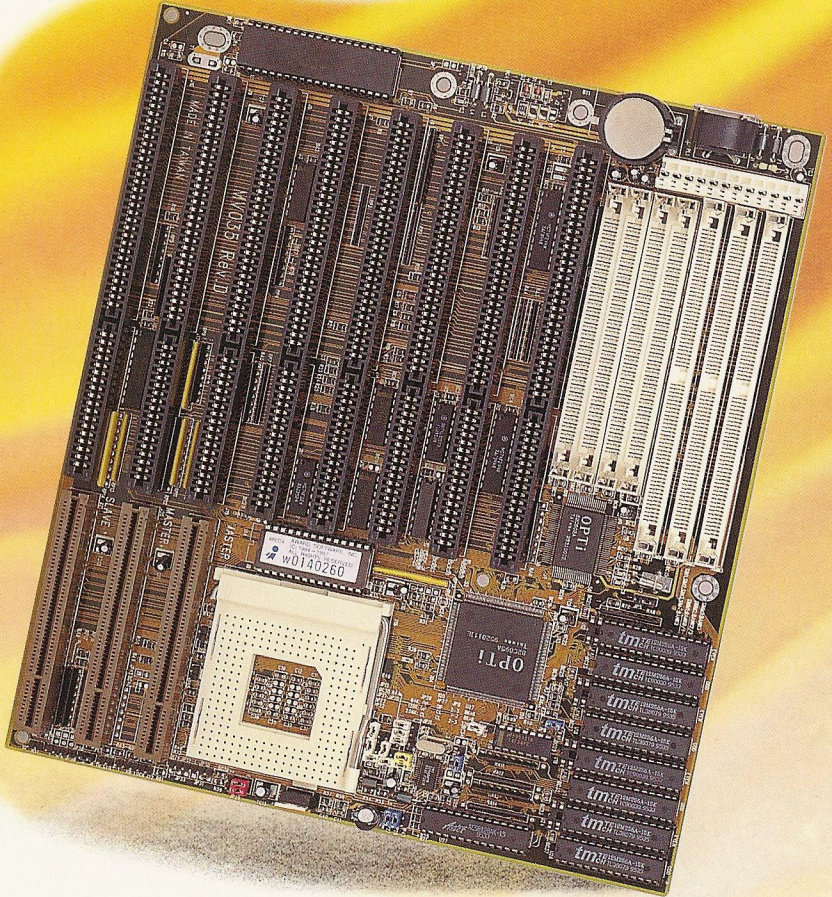
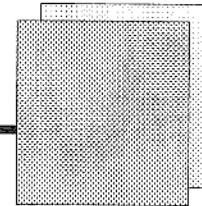


# GREEN FUNCTION VL-BUS SYSTEM BOARD

(MV 035)



USER'S MANUAL



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# MV035F

## Foreword

This manual is designed to provide the basic necessary information for the end user to understand and properly use the MV035 mainboard. The mainboard ensures superlative performance and complete compatibility with industry standards, which incorporating many technical enhancements.

## Trademarks

WTC is a registered trademark of Win Technologies Co., Ltd. All trademarks belong to their registered owner.

## Checklist

Your 486 VL3 Cache package contains the following:

- \* 486 VL3 Cache mainboard
- \* User's Manual.

## Precautions

Make sure you ground yourself before handling the mainboard or other system components. Electrostatic discharge will damage mainboard. Note that you must take special precaution when handling the mainboard in dry or air-conditioned environments.

The precaution below is to protect the mainboard from electrostatic discharge.

- \* Do not remove the anti-static packaging until you are ready to install the mainboard and other system components.
- \* Ground yourself before removing any system component from its protective anti-static packaging. To ground yourself, grasp the expansion slot covers or other unpainted portion computer chassis.
- \* Frequently ground yourself while working, or use a grounding strap.
- \* Handle the mainboard by the edges and avoid touching its components.

# 1

## Introduction

### MAINBOARD FEATURES

- \* OPTI Chipset 82C895A and 82C602
- \* Support 80486 INTEL/ AMD/ CYRIX( 3.45V / 5V ) Microprocessor.
- \* Memory up to 128MB
- \* Optional 64KB,128KB,256KB or 512KB external cache
- \* Eight 16bit slots with Three VESA slots 1 Slave /2 Master
- \* Dimension:22 x 25 cm with 4 Layers
- \* 1x clock source, supporting systems running from 25 to 50 Mhz
- \* Support System Memory Management ( SMM ) for Power Management
- \* Support Full SMI Interface
- \* Power Management port for specific control during all modes of operation

## System Board Setup

# 2

### JUMPERS AND CONNECTORS REFERENCE

Before installing the mother board, make sure the jumpers setting are set for your configuration. The Function of each jumpers are as follows:

CPU Type Selector.....	JP9,JP11,JP12,JP13,JP23,JP32
AMD None Enhance DX2-80/DX4-100.....	JP19
P24D Write Back/Write Through.....	JP19
SL-Enhanced CPU Selector.....	JP10,JP12,JP20,JP21
P24C Or AMD Enhance DX2-80/DX4-100.....	JP30
CPU Voltage Selector.....	JP29
Clock Generator Frequency Selector.....	JP17,JP18
CACHE Option.....	JP8,JP27,JP28,JP43,JP44
Charge/Discharge CMOS.....	JP2
CRT Power Down.....	JP39
Speaker Connector.....	JP38
Turbo Switch Connector.....	JP36
Turbo LED Connector.....	JP34
Reset Switch Connector.....	S1
External Battery Connector.....	J2
Memory Selector.....	JP5
Keyboard Connector.....	J1
Power Supply Connector.....	PL1
Keylock / Power LED Connector.....	J22

#### NOTE:

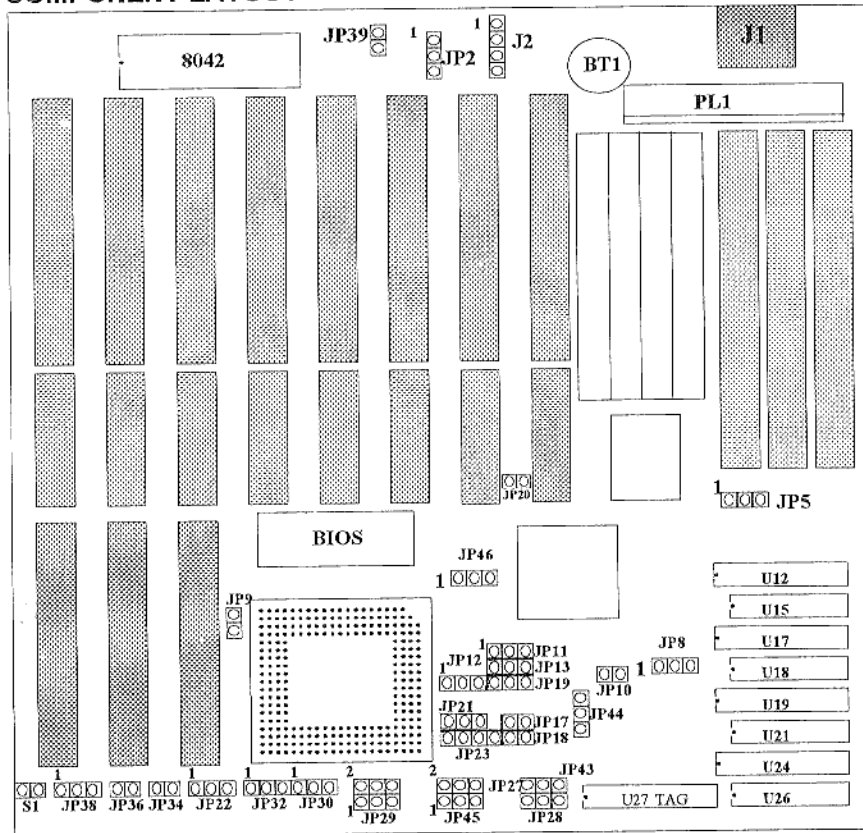
#### Jumper Cap

Red	Jumpers Represent	Voltage	Selector
White	Jumpers Represent	CPU	Type
Yellow	Jumpers Represent	Clock	Selector
Blue	Jumpers Represent	Cache	Option
Black	Jumpers Represent	Other	Option

# 2

## System Board Setup

### COMPONENT LAYOUT



## System Board Setup

# 2

### JUMPER SETTINGS

**NOTE:** Standard setting of production is AMD DX4-100 CPU (3.45VOLT)

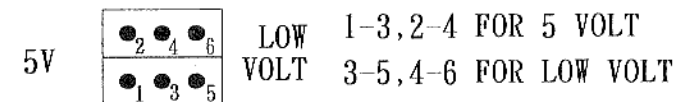
#### CPU Type Configuration

	INTEL/AMD 486DX	INTEL ENH-ANCE 486DX2	INTEL (P24C) (3 V)	INTEL P24T	INTEL P24D	AMD486 DX2-66 (3.45 V)	AMD486 DX4-100 (3.45 V)	AMD 486(3.45V) DX2-80 DX5-133	INTELANCE 486(3.45V) DX4-100 DX4-120	CYRIX DX2-66 DX4-100 DX2-80 (3.45 V)	CYRIX CX586 (3.45V)
JP9	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	CLOSE	CLOSE
JP10	OPEN	CLOSE	CLOSE	CLOSE	CLOSE	OPEN	OPEN	CLOSE	CLOSE	CLOSE	CLOSE
JP11	1-2	1-2	1-2	2-3	2-3	1-2	1-2	2-3	2-3	2-3	2-3
JP12	OPEN	1-2	1-2	1-2	1-2	OPEN	OPEN	1-2	1-2	2-3	2-3
JP13	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	OPEN	OPEN
JP19	OPEN	OPEN	OPEN	OPEN	1-2	2-3	1-2	1-2	1-2	OPEN	1-2
JP20	OPEN	CLOSE	CLOSE	CLOSE	CLOSE	OPEN	OPEN	CLOSE	CLOSE	CLOSE	CLOSE
JP21	OPEN	1-2	1-2	1-2	1-2	OPEN	OPEN	1-2	1-2	2-3	1-2
JP23	1-2,3-4	1-2,3-4	1-2,3-4	1-2,3-4	1-2,3-4	1-2,3-4	1-2,3-4	1-2,3-4	1-2,3-4	1-2,3-4	1-2,3-4
JP29	1-3,2-4	1-3,2-4	3-5,4-6	1-3,2-4	1-3,2-4	3-5,4-6	3-5,4-6	3-5,4-6	3-5,4-6	3-5,4-6	3-5,4-6
JP30	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	1-2	OPEN	OPEN	OPEN
JP32	OPEN	OPEN	OPEN	2-3	2-3	OPEN	OPEN	2-3	2-3	1-2	2-3
JP45	OPEN	OPEN	1-2	OPEN	OPEN	3-4	3-4	3-4	3-4	3-4	3-4
JP46	OPEN	1-2	1-2	1-2	1-2	OPEN	OPEN	1-2	1-2	2-3	2-3

**NOTE:** Intel DX4-100 Green Function must used 50 Mhz x 2 setting.

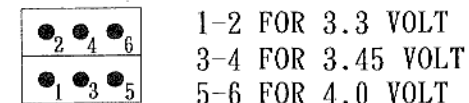
**NOTE:** JP29 is for CPU Voltage Selector (Red Jumper Cap)

#### JP29



**NOTE:** JP45 is for LOW VOLT Selector

#### JP45



# 2

## System Board Setup

### CPU Clock Frequency (Yellow Jumper Cap)

	25 Mhz	33 Mhz	40 Mhz	50 Mhz
JP17	OPEN	CLOSE	CLOSE	OPEN
JP18	OPEN	CLOSE	OPEN	CLOSE

### CACHE Memory Configuration (Blue Jumper Cap)

	64KB	128KB	256KB	256KB	256KB	512KB
JP8	2-3	1-2	2-3	2-3	1-2	1-2
JP27	OPEN	CLOSE	CLOSE	CLOSE	CLOSE	CLOSE
JP28	OPEN	OPEN	CLOSE	CLOSE	CLOSE	CLOSE
JP43	OPEN	OPEN	OPEN	OPEN	CLOSE	CLOSE
JP44	1-2	1-2	2-3	1-2	2-3	1-2
TYPE	8K*8	32K*8	32K*8	32K*8	64K*8	128K*8
TAG	8K*8	8K*8	16K*8	32K*8	16K*8	32K*8
BANK	2 BANKS	1 BANK	2 BANKS	2 BANKS	1 BANK	1 BANK

NOTE:

BANK 0: U12, U17, U19, U24 TAG : U27

BANK 1: U15, U18, U21, U26

### Others (Black Jumper Cap)

Jumper	Setting	Function
JP2	1-2	Discharge CMOS (NOTE: ALL DATA IN THE CMOS WILL BE EERASE.)
	2-3	Charge CMOS
JP5	1-2	72pin Simm Module As Bank0
	2-3	30pin Simm Module As Bank0
JP30	OPEN	3xclk FOR INTEL P24X AND ENHANCE AMD CPU
	1-2	2xclk FOR INTEL P24c AND AMD ENHANCE CPU
JP36	OPEN	Normal Speed
	CLOSE	Turbo Speed
JP39		CRT Power Down
J1		Keyboard Connector
J2		External Battery Connector (Pin 1 For + Pin 4 For -)
PL1		Power Supply Connector
JP46		(1-2) INTEL/AMD SMI . (2-3) CYRIX SMI .

## System Board Setup

# 2

### MEMORY CONFIGURATION

The system board Memory can be expanded from 2MB to 128MB. Memory can be installed by using 256K, 512K, 1M, 2M, 4M, 8M and 16M\* 32/36 BITS SIMM RAM Module.

MEMORY SIZE	30 PIN SIMM 0	72 PIN SIMM 1	72 PIN SIMM 2	72 PIN SIMM 3
2M	256K*9	256K*36	-----	-----
	-----	512K*36	-----	-----
4M	1M*9	-----	-----	-----
	-----	1M*36	-----	-----
8M	1M*9	1M*36	-----	-----
	-----	2M*36	-----	-----
16M	4M*9	-----	-----	-----
	-----	4M*36	-----	-----
	1M*9	1M*36	1M*36	1M*36
	-----	2M*36	2M*36	-----
32M	4M*9	4M*36	-----	-----
	-----	4M*36	4M*36	-----
64M	-----	16M*36	-----	-----
	4M*9	4M*36	4M*36	4M*36
128M	-----	16M*36	16M*36	-----
	-----	-----	-----	-----

NOTE: SIMM1 and SIMM2 is used for DOUBLE SIDED SIMM Module. Set JP5 1-2

Before running the main-board with the software program run BIOS SETUP-"LOAD SETUP DEFAULT",setup default is the best setup configuration for the main-board.

ROM PCI/ISA BIOS (2C4UKW01)  
CMOS SETUP UTILITY  
AWARD SIFTWARE, INC.

STANDARD CMOS SETUP	PASSWORD SETTING
BIOS FEATURES SETUP	IDE HDD AUTO DETECTION
CHIPSET FEATURES SETUP	HDD LOW LEVEL FORMAT
POWER MANAGEMENT SETUP	SAVE &EXIT SETUP
PCI CONFIGURATION SETUP	EXIT WITHOUT SAVING
LOAD BIOS DEFAULTS	
LOAD SETUP DEFAULTS	
ESC:QUIT	↑ ↓ → ← :Select Item
F10:Save&Exit Setup	(Shift) F2:Change Color
Time,Date,Hard Disk Type.....	

ROM ISA BIOS (2C4UKW01)  
STANDARD CMOS SETUP  
AWARD SOFTWARE, INC.

Date (mm:dd:yy) : Thu, Apr 28 1994					
Time (hh:mm:ss) : 17 : 16 : 33					
	CYLS	HEADS	PERCOMP	LANDZONE	SECTORS
Drive C : User (249Mb)	1001	15	65535	1000	34
Drive D : None ( 0Mb)	0	0	0	0	0
Drive A : 1.2M, 5.25 in.					
Drive B : 1.44M, 3.5 in.					
Video : EGA/VGA					
Halt On : All Errors					
	Base Memory:		640K		
	Extended Memory:		64512K		
	Other Memory:		384K		
	Total Memory:		65536K		
ESC: Quit	↑ ↓ → ← : Select Item		PU/PD/+/- : Modify		
F1: Help	(Shift) F2: Change Color				

The following pages tell you the options of each item & describe the meanings of each option.

## Date

The date format is <day>,<date><month><year>. Press <F3> to show the calendar.

day	The day, from Sun to Set, determined by the BIOS and is display-only
date	The date, from 1 to 31 (or the maximum allowed in the month)
month	The month, Jan through Dec
year	The year, from 1900 through 2099

## Time

The time format is <hour><minute><second>. The time is calculated base on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

## Drive C type/Drive type

The category identify the types of hard disk drive C or drive D that has been installed in the computer. There are 46 predefined types and a user definable type. Type 1 to Type 46 are predefined. Type User is user-definable.

Press PgUp or PgDn to select a numbered hard disk type or type the number and press <Enter>. Note that the specifications of your drive must match with the drive table. The hard disk willnot work properly if you enter improper information for this category. 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. Enter the information directly from the keyboard and press <Enter>. Those information should be provided in the documentation from your hard disk vendor or the system manufacturer.

CYLS.	number of cylinders
HEADS	number of heads
PRECOMP	write precom
LANDZONE	landing zone
SECTORS	number of sectors

If a hard disk has not been installed select NONE and press <Enter>.

## Drive A type/Drive B type

The category identify the types of floppy disk drive A or drive B that has been installed in the computer.

None	No floppy drive installed
360K, 5.25in	5-1/4 inch PC-type standard drive; 360 bilobyte capacity
1.2M, 5.25in	5-1/4 inch AT-type high-density drive; 1.2 megabyte capacity
720K, 3.5in	3-1/2 inch double-sided drive; 720 kilobyte capacity
1.44M, 3.5in	3-1/2 inch double-sided drive; 1.44 megabyte capacity
2.88M, 3.5in	3-1/2 inch double-sided drive; 2.88 megabyte capacity

## Video

The category selects the type of adapter used for the primary system monitor that must matches your video display card and monitor. Although secondary monitors are supported, you do not have to select the type in Setup.

EGA/VGA	Enhanced Graphics Adapter/Video Graphics Array. For Ega, VGA, SEGA, or PGA monitor adapters.
CGA 40	Color Graphics Adapter, power up in 40 column mode
CGA 80	Color Graphics Adapter, power up in 80 column mode
MONO	Monochrome adapter, includes high resolution monochrome adapters



## Error halt

The category determines whether the computer will stop if an error is detected during power up.

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

## Memory

The category is display-only which is determined by POST (Power On Self Test) of the BIOS.

### Base Memory

The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system. The value of the base memory is typically 512K for systems with 512K memory installed on the motherboard, or 640K for systems with 640K or more memory installed on the motherboard.

### Extended Memory

The BIOS determines how much extended memory is present during the POST. This is the amount of memory located above 1MB in the CPU's memory address map.

## Expanded Memory

Expanded Memory is memory defined by the Lotus/Intel/Microsoft (LIM) standard as EMS. Many standard DOS applications can not utilize memory above 640K, the Expanded Memory Specification (EMS) swaps memory which not utilized by DOS with a section, or frame, so these applications can access all of the system memory. Memory can be swapped by EMS is usually 64K with 1MB or memory above 1MB, depends on the chipset design.

Expanded memory device driver is required to use memory as Expanded Memory.

## Other Memory

This refers to the memory located in the 640K to 1024K address space. This is memory that can be used for different applications. DOS uses this area to load device drivers to keep as much base memory free for application programs. Most use for this are is Shadow RAM.

ROM ISA BIOS (2C4UKW01)  
 BIOS FEATURES SETUP  
 AWARD SOFTWARE, INC.

Virus Warning	: Enabled	System BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	Video BIOS Shadow	: Enabled
External Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
Quick Power On Self Test	: Disabled	CC000-CFFFF Shadow	: Disabled
Boot Sequence	: C, A	D0000-D3FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D4000-D7FFF Shadow	: Disabled
Boot Up Floppy Seek	: Enabled	D8000-DBFFF Shadow	: Disabled
Boot Up NumLock Status	: On	DC000-DFFFF Shadow	: Disabled
Boot Up System Speed	: High	E0000-E3FFF Shadow	: Disabled
IDE HDD Block Mode	: Disabled	E4000-E7FFF Shadow	: Disabled
Gate A20 Option	: Fast	E8000-EBFFF Shadow	: Disabled
Memory Parity Check	: Enabled	EC000-EFFFF Shadow	: Disabled
Typematic Rate Setting	: Disabled		
Typematic Rate (Chars/Sec)	: 6		
Delay (Msec)	: 250	ESC: Quit	↑↓←→: Select Item
Security Option	: Setup	F1: Help	PU/PD/+/-: Modify
		F5: Old Values (Shift)	F2: Color
		F6: Load BIOS Defaults	
		F7: Load Setup Defaults	

The following pages tell you the options of each item & describe the meanings of each options.

## Virus Warning

This category flashes on the screen. During and after the system boots up, any attempt to write to the boot sector or partition table of the hard disk drive will halt the system and the following error message will appear, in the mean time, you run can anti-virus program to locate the problem.

! Warning !  
 Disk boot sector is to be modified  
 Type "Y" to accept write or "N" to abort write  
 Award Software, Inc.

Enabled	Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.
Disable	No warning message to appear when anything attempts to access the boot sector or hard disk partition table.

## CPU Internal Cache/External Cache

These two categories speed up memory access. However, it depends on CPU/chipset design. The default value is disable.

Enabled	Enable cache
Disabled	Disable cache

## Quick Power On Self Test

This category speeds up Power On Self Test (POST) after you power on the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

# 3

## Award BIOS Setup

Enabled	Enable quick POST
Disabled	Disable POST

### Boot Sequence

This category determines which drive computer searches first for the disk operating system (i.e., DOS). Default value is A,C.

C,A	System will first search for hard disk drive then floppy disk drive.
A,C	System will first search for floppy disk drive then hard disk 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 while 760K, 1.2M and 1.44M are all 80 tracks.

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720K, 1.2M or 1.44M drive type as they are all 80 tracks.
Disable	BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360K.

### Boot Up NumLock Status

The default value is on.

On	Keypad is number keys
Off	Keypad is arrow keys

## Award BIOS Setup

# 3

### Boot Up System Speed

It selects the default system speed - the speed that the system will run at immediately after power on.

High	Set the speed to high
Low	Set the speed to low

### IDE HDD Block Mode

Enable	Enable IDE HDD Block Mode
Disable	Disable IDE HDD Block Mode

### Gate A20 Option

Normal	Keyboard
Fast	chipset

### Memory Parity Check

Enabled	Normal memory parity check
Disabled	Ignore memory parity check

### Typematic Rate Setting

This determines the typematic rate.

Enabled	Enable typematic rate
Disabled	Disable typematic rate

# 3

## Award BIOS Setup

### Typematic Rate (Chars/Sec)

6	6 characters per second
8	8 characters per second
10	10 characters per second
12	12 characters per second
15	15 characters per second
20	20 characters per second
24	24 characters per second
30	30 characters per second

### Typematic Delay (Msec)

When hold a key, the time between the first and second character displayed.

250	250 msec
500	500 msec
750	750 msec
1000	1000 msec

### Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

System	The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt.
Setup	The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt.

## Award BIOS Setup

# 3

Note: To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.

### System BIOS Shadow

It determines whether system BIOS will be copied to RAM, however, it is optional from chipset design. System Shadow will improve the system performance.

Enabled	System shadow is enabled
Disabled	System shadow is disabled

### Video BIOS Shadow

It determines whether video BIOS will be copied to RAM, however, it is optional from chipset design. Video Shadow will increase the speed.

Enabled	Video shadow is enabled
Disabled	Video shadow is disabled

### C8000-CBFFF Shadow/EC000-EFFF Shadow

These categories determine whether optional ROM will be copied to RAM by 16K byte.

Enabled	Optional shadow is enabled
Disabled	Optional shadow is disabled

ROM ISA BIOS (2C4UKW01)  
CHIPSET FEATUERS SETUP  
AWARD SOFTWARE, INC.

Auto Configuration	: Enabled	ESC: Quit    ↑↓←→: Select Item F1: Help     PU/PD/+/-: Modify F5: Old Values (Shift)F2: Color F6: Load BIOS Defaults F7: Load Setup Defaults
AT Clock Option	: SYNC	
Synchronous AT Clock	: CLK/6	
DRAM Read Wait State	: 5-4-4-4	
DRAM Write Wait State	: 1 WS	
Cache Read Burst	: 3-2-2-2	
Cache Write Wait State	: 1 WS	
Hidden Refresh Option	: Enabled	
Slow Refresh Enable	: Disabled	
Single ALE Enable	: Disabled	
Extra AT Cycle WS	: Disabled	
Fast AT Cycle	: Disabled	
Back To Back I/O Delay	: Disabled	
Master Mode Byte Swap	: Disabled	
System BIOS Cacheable	: Disabled	
Video BIOS Cacheable	: Disabled	

The following pages tell you the options of each item & describe the meanings of each options.

Item	Options	Descriptions
A. Auto Configuration	1. Enable	Pre-defined values for DRAM, cache.. timings according to CPU type & system clock.
	2. Disable	Users can configure their own timings.  Note: When this item is enabled, the pre-defined items will become SHOW-ONLY
B. AT Clock Option	Async Sync	Define the AT BUS Clock source  Note: Async is OSC/2 (14.318) Sync is CLK 1x input
C. Synchronous AT Clock (8) Remark 1	CLK /6 CLK /5 CLK /4 CLK /3	Define the Sync Clock value  Usually, AT bus clock should be programmed to 8 MHz, e.g. When system clock is 33MHz, choose 1/4 CLKIN
D. DRAM Read Wait State (*) Remark 1	3-2-2-2 4-3-3-3 5-4-4-4	Defines the wait states to be added during DRAM read cycle
E. DRAM Write Wait State (*) Remark 1	0 WS 1 WS	Defines the wait states to be added during DRAM write cycle.  Choose 1 WS for faster system or slower DRAM

# 3

## Award BIOS Setup

Item	Options	Descriptions
F. Cache Read Burst (* Remark 1)	2-1-1-1 3-1-1-1 2-2-2-2 3-2-2-2	Defines cache timing (Burst WS & Lead-off) for Cache read cycle.
G. Cache Write Wait State (* Remark 1)	1 WS 0 WS	Defines the number of wait state to be used for CACHE write cycle.
H. Hidden Refresh Option	Disable Enable	To enable/disable the Hidden Refresh capability of the chipset  When enable, no HOLD cycle will be asserted to CPU, so that the system will have a better performance.
I. Slow Refresh Enable	Disable Enable	System will refresh the DRAM periodically to prevent data lost.  To enable Slow Refresh means the period between 2 refresh cycle is longer.  Note: Do not enable this item unless your memory support slow refresh.
J. Single ALE Enable	Disable Enable	To define single ALE instead of multiple ALEs during bus conversion cycle if this item is enabled
K. Extra AT Cycle WS	Disable Enable	To Enable/Disable insert one extra wait state in standard AT bus cycle.

## Award BIOS Setup

# 3

Item	Options	Descriptions
L. Fast AT Cycle	Disable Enable	To Enable/Disable AT bus fast cycle.  When enable, the AT bus cycle is shorter than standard AT bus cycle.
M. Back To Back I/O Delay	Disable Enable	No back to back I/O delay  3 BLK back to back I/O delay
N. Master Mode Byte Swap	Disable Enable	To Enable/Disable byte swapping for AT bus master.
O. System BIOS Cacheable	Disable Enable	Defines whether or not the System BIOS area to be cached by the on board cache RAM.
P. Video BIOS Cacheable	Disable Enable	Defines whether or not the Video BIOS area to be cached by the on board cache RAM.

Remark 1 : All items mark with (\*) in this menu, will be loaded with predefined values according to CPU type & speed as long as the item 'Auto Configuration' is set to 'Enabled'.

# 3

## Award BIOS Setup

ROM ISA BIOS (2C4UKW01)  
POWER MANAGEMENT SETUP  
AWARD SOFTWARE, INC.

PM Mode	: SMI Green	CRT Power Down	: Disable
Power Management	: Max Saving	LDEV Detection	: Disable
Doze timer	: 15 Sec	LREQ Detection	: Disabled
Sleep Timer	: 15 Sec	Video Detection	: Disable
HDD Standby Timer	: 1 Min	HDD Detection	: Enable
Sleep Clock	: Stop Clock	FDD Detection	: Enable
CRT Sleep	: Enable	DRQ0 Detection	: Enable
PM Wait for APM	: Enable	DRQ1 Detection	: Enable
IRQ3 Detection	: Enable	DRQ2 Detection	: Enable
IRQ4 Detection	: Enable	DRQ3 Detection	: Enable
IRQ5 Detection	: Enable	DRQ5 Detection	: Enable
IRQ6 Detection	: Enable	DRQ6 Detection	: Enable
IRQ7 Detection	: Enable	DRQ7 Detection	: Enable
IRQ8 Detection	: Disable		
IRQ9 Detection	: Enable		
IRQ10 Detection	: Enable		
IRQ11 Detection	: Enable	ESC: Quit	↑↓←→: Select Item
IRQ12 Detection	: Enable	F1: Help	PU/PD/+/-: Modify
IRQ14 Detection	: Disable	F5: Old Values (Shift)	F2: Color
IRQ15 Detection	: Enable	F6: Load BIOS Defaults	
		F7: Load Setup Defaults	

The following pages tell you the options of each item & describe the meanings of each options.

## Award BIOS Setup

# 3

Item	Options	Descriptions
A. PM Mode	SMI Green	Pre-defined only for the Intel S-Serial CPU, that all of Power-Management interrupt is using SMI.
	Auto Green	Pre-defined only for the other CPU (AMD, Cyrix...)
		Note: This item is Show-Only, depend on whether the CPU is Intel S-Serial or not.
B. Power Management	Disable	Global Power Management will be disabled
	User Define	Users can configure their own power management
	Min Saving	Pre-defined timer values are used such that all timers are in their MAX value.
	Max Saving	Pre-defined timer values are used such that all timers are in their MIN value.

Item	Options	Descriptions
C. Doze timer (* Remark 1)	15 Sec 2 Min 5 Min 15 Min 30 Min 45 Min 60 Min 240 Min	Defines the continuous idle time before the system entering DOZE mode.  If any item defined in (I) is enabled & active DOZE timer will be reloaded
	Disable	System will never enter DOZE mode.
		Note: This mode is only for Intel S-Serial, the CPU clock will down to 8 MHz in DOZE mode.
D. Sleep timer (* Remark 1)	15 Sec 2 Min 5 Min 15 Min 30 Min 45 Min 60 Min 240 Min	Defines the continuous idle time before then system entering SLEEP mode.  If any item defined in (I) is enabled & active SLEEP timer will be reloaded.
	Disable	System will never enter SLEEP mode.

Item	Options	Descriptions
E. HDD Standby Timer (* Remark 1)	Disable	HDD's motor will not off
	1 Min 2 Min 3 Min 4 Min 5 Min 6 Min 7 Min 8 Min 9 Min 10 Min 11 Min 12 Min 13 Min 14 Min 15 Min	Defines the continuous HDD idle time before the HDD entering power saving mode (motor off)
		Note: When HDD is in power saving mode, any access to the HDD will wake the HDD up
F. Sleep Clock	Stop	To define the CPU stop in sleep mode
	Slow	To define the CPU slow-down (8MHz) in sleep mode
		Note: This item is only for Intel S-Serial, the BIOS will automatically detect CPU and disable this item if the CPU is not Intel S-Serial.
G. CRT Sleep	Disable	To define the CRT will not turn off during SLEEP mode.
	Enable	To define the CRT will turn off during SLEEP mode.
H. CRT Power Down	Disable	To define the CRT will not turn off Green SLEEP mode.
	Enable	To define the CRT will turn off Green SLEEP mode.
I. PM Wait For APM	Disable	Update timer.
	Enable	Will not update timer.



# 3

## Award BIOS Setup

Item	Options	Descriptions
J. IRQ3 Detection IRQ4 Detection IRQ5 Detection IRQ6 Detection IRQ7 Detection IRQ8 Detection IRQ9 Detection IRQ10 Detection IRQ11 Detection IRQ12 Detection IRQ14 Detection IRQ15 Detection LDEV Detection LREQ Detection Video Detection HDD Detection FDD Detection DRQ0 Detection DRQ1 Detection DRQ2 Detection DRQ3 Detection DRQ5 Detection DRQ6 Detection DRQ7 Detection	Disable	The specified event's activity will not affect the PM timers.
	Enable	The specified event's activity causes the PM Timers to be reloaded, i.e. the Power Management Unit (PMU) monitors the specified activities as PM events.

\* Remark 1: All items with (\*) in this menu, will be loaded with predefined values as long as the item 'Power Management' is not configured to 'User Defined'.

These items are:

Item 'Doze Timer', 'Sleep Timer' & 'HDD Standby Timer'.

Remark 2: If the CPU you're using is not a Intel S-Serial CPU, the System BIOS will automatically detect the CPU & the POWER MANAGEMENT SETUP will not show "Doze Timer" and "Sleep Clock".

## PROBLEM REPORT FORM

DATE:

TEL:

FAX:

COMPANY NAME:

CONTACT PERSON:

MODEL NO

:

CPU

:

COPROCESSOR

:

MEMORY

:

BIOS

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HDC

:

HDD

:

VGA CARD

:

SOFTWARE

:

OTHERS

:

PROBLEM DESCRIPTION:

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