scanning.
- DPMS Allows the BIOS to control the video display card if it supports the DPMS feature.
- Blank Screen This option only writes blanks to the video buffer.

Switch Function

The Switch Function has a default setting of **Break/Wake**.

Video Off After Modem Use IRQ

This field specifies IRQ used by the Modem. The default setting is **IRQ3**.

Hot Key Function As

The Hot Key Function As can be set as *Power Off*, *Suspend* or *Disable*. The default setting is **Power Off**.

HDD Off After

When enabled, and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

IRQ [3-7, 9-15], NMI

The default setting of this field is **Disabled**.

IRQ 8 Break Suspend

You can enable or disable the monitoring of IRQ 8 (Real Time Clock) so it does not awaken the system from Suspend mode.

Power Button Override

This field defines the power-off mode when using an ATX power supply. The *Instant Off* mode allows powering off immediately upon pressing the power button. In the *Delay 4 Sec* mode, the system powers off when the power button is pressed for more than four seconds or enters the suspend mode when pressed for less than 4 seconds. The default value is **Instant Off**.

Ring Power Up Control

This field sets the powering up of the system by Ring (modem).

MACPME / PCIPME Power Up Control

These two powering up controls have a default setting of **Disabled**.

KB Power ON Password

When you press <Enter> in this field, it allows you to set a password for keyboard powering on.

Power Up by Alarm

This field sets the time and date on which the system will power on automatically.

6.8 PNP/PCI Configuration

This option configures the PCI bus system. All PCI bus systems on the system use INT#, thus all installed PCI cards must be set to this value.

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PnP/PCI Configurations

Reset Configuration Data	Disabled	Item Help
Resources Controlled By IRQ Resources	Manual Press Enter	Menu Level
PCI/VGA Palette Snoop	Disabled	

Reset Configuration Data

The default setting is **Disabled**. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot.

Resources Controlled by

This PnP BIOS can configure all of the boot and compatible devices automatically. However, this capability needs you to use a PnP operating system such as Windows 95. The default value is **Manual**.

IRQ Resources

When you press <Enter> while on this field, you are allowed to determine the IRQ/DMA assigned to the ISA bus and is not available to any PCI slot.

PCI/VGA Palette Snoop

Some non-standard VGA display cards may not show colors properly. This field allows you to set whether or not MPEG ISA/VESA VGA Cards can work with PCI/VGA. When this field is enabled, a PCI/VGA can work with an MPEG ISA/VESA VGA card. When this field is disabled, a PCI/VGA cannot work with an MPEG ISA/VESA Card.

6.9 PC Health Status

The PC Health Status screen shows actual system temperature and voltages values, and allows users to set the Shutdown Temperature to in order to warn the user with and prevent system damage cause by overheat.

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PC Health Status

CPU Warning Temperature	70°C/ 158°F	Item Help
Current System Temp.	41°C/ 105°F	Menu Level
Current CPU Temperature	41°C/ 105°F	
Current CPU Fan Speed	5672 RPM	
Current Chassis Fan Speed	0 RPM	
Vcore	1.98 V	
VCC3	3.37 V	
+ 5 V	4.99 V	
+ 12 V	11.91 V	
- 12 V	-12.19 V	
- VBAT(V)	3.28 V	
- 5VSB(V)	5.40 V	
- Shutdown Temperature	75°C/ 167°F	

6.10 Frequency / Voltage Control

This option allows you to configure the CPU FSB, SDRAM clock and PCI clock.

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PnP/PCI Configurations

Auto Detect DIMM/PCI Clk	Disabled	Item Help
Spread Spectrum	Disabled	Menu Level
CPU Host/SDRAM/PCI Clock	Default	
CPU Clock Ratio Jumpless	By H/W	

Auto Detect DIMM/PCI Clk

This option allows you to automatically detect the DIMM/PCI clock. The default setting is **Disabled**.

Spread Spectrum

This field sets the value of the spread spectrum. Selections are *Disabled*, 0.5% (CNTR), and 0.75% (CNTR). The default setting is *Disabled*. This field is for CE testing use only.

CPU Host/SDRAM/PCI Clock

The selections for this field are listed below. Note that overclocking could caused your system to be unstable or crashed.

Disabled (default)	66/66/33
100/100/33	
133/100/33	
100/133/33	
133/133/33	

CPU Clock Ratio Jumpless

The default setting for this option is *Default*. Other Ratio settings are 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, and 8.0.

6.11 Load Fail-Safe Defaults

This option allows you to load the troubleshooting default values permanently stored in the BIOS ROM. These default settings are non-optimal and disable all high-performance features.

6.12 Load Optimized Defaults

This option allows you to load the default values to your system configuration. These default settings are optimal and enable all high performance features.

6.13 Set Password

This option sets the system password used to protect the system and Setup utility. The Enter Password: message prompts on the screen. Type the password, up to eight characters in length, and press <Enter>. The system confirms your password by asking you to type it again. After setting a password, the screen automatically returns to the main screen.

6.14 Save & Exit Setup

This option allows you to determine whether or not to accept the modifications. If you type “Y”, you will quit the setup utility and save all changes into the CMOS memory. If you type “N”, you will return to Setup utility.

6.15 Exit Without Saving

Select this option to exit the Setup utility without saving the changes you have made in this session. Typing “Y” will quit the Setup utility without saving the modifications. Typing “N” will return you to Setup utility.

Chapter 7 Drivers Installation Guide

This chapter describes the installation procedure for the VGA, Sound and LAN drivers. The following sections are covered in this chapter

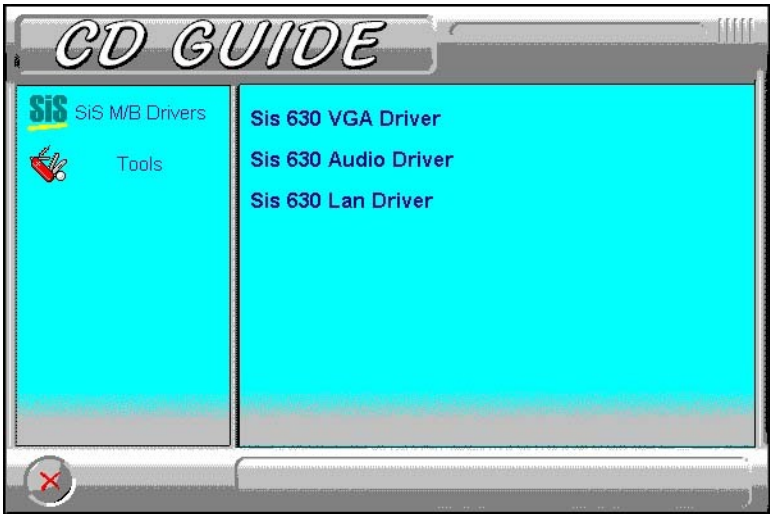
7.1 Windows 98/98SE VGA Driver Installation.....	49
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7.8 Windows 2000 LAN Driver Installation.....	55
7.9 Windows 2000 Audio Driver Installation.....	55

7.1 Windows 98/98SE VGA Driver Installation

1. Insert the driver CD disc to the CD-ROM drive. The CD-ROM autoruns and displays the figure below. Click on **SiS M/B Drivers**, then **SiS 630 Drivers**.



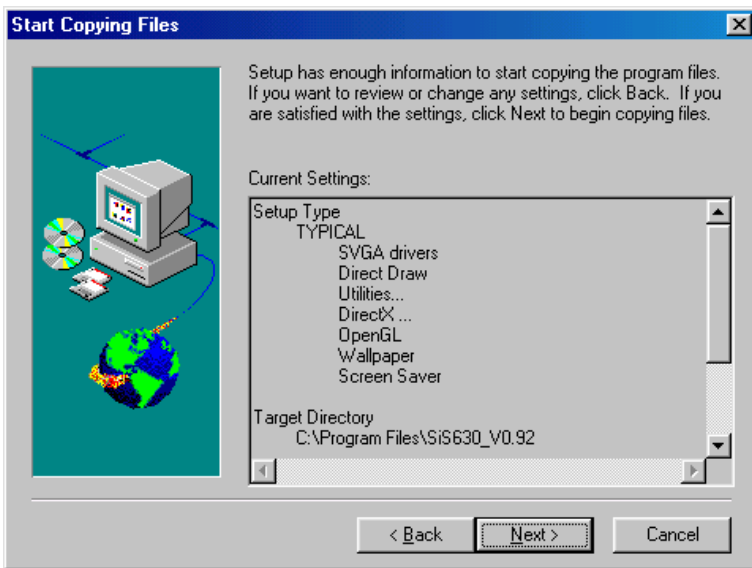
2. On the next figure, click **SiS 630 VGA Driver** and the **Welcome** screen will appear.



2. In the **Welcome** screen, click **Next** to continue setup.
3. You are now prompted to select the Setup type you prefer. Select **Typical** and click **Next** to continue.

In case you would like to change the directory where the files would be copied, click **Browse** to change the destination location.

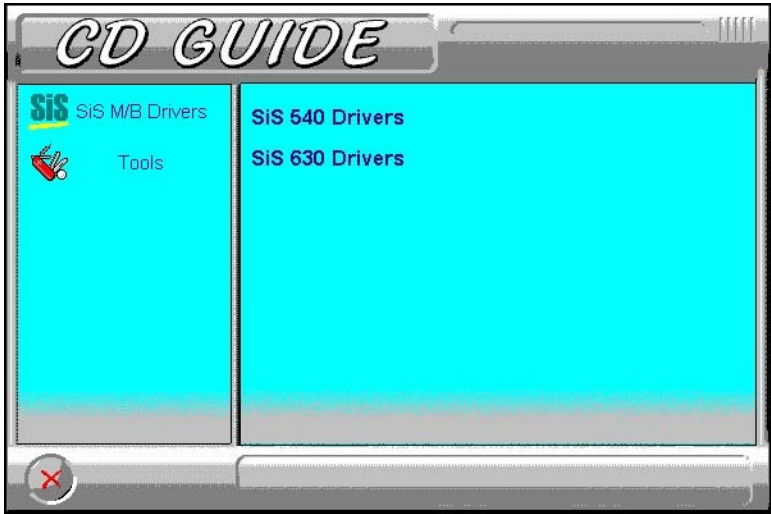
4. On the Select Program Folder screen, click **Next** to accept the default Program Folder.
5. On the Start Copying Files screen, the setting for the Setup Type and Target Directory are shown. Click **Next** to accept the settings and to continue **Setup**.



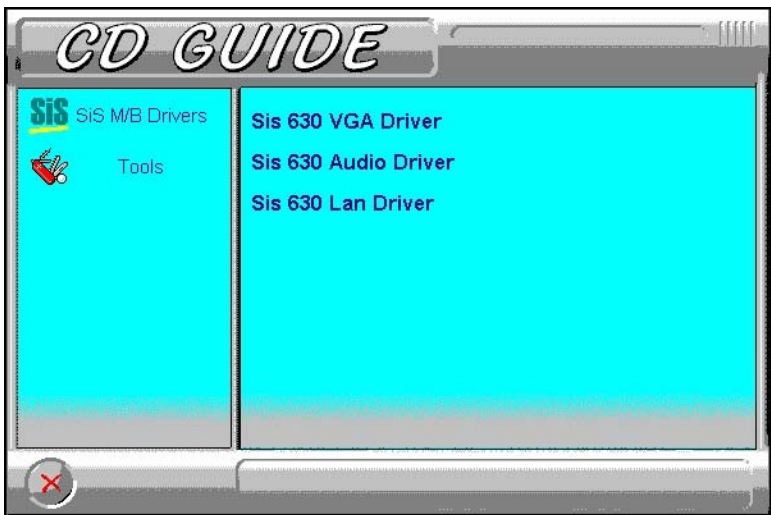
6. When file copying is done, click **Finish** to restart the computer and for changes to take effect.

7.2 Windows 98/98SE Audio Driver Installation

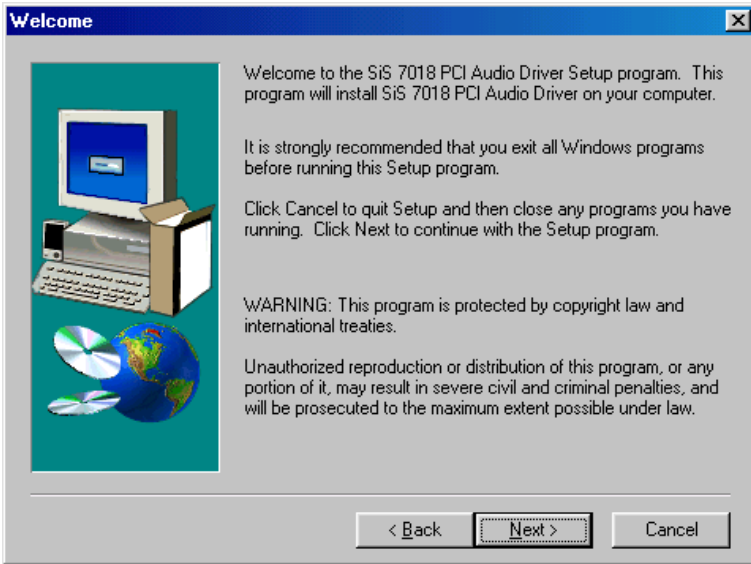
1. Insert the driver CD disc to the CD-ROM drive. The CD-ROM autoruns and displays the figure below. Click on **SiS M/B Drivers**, then **SiS 630 Drivers**.



2. On the next figure, click **SiS 630 Audio Driver** and the **Welcome** screen will appear.



3. In the **Welcome** screen, click **Next** to continue setup and start file copying.



4. When file copying is done, click **Finish** to restart your computer.
5. When the system restarts, the system will prompt you to insert the Windows 98/98SE CD. Do so accordingly or locate the directory where the software is. Then click **OK**, and then **OK** again.
6. Restart your system for changes to take effect.
7. *Note that if you are installing the audio drivers for Windows 98 Second Edition, you will be prompted to insert the Windows 98SE CD after the system has restarted in order to finish the installation.*

7.3 Windows 98/98SE LAN Driver Installation

1. Click **Start** → **Settings** → **Control Panel**. Double click **System**.
2. Click **Device Manager**.
3. Expand **Other Devices**.
4. Double click **PCI Ethernet Controller**.
5. Click **Driver**
6. Click **Update Driver** → **Next** → **Next**.
7. Click **Specify a location**. Insert the driver CD into the CD-ROM drive. Assuming D: is your CD-ROM drive, type **d:\sis\lan\win98**.
8. Click **Next** → **Next**.
8. When prompted to insert the Windows 98/98SE CD-ROM, do so accordingly or locate the directory where the software is. Then click **OK**, and then **OK** again.
9. Restart your system for changes to take effect.

7.4 Windows NT VGA Driver Installation

1. Click **Start** → **Settings** → **Control Panel**. Double click **Display**. Click **Settings** → **Display-Type** → **Change** → **Have Disk**.
2. Insert the driver CD into the CD-ROM drive. Assuming D: is your CD-ROM drive, type **d:\sis\630\vga\winnt40**.
3. Follow the instructions as shown. (Click **OK** → **OK** → **Yes** → **OK** → **Close** → **Close**.)
4. When prompted to restart the computer, click **Finish** to do so and for changes to take effect.

7.5 Windows NT Audio Driver Installation

1. Click **Start** → **Settings** → **Control Panel**. Double click **Multimedia**.
2. Click **Devices** → **Add**
3. Select **Unlisted or Updated Driver**, then click **OK**.
4. Insert the driver CD into the CD-ROM drive. Assuming D: is your CD-ROM drive, type **d:\sis\sound\nt40**.
5. Follow the instructions as shown. (Click **OK** → **OK** → **OK**.)
6. When prompted to restart the computer, click **Finish** to do so and for changes to take effect.

7.6 Windows NT LAN Driver Installation

The LAN driver for Windows NT can be installed after Windows NT has been setup or during the setup process. The following section describes these two types of installation.

Installation after Windows NT is setup

1. Click **Start** → **Settings** → **Control Panel**. Double click **Network**.
2. Click **Yes** to install network → **Next**.
3. Click **Select from list** → **Have disk**.
4. Insert the driver CD into the CD-ROM drive. Assuming D: is your CD-ROM drive, type **d:\sis\lan\nt40** and click **OK**.
5. Follow the instructions as shown. (Click **OK** → **Next** → **Next** → **Next** → **Next**.)
6. At this instance, Setup searches for the Windows NT CD-ROM. Insert the Windows NT CD-ROM into the CD-ROM drive and type the correct path, then click **Retry**.
7. Key in the **IP Address**. Click **OK** → **Next** → **Next**.
8. Key in the **Computer Name**, **Workgroup**, and **Domain**.
9. Click **Next** → **Finish**. Click **Yes** to restart the computer.

Installation during Windows NT installation

1. During the Windows NT installation process, you will be asked if computer will be participate on a Network. When prompted, select This computer will participate on a Network, then click Next.
2. Click Select from list
3. Click Have disk.
4. Insert the driver CD into the CD-ROM drive. Assuming D: is your CD-ROM drive, type **d:\sis\lan\nt40** and click **OK**.
5. Follow the instructions as shown. (Click **OK** → **Next** → **Next** → **Next** → **Continue**.)
6. After clicking **Continue**, click **No** and key in the **IP Address**. Click **Next** → **Next**.
7. Key in the **Computer Name**, **Workgroup**, and **Domain**.
8. Click **Next** → **Finish**.

7.7 Windows 2000 VGA Driver Installation

1. Installing the **SiS 630 VGA Drivers** for Windows 2000 has to be done manually. When you have started Windows 2000, click **Start → Settings → Control Panel**.
2. Double click **System**. Click **Hardware → Device Manager**.
3. Expand **Other Devices**. Double click **Video Controller**. Click **Driver → Update driver → Next → Next**.
4. Select **Specify a location**. Then, click **Next**
5. Assuming 'D' is your CD-ROM drive, type **d:\sis\630\vga\win2000**. Then, click **OK**.
6. Follow the instructions as shown. (Click **Next → Yes → Finish → Close**.)
7. Click **Yes** to restart your computer and for changes to take effect.

7.8 Windows 2000 LAN Driver Installation

1. When you have started Windows 2000, click **Start → Settings → Control Panel**.
2. Double click **System**. Click **Hardware → Device Manager**.
3. Expand **Other Devices**. Double click **Ethernet Controller**.
4. Click **Driver → Update driver → Next → Next**.
5. Select **Specify a location**. Then, click **Next**
6. Assuming 'D' is your CD-ROM drive, type **d:\sis\lan\w2k**. Then, click **OK**.
7. Follow the instructions as shown. (Click **Next → Yes → Finish → Close**.)
8. Click **Yes** to restart your computer and for changes to take effect.

7.9 Windows 2000 Audio Driver Installation

1. Installing the **SiS 630 Audio Drivers** for Windows 2000 has to be done manually. When you have started Windows 2000, click **Start → Settings → Control Panel**.
2. Double click **System**. Click **Hardware → Device Manager**.
3. Expand **Other Devices**. Double click **Multimedia Audio Controller**.
4. Click **Driver → Update driver → Next → Next**.
5. Select **Specify a location**. Then, click **Next**
6. Assuming 'D' is your CD-ROM drive, type **d:\sis\sound\win2000**. Then, click **OK**.
7. Follow the instructions as shown. (Click **Next → Yes → Finish → Close**.)
8. Click **Yes** to restart your computer and for changes to take effect.

Appendix

A. Additions & Errata

The manufacturer sees to it that the most up-to-date and accurate information are contained in this manual. This section would contain page insert(s) of additional information, updates or corrections that the user should know to ensure that proper configuration and setup of the motherboard is made.