

S486G MAIN BOARD USER's MANUAL

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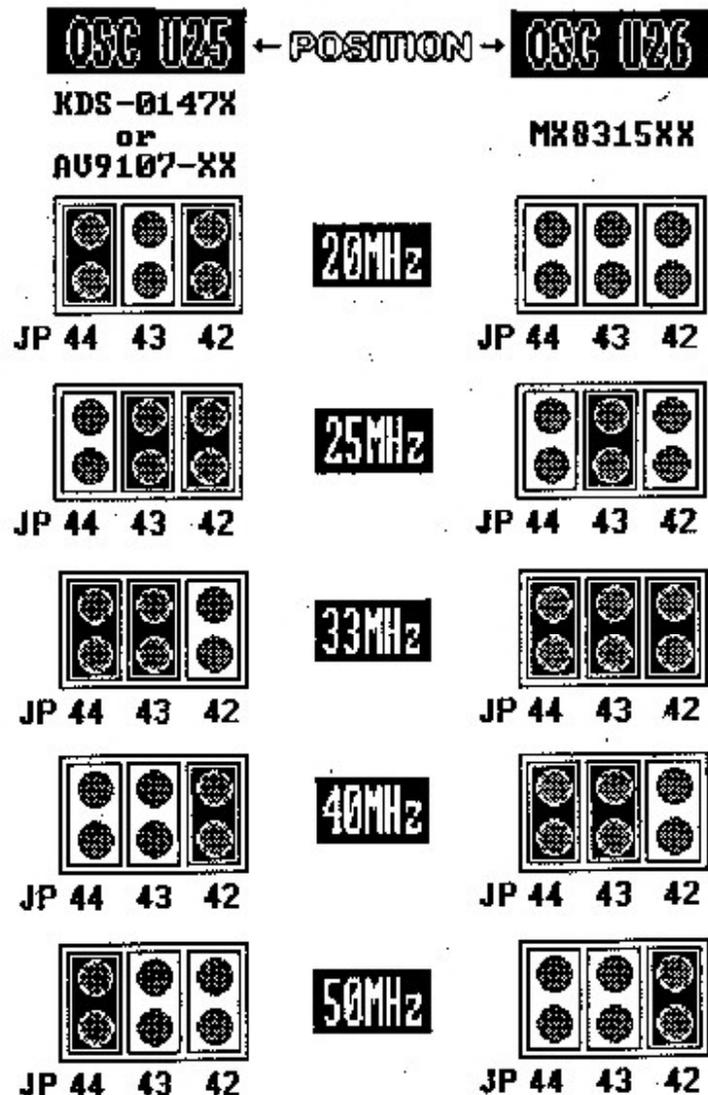
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NOTE: The System Speed Jumper Setting List (By JP42, JP43, JP44). Please refer to page 14.



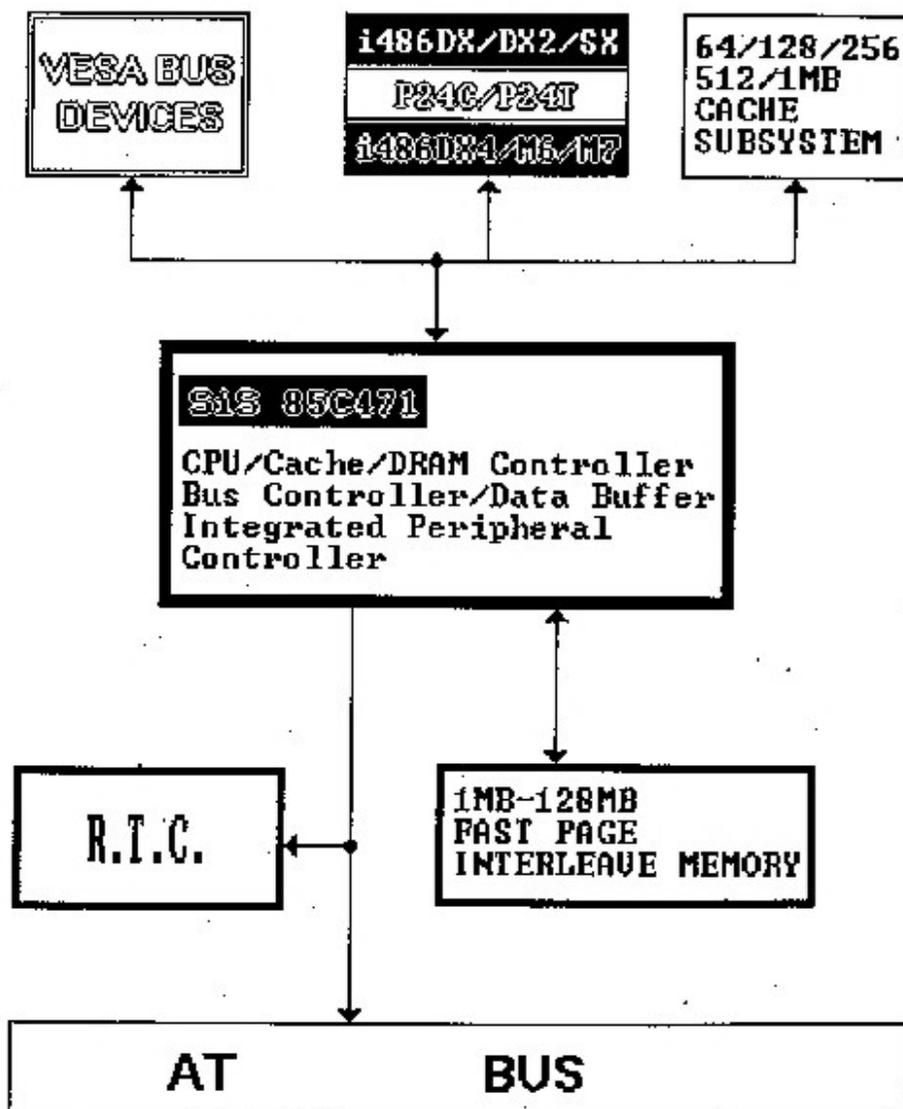
Introduction:

The S486G is one of the most advanced deep green 486 VESA motherboard. It is fully compatible with PC/AT, a high performance 32 Bit Local Bus motherboard running up to 100MHz speed of building advanced personal computers or workstations. It contains SiS 85C471/85C407 system controller to supports cache/non-cache functions for Intel/AMD 486 DX/DX2/SX/SL Enhanced, P24D & P24T CPU and Cyrix Cx486S2 (M6/M7) CPU.

The S486G main board was designed for optimum performance. The special electronics make this motherboard both faster and more powerful than other VESA local bus motherboards. It is an excellent choice for a green personal computer or workstation. Because it is fully compatible with IBM's PC/AT. You can use DOS, OS/2 and hundreds of industry-standard software applications.

S486G Main Board Features:

- * ZIF CPU SOCKET SUPPORTS 486DX/DX2/SX/SL Enhanced, P24D & P24T CPU and Cyrix Cx486S2 (M6/M7) RUNNING TO 50MHz SYSTEM SPEED
- * Sis 85C471/85C407 SYSTEM CONTROLLER CHIPS
- * UP TO 128MB RAM ON BOARD BY SIMM RAM MODULES
- * USE 256K, 1MB, 4MB/16MB DEVICES OF 30Pin/72Pin SIMM RAM MODULE
- * JUMPER SELECTABLE TO SWITCH THE MEMORY BANKO FROM 30 PIN OR 72 PIN RAM MODULE
- * SUPPORTS 64KB TO 1MB CACHE SUBSYSTEM
- * WRITE-BACK OR WRITE-THROUGH SELECTABLE
- * SYSTEM AND VIDEO SHADOWING SUPPORT
- * PROGRAMMABLE BUS SPEED
- * THREE VESA SLOTS, THREE 16Bit SLOTS ONE 8bit SLOT
- * HALF SIZE BOARD(8.5"x10")
- * 100% IBM PC/AT COMPATIBLE
- * DEEP GREEN FUNCTION SUPPORTS:
 - Doze Mode : System clock going to 8MHz
 - Stand By Mode: Monitor screen dispaly off
Hard disk spin motor off
 - Suspend Mode : System going to 0MHz
Suspend mode indicator --
(By power on LED)
 - Break Switch : To control into suspend mode
 - Power Saving : 2 port devices supports
8 port devices for optional

1.0 Hardware Description1.1 Motherboard Block Diagram

1.2 Motherboard's VLSI Chip Set Description

The S486G main board consists of the following VLSI chips:

Sis 85C471 CPU ISA/VESA single chip controller for green personal computer supports INTEL/AMD 80486 DX/DX2/SX/SL enhanced, P24D/ P24T/ P24C CPU and Cyrix's Cx486S2 (M6/M7) CPU. In addition to supporting internal/external cache controller and local bus interface/DMA/DRAM controller & data buffer integrated peripheral controller.

SIS 85C407 This is design for replacing several TTL devices in Sis ISA & VESA 486 systems in a 100-Pin Plastic Quad Flat Package.
 *Built in 3-Multiplexer 74F151
 *Built in RTC COMS IC 146818
 *Built in 2 data buffer
 *Built in 2 address buffer

1.3 Motherboard's Chip Set Function Description

The S486G green main board consists of Sis 85C471/85C407 486 DX/DX2/SX/SL enhanced single chip controller. The 85C471 includes 486 CPU control, AT bus control, write-back and write-through direct mapped cache control, DRAM Control, Data Buffers and peripheral controllers. Incorporated with 85C407 buffer chip

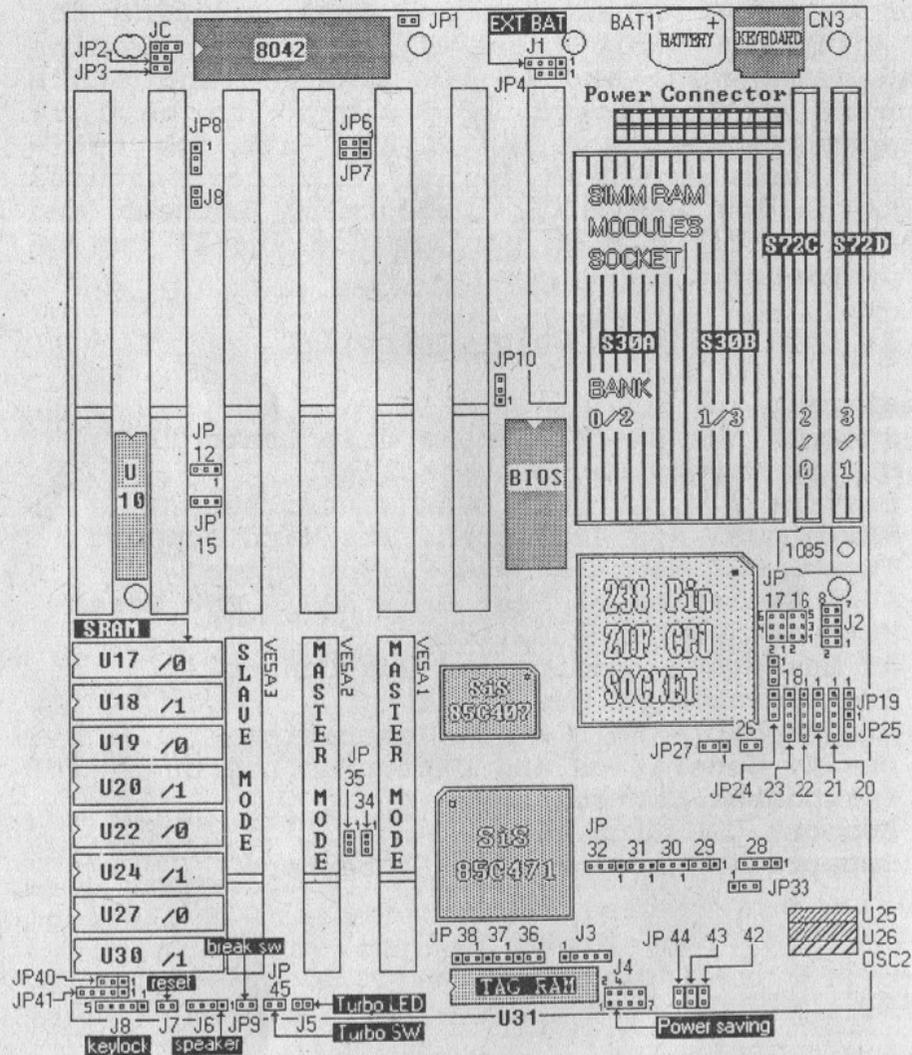
logic. It provides power saving feature to allow the system, through control of BIOS, to reduce CPU clock frequency from 50MHz down to 0 MHz (Stop Clock) And provides all the logic for data bus conversion and byte swapping for 32, 16, and 8-bit transfer, parity generation and detection, and AT bus machine and state control. The board is designed to be 100% compatible with the IBM PC/AT. With its optimized Cache and DRAM design, enhanced features like shadow RAM BIOS, Concurrent Refresh and Buffer Write; a high performance 486/AT can be implemented.

1.31 85C471 Single Chip Controller

Features:

- * 80486DX/DX2/DX4/SX Single Chip Controller
- * Direct Mapped Cache controller
- * Fast Page Burst Mode DRAM Controller
- * VESA Local Bus V1.0 spec. Standard Support
Two VL-Bus Masters, One VL-Bus Slave
- * 8042 Emulation of Fast Gate A20 & CPU Reset
- * Hardware De-Turbo Switch
- * AT Bus State Machine and Bus Control
- * Programmable AT Bus Speed
- * Programmable Wait State Generation
- * Parity Generation and Detection Logic
- * Peripheral Controller
- * Support CPU Stop Clock
- * Support SMM mode and SMI Interface

1.4 Motherboard Jumper Locations



1.4.1 Motherboard Jumper Descriptions

- J1 : External Battery Interface
- J2 : Memory Bank Selector
- J4 : Power Saving Interface
- J5 : Turbo Mode Indicator
- J6 : Speaker Connector
- J7 : System Reset Connector
- J8 : Power On LED And Key Lock
- JP1 : Monitor Mode Selector
- JP4 : CMOS Initial Jumper
- JP9 : Suspend Mode Break Switch
- JP33: (Factory Default)
- JP45: Turbo Mode Selector
- JP6, JP7, JP18..to.. JP32 -- CPU Type Selector
- JP42, JP43, JP44 -- System Clock Selector
- JP12, JP15, JP36, JP37, JP38, JP40, JP41 -- Cache Memory Size Selector
- JP34, JP35 -- VESA Bus Speed Setup Jumper
- JP16, JP17 -- CPU Voltage Setup Jumper

2.0 Motherboard's Installation

2.1 CPU Type Selector

The S486G main board is designed for you, and you can use either Intel/AMD i486DX/DX2/DX4/SX/SL Enhanced version CPU or Cyrix's Cx486S2 (M6/M7) CPU. There are sixteen jumpers JP6, JP7 and JP18 to JP32 on the motherboard to select microprocessor type. Please, see the table 1/2/3 below.

Table 1.

JP	i486 SX	i486 DX/DX2	P4S/24S	P23S	P24T
JP6	1-2	1-2	1-2	1-2	1-2
JP7	2-3	2-3	2-3	2-3	1-2
JP18	Open	Open	Open	Open	Open
JP19	Open	Open	Open	Open	Open
JP20	Open	Open	1-2	1-2	Open
JP21	Open	Open	2-3	2-3	2-3
JP22	Open	Open	3-4	3-4	3-4
JP23	Open	Open	4-5	4-5	1-2
JP24	2-3	2-3	2-3	2-3	1-2
JP25	Open	Open	Open	Open	Open
JP26	Open	Short	Short	Open	Short
JP27	2-3	1-2	1-2	2-3	1-2
JP28	Open	3-4	3-4	Open	2-3
JP29	Open	2-3	2-3	2-3	2-3
JP31	Open	Open	Open	Open	1-2
JP32	Open	Open	Open	Open	3-4

Table 2:

JP	P24D	M6	M7	P24C
JP6	1-2	2-3	2-3	1-2
JP7	2-3	1-2	1-2	2-3
JP18	1-2	Open	Open	Open
JP19	Open	Short	Short	Open
JP20	2-3	Open	Open	1-2
JP21	2-3	1-2,3-4	1-2	2-3
JP22	1-2,3-4	2-3,4-5	2-3	3-4
JP23	4-5	2-3	2-3	4-5
JP24	1-2	2-3	2-3	2-3
JP25	1-2	Open	Open	Open
JP26	Short	Open	Short	Short
JP27	1-2	2-3	1-2	1-2
JP28	3-4	3-4	3-4	3-4
JP29	2-3	2-3	2-3	2-3
JP31	1-2	2-3	2-3	Open
JP32	Open	2-3	2-3	Open

Note: P4S : SL-Enhanced 486DX CPU
 P24S: SL-Enhanced 486DX2 CPU
 P23S: SL-Enhanced 486SX CPU
 M6 : Cyrix 486SX CPU
 M7 : Cyrix 486DX/DX2 CPU
 P24C: SL-Enhanced 486DX4 CPU

Table 3:

JP \ CPU	AMDDXLU	AMDSXLU	AMDDXPLUS	AMDSXPLUS
JP6	2-3	2-3	1-2	1-2
JP7	1-2	1-2	1-2	1-2
JP18	Open	Open	2-3	2-3
JP19	Open	Open	Open	Open
JP20	Open	Open	4-5	4-5
JP21	Open	Open	2-3	2-3
JP22	Open	Open	3-4	3-4
JP23	Open	Open	4-5	4-5
JP24	2-3	2-3	2-3	2-3
JP25	Open	Open	Open	Open
JP26	Short	Open	Short	Open
JP27	1-2	2-3	1-2	2-3
JP28	1-2, 3-4	1-2	Open	Open
JP29	1-2	1-2	2-3	2-3
JP31	Open	Open	1-2	1-2
JP32	1-2	1-2	Open	Open

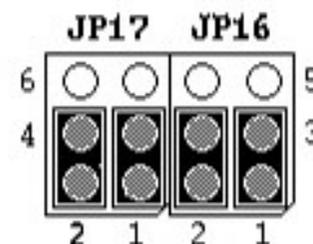
2.11 Microprocessor Voltage Setup

The S486G main board provided 5V & 3V two level voltage for you to installed a different kind of microprocessor. Please use jumper plug in JP16 and JP17 to change the microprocessor voltage as following table 4 and table 5.

When you installed 5 volt CPU on S486G main board. Please place over the jumper plug in JP16 and JP17 pin 1-3 and 2-4 position to switch to 5 Volt mode.

Table 4.

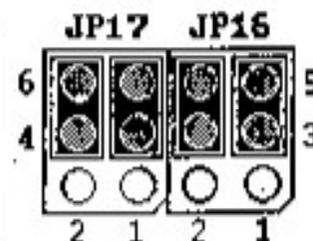
JP \ CPU	5 Volt
JP16	1-3, 2-4 Short
JP17	1-3, 2-4 short



When you installed 3.3 volt CPU on S486G main board. Please place over the jumper plug in JP16 and JP17 pin 3-5 and 4-6 position to switch to 3.3 Volt mode.

Table 5.

JP \ CPU	3.3 Volt
JP16	3-5, 4-6 Short
JP17	3-5, 4-6 short



2.2 System Clock Selector (Jumper Setting)

The S486G main board have two type of clock generator for system speed selected. Please see the table 6 and table 7 to setup your system speed.

Table 6. When the board use KTS KDN-0147x or Avasem AV9107-xx clock generator in OSC U25 position. Please setup jumper J42,43,44 as below for speed change.

Speed Jumper	20MHz	25MHz	33MHz	40MHz	50MHz
JP42	Short	Short	Open	Short	Open
JP43	Open	Short	Short	Open	Open
JP44	Short	Open	Short	Open	Short

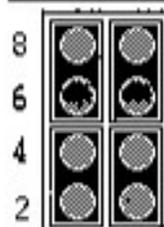
Table 7. When the board use MX8315xx clock generator in OSC U26 position. Please setup jumper J42,43,44 as below for speed change.

Speed Jumper	20MHz	25MHz	33MHz	40MHz	50MHz
JP42	Open	Open	Short	Open	Short
JP43	Open	Short	Short	Short	Open
JP44	Open	Open	Short	Short	Open

2.3 Memory Bank Selector

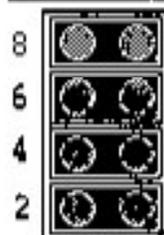
The S486G main board supports 4 DRAM banks for you up to 128MB maximum memory on board. The S30A & S30B used 30 pin SIMM RAM module. And the S72C & S72D used 72 pin SIMM RAM module. The S486G main board support double side SIMM RAM module when you set S72C and S72D to bank 0 & bank1. Please see following table to install J2 jumpers to switch the RAM bank-0 from SIMM module S30A or S72C.

J2	DRAM BANK			
1,3 - 2,4 5,7 - 6,8	BANK-0	BANK-1	BANK-2	BANK-3
SHORT	S30A	S30B	S72C	S72D



When you install the bank-0 from S30A. The J2 jumper plug must be place over pin (1,3)/(2,4)/(5,7) (6,8) position to switch bank-0 in S30A.

J2	DRAM BANK			
1,2 - 3,4 5,6 - 7,8	BANK-0	BANK-1	BANK-2	BANK-3
SHORT	S72C	S72D	S30A	S30B



When you install the bank-0 from S72C. The J2 jumper plug must be place over pin (1,2)/(3,4)/(5,6) (7,8) position to switch bank-0 in S72C.

2.31 Memory Size Configuration

The S486G supports 66 different DRAM configurations in 4 banks. The doubleword interleave scheme is applicable when bank 0/1 or bank 2/3 are implemented with same DRAM types. The DRAM banks has to be filled in the following order: Bank0 → Bank3.

S30A	S30B	S72C	S72D	Total RAM
BANK 0	BANK 1	BANK 2	BANK 3	
1M				1MB
1M	1M			2MB
1M	1M	4M		6MB
1M	1M	4M	4M	10MB
1M	4M			5MB
1M	16M			17MB
1M	1M	16M		18MB
4M				4MB
4M	4M			8MB
4M	4M	4M		12MB
4M	4M	4M	4M	16MB
4M	16M			20MB
4M	4M	16M		24MB
4M	16M	16M		36MB
4M	4M	16M	16M	40MB
16M				16MB
16M	16M			32MB
16M	16M	16M		48MB
16M	16M	16M	16M	64MB
1M	64M			65MB
4M	64M			68MB
4M	4M	64M		72MB
16M	64M			80MB
16M	16M	64M		96MB
64M				64MB
64M	64M			128MB

S72C	S72D	S30A	S30B	Total RAM
BANK 0	BANK 1	BANK 2	BANK 3	
1M				1MB
1M	1M			2MB
1M	1M	4M		6MB
1M	1M	4M	4M	10MB
1M	1M	16M		18MB
2M *				2MB
2M *	2M *			4MB
2M *	4M			6MB
2M *	2M *	4M		8MB
2M *	2M *	4M	4M	12MB
2M *	16M			18MB
2M *	2M *	16M		20MB
2M *	2M *	4M	16M	24MB
2M *	2M *	16M	16M	36MB
4M				4MB
4M	4M			8MB
4M	4M	4M		12MB
4M	4M	4M	4M	16MB
4M	16M			20MB
4M	4M	16M		24MB
4M	4M	16M	16M	40MB
8M *				8MB
8M *	8M *			16MB

Note: "*" For double side 72 pin DRAM module

S72C	S72D	S30A	S30B	Total RAM
BANK 0	BANK 1	BANK 2	BANK 3	
16M				16MB
16M	16M			32MB
16M	16M	16M		48MB
16M	16M	16M	16M	64MB
1M	4M			5MB
1M	16M			17MB
1M	64M			65MB
4M	64M			68MB
4M	4M	64M		72MB
16M	64M			80MB
16M	16M	64M		96MB
64M				64MB
64M	64M			128MB
4M	32M *			36MB
16M	32M *			48MB
32M *				32MB
32M *	32M *			64MB

Note: "*" for double side 72 pin RAM Module

2.32 Tag RAM And Data RAM Configuration

The S486G main board has a Direct Mapped Cache controller inside to support Write-Back or Write-Through cache scheme. The S486G main board needs external SRAM and comparator to implement TAG RAM. Beside TAG and DATA RAM, a write-back cache needs and SRAM for the Alter bits. The cache RAM configurations is listed below.

Cache RAM Configuration:

CACHE	TAG RAM	DATA RAM	Alter RAM	CACHEABLE
64KB	8Kx8x1	8Kx8x8	8Kx8x1	16MB
128KB	8Kx8x1	32Kx8x4	8Kx8x1	32MB
256KB	32Kx8x1	32Kx8x8	32Kx8x1	64MB
256KB	32Kx8x1	64Kx8x4	32Kx8x1	64MB
512KB	32Kx8x1	64Kx8x8	64Kx8x1	128MB
512KB	32Kx8x1	128Kx8x4	64Kx8x1	128MB
1MB	64Kx8x1	128Kx8x8	128Kx8x1	128MB

BANK-0: U17, U19, U22, U27

BANK-1: U18, U20, U24, U30

TAG : U31

Alter : U10

2.3.3 Cache RAM Size And Jumper Setting

Cache Jumper	64KB	128KB	256KB	256KB	512KB	512KB	1MB
TAG SRAM	8K8	8K8	32K8	32K8	32K8	32K8	64K8
DATA SRAM	8K8	32K8	32K0	64K8	64K8	128K8	128K8
JP36	2-3	1-2	1-2	1-2	1-2	1-2	1-2
JP37	2-3	2-3	1-2	1-2	1-2	1-2	1-2
JP38	2-3	2-3	2-3	2-3	1-2	1-2	1-2
JP40	2-3	1-2	2-3	1-2	2-3	1-2	2-3
JP41	Open	1-23-4	2-34-5	1-23-4	2-34-5	1-23-4	2-34-5
JP12	Open	Open	Open	1-2	2-3	2-3	2-3
JP15	1-2	2-3	2-3	2-3	2-3	2-3	2-3

2.4 VESA Bus Speed Setup Jumper

Speed Jumper	<= 33MHz	> 33MHz	Wait Jumper	0 Wait	1 Wait
JP35	1-2	2-3	JP34	1-2	2-3

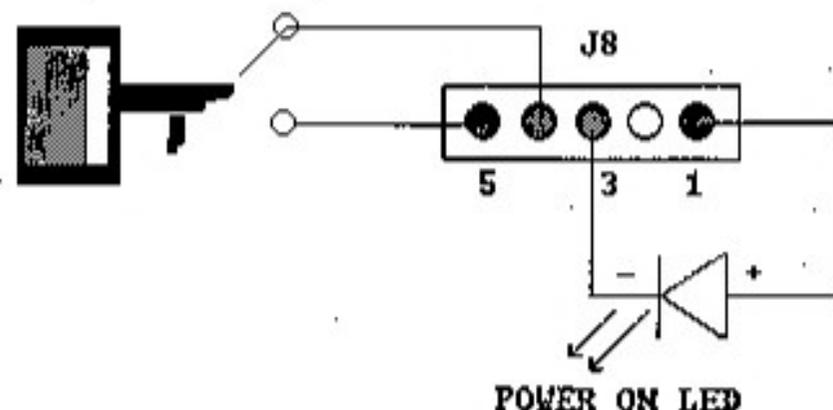
VESA SLOT - VESA1: MASTER MODE
 VESA2: MASTER MODE
 VESA3: SLAVE MODE

2.5 Power On LED and Key Lock(J8)

For indication purposes, a colored light set in front of some computer panels lit whenever the system power is turned ON. This indicates that the computer is receiving power. A keyboard inhibit (Key-Lock) circuit is also provided, preventing unauthorized used of your system.

To utilize these two circuitry, it requires a connection to be made at connector J8. most cabinet manufacturers provide a pre-wired, five pin connector to facilitate connections.

The current to drive the power-on LED is supplied by pin 1 of J8. Pin 3 is LED ground.

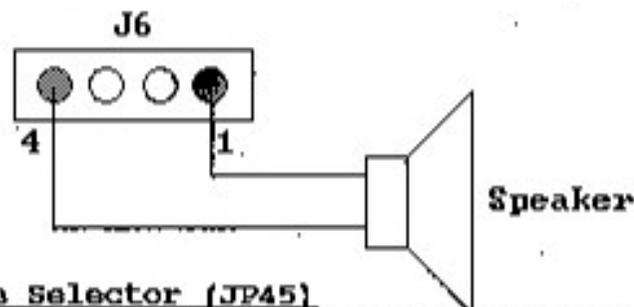


The keyboard inhibit circuit is controlled by pin 4 of J8. Pin 5 is the key-lock ground. Pin 2 is a key, and obstruction inserted in mating hole #2 prohibiting improper connection.

2.6 Speaker Connector (J6)

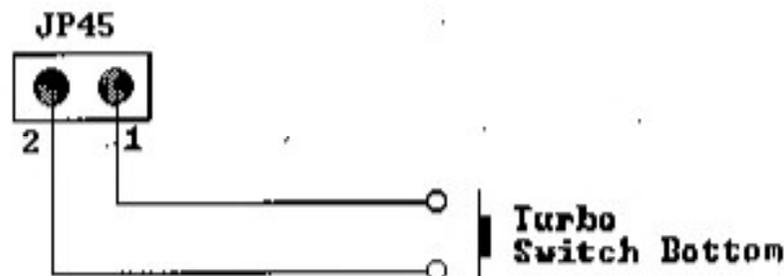
A speaker can be connected to J6 connector, providing audio warning through programs and the on-board BIOS.

Pin 1 of J6 are the speaker data output lines. Pin 4 are the +5V output used to drive the speaker coil. Connections can be made on any two adjacent pins.

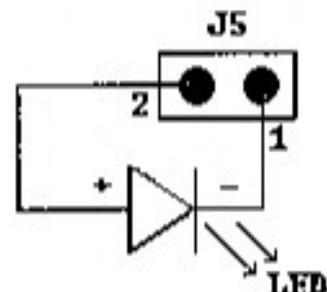


2.7 Turbo Mode Selector (JP45)

In order to change speed between low and high, switch through JP45. When you open pin 1,2 of JP45, CPU always keeps in low speed. When you short pin 2,3 of JP45, CPU always keep in high speed. As using the hardware switch, place jumper plug of the switch over pins 1, 2, 3 of JP45 to change low speed mode or high speed mode from switch bottom. Also the CPU speed can be changed by keyboard.



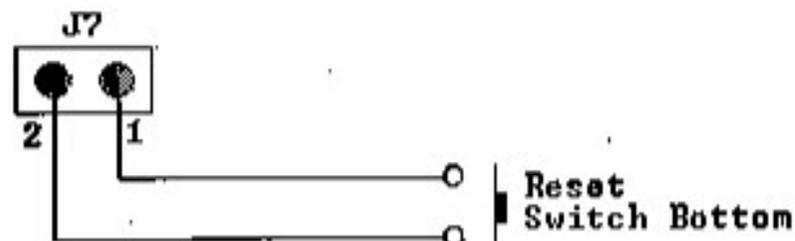
2.8 Turbo Mode Indicator (J5)



Another front panel function that is very useful is the turbo mode indicator. When this LED is illuminated, the systems currently in the high speed mode. If you toggled into the low speed mode, the LED will go OFF.

Pin 2 is connected to the LED's output (+), while pin 1 is connected to the ground (-).

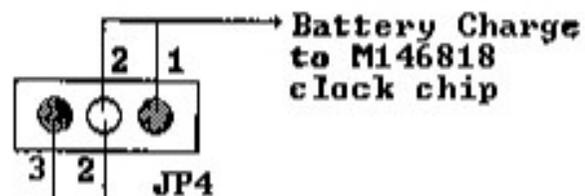
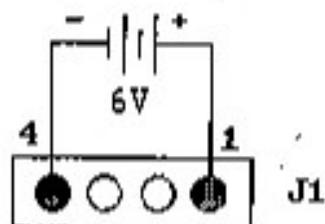
2.9 System Reset Connector (J7)



During computer operation. It is sometimes necessary to initiate a system reset as some programs will force a condition commonly called "freezing up". Shorting pins 1 and 2 of J7 forces the system to reset, "cold start". Pin 2 of JP7 is a signal ground. Pin 1 is connected to the reset circuit.

2.10 External Battery Interface (J1) CMOS Data Initial Jumper (JP4)

When using an external battery, connect it to the four pin connector J1. The pin assignment is described below.



To making
clear M146818
CMOS data

Placing a jumper plug at pins 1 and 2 of JP4. This causes the battery charge to support the MC146818 clock chip.

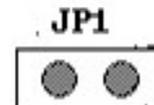
Remove the jumper plug from pins 1 and 2 of JP4 and place a jumper plug at pins 2 and 3 of JP4. It causes the battery uncharged to support the MC146818 clock chip. This for you to making clear the MC146818 CMOS data, if needs.

NOTE: Input pin of the external battery must be connected to pin 1 of JP1.

2.11 Monitor Mode Selector (JP1)



Color Mode



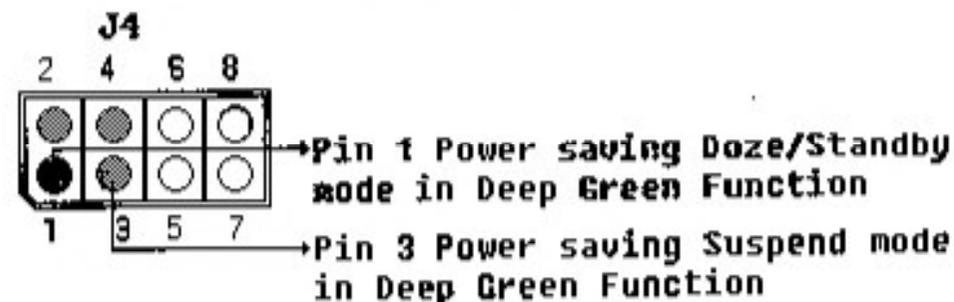
Monochrome Mode

When a color graphics adapter is used, remove jumper plug from JP1 position to switch to VGA/EGA color display mode. When you use a monochrome graphics card, jumper plug must be place over JP1 position to switch to monochrome display mode.

2.12 System Suspend Mode Break Switch (JP9)



2.13 Power Saving Interface (J4)



3.1 BIOS Setup

(A) AWARD BIOS

Support SMI function CPU. (Deep Green)

Features	Options	Descriptions
<u>Power Management</u>	Disabled Min. Power Saving Max. power Saving User Defined Optimize	Disable whole system power management function. Auto setting the PM Times time-out value to minimum. Auto setting the PM Times time-out value to maximum. All the PM times time-out Values selected by user. Auto defaults
<u>Video Off Method</u>	V/R SYNC+Blank Blank Screen	Set the feature by which VGA card have Green function or not.
<u>Video Off Option</u>	All Modes ->Off Always On Suspend ->Off Susp.Stdb. ->Off	Sets the method by which VGA card enters Sleeping mode.
<u>HDD Power Down</u>	Disabled 1/2/3/4/5/6/7/ 8/9/10/11/12/13/ 14/15 minutes When Suspend	Select time-out value for IDE. The function depends on disk drive. Some older mode disk drives do not support auto standby function.
<u>System Hozz</u>	Disable 10/20/30/40 sec. 1/3/5/7/10/15/ 30/45 minutes. 1/2/3 hours	Select time-out value for CPU clock slow down to 8MHz. Power saving device J4 Pin 1 will be action.
<u>System Stand by</u>	Disabled 10/20/30/40 sec. 1/3/5/7/10/15/ 30/45/ minutes 1/2/3 hours	Select time-out value for VGA display when the Video off option set to off mode. J4 pin 1 will be action.
<u>System Suspend</u>	Disabled 10/20/30/40 sec. 1/3/5/7/10/15/ 30/45 minutes 1/2/3 hours	Select time-out value for CPU clock to 8MHz and the system into suspend mode. Power saving device J4 Pin 1 & 3 will be action. Indicator by Power ON LED.

(AWARD BIOS)

Non-SMI function CPU. (Light Green)

Features	Options	Descriptions
<u>Power Management</u>	Disabled Min. Power Saving Max. power Saving User Defined Optimize	Disable whole system power management function. Auto setting the PM Times time-out value to minimum. Auto setting the PM Times time-out value to maximum. All the PM times time-out Values selected by user. Auto defaults
<u>Video Off Method</u>	V/R SYNC+Blank Blank Screen	Set the feature by which VGA card have Green function or not.
<u>Video Off Option</u>	All Modes ->Off Always On Suspend ->Off Susp.Stdb. ->Off	Sets the method by which VGA card enters Sleeping mode.
<u>HDD Power Down</u>	Disabled 1/2/3/4/5/6/7/ 8/9/10/11/12/13/ 14/15 minutes When Suspend	Select time-out value for IDE. The function depends on disk drive. Some older mode disk drives do not support auto standby function.
<u>System Hozz</u>	Disable 10/20/30/40 sec. 1/3/5/7/10/15/ 30/45 minutes. 1/2/3 hours	Select time-out value for CPU clock slow down to 8MHz. Power saving device J4 Pin 1 will be action.
<u>System Stand by</u>	Disabled 10/20/30/40 sec. 1/3/5/7/10/15/ 30/45/ minutes 1/2/3 hours	Select time-out value for VGA display when the Video off option set to off mode. J4 pin 1 will be action.
<u>System Suspend</u>	Disabled 10/20/30/40 sec. 1/3/5/7/10/15/ 30/45 minutes 1/2/3 hours	Select time-out value for CPU clock to 8MHz and the system into suspend mode. Power saving device J4 Pin 1 & 3 will be action. Indicator by Power ON LED.

(B) AMI BIOS

Support SMI function CPU. (Deep Green)

<u>Features</u>	<u>Options</u>	<u>Descriptions</u>
<u>Power Management</u>	Disabled/Enable	Disable or Enable power management mode.
<u>Doze Timer</u>	Disable 30 sec. 1/5/10/30 minutes 1/2 hours	Select time-out value for CPU clock slow down to 8MHz. And power saving device J4 pin 1 will be action.
<u>StandBy Timer</u>	Disable 30 sec. 1/5/10/30 minutes 1/2 hours	Select time-out value for CPU clock slow down to 8MHz. And power saving device J4 pin 1 will be action.
<u>Suspend Timer</u>	Disable 30 sec. 1/5/10/30 minutes 1/2 hours	Select time-out value for CPU clock go to 0 MHz and whole system into Suspend mode. The power saving device J4 pin 1 & 3 will be action. Indication by power on LED.
<u>HDD Auto Standby</u>	Disable 1/2/3/4/5/6/7/ 8/9/10/11/12/13/ 14/15 minutes	Select time-out value for IDE. The functions depends on disk driver. Some older mode disk drivers do not support Auto standby function.
<u>Display Off Timer</u>	Disable Doze StandBy Suspend	Sets the method by which VGA card enters Sleep mode.

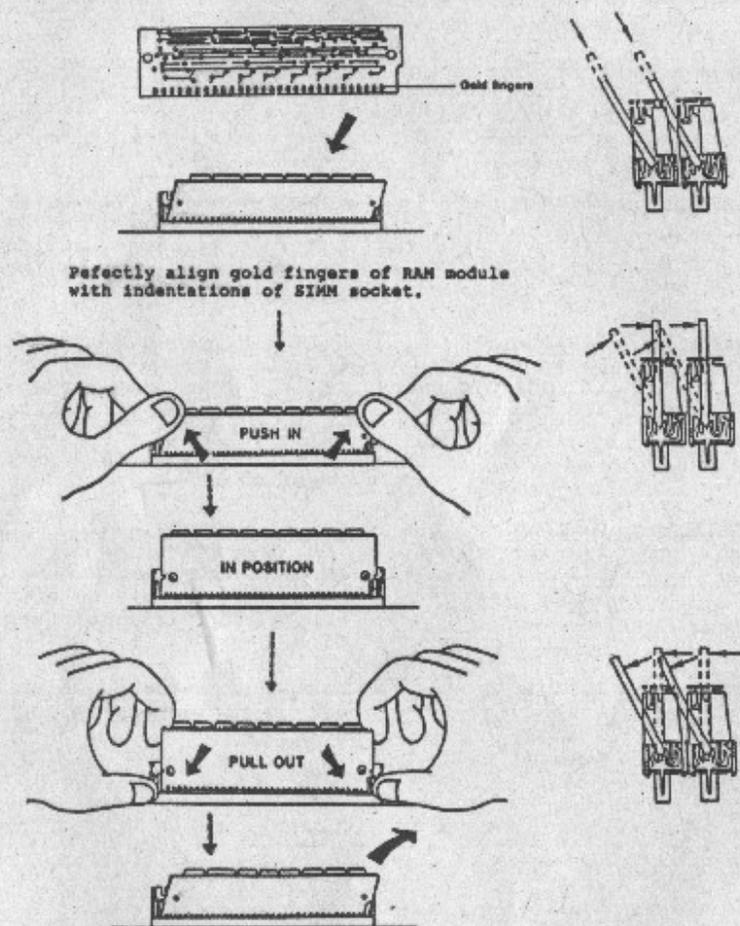
(AMI BIOS)

Non-SMI function CPU. (Light Green)

<u>Features</u>	<u>Options</u>	<u>Descriptions</u>
<u>Power Management</u>	Disabled/Enable	Disable or Enable power management mode.
<u>Doze Timer</u>	Disable 30 sec. 1/5/10/30 minutes 1/2 hours	Select time-out value for CPU clock slow down to 8MHz. And power saving device J4 pin 1 will be action.
<u>StandBy Timer</u>	Disable 30 sec. 1/5/10/30 minutes 1/2 hours	Select time-out value for CPU clock slow down to 8MHz. And power saving device J4 pin 1 will be action.
<u>Suspend Timer</u>	Disable 30 sec. 1/5/10/30 minutes 1/2 hours	Select time-out value for CPU clock go to 8 MHz and whole system into Suspend mode. The power saving device J4 pin 1 & 3 will be action. Indication by power on LED.
<u>HDD Auto Standby</u>	Disable 1/2/3/4/5/6/7/ 8/9/10/11/12/13/ 14/15 minutes	Select time-out value for IDE. The functions depends on disk driver. Some older mode disk drivers do not support Auto standby function.
<u>Display Off Timer</u>	Disable Doze StandBy Suspend	Sets the method by which VGA card enters Sleep mode.

APPENDIX A.

Quick insertion and removal of RAM modules.



With no tools or additional of hands needed to maneuver the latch.