TOP

VESA 486

DEEP GREEN PC SYSTEM BOARD

OPERATION MANUAL

R 407 e

PF OS-00 12
SIS 476-F

DISCLAIMER

The information in this manual has been carefully checked and is believed to be accurate. We assumes no responsibility for any inaccuracies that may still be contained in this manual. We reserves the right to make changes to this material at any time without notice.

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M. Tech
405-4-11-2919

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CHAPTER 1   INTRODUCTION

SYSTEM OVERVIEW

The R407 VESA 486 is a Deep Green PC system board for 2/3 baby-size, fully PC/AT compatible and offers outstanding performance and features. The R407 VESA 486 system board is designed with SIS 85C471 and 85C407 Deep Green chipset, which are highly integrated chipset. On board memory size can be scaled from 1 MB up to 128 MB, and the Cache size 64K, 128K, 256K, 512K, 1MB optional.

FEATURES

The R407 VESA 486 system board support (or includes) the following features :

Key Features

- Supports Intel 486SX/DX/DX2 & SL-enhanced DX2/DX4 & P24D/P24T and Cyrix DX/DX2 and AMD DX/DX2/DX4 CPU.
- Supports CPU internal cache Write-Back function for P24D/P24T, and Cyrix M6/M7 CPU.
- Supports Power Mangement Mode :
  - Support the SMM and SMI functions.
  - CPU Stop Clock function.
  - Long and Short system timers.
  - Support the APM control.
  - Support Break Switch control.
  - Power Saving also on non-SMI CPU.
  - More system Event Monitoring and the Power Saving Device control.

General Features

● Direct Mapped cache controller for 2nd Level Cache.
- Write - Back or Write - Through Schemes.
- Flexible Cache Size : 64K/128K/256K/512K or 1MB.

● Fast Page Burst mode DRAM controller.
- Up to 128MB of DRAM Expendable on board.
- 256K/512K/1M/2M/4M/16M x N DRAM Type can be used.
- Programmable DRAM speed.
- 30-Pin SIMM sockets X 8, and 72-Pin SIMM sockets X 2 on board.

● Support 512K/1MB EPROM in optional.

● Hardware/software De-Turbo Switch.

● Support Two VL-Bus Master & One VL-Bus Slave, and Eight 16 bit ISA Bus slots.

● Support CPU clock scaling by SMOUT 0 signal (control CPU clock drop down to 8MHz).

● Support 2(8) Power Saving Devices.

● Support Intel SL-enhanced CPU & Cyrix CPU SMI function. (Deep Green)
- CPU clock slow down to 0MHz.
- Support APM control.
- Support (1) Normal. (2) Doze. (3) Standby. (4) Suspend. for Power Saving Mode.

● Support Hardware Break Switch for Suspend Mode function.

● Support normal 486SX/DX/DX2 CPU for Light Green
(1) Normal. (2) Doze. (3) Standby. for Power Saving Mode.

CHAPTER 2 HARDWARE CONFIGURATION

Before the system is ready to operates, the hardware must be configured to allow for various function within the system. To configure the R407 VESA 486 system board is a simple task, a few Jumpers, Connectors, and sockets needs to be selected. Please refer to system board layout in Chapter 3 for the locations.

CACHE MEMORY SOCKETS & JUMPERS

The R407 VESA 486 system board support 2 bank of SRAM which provides either 64K, 128K, 256K, 512K, or 1 MB of Cache Memory. The following table lists the detailed information and Jumper (JP20, JP21, JP22, JP23, JP24, JP25, JP26) setting.

The corresponding bank to parts indentification are as follows:

```
Tag  RAM              —— U20.
Data RAM Bank  0        U24, U26, U28, U30.
         Bank  1        U23, U25, U27, U29.
```

Cache Size	Bank 0		Bank 1		Tag RAM	
64K	four	8Kx8	four	8Kx8	one	8Kx8
128K	four	32Kx8		none	one	8Kx8
256K	four	32Kx8	four	32Kx8	one	32Kx8
	four	64Kx8		none	one	32Kx8
512K	four	64Kx8	four	64Kx8	one	32Kx8
	four	128Kx8		none	one	32Kx8
1 M	four	128Kx8	four	128Kx8	one	64Kx8

Cache Size Jumper Setting : (JP20, JP21, JP22, JP23)

Cache Size	JP 20	JP 21	JP 22	JP 23
64K	1 - 2 short	1 - 2 short	1 - 2 short	1 - 2 short
128K	2 - 3 short	1 - 2 short	1 - 2 short	2 - 3 short
256K	2 - 3 short	2 - 3 short	1 - 2 short	2 - 3 short
512K/1 M	2 - 3 short	2 - 3 short	2 - 3 short	2 - 3 short

SRAM Type Jumper setting : (JP24, JP25, JP26)

SRAM Type	Cache Size	JP 24	JP25	JP 26
8Kx8	64K	2 - 3 short	none	none
32Kx8	128K	1 - 2 short	1 - 2 short	none
	256K	2 - 3 short	2 - 3 short	none
64Kx8	256K	1 - 2 short	1 - 2 & 3 - 4 short	2 - 3 short
	512K	2 - 3 short	2 - 3 & 4 - 5 short	1 - 2 short
128Kx8	512K	1 - 2 short	1 - 2 & 3 - 4 short	1 - 2 short
	1 M	2 - 3 short	2 - 3 & 4 - 5 short	1 - 2 short

DRAM SIMM SOCKET & JUMPERS

The R407 VESA 486 system board will support 4 DRAM Bank, SIM A and SIM B used 30-Pin SIMM sockets x 4, SIM C and SIM D used 72-Pin SIMM sockets x 1. The SIM C and SIM D support 72-Pin Double Side SIMM DRAM when SIM C and SIM D set to Bank 0 & Bank 1 (Mode 2). Please reference to the following table and Jumper setting for the details installation.

DRAM Bank Setting : (JP30, JP31, JP32, JP33)

	JP30 to JP33	DRAM Bank			
		0	1	2	3
Mode 1	1 - 2 short	SIM A	SIM B	SIM C	SIM D
Mode 2	2 - 3 short	SIM C	SIM D	SIM A	SIM B

DRAM Size Configuration.

MODE 1   (JP30, JP31, JP32, JP33)   1 - 2 pin short

Mode 1	SIM A	SIM B	SIM C	SIM D
DRAM Size	Bank 0	Bank 1	Bank 2	Bank 3
1 MB	1 MB			
2 MB	1 MB	1 MB		
6 MB	1 MB	1 MB	4 MB (S)	
10 MB	1 MB	1 MB	4 MB (S)	4 MB (S)
5 MB	1 MB	4 MB		
17 MB	1 MB	16 MB		
18 MB	1 MB	1 MB	16MB(S)	
4 MB	4 MB			
8 MB	4 MB	4 MB		
12 MB	4 MB	4 MB	4 MB (S)	
16 MB	4 MB	4 MB	4 MB (S)	4 MB (S)
20 MB	4 MB	16 MB		
24 MB	4 MB	4 MB	16MB(S)	
36 MB	4 MB	16 MB	16MB(S)	
40 MB	4 MB	4 MB	16MB(S)	16MB(S)
16 MB	16 MB			
32 MB	16 MB	16 MB		
48 MB	16 MB	16 MB	16MB(S)	
64 MB	16 MB	16 MB	16MB(S)	16MB(S)
65 MB	1 MB	64 MB		
68 MB	4 MB	64 MB		
72 MB	4 MB	4 MB	64MB(S)	
80 MB	16 MB	64 MB		
96 MB	16 MB	16 MB	64MB(S)	
64 MB	64 MB			
128 MB	64 MB	64 MB		

(Note : S = 72-Pin Single Side SIMM, D = 72-Pin Double Side SIMM)

MODE 2.   (JP30, JP31, JP32, JP33)   2 - 3 pin short

Mode 2	SIM C	SIM D	SIM A	SIM B
DRAM Size	Bank 0	Bank 1	Bank 2	Bank 3
1 MB	1 MB (S)			
2 MB	1 MB (S)	1 MB (S)		
6 MB	1 MB (S)	1 MB (S)	4 MB	
10 MB	1 MB (S)	1 MB (S)	4 MB	4 MB
18 MB	1 MB (S)	1 MB (S)	16 MB	
2 MB	2 MB (D)			
4 MB	2 MB (D)	2 MB (D)		
6 MB	2 MB (D)	4 MB (S)		
8 MB	2 MB (D)	2 MB (D)	4 MB	
12 MB	2 MB (D)	2 MB (D)	4 MB	4 MB
18 MB	2 MB (D)	16MB(S)		
20 MB	2 MB (D)	2 MB (D)	16 MB	
24 MB	2 MB (D)	2 MB (D)	4 MB	16 MB
36 MB	2 MB (D)	2 MB (D)	16 MB	16 MB
4 MB	4 MB (S)			
8 MB	4 MB (S)	4 MB (S)		
12 MB	4 MB (S)	4 MB (S)	4 MB	
16 MB	4 MB (S)	4 MB (S)	4 MB	4 MB
12 MB	4 MB (S)	8 MB (D)		
20 MB	4 MB (S)	16MB(S)		
24 MB	4 MB (S)	4 MB (S)	16 MB	
36 MB	4 MB (S)	16MB(S)	16 MB	
40 MB	4 MB (S)	4 MB (S)	16 MB	16 MB
8 MB	8 MB (D)			
16 MB	8 MB (D)	8 MB (D)		
24 MB	8 MB (D)	16MB(S)		
32 MB	8 MB (D)	8 MB (D)	16 MB	
48 MB	8 MB (D)	8 MB (D)	16 MB	16 MB
16 MB	16MB(S)			
32 MB	16MB(S)	16MB(S)		
48 MB	16MB(S)	16MB(S)	16 MB	
64 MB	16MB(S)	16MB(S)	16 MB	16 MB
5 MB	1 MB (S)	4 MB (S)		
17 MB	1 MB (S)	16MB(S)		
65 MB	1 MB (S)	64MB(S)		
68 MB	4 MB (S)	64MB(S)		
72 MB	4 MB (S)	4 MB (S)	64 MB	
80 MB	16MB(S)	64MB(S)		
96 MB	16MB(S)	16MB(S)	64 MB	
64 MB	64MB(S)			
128 MB	64MB(S)	64MB(S)		
36 MB	4 MB (S)	32MB (D)		
48 MB	16MB (S)	32MB (D)		
32 MB	32MB(D)			
64 MB	32MB(D)	32MB(D)		

CONNECTOR

A conntctor is two or more Pins, that are used to make connections to the system standard accessories (such as Power, Battery....etc.)
The following is a list of connectors on board, as well as descriptions of each individul connector.

(A) BAT 1 : On board Battery.

(B) J 1 : Keyboard Connector.

Pin#	Assignment
1	Keyboard Clock
2	Keyboard Data.
3	No connection.
4	Ground.
5	+ 5V DC.

(C) J 2 : 3.6V External Battery Connector.

Pin#	Assignment
1	Battery Positive.
2	No Connection.
3	Ground.
4	Groumd.

(D) J 3 : Power Connector.

Pin#	Assignment	Pin#	Assignment
1	Power Good.	7	Ground.
2	+ 5V DC.	8	Ground.
3	+ 12V DC.	9	- 5V DC.
4	- 12V DC.	10	+ 5V DC.
5	Ground.	11	+ 5V DC.
6	Ground.	12	+ 5V DC.

(E) KEY LOCK : *Front Panel KeyLock and Power LED Connector.*

Pin#	Assignment
1	Power LED Positive.
2	No Connection.
3	Ground.
4	Keyboard Lock.
5	Ground.

(F) SPEAKER : *Speaker Connector.*

Pin#	Assignment
1	Speaker Data.
2	No Connection.
3	Ground.
4	+ 5V DC.

(G) TB SW : *:Turbo Mode Hardware Switch Connector.*

Pin#	Function
1 - 2 short	None Turbo.
2 - 3 short	Turbo.

(H) TB LED : *Turbo LED Connector.*

Pin#	Assignment
1	Pull Up (+ 5V).
2	Turbo Control.

(I) RESET : *Reset Botton Connector.*

Pin#	Function
1 - 2 short	Reset.
1 - 2 open	No Action.

(J) BK SW : Hardware Suspend Mode Push Botton Connector.

Pin#		Function
1 - 2 short		Suspend.
1 - 2 open		No Action.

(K) JP 61 & JP 62 : Power Saving Devices.

JP 61 : Action on Power Saving「Doze」Mode.
JP 62 : Action on Power Saving「Suspend」Mode.

JUMPERS

(A)CPU Type Configuration.   (refer Appendix A.)

	486DX/ DX2 /DX4	486SX	P24T	P24D	Cx486DX / DX2
JP1	Open	open	1-2 Short	Open	2-3 Short
JP2	3-4 Short	3-4 Short	1-2 Short	1-2 Short	2-3 Short
JP3	1-2 Short	1-2 Short	Open	2-3 Short	Open
JP4	2-3 Short	2-3 Short	1-2 Short	1-2 Short	2-3 Short
JP5	2-3 Short	2-3 Short	1-2 Short	1-2 Short	1-2 Short
JP6	1-2 Short	1-2 Short	1-2 Short	1-2 Short	2-3 Short
JP7	2-3 Short	2-3 Short	2-3 Short	2-3 Short	1-2 Short
JP8	3-4 Short	Open	2-3 Short	3-4 Short	3-4 Short
JP9	1-2 3-4 Short	2-3 Short	1-2. 3-4 Short	1-2 . 3-4 Short	1-2. 3-4 Short
JP10	3-4 Short	3-4 Short	3-4 Short	1-2 3-4 Short	2-3 Short
JP11	4-5 Short	4-5 Short	1-2 Short	4-5 Short	2-3 Short
JP12	Open	Open	Open	Open	Open
JP13	Open	Open	Open	1-2 Short	Open
JP14	Open	Open	Open	1-2 Short	Open
JP16	1-2 Short	1-2 Short	1-2 Short	1-2 Short	1-2 Short

JP15 : For 486DX4 Clock Multiplier Selections only : 1-2 short -- 2.5 times the External Clock
2-3 short -- 2 times the External Clock.
Open -- 3 times the External Clock.

Note   Cx486DX / DX2   -- Cyrix CPU Cx486DX & Cx486DX2
486DX/DX2/DX4 CPU -- Intel 486DX / DX2 & SL-ennanced 486DX / DX2 / DX4
486SX   Intel 486SX & SL-enhanced 486SX
for AMD & CV CPU & Cyrix IV CPU Setting Please reference Appendix A and F

(B) CPU Frequency Configuration.

Clock	JP 40	JP 41	JP 42
25 MHz	short	open	short
33.3 MHz	short	short	open
40 MHz	open	open	short
50 MHz	open	short	open

(C) VL - Bus Identify Jumper.

R/W	JP 44
0 Wait	1 - 2 short
1 Wait	2 - 3 short

CPU speed	JP 45
<= 33MHz	1 - 2 short
> 33 MHz	2 - 3 short

(D) System CMOS Setup Jumper.

Operation mode	JP 50
Normal	1 - 2 short
Dischage CMOS	2 - 3 short

(E) Monitor Type Jumper.

Operation mode	JP 62
for CGA	short
for Mono or VGA/EGA	open

CHAPTER 3   SYSTEM BOARD LAYOUT
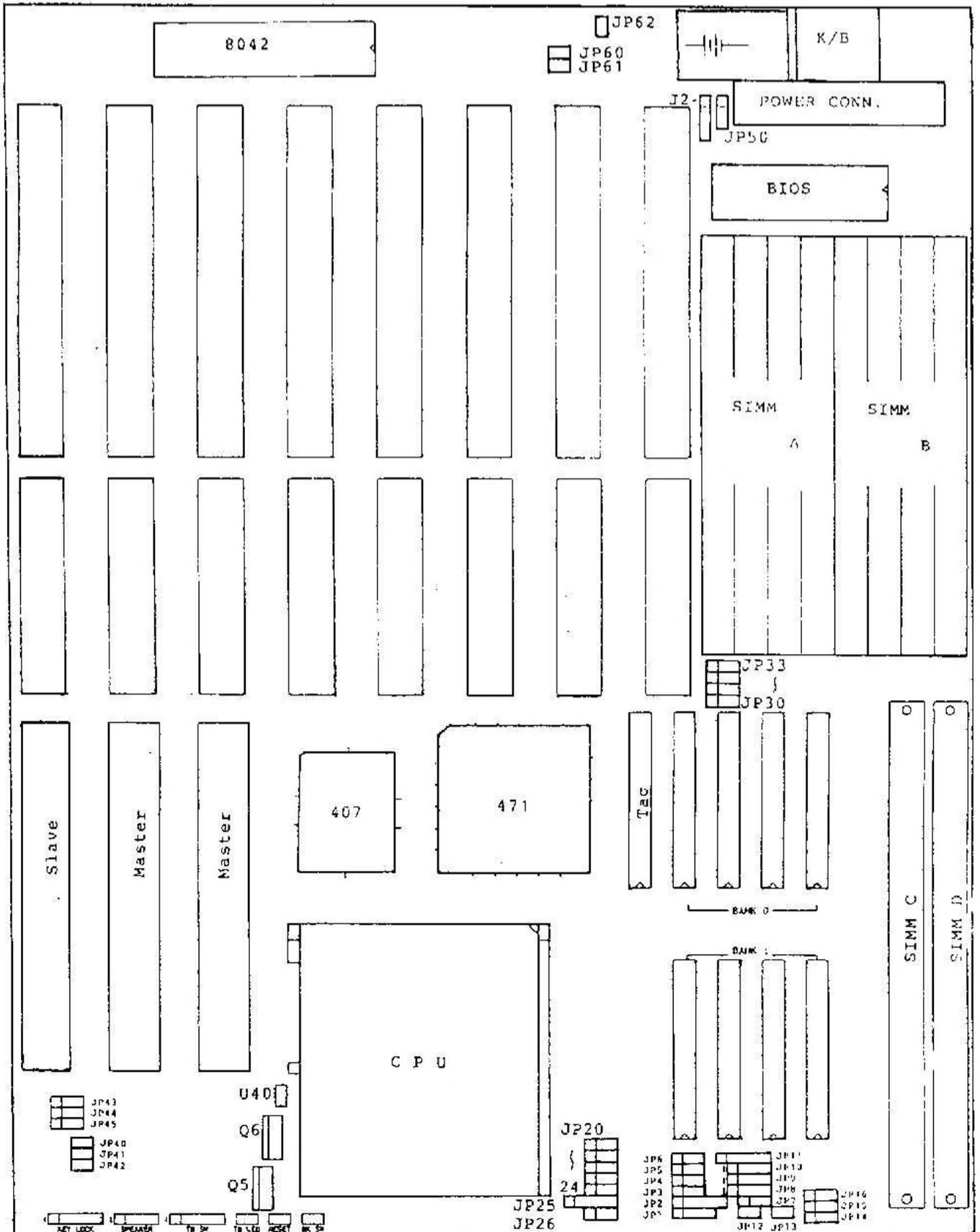
CHAPTER 4   SOFTWARE SETUP

After hardware configuration of the VESA 486 system board is completed, and system hardware has been assembled. the completed system may be power-up.
At this point, software setup should be run to ensure that the system information is correct, and that the configuration registers in VESA 486 Chipset do not need to be modified The chipset provides certain features. which can be accessed by software setup (such as system
speed, bus speed, shadow RAM etc) This flexibility allows the system to be tailored (via software setup) at anytime to meet the **requirements** of certain specifications operating environments.

Software setup is achieved through BIOS programming, although the BIOS from different vendors will have different sequences and displays, the setup elements or options will be the same.

SYSTEM SETUP

The system setup is sometimes called CMOS setup or standard setup. Normally system setup is needed when the system hardware is not identical with the information contained in the CMOS RAM, or whenever, the CMOS RAM has lost power

The setup procedure is generally listed below.
      (a) Enter into the setup routine
      (b) Modify the target options.
      (c) Save the changes and exit from setup
      (d) Reboot the system

Basically. the system elements that need to be setup are as follows:
      (a) Data and time
      (b) Floppy disk quantity and type
      (c) Hard disk quantity and type.
      (d) Amount of memory
      (e) Video display type

EXTENDED SETUP

The extended setup is used to modify the contents of the configuration registers in the 436 chipset. The following is the procedure for extended setup:
      (a) Enter into the setup routine
      (b) Modify the target options
      (c) Save the changes and exit from setup
      (d) Reboot the system.

Green PC Feature Setup

To start the R407 VESA 486 system board Power Saving function (Green function),
user have to take the following steps :

1. Turn on or reboot your system Press <DEL> to entry SETUP.
2. Selecting " **Power Management Setup** " on the Main Menu.
3. Use the following chart to configure the Green PC features options.

   The following chart let you determines how much power consumption for system .
   after selecting belows item.

(A) Award BIOS

Support SMI function CPU. (Deep Green)

Feature	Options	Description
Power Management	Disabled	Disable whole system power management function.
	Min Power Saving	Auto setting the PM Timers time-out value to minimum
	Max Power Saving	Auto setting the PM Timers
	Optimize	time-out value to maximum.
	User Defined	All the PM Timers time-out values are selected by user.
VGA Adptor Type	V/H SYNC + Blank	Set the feature by which the
	Blank Screen	VGA card have the Green function or not.
Video Off Option	All Modes --> Off	Sets the method by which the
	Alway ON	VGA card enters SLEEP mode.
	Susp, Stby --> Off	
HDD Power Down	Disabled	Select time-out value for IDE .
	1/ 2/ 3/ 4/ 5/ 6/ 7	The function depends on disk
	8/ 9/ 10/ 11/ 12	drive, some older mode disk
	13/ 14/ 15 minutes.	drives don't support auto
	When Suspend	standby function.
System Doze	Disabled.	Select time-out value for CPU
	10/ 20/ 30/ 40 sec	clock slow down to 8MHz.
	1/ 3/ 5/ 7/ 10/ 15	And power saving device
	30/ 45 minutes.	JP60 will be action.
	1/ 2/ 3 hour.	(JP60 going to low)
System Standby	Disabled.	Select time-out value for VGA
	10/ 20/ 30/ 40 sec	display when the ' Video Off
	1/ 3/ 5/ 7/ 10/ 15	Option ' set to Off mode.
	30/ 45 minutes.	
	1/ 2/ 3 hour.	
System Suspend	Disabled.	Select time-out value for CPU
	10/ 20/ 30/ 40 sec	clock go to 0 MHz and whole
	1/ 3/ 5/ 7/ 10/ 15	system going to Suspend
	30/ 45 minutes.	mode. And power saving
	1/ 2/ 3 hour.	device JP61 will be action.
		(JP61 going to low)

The menu also list the events by which the system wakes up from Doze, Standby or Suspend modes. Switch the following parameters Disabled or Enabled :

Local	Master		IRQ 7	(LPT 1)
Local	Device		IRQ 8	(RTC, OS2)
Video	Activities		IRQ 9	(Reserved)
DMA	Activities		IRQ 10	(Reserved)
IRQ 1	(Keyboard)		IRQ 11	(Reserved)
IRQ 3	(COM 2)		IRQ 12	(Reserved)
IRQ 4	(COM 1)		IRQ 13	(387)
IRQ 5	(LPT 2)		IRQ 14	(Hard Disk)
IRQ 6	(Floppy Disk)		IRQ 15	(Reserved)

CHAPTER 5   SPECIFICATIONS

1. CPU 486SX/487SX -20/25/33MHz, 486DX-25/33/40/50 MHz or 486DX2-
   50/66 MHz, P24T/D/S, P23S, P4S, M6, M7... 486 Serial CPU.
   P24C (DX4-75/100) CPU optional.
   (DX4 CPU support, when **Q5, Q6** in existance.)

2. WORD SIZE
   * Data Path 8 bit, 32 bit.
   * Physical Addressing   20 address lines in real mode
                          25 address lines in protected mode
                          (32 megabyte address space)

3. CLOCK RATE   25/33/40/50 MHz

4. MEMORY
   * EPROM   512 K or   1M
   * DRAM   1 MB up to 128 MB (SIMM)
   * SRAM   up to 1 MB (DIP)

5. DIMENSION
   * Length & Width   220 mm x 280 mm
   * Height   17 mm with mainboard components mounted.
   * PCB Thickness   4 layers 1.2 mm normal.
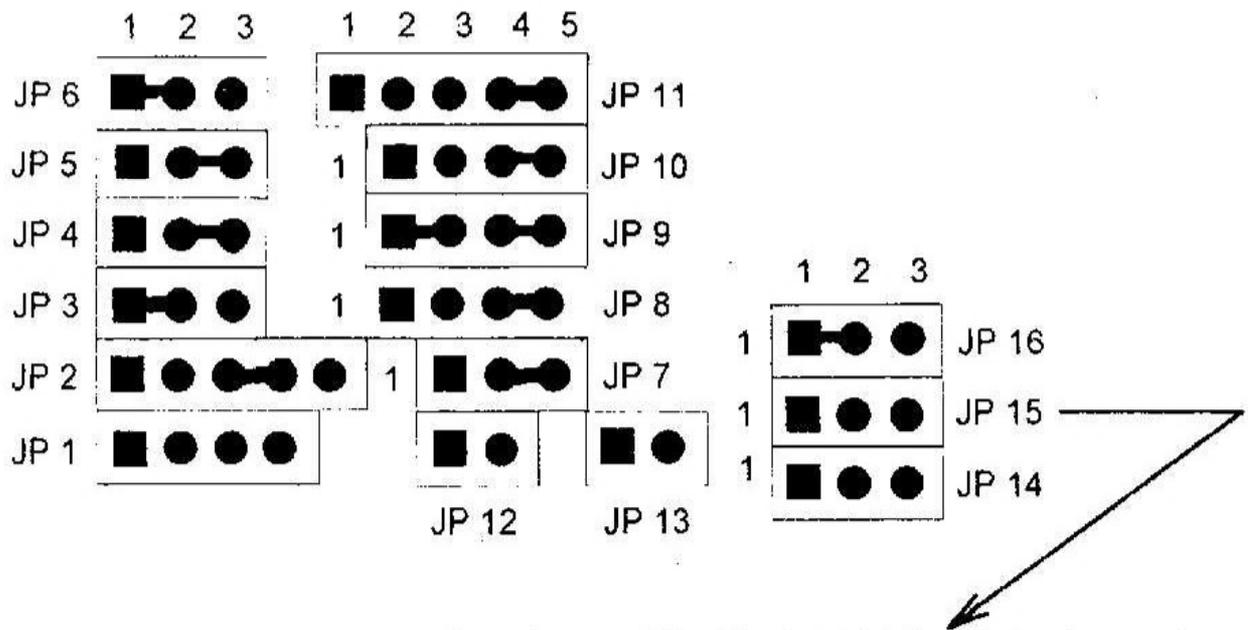   * Weight   680 g. without package.

6. ENVIRONMENT
   * Operating Temperature   10*C to 40*C, (50*F to 104*F)
   * Required Airflow   50 linear feet per minute across 80486
   * Storage Temperature   -40*C to 70*C, (-40*F to 158*F)
   * Humidity 0 to 90% noncondensing
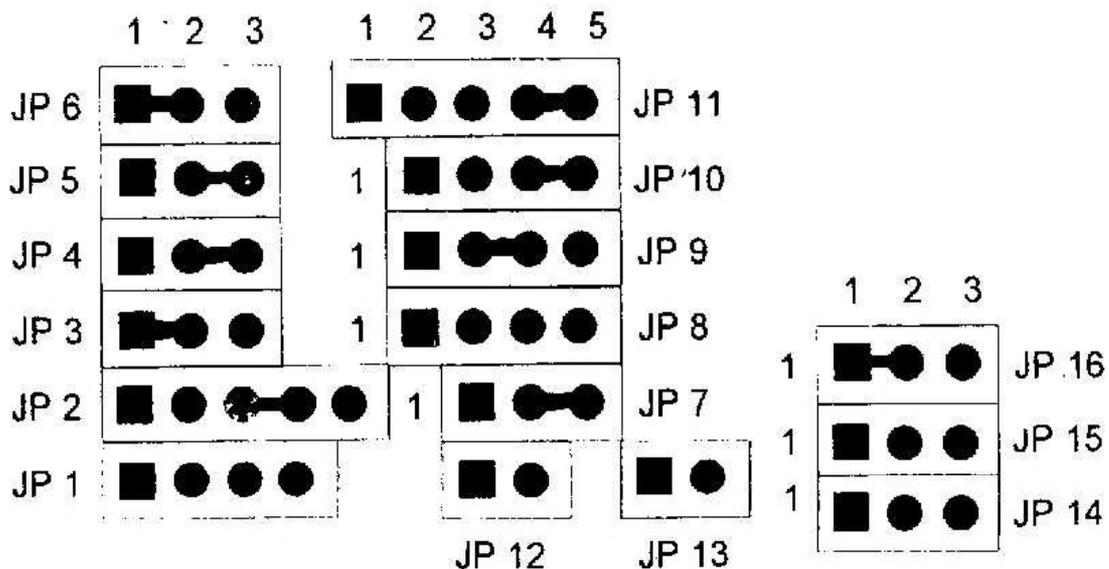   * Altitude   0 to 10,000. feet.

APPENDIX A.

CPU TYPE JUMPER SETTING

A. Intel CPU : 486DX, 486DX2, SL-enhanced 486DX, 486DX2, 486DX4.
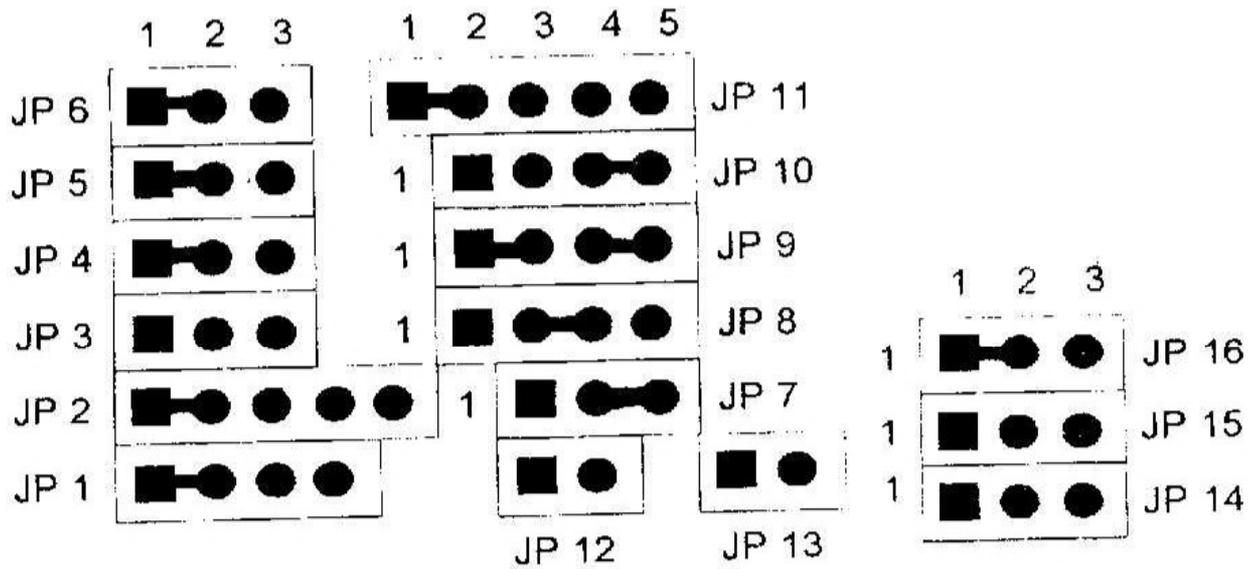

JP 15 for 486DX4 Clock Multiplier Selections only :
    Pin 1-2 short : 2.5 times the External Clock.
    2-3 short : 2 times the External Clock.
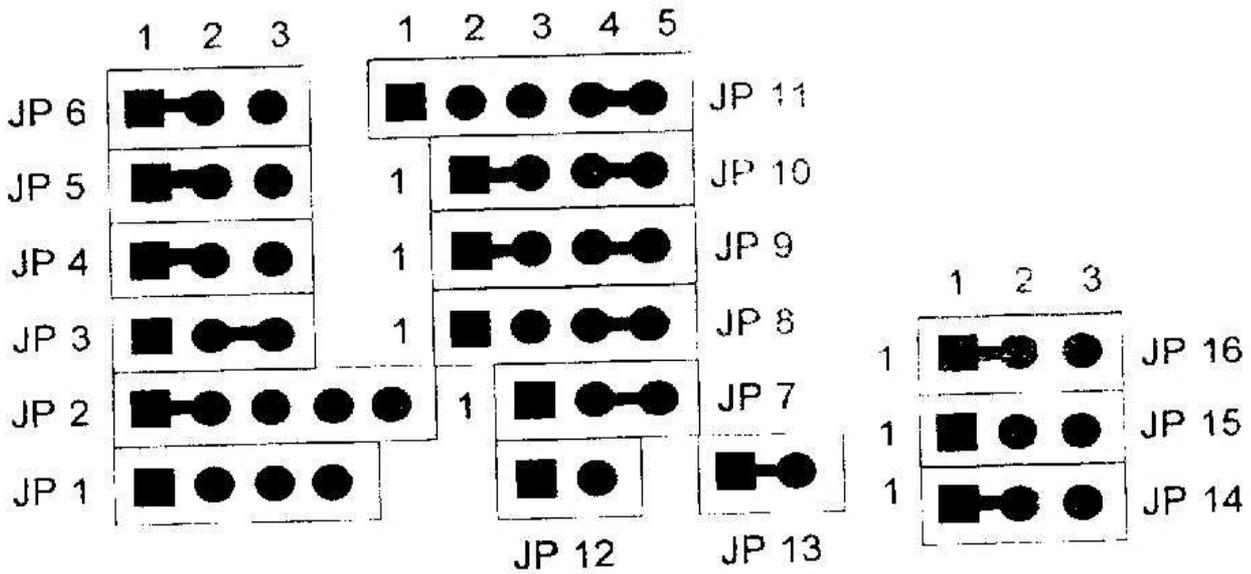   Open   : 3 times the External Clock.

B. Intel CPU : 486SX, SL-enhanced 486SX.

C. Intel CPU : P24T

	1	2	3			1	2	3	4	5	

JP 6 [1-2]• 3

JP 5 [1-2]• 3

JP 4 [1-2]• 3

JP 3 [1] • •

JP 2 [1-2]• • •

JP 1 [1-2]• • •

JP 11 [1-2]• • • •

1 JP 10 [1]• • [3-4]

1 JP 9 [1-2]• [3-4]

1 JP 8 [1]• • •

1 JP 7 [1]• [2-3]

JP 12 [1]•

JP 13 [1]•

	1	2	3	

1 JP 16 [1-2]• •

1 JP 15 [1] • •

1 JP 14 [1] • •

D. Intel CPU : P24D.

	1	2	3			1	2	3	4	5	

JP 6 [1-2]• 3

JP 5 [1-2]• 3

JP 4 [1-2]• 3

JP 3 [1] [2-3]•

JP 2 [1-2]• • •

JP 1 [1] • • •

JP 11 [1]• • [4-5]

1 JP 10 [1-2]• [3-4]

1 JP 9 [1-2]• [3-4]

1 JP 8 [1]• [3-4]

1 JP 7 [1]• [2-3]

JP 12 [1]•

JP 13 [1-2]

	1	2	3	

1 JP 16 [1-2]• •
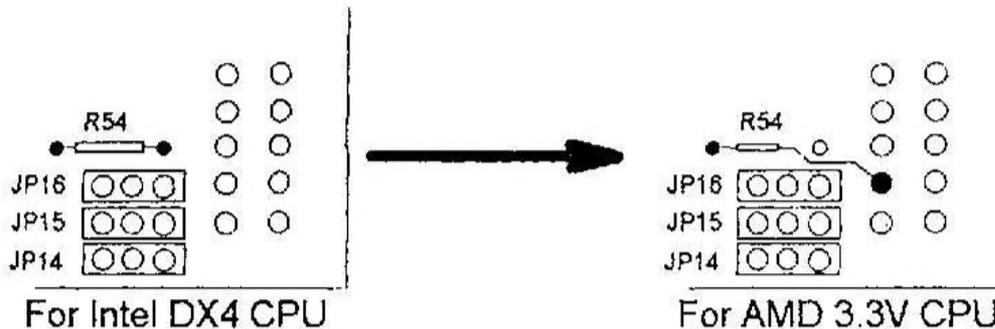
1 JP 15 [1] • •

1 JP 14 [1-2]• •

F . Support AMD DX2/DX4 3.3V CPU Notes:

A.   About the AMD DX2/DX4 3.3V CPU.
1.   For old version M/B (JP13 is a 2-pin Jumper).
(a) AMD DX2 CPU   : change R54(4.7k) to 0k, and make
connection similar to the diagram shown
below :

For Intel DX4 CPU   For AMD 3.3V CPU

and the rest of the CPU Jumper Setting
remaim the same as the Intel DX4 CPU
Jumper Setting.

(b) AMD DX4 CPU   : The Jumper Setting is the same as Intel DX4
CPU, except JP13 must be short.

2.   For new version M/B. (JP13 is a 3-pin Jumper)
(b) AMD DX2 CPU   : The Jumper Setting is the same as Intel DX4
CPU, except JP13 pin2-3 must be short.

(b) AMD DX4 CPU   : The Jumper Setting is the same as Intel DX4
CPU, except JP13 pin1-2 must be short.

notes   : Since AMD DX2/DX4 3.3V CPU, required 3.3volt , therefore Only
the M/B has Transistor Q5 & Q6 can be modified .

APPENDIX B:

AMI BIOS SETUP

The system board use the AMI latest version WinBios which provide the basic feature and most powerful Green PC function for integrate computer system.

By windows-driven, the AMI WinBIOS Setup can be accessed via Keyboard, Mouse or Pen.

The Mouse click function are:

- Single click to change or select both global and current field.
- Double click to preform the selected option.

The Keystroke commbinations are:

Keystroke Function:

〈Tab〉	Move to the next windows or field.
← ↑ → ↓	Move to the other field.
〈Enter〉	Select in the current field.
+	Increments a value.
—	Decrements a value.
〈Esc〉	Close the current operation and return to previous level.
〈PgUp〉	Retrun to the previous page.
〈PgDn〉	Advance to the next page.
〈Home〉	Return to the beginning of the text.
〈End〉	Advance the end of text.
〈Alt〉〈H〉	Access a help windows.
〈Alt〉space	Exit WinBIOS Setup.

There are four windows are prompted on the WinBIOS Setup screen----Setup; Utility; Security and Default.

1.2 Chipset Setup

The Chipset Setup option changes the value of chipset registers which control system option in the computer.

Please set "System Auto Configuration" to "Enable". If you are not familiar the Chipset spec.

1.3 Power Management (Green feature) Setup

Feature	Option	Description
Power Management	Disabled/Enabled	Disable or enable Power Management mode.
Doze Timer	Disabled 30 Sec. 1/5/10/30 Min. 1/2 hours	Select time-out period for CPU clock slow down to 8MHz and activate the Power Saving device JP60 going to low.
Standby Timer	Disable 30 Sec. 1/5/10/30 Min. 1/2 hours	Selection time-period for VGA display set to OFF
Suspend timer	Disable 30 Sec. 1/5/10/30 Min. 1/2 hours	Select time-out value for CPU clock go to 0 Hz and whole system in suspend mode. And power saving device JP61 will be action.
Display Off Timer	Disable Doze Standby Suspend	Set the display on various sleep mode.

1.4 Utility

Detect C:/D : For automatically detect the IDE and reported to the Hard Disk Driver C:/D screen in Standard Setup.

Color Set : Sets the WinBIOS setup screen with color.

1.5 Security

Password : To configure woth password, so that all users must enter a password every time the system boots or when WinBIOS setup is executed.

In case of forget the password please use jumper JP50 to clear the CMOS data and perform the BIOS setup again.

1.6 Default

Original : To return to the system configuration values present in WinBIOS setup.

Optimal : The optimal default setting are bast case values that should optimize system performance.

Fail Safe : Provide the most stable settings for system.

CAUTIONS:

The `ADVANCED CMOS SETUP″ and `CHIPSET SETUP″ require board knowledge on AT system architecture and SiS85C471 chipset specification. They are intended to be used by well-trained technicians and experienced users. Incorrect setup could cause system malfunction. In the event of problem, please use the following procedures to recover your system.

-- When system prompts `Hit Del, if you want to rin SETUP″
-- Press Del key and get into the SETUP utility.
-- Select `Default″ window and use `Optimal″ icon to load the default value for system.
-- Exit the setup and save changes.
-- The system will reboot successful again.
-- If not pease use jumper JP50 to clear the CMOS data and perform the BIOS setup again.