



# ***Terminator***



***SMT486/5x86***  
***PCI/ISA***  
***GREEN***  
***E.IDE+FDC+2S1P***

**User's manual**

Plug & Play  
***WIN'95*** COMPATIBLE

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# Chapter 1 NEW Terminator

## 1-1 Over view

The NEW Terminator M/B provides a highly integrated solution for fully compatible high performance PC/AT platforms.

The M/B supports 486 family & 486 S-serial /5x86 GREEN microprocessors in the most cost effective and power efficient designs.

## SYSTEM FEATURES

### 1. SUPPORTS CPU : 5V / 4V / 3.45V / 3.3V power supply

INTEL	486SX / DX / DX2 / DX4 ,P24D ,P24T
AMD	486DX / DX2 / DX4 & ENHANCED CPU /5x86
Cyrix	M6 / M7 / DX4 / 5x86
TI	486DX / DX2
IBM	486DX / DX2/5x86
SGS	486DX / DX2/5x86
UMC	U5SX / DX / DX2

### 2.Support 72pin simm\*3(4 bank SD / DD) up to 128MB (Standard or EDO DRAM)

### 3.Supports 1 bank W/B cache SRAM up to 512KB

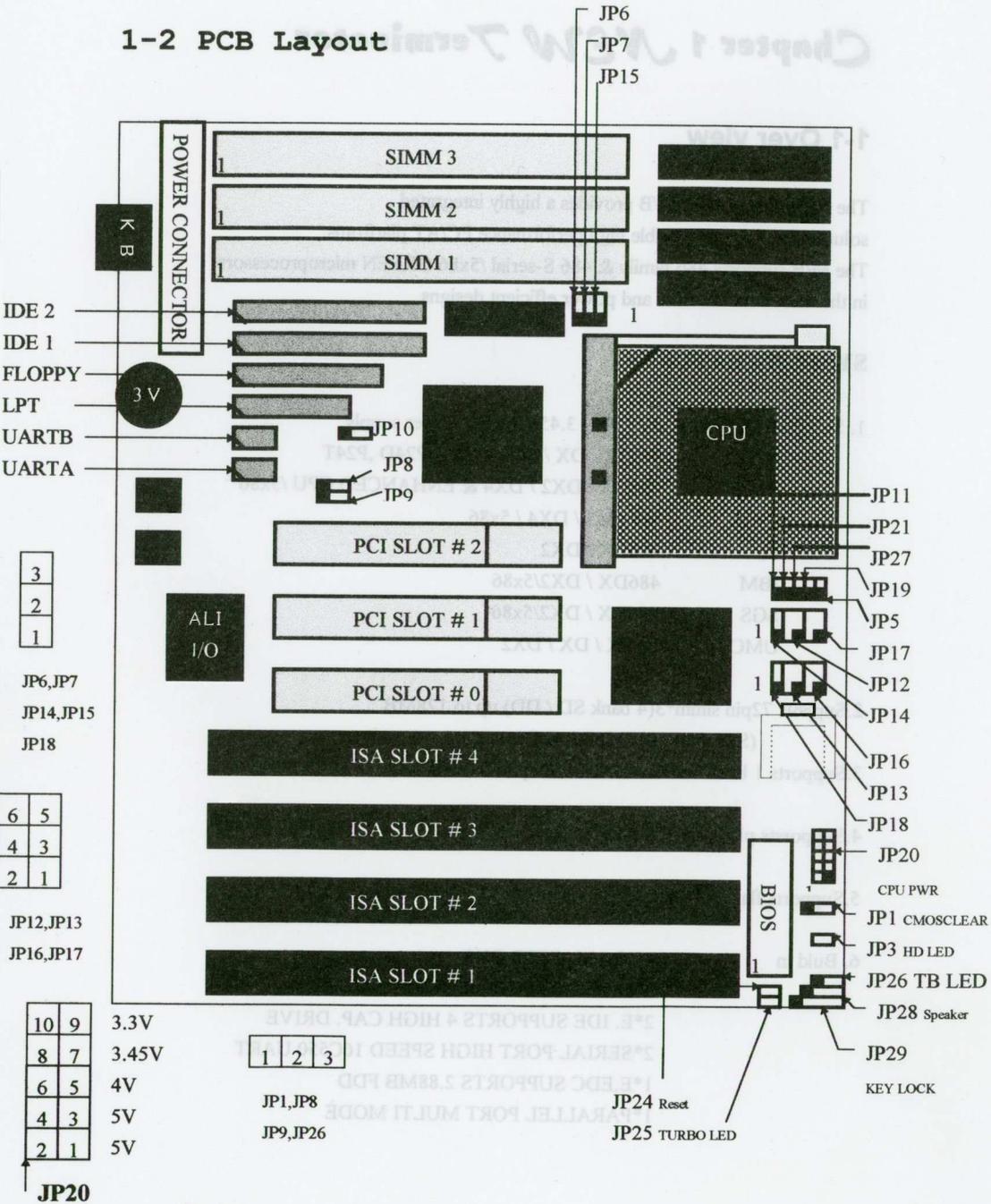
### 4.Supports plug and play interface card

### 5.Supports flash ROM

### 6. Buld in

- 4\*ISA MASTER BUS
- 3\*PCI V2.0 MASTER BUS
- 2\*E. IDE SUPPORTS 4 HIGH CAP. DRIVE
- 2\*SERIAL PORT HIGH SPEED 16C550 UART
- 1\*E.EDC SUPPORTS 2.88MB FDD
- 1\*PARALLEL PORT MULTI MODE

# 1-2 PCB Layout



# Chapter 2 Installation

## 2-1 SIMM MODULE INSTALLATION

The Terminator PCI system designed to use 72 pin SIMM module , supports 4 bank SD / DD module standard or EDO DRAM .

SIMM1	SIMM2	SIMM3	TOTAL
1MB	0	0	1 MB
1MB	1MB	0	2 MB
1MB	1MB	1MB	3 MB
4 MB	0	0	4 MB
4 MB	4 MB	0	8 MB
4 MB	4 MB	4 MB	12 MB
8 MB	0	0	8 MB
8 MB	8 MB	0	16 MB
8 MB	8 MB	8 MB	24 MB
16 MB	0 MB	0	16 MB
16 MB	16 MB	0	32 MB
16 MB	16 MB	16 MB	48 MB
32 MB	0	0	32 MB
32 MB	32 MB	0	64 MB
32 MB	32 MB	32 MB	96 MB
64 MB	0	0	64 MB
64 MB	64 MB	0	128 MB

## 2-2 SRAM INSTALLATION

This M / B can support cache memory form 128KB up to 512KB .

CACHE SIZE	TAG SRAM	DATA	JP 6	JP 7
128KB	8K/16K/32K*8	32K*8	2-3	2-3
256KB	16K/32K*8	64K*8	2-3	1-2
512KB	32K*8	128K*8	1-2	1-2

## 2-3 New Terminator

### CPU type jumper setting

Please check CPU type & power voltage & pin 1 location before install CPU to ZIF socket.

#### A.Voltage regulator JUMPER :

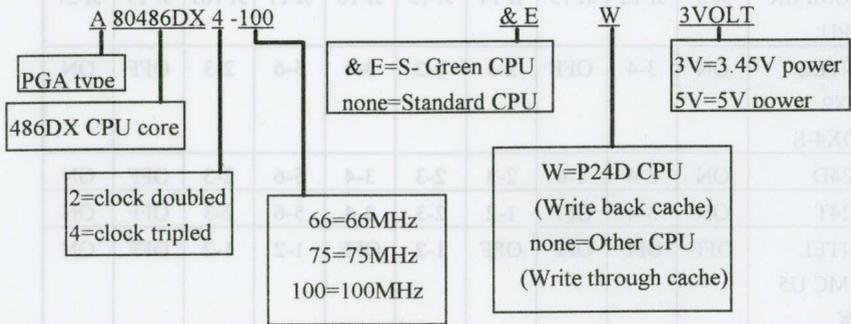
VOLTAGE	JP20	P.S.
5V	1-2,3-4	DX.DX2
4V	5-6	Cyrix DX2-80
3.45V	7-8	DX4(Default)5x86
3.3V	9-10	DX4

#### B. CPU speed selection : JP8, JP9, JP10,JP11

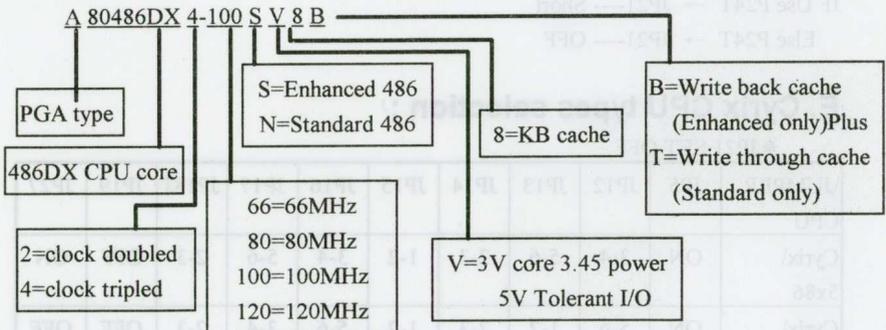
Mhz\JUMPER	JP8	JP9	JP10	JP11
25MHz/ DX2-50 DX4-75	OFF	OFF	1-2	OFF
33MHz/ DX2-66 DX4-100 5x86-133	ON	ON	1-2	OFF
40MHz/ DX2-80 DX4-120 5x86-120/160	ON	OFF	2-3	ON
50MHz/ 5x86-150	OFF	ON	2-3	ON

## C. CPU nomenclature

### 1. INTEL product



### 2. AMD product



### 3. Cyrix product

Cx486DX4-100P  
3.45V

Cx486DX4-100P  
DX4-100-P/O  
3.45V

STANDARD Cyrix DX4 CPU

OEM CPU JUMPER set  
at Cyrix 5x86 CPU

## D. Intel CPU types selection :

JUMPER	JP5	JP12	JP13	JP14	JP15	JP16	JP17	JP18J	JP19	JP27
INTEL CPU DX2 /DX4-S	ON	3-4	OFF	2-3	1-2	3-4	5-6	2-3	OFF	ON
P24D	ON	3-4	5-6	2-3	2-3	3-4	5-6	2-3	OFF	ON
P24T	ON	3-4	OFF	1-2	2-3	3-4	5-6	2-3	OFF	ON
INTEL UMC U5 SX	OFF	OFF	OFF	OFF	1-2	OFF	1-2	1-2	OFF	ON
INTEL UMC U5 DX/DX2	OFF	OFF	OFF	2-3	1-2	OFF	1-2	2-3	OFF	ON
INTEL SX-S	ON	3-4	OFF	OFF	1-2	3-4	5-6	1-2	OFF	ON

IF Use P24T → JP21---- Short

Else P24T → JP21---- OFF

## E. Cyrix CPU types selection :

\*JP21 SET OFF

JUMPER	JP5	JP12	JP13	JP14	JP15	JP16	JP17	JP18J	JP19	JP27
Cyrix\ 5x86	ON	3-4	5-6	2-3	1-2	3-4	5-6	2-3	OFF	ON
Cyrix\ T\IBM \SGS DX/DX2 /DX4	ON	5-6	1-2	2-3	1-2	5-6	3-4	2-3	OFF	OFF

## F. AMD CPU types selection :

\* JP21 SET OFF

JUMPER	JP5	JP12	JP13	JP14	JP15	JP16	JP17	JP18J	JP19	JP27
AMD (66/80) /100,120	OFF	OFF	OFF	2-3	1-2	OFF	1-2	2-3	ON/ OFF	ON
AMD (66/80) Enhanced	ON	3-4	1-3 5-6	2-3	2-3	3-4	5-6	2-3	OFF	ON
AMD (100/120) Enhanced	ON	3-4	5-6	2-3	2-3	3-4	5-6	2-3	OFF	ON

### 1. AMD 5x86-133/160 MHz please set:

\* JP21 SET OFF

JUMPER	JP5	JP12	JP13	JP14	JP15	JP16	JP17	JP18	JP19	JP27
133MHz/ 160MHz	ON	3-4	1-3 5-6	2-3	2-3	3-4	5-6	2-3	OFF	ON

### 2. AMD 5x86-150MHz please set :

\* JP21 SET OFF

JUMPER	JP5	JP12	JP13	JP14	JP15	JP16	JP17	JP18	JP19	JP27
150MHz	ON	3-4	5-6	2-3	2-3	3-4	5-6	2-3	OFF	ON

## G. ST CPU types selection :

\* JP21 SET OFF

JUMPER	JP5	JP12	JP13	JP14	JP15	JP16	JP17	JP18J	JP19	JP27
5x86/ DX2/DX4 Standard Pin out	ON	3-4	5-6	2-3	1-2	3-4	5-6	2-3	OFF	ON

**2-4 FUNCTION CONNECTOR :**

JP1 :	1-2.	NORMAL SETTING
	2-3	DISCHARGE RTC . LOSS CMOS RAM MEMORY .
JP3 :	ON BOARD E.IDE LED connector	
	1-->	-
	2-->	+
JP26 :	TURBO SWITCH	
JP25 :	TURBO LED	
	1-->	+
	2-->	-
JP24 :	RESET	
JP28 :	SPEAKER CONNECTOR	
	1----->	+5V DC
	2-4-->	DATA OUT
JP29 :	KEYLOCK	
	1-->	POWER LED +
	2-->	NOT USED
	3-->	POWER LED GND
	4-->	KEYBOARD INHIBITOR
	5-->	GND
PS1-2	POWER CONNECTOR	
	1----->	POWER GOOD
	2----->	+5V DC
	3----->	+12V DC
	4----->	-12V DC
	5,6,7,8----	GND
	9----->	-5V DC
	10,11,12-->	+5V DC
KB1 :	KEYBOARD CONNECTOR	
J1 :	E . IDE 0 CONNECTOR PRIMARY	
J6 :	E . IDE 1 CONNECTOR SECONDARY	
J2 :	FLOPPY CONNECTOR	
J3 :	PRINTER PORT CONNECTOR	
J4 :	SERIAL 1 CONNECTOR	
J5 :	SERIAL 2 CONNECTOR	

# Chapter 3 BIOS setup

## AWARD BIOS SETUP

This section explains how to setup system configuration (CMOS) under the AWARD BIOS . The setup program is stroed in the ROM BIOS on the motherboard rather than on a diskette to enter setup , press the <del> key when the system is booting up .

The following menu appears :

Please enter "Standard Cmos Setup" to enter the next screen .

ROM ISA/ISA BIOS	
----- CMOS SETUP UTILITY -----	
AWARD SOFTWARE, INC.	
STANDARD CMOS SETUP	SUPERVISOR PASSWORD
BIOS FEATURES SETUP	USER PASSWORD
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
POWER MANAGEMENT SETUP	HDD LOW LEVEL FORMAT
PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
Esc : Quit	↑ ↓ ← → :Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color
Time, Date, Hard Disk Type.....	

This screen displays all the major function of the BIOS setup . The selection is made by moving cursor (press any direction key) to the item and press 'Enter' key . An on line help message is displayed at the bottom of the screen as cursor is moving to various items which provides user better understanding of each function . When a selection is made , the menu of selected item will appear so the user can modify associated configuration parameters .

### 3-1 STANDARD CMOS SETUP

"STANDARD CMOS SETUP" included some basic system hardware configuration and sets the system clock and error handling. You can configure system setting such as current date and time, type of hard disk drive installed in the system, floppy drive type, and the type of display monitor. Memory size is auto detected by the BIOS and displayed for your reference. When a field is highlighted (direction keys to move cursor and <Enter> key to select), the entries in the field will be changed by pressing <PgDn> or <PgUp> keys or user can enter new data directly from keyboard.

#### ROM PCI/ISA BIOS

#### STANDARD CMOS SETUP

AWARD SOFTWARE, INC.

Date (mm:dd:yy) : Fri , Jul : 26 : 1996								
Time (hh:mm:ss) : 9 : 13 : 48								
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master	: Auto	0	0	0	0	0	0	Auto
Primary Slave	: None	0	0	0	0	0	0	----
Secondary Master	: None	0	0	0	0	0	0	----
Secondary Slave	: None	0	0	0	0	0	0	----
Drive A : 1.44MB, 3.5in					Base Memory : 640K			
Drive B : None					Extended Memory : 15360K			
Video : EGA/VGA					Other Memory : 384K			
Halt on : All Errors					Total Memory : 16384K			
Esc : Quit		↑ ↓ ← → : Select Item			PU/PD/+/- : Modify			
F1 : Help		(Shift) F2 : Change Color						

#### Hard Drive Type

When using the on board IDE port. Keep all harddisk type and mode by Auto, The IDE harddisk size and model will be auto-detect on display during POST. if you are installing SCSI Harddisk. Keep all Harddisk by "None". The SCSI card BIOS will detect the SCSI Harddisk model (Award BIOS already included NCR 810 BIOS) if you are using Tekram IDE caching series controllers. You just need to set the Primary Master in type "1". Tekram IDE caching controller will detect the harddisk mode.



**ROM PCI/ISA BIOS**  
**BIOS FEATURES SETUP**

AWARD SOFTWARE, INC.

Virus Warning	: Disable	Video BIOS Shadow	: Enable
CPU Internal Cache	: Enable	C8000-CFFFF Shadow	: Disable
External Cache	: Enable	D0000-D7FFF Shadow	: Disable
Quick Power On Self Test	: Disable	D8000-DFFFF Shadow	: Disable
Boot Sequence	: A , C		
Swap Floppy Drive	: Disable		
Boot Up Floppy Seek	: Enable		
Boot Up Numlock Status	: On		
Boot Up System Speed	: High		
Gate A20 Option	: Fast	Esc	: Quit
Memory Parity Check	: Enable	F1	: Help
Typematic Rate Setting	: Disable	F5	: Old Values
Typematic Rate (Chars/Sec)	: 6	F6	: Load Bios Defaults
Typematic Delay (Msec)	: 250	F7	: Load Setup Defaults
Security Option	: Setup	↑ ↓ ← →	: Select Item
PCI / VGA Palette Snoop	: Disabled	(Shift) F2	: Change Color
OS Select For DRAM>64MB	: Non-OS2	PU / PD / + / -	: Modify

**Boot Sequence**

Default value is A , C .

**A , C** : System will boot first of searching floppy drive A .

**C , A** : System will boot first of searching Harddisk drive C .

**Swap Floppy Drive**

Default value is disabled .

**Enabled** : Floppy Drive A & B will be swapped under DOS .

**Disabled** : Not swap the floppy drive .

**Boot Up Floppy Seek**

During POST, BIOS will determine if the floppy disk drive installed is 40 or 80 tracks . 360k type is 40 tracks and 720K, 1.2M, 1.44M, 2.88M are 80 tracks . Default value is enable .

**Enabled** : BIOS will searches for floppy disk drive .

**Disabled** : BIOS will not searches for floppy disk drive .

**Gate A20 Option**

The option use the fast gate A20 support by chipset to access any memory above 1MB . Normally all RAM access above is handled through the keyboard controller chip . Using this option will make the access faster than the normal method . This option is very useful in networking operating system .

Default value is Fast .

**Normal** : Keyboard .

**Fast** : Chipset .

**PCI / VGA Palette Snoop**

This field controls the ability of a primary PCI VGA controller to share a common palette (When a snoop write cycles) with an ISA video card . The default value is Disable .

**Enabled** : if an ISA (Video) card connects to a PCI VAG card via the VESA connector .

This ISA card will use RAMDAC of PCI VGA card .

**Disabled** : Disabled PCI / VGA Palette Snoop feature .

**OS select for DRAM > 64MB**

The default value is Non-OS2

**Non-OS2** : Show DRAM size over 64MB in Non-OS2 .

**OS2** : Show DRAM size over 64MB in OS2 .

Note : If you don't use the on board IDE connector, i.e. Terminate IDE cable controller. You should keep on board primary and secondary IDE in disabled. The onboard PCI IDE cable should be equal to less than 18 inches.

### 3-3 CHIPSET FEATURES SETUP

“CHIPSET FEATURES SETUP” option in the CMOS SETUP UTILITY menu allows user to change system related parameters in the displayed menu shows all of the manufacture’s default values . You can use direction key and <PgDn> <PgUp> key to modify the parameters . [F1] key for help .

**ROM PCI/ISA BIOS**  
 ----- **CMOS SETUP UTILITY** -----  
**AWARD SOFTWARE, INC.**

STANDARD CMOS SETUP	SUPERVISOR PASSWORD
BIOS FEATURES SETUP	USER PASSWORD
<b>CHIPSET FEATURES SETUP</b>	IDE HDD AUTO DETECTION
PCI CONFIGURATION SETUP	HDD LOW LEVEL FORMAT
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc :Quit	↑ ↓ ← → : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
AT clock , DRAM timing.....	

**Note** : if you don’t use the on board IDE connector, i. e. Tekram IDE cache controllers You should keep On board Primary and secondary IDE in disabled . The onboard PCI IDE cable should be equal to or less than **18 inches** .

## ROM PCI/ISA BIOS

### ----- CHIPSET FEATURES SETUP -----

#### AWARD SOFTWARE, INC.

Auto Configuration	: Enable	Onboard FDC Controller	: Enable
AT-BUS Clock	:7.19MHz	Onboard UART 1	: 3F8/IRQ 4
DRAM Reed Timing	:Slow	Onboard Serial Port 2	: 2F8/IRQ 3
DRAM Write Timing	:Fast	UART 2 operation mode	: Standard
SRAM Reed Timing	:3-2-2-2	Onboard Parallel Port	: 378/IRQ 7
SRAM Write Timing	:0 Wait	Parallel port Mode	: Normal
Hidden Refresh	: Disable		
ISA I/O Recover	: Disable		
Fast-Back-to-Back	: Disable		
On-Chip Local Bus IDE	: Enable	Esc	: Quit
IDE Buffer for DOS & WIN	: Enable	F1	: Help
The 2nd channel IDE	: Enable	F5	: Old Values
IDE HDD Block Mode	: Enable	F6	: Load Bios Defaults
IDE Primary Master PIO	: Auto	F7	: Load Setup Defaults
IDE Primary Slave PIO	: Auto	↑ ↓ ← →	: Select Itm
IDE Secondary Master PIO	: Auto	(Shift)F2	: Change Color
IDE Secondary Slave PIO	: Auto	PU/PD/+/-	: Modify

#### **AUTO Configuration**

The Default value is Enabled.

Enabled : AUTO Detection CPU Speed & Type. Get the  
DRAM, SRAM AT BUS CLOCK Timing.

Disabled : manual set the DRAM, SRAM AT BUS CLOCK  
Timing.

#### **IDE HDD Block Mode**

The Default value is Enabled.

Enable : Enabled this improve HDD data transfer rate.

Disabled : Normal setting.

#### **IDE Primary / Secondary Master / Slave PIO**

The Default value is AUTO.

AUTO : BIOS will detect the Onboard IDE HDD mode.

Mode-4 : Manually set IDE accessing mode.

#### On board Primary PCI IDE

The Default value is Enabled.

Enabled : Enabled on board 1st channel IDE port (IRQ 14).

Disabled : Disabled on board 1st channel IDE port (IRQ 14).

#### On board Secondary PCI IDE

The Default value is Enabled.

Enabled : Enabled on board 2st channel IDE port (IRQ 15).

Disabled : Disabled on board 2st channel IDE port (IRQ 15).

#### The 2nd Channel PCI IDE

The Default value is Enabled.

Enabled : Enabled secondary IDE port and BIOS will assign  
IRQ 15 for the port.

Disabled : Disabled secondary IDE port and IRQ 15 is  
available for other device.

#### On Board FDC

The Default value is Enabled.

Enabled : Enabled on board floppy port.

Disabled : Disabled on board floppy port, to use other on-card  
FDC.

#### On Board Serial Port 1

The Default value is COM 2

COM 1 : Enabled on board UART A and address is 3F8H.

COM 2 : Enabled on board UART A and address is 2F8H.

COM 3 : Enabled on board UART A and address is 3E8H.

COM 4 : Enabled on board UART A and address is 2E8H.

Disabled : Disabled on board UART A.

#### On Board Serial Port 2

The Default value is COM 2.

COM 1 : Enabled on board UART B and address is 3F8H.

COM 2 : Enabled on board UART B and address is 2F8H.

COM 3 : Enabled on board UART B and address is 3E8H.

COM 4 : Enabled on board UART B and address is 2E8H.

Disabled : Disabled on board UART B.

#### On Board Parallel Port

The Default value is 378H.

378H : Enabled on board parallel port and address is 378H.

278H : Enabled on board parallel port and address is 278H.

3BCH : Enabled on board parallel port and address is 3BCH.  
 Disabled : Disabled on board parallel port.

**Note :**

Parallel Port address 378H / 3BCH use IRQ 7 for LPT 1. Parallel Port address 278H use IRQ 5 for LPT 1.

**Parallel Port Mode**

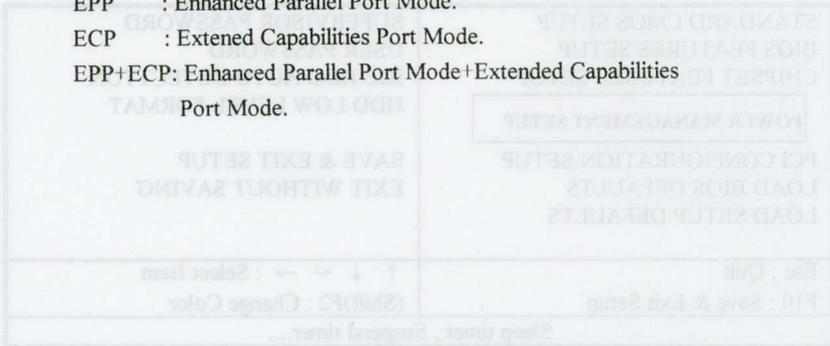
The Default value is ECP + EPP.

Normal : Standard mode.

EPP : Enhanced Parallel Port Mode.

ECP : Extended Capabilities Port Mode.

EPP+ECP: Enhanced Parallel Port Mode+Extended Capabilities Port Mode.



Power Management Modes  
 Disabled : The system operates in NORMAL condition (Non-Green). All power management features disabled.  
 Max. Saving : Maximizes power saving mode.  
 Min. Saving : Minimizes power saving mode.  
 Fast Define : Allow user to define function parameters to control power saving timing.

Timeout parameters  
 HDD Standby : HDD standby time can be from 1 to 15 minutes.  
 System D3+ : The "system D3+" mode timer starts to count when there is no "PM events" occurred. The valid timeout setting is from 1 minute to 1 hour.  
 System Standby : The "standby" mode timer starts to count when "System D3+" mode timer timed out and no "PM Events" occurred. Valid range is from 1 minute up to 1 hour.  
 System Suspend : This function works only when the function processor is installed. The timer starts to count when "system standby" mode timer timed out and no "PM events" occurred. Valid range is from 1 minute to 1 hour.

### 3-4 POWER MANAGEMENT SETUP

“POWER MANAGEMENT SETUP” option in the CMOS SETUP UTILITY menu allows user to change system related parameters in the displayed menu . This menu shows all of the manufacture’s default values . You can use direction key and <PgDn> <PgUp> key to modify the parameters . [F1] key for help .

----- ROM PCI/ISA BIOS -----  
 CMOS SETUP UTILITY -----  
 AWARD SOFTWARE, INC.

STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px 0;">POWER MANAGEMENT SETUP</div> PCI CONFIGURATION SETUP LOAD BIOS DEFAULTS LOAD SETUP DEFAULTS	SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTTON HDD LOW LEVEL FORMAT  SAVE & EXIT SETUP EXIT WITHOUT SAVING
Esc : Quit F10 : Save & Exit Setup	↑ ↓ ← → : Select Item (Shift)F2 : Change Color
Sleep timer , Suspend timer....	

**Power Management Mode**

- Disabled** : The system operates in NORMAL conditions (Non-Green), All power management features disabled
- Max. Saving** : Maximize power saving mode .
- Min. Saving** : Minimize power saving mode .
- User Define** : Allow user to define timeout parameters to control power saving timing .

**Timeout parameters**

- HDD Standby** : HDD standby timer can be from 1 to 15 minutes .
- System Doze** : The “system Doze” mode timer starts to count when where is no “PM events” occurred . The Valid timeout setting is from 1 minute to 1 hour .
- System Standby** : The “standby” mode timer starts to count when “ System Doze” mode timer timed out and no “PM Events” occurred . Valid range is from 1 minute up 1 hour .
- System Suspend** : This function works only when the Pentium processor is installed .The timer starts to count when “system standby” mode timer timed out and no “PM events” occured . Valid range is from 1 minute to 1 hour .

## ROM PCI/ISA BIOS

### ----- POWER MANAGEMENT SETUP -----

AWARD SOFTWARE, INC.

Power Management	: Disable	IRQ5(LPT2)	: ON
PM Control by APM	: Yes	IRQ6(Floppy Disk)	: ON
Video Off Option	: Susp, Stby->off	IRQ7(LPT1)	: ON
Video Off Method	: V/H SYNG+Blank	IRQ8(RTC Alarm)	: OFF
MODEN Use IRQ	: 3	IRQ9(IRQ2 Redir)	: ON
		IRQ10(Reserved)	: OFF
**PM Events **		IRQ11(Reserved)	: OFF
HDD Power Down	: Disable	IRQ12(PS/2 Mouse)	: ON
Doze Mode	: Disable	IRQ13(Coprocessor)	: OFF
Standby Mode	: Disable	IRQ14(Hard Disk)	: ON
Suspend Mode	: Disable	IRQ15(Reserved)	: OFF
		Esc	: Quit
** PM Timers **		F1	: Help
VGA	: OFF	F5	: Old Values
FDD (3FXb)	: ON	F6	: Load Bios Defaults
LPT & COM	: LPT/COM	F7	: Load Setup Defaults
HDD (1FXb)	: ON	↑ ↓ ← →	: Select Itm
NMI	: OFF	(Shift)F2	: Change Color
IRQ3 (COM2)	: ON	PU/PD/+/-	: Modify
IRQ4 (COM1)	: ON		

## Description of Green Functions

### HDD Standby mode

When system stop reading or writing HDD, the timer starts to count . The system will cut off the HDD power when timer ran out of time . The system will not resume option until either a read from or a write to HDD command is executed again .

### Doze Mode

The system hardware will drop down CPU clock from normal working speed when Doze mode timeout occurred .

### Standby Mode

When the system Suspend timer ran out , the system will enter the suspend mode and the chipset will drop CPU clock immediately . The power consumption in Suspend Mode is lower than in standby mode . The screen is also blanked out .

### 3-5 PCI CONFIGURATION SETUP

The PCI configuration program is for the user to modify the PCI IRQ signals when various PCI cards are interest in the PCI slots .

**Note :** Any misplacing IRQ could cause system hang up .

**ROM PCI/ISA BIOS**  
**----- CMOS SETUP UTILITY -----**  
**AWARD SOFTWARE, INC.**

STANDARD CMOS SETUP BIOS FEATURE SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px 0;">PCI CONFIGURATION SETUP</div> LOAD BIOS DEFAULTS LOAD SETUP DEFAULTS	SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION HDD LOW LEVEL FORMAT SAVE & EXIT SETUP EXIT WITHOUT SAVING
Esc : Quit F10 : Save & Setup	↑ ↓ ← → : Select Item (Shift)F2 : Change Color
IRQ Setting, Latency Timers.....	

**Pnp BIOS Auto-Config**

This field is used to choose about the BIOS to set up the Legacy . ISA cards(ISA card which do not have plug and play function), PCI cards and ISA Plug and Play cards without conflicting , The default Value is Enabled .

**Enabled :** The BIOS will depend upon information provided Plug and Play software (Configuration Manager and ISA Configuration Utility (ICU)) to ensure that there are no conflict with Legacy ISA cards . Note that run the ICU and provide the information of Legacy ISA cards . The ICU will update and save that information to the ESCD(Extend System Configuration Data). When your system is configured with ICU and they are used, then press the keyboard <CTRL> + <ALT> +<DEL> to performs a system software reset . Booting the computer and press <DEL> immediately to enter PCI configuration setup and set PnP BIOS Auto-Config : Enabled . The fields(1st, 2nd , 3rd, and 4th. Available IRQ : 10, 11, 9 and 5)Below no display in the PCI Configuration Setup . Option the "SAVE & Exit SETUP" bring to reboot .

**Disabled** : When Disabled . User should not use install and Plug and play software (Configuration Manager and ISA configurationUtility(ICU)) .But the BIOS will depend upon the fields (1st, 2nd, 3rd and 4th . Available IRQ : 10, 11, 9 and 5)Below selected by the user to prevent conflicts between legacy ISA cards and Plug and Play cards .

**When** you have true PCI card plugged into the system, you will not need to change anything here in the setup program . However, if you do not know whether you have true PCI card or not, Please refer to your PCI card user's manual for the details .

**When** You have a legacy card to be plugged into the system, a proper setting is extremely important or it may cause the system hang up .

### ROM PCI/ISA BIOS

#### ----- PCI CONFIGURATION SETUP -----

AWARD SOFTWARE, INC.

PnP BIOS Auto-Config	: Disable	CPU to PCI Write Buffer	: Enable
Slot 1 Using INT #	: Auto	CPU to PCI Byte Merge	: Enable
Slot 2 Using INT #	: Auto	PCI to DRAM Buffer	: Enable
Slot 3 Using INT #	: Auto		
1st Available IRQ	: 10		
2nd Available IRQ	: 11	Esc	: Quit
3rd Available IRQ	: 12	F1	: Help
4th Available IRQ	: 9	F5	: Old Values
PCI IRQ Activated By	: Level	F6	: Load Bios Defaults
PCI IDE 2nd Channel	: Enable	F7	: Load Setup Defaults
PCI IDE IRQ Map To	: PCI-AUTO	↑ ↓ ← →	: Select Itm
Primary IDE INT #	: A	(Shift)F2	: Change Color
Secondary IDE INT #	: B	PU/PD/+/-	: Modify

## 3-6 LOAD BIOS/SETUP DEFAULTS

“LOAD SETUP DEFAULTS” Loads the system defaults data directly from ROM and initialize associated hardware properly . This function will be necessary only when the system CMOS data is corrupted .

**ROM PCI/ISA BIOS**  
**----- CMOS SETUP UTILITY -----**  
**AWARD SOFTWARE, INC.**

STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP LOAD BISO DEFAULTS	SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION HDD LOW LEVEL FORMAT LOAD BIOS DEFAULTS ? Y
LOAD SETUP DEFAULTS	
Esc : Quit F10 : Save & Exit Setup	↑ ↓ ← → : Select Item (Shift)F2 : Change Color
Save Data to Cmos and Exit.....	

## 3-7 PASSWORD SETTING

To change password, choose the “PASSWORD SETTING” option from the **CMOS SETUP UTILITY** menu and press [ENTER]

**Note : Either “SETUP” or “System” must be selected in the “Security Option” of the BIOS FEATURE SETUP menu .**

1. If CMOS is corrupted or the option was not used, a default password stored in the ROM will be used . The Screen will display the following message :

**Enter Password**

Press the [Enter] key to continue after proper password is given .

2. If CMOS is corrupted or the option was used and user wish to change default password, The Screen will display the following message and ask for a confirmation :

**Confirm Password**

3. After pressing the [Enter] (ROM password if the option was used) or current password (user-defined password), the user can change the password and store new one in CMOS RAM . A maximum of 8 characters can be entered .

## 3-8 IDE HDD AUTO DETECTION

The "IDE HDD AUTO DETECTION" will auto-detect the HDD detail information . And when HDD size over 528MB the BIOS will auto-switch the HDD format with LBA or Large mode . The you can use over 528MB HDD under DOS .

### ROM PCI/ISA BIOS

### ----- CMOS SETUP UTILITY -----

### AWARD SOFTWARE, INC.

HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master	:							
Primary Slave	:							
Secondary Master	:							
Secondary Slave	:							

Select Secondary Slave Option(N=Skip) : N

OPTIONS	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
1(Y)	0	0	0	0	0	0	NORMAL

### Hard Drive Mode

The Award BIOS supports 3 HDD modes : NORMAL, LBA & LARGE .

### NORMAL MODE

Generic access mode in which neither the BIOS nor the IDE controller will make any transformations during accessing . The maximum number of cylinders, head & setors for NORMAL mode are 1024, 16 & 63 .

	no. Cylinder	(1024)
*	no. head	(16)
*	no. sector	(63)
*	no. per sector	(512)

528 Megabytes

If user set his HDD to NORMAL mode , the maxium accessible HDD size will be 528 Megabytes even though its physical size may be greater than that !

### LBA (Logical Block Addressing )MODE

A new HDD accessing method to overcome the 528 Megabyte bottleneck . The maximum number of cylinders will be still 1024 . But LBA will remap the head & sectors to a new combination .

So BIOS can control HDD over 528MB . The maximum HDD size support by LBA mode is 8.4 GB .

	no. Cylinder	(1024)
*	no. head	(255)
*	no. sector	(63)
*	no. per sector	(512)

8.4 Gigabytes

### LARGE MODE

A similar HDD track remap method as LBA mode . The maximum HDD size support by LBA mode is 1GB .

	no. Cylinder	(1024)
*	no. head	(32)
*	no. sector	(63)
*	no. per sector	(512)

1 Gigabytes

**Note : The LBA or LARGE mode is design for under DOS environment basically . Some other O. S. will don't need to format the HDD will LBA or LARGE mode . just keep it in NORMAL mode. For example UNIX or Novell will not need to use LBA or Large . DOS can only control = <2GB HDD size even its physical size may be bigger .**

### 3-9 SAVE & EXIT SETUP

The "SAVE & EXIT SETUP" option will bring you back to boot up procedure with all the changes you just made which are recorded in the CMOS RAM .

**ROM PCI/ISA BIOS**  
----- **CMOS SETUP UTILITY** -----  
**AWARD SOFTWARE, INC.**

STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PCI CONFIGURATION SETUP LOAD BIOS DEFAULTS LOAD SETUP DEFAULTS	SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION HDD LOW LEVEL FORMAT <input type="text" value="SAVE &amp; EXIT SETUP ?Y"/> EXIT WITHOUT SAVING
Esc : Quit F10 : Save & Exit Setup	↑ ↓ ← → : Select Item (Shift)F2 : Change Color
Save Data to Cmos and Exit.....	

### 3-10 EXIT WITHOUT SAVING

The "EXIT WITHOUT SAVING" option will bring you back to boot up procedure without any changes .

