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Chapter 1

Motherboard Feature

SPECIFICATIONS

| System Chipset | Cyrix Cx5530, AT compatibility logic | | | |
|------------------|--|--|--|--|
| CPU Clock | Cyrix Media Gxm Processor speed up to 300 MHz 16KByte unified L1 cache | | | |
| Clock Generator | MicroClock MK1491-06, support power down mode and PCI clock stop mode | | | |
| Memory Subsystem | 2 x 168 pin DIMM modules support SDRAM, up to 256MB | | | |
| Integrated I / O | NS97317 Super I/O Chipset | | | |
| | Built-in RTC(Real-Time Clock) and Keyboard Controller | | | |
| BIOS | 2M bits Flash ROM | | | |
| | Award PCI BIOS with Green ,Plug & Play Feature | | | |
| Expansion slot | 3 x 32-bit PCI slots & 2 x 16-bit ISA slots | | | |
| | 2 x Bus Master IDE port support 4 IDE devices | | | |
| | 1 x Floppy port support 2 floppy devices | | | |
| | 2 x 168 pin DIMM modules Sockets | | | |
| On-Board | Cyrix XpressGraphic Video using VSA Technology | | | |
| VGA and Audio | Video controller with 2D graphics acceleration for | | | |
| | MPEG 1 hardware accelerator | | | |
| | Display Resolution | | | |
| | 640 x 480 256/16-bit High Color 60Hz | | | |
| | 800 x 600 256/16-bit High Color 60Hz | | | |
| | 1024 x 768 256/16-bit High Color 60Hz | | | |
| | Cyrix XpressAudio, Sound Blaster compatible | | | |
| | Virtual Audio, 16 bit industry standard | | | |
| | AC97 compliant Audio Codec | | | |
| | Stereo Amplifier (Output power 250mW for each | | | |
| | Virtual Audio, 16 bit industry standard AC97 compliant Audio Codec Stereo Amplifier (Output power 250mW for each channel) | | | |

1

| EXTRA Function | PC98 compliant | | |
|---------------------|--|--|--|
| | Power Management Supporting | | |
| | Compatible with PnP requirement | | |
| | Compliant with ACPI spec Rev 1.0 | | |
| External Connectors | 1 x IrDA Port (IrDA 1.0-SIR/ on UART 2) | | |
| | 1 x Parallel Port Connect Support ECP/EPP/SPP mode | | |
| | 2 x PS/2 Port for PS/2 Keyboard and Mouse | | |
| | 2 x USB Ports with Open HCI compliant | | |
| | 2 x High Speed Serial Port (COM2 have to connect through a loop-back cable) 1 x Line-Out, 1 x Line-In, 1x Microphone connector | | |
| | 1 x VGA connector | | |
| | 1 x Game Port | | |
| Dimension | Micro ATX size 244mm(L) x 244mm(w) x 4 layers PCB | | |

What is B598 Motherboard?

With the availability of new IC packing technology, Cyrix Cx5530 which provides highly efficient bus transaction, highly concurrent architecture, USB, PS/2 KBC, 2 channel dedicated Ultra-33 IDE Master, with the best power management, ACPI and Super I/O.

The Cyrix Cx5530 consists only one chip which give the 586 class system a complete solution with the most up-to-date features and architecture for the new multimedia/multithreading OS.

Cyrix Cx5530 provides a highly integrated system solution and a most up-to-date architecture, flexible 32/64-bit memory bus and concurrent multibus with highly efficient, deep FIFO between the buses, such as the HOST/PCI/ISA/IDE bus.

B598 only supports Cyrix Media GXm CPUs but it has perfect performance when you use the Cyrix Media GXm CPU.

PACKAGING CHECK LIST

The motherboard comes securely packed in a durable box and shipping carton. If any of the above items are missing or damaged, please contact your supplier.

The motherboard contains:

| Q'TY | | | Description |
|------|-------------|---|--------------------------|
| 1 | motherboard | : | B598 |
| 1 | Driver | : | Driver for Audio & Video |
| 1 | Cable | : | Enhanced IDE connector |
| 1 | Cable | : | F.D.D connector |
| 1 | Manual | : | User' s manual |
| 1 | Cable | : | COM2 Cable |

Chapter 2 SETUP GUIDE

B598 Motherboard Layout Drawing



JUMPER & CONNECTOR SETTING

Connector Setting

JBAT - CMOS RAM operation mode

| Shorted | Function | Remark |
|---------|------------------|-----------------|
| 1-2 | Normal operating | Default setting |
| 2-3 | Clear CMOS RAM | Removed VCC5VSB |

J1 - External speaker for PC-BEEP

| Pin | Function | Remark |
|--|------------------|---------|
| 1-2 | On board beeper | Default |
| Remove short-cap insert speaker connector | External speaker | |

JCD1 - Audio CD output connector

| Pin | Function | Remark |
|-----|---------------|--------|
| 1 | Channel Right | |
| 2 | CD Ground | |
| 3 | Channel Left | |
| 4 | CD Ground | |
| | | |

JCOM2 - COM2

UART2 is shared by COM2, MIDI and SIR. To select COM2 item in BIOS set-up menu while system boot-up

| Pin | Signal name | Pin | Signal name |
|-----|-------------|-----|-------------|
| 1 | DCD | 2 | RXD |
| 3 | TXD | 4 | DTR |
| 5 | GND | 6 | DSR |
| 7 | RTS | 8 | CTS |
| 9 | RI | 10 | NC |

JFP1 - MicroATX front end connector

| Pin | Signal name | Pin | Signal name |
|-----|---------------------|-----|--------------------------|
| 1 | HDD LED Anode (+) | 2 | PWR_SUSP LED Anode (+) |
| 3 | HDD LED Cathode (-) | 4 | PRW_SUSP LED Cathode (-) |
| 5 | Reset switch (GND) | 6 | PWR_ON switch |
| 7 | Reset switch | 8 | PWR_ON switch (GND) |
| 9 | +5V | 10 | Suspend switch |
| 11 | IRRX | 12 | Suspend switch (GND) |
| 13 | GND | 14 | KEY |
| 15 | IRTX | 16 | +5V |
| 17 | Reserved | 18 | Reserved |

JWOL - WOL connector for Wake-On-LAN

| Pin | Signal name | Remark |
|-----|-------------|--------|
| 1 | VCC5VSB | |
| 2 | GND | |
| 3 | PMEX | |
| | | |

JWOM - Wake on MODEM card

| Pin | Signal name | Remark |
|-----|--------------------|--------------------|
| 1 | Modem card ring-in | Photo coupler type |
| 2 | GND | |

JMSPK - Modem card speaker connector

| Pin | Signal name | Remark |
|-----|--------------------------|--------|
| 1 | Microphone input (MICIN) | |
| 2 | GND | |
| 3 | GND | |
| 4 | Modem speaker (MSPK) | |

| JP2 | RV - | Keyboard | lock | connector |
|-----|------|----------|------|-----------|
| ·· | | | | |

| Pin | Signal name | Remark |
|-----|--------------------|--------|
| 1 | NC | |
| 2 | NC | |
| 3 | GND | |
| 4 | Key lock (KBDINHX) | |
| 5 | GND | |
| | | |



JFP1 – OTHER JUMPER SETTING



| Pin | Name | Description |
|---------|--------------|-------------------|
| 1 - 3 | HDD_LED | HDD LED |
| 5 - 7 | Reset | Reset switch |
| 9 - 15 | IRTX | IRTX |
| 2 - 4 | PWR_SUSP LED | Power Suspend LED |
| 6 - 8 | PWR_ON | Power Button |
| 10 - 12 | Suspend | Suspend switch |

CPU TYPE Select

This motherboard is only designed for Cyrix CPU, and you will get high performance in it!

| 1. GXM 20 | JUIMINZ | | |
|-----------|--|---------------------------------|-------------|
| | CPU speed | JCLK | JBFA |
| | Gxm 200MHz | 2-4 | 3-4 |
| | 2 4 6 • • • • • 1 3 5 • • • • | JCLK 2 4 6 0 0 0 1 3 5 | |
| | | | |
| | Gym 233MHz | | JBFA 5-6 |
| | 2 4 6 0000 1 3 5 JBFA | JCLK 2 4 6 0 0 0 1 3 5 | |

vm 200MH-0

2. Gxm 266MHz

| CPU speed | JCLK | JBFA |
|--|---------------------------------|------|
| Gxm 266MHz | 2-4 | None |
| 2 4 6 • • • • • • • • • • • • • • • • • • • | JCLK 2 4 6 0 0 0 1 3 5 | |

CPU TYPE SELECT LIST

Combination of JCLK and JBFA for Cyrix Mwdia GX CPU speed setting

| CPU speed | JCLK | JBFA |
|------------|------|------|
| Gxm 200MHz | 2-4 | 3-4 |
| Gxm 233MHz | 2-4 | 5-6 |
| Gxm 266MHz | 2-4 | None |

JBFA – Gxm CPU clock-multiple mode selection

| Shorted | Function | Remark |
|---------------|----------|-----------|
| 1-2, 3-4, 5-6 | 4x | Test Only |
| 1-2 | 5x | |
| 3-4 | 6x | |
| 5-6 | 7x | |
| None | 8x | |
| 1-2, 5-6 | 9x | |
| 1-2, 3-4 | 10x | |
| 3-4, 5-6 | Reserved | |

| JCLK – Bus | frequency | selection |
|------------|-----------|-----------|
|------------|-----------|-----------|

| Shorted | Function | Remark |
|----------|---------------------|--------|
| 1-3, 2-4 | Reserved | |
| 1-3, 4-6 | Reserved | |
| 2-4 | 33MHz | |
| 4-6 | 30MHz | |
| 3-5, 2-4 | Reserved | |
| 3-5, 4-6 | Tristate all clocks | |

JP1 – Gxm CPU V-core voltage selection

| Shorted | Function | Remark |
|--------------------|----------|-----------------|
| None | Shutdown | |
| 1-2 | 2.1 V | |
| 3-4 | 2.3 V | |
| 1-2, 3-4 | 2.3 V | |
| 5-6 | 2.4 V | |
| 1-2, 5-6 | 2.5 V | |
| 3-4, 5-6 | 2.6 V | |
| 1-2, 3-4, 5-6 | 2.7 V | |
| 7-8 | 2.8 V | |
| 1-2, 7-8 | 2.9 V | Default setting |
| 3-4, 7-8 | 3.0 V | - |
| 1-2, 3-4, 7-8 | 3.1 V | |
| 5-6, 7-8 | 3.2 V | |
| 1-2, 5-6, 7-8 | 3.3 V | |
| 3-4, 5-6, 7-8 | 3.4 V | |
| 1-2, 3-4, 5-6, 7-8 | 3.5 V | |

FAN CONNECTOR

JCFAN1, JCFAN2 – CPU fan connector JCFAN1:

| Pin | Function | Remark |
|-----|--------------|-------------------|
| 2 | Fan positive | No key protection |
| 1,3 | Fan negative | |

| Pin | Function | Remark |
|-----|--------------|-------------|
| 1,4 | Fan positive | With holder |
| 2,3 | Fan negative | |

MEMORY INSTALLATION

No jumper setting is necessary for DRAM setting, BIOS will check DRAM type and size automatically. B598 motherboard contains 2 by 168-pin DIMM sockets(DIMM1,DIMM2). B598 motherboard has table-free (or auto-bank) feature and user can install DIMM into any bank. The Two DIMMs Sockets for system memory expansion from 8MB to 256 MB. Each bank provides 64-bit wide data path.

| NOTE: Sampl | es of Syst | em Memory | Combinations | options |
|-------------|------------|-----------|--------------|---------|
| | | | | |

| DIMM1 | DIMM2 | TOTAL |
|-------|-------|-----------|
| 8MB | | 8MBytes |
| | 8MB | 8MBytes |
| 8MB | 8MB | 16MBytes |
| 16MB | | 16MBytes |
| | 16MB | 16MBytes |
| 16MB | 8MB | 24MBytes |
| 8MB | 16MB | 24MBytes |
| 16MB | 16MB | 32MBytes |
| | 32MB | 32MBytes |
| 32MB | | 32MBytes |
| 32MB | 32MB | 64MBytes |
| 64MB | | 64MBytes |
| 64MB | 64MB | 128MBytes |
| • | : | : |
| • • | : | : |
| 128MB | 128MB | 256MBytes |

Chapter 3 AWARD BIOS SETUP

Award BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type information is stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

ENTERING SETUP

Power on the computer and press immediately will allow you to enter Setup. The other way to enter Setup is to power on the computer , when the below message appears briefly at the bottom of the screen during the POST (Power On Self Test), press key or simultaneously press <Ctrl>, <Alt>, and <Esc> keys.

TO ENTER SETUP BEFORE BOOT PRESS CTRL-ALT-ESC OR DEL KEY

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" button on the system case. You may also restart by simultaneously press <Ctrl>, <Alt> and keys. If you do not press the keys at the correct time and the system does not boot, an error message will be displayed and you will again be asked to,

PRESS F1 TO CONTINUE, CTRL-ALT-ESC OR DEL TO ENTER SETUP Control Keys

| Up Arrow | Move to previous item |
|-------------|--|
| Down Arrow | Move to next item |
| Left Arrow | Move to the item in the left hand |
| Right Arrow | Move to the item in the right hand |
| Esc Key | Main Menu Quit and not to save changes to CMOS |

| | Status Page setup menu and Option Page |
|----------|--|
| | Setup Menu Exit current page and return to |
| | Main Menu |
| PgUp Key | Increase the numeric value or make changes |
| PgDn Key | Decrease the numeric value or make changes |
| F1 Key | General help, only for Status Page Setup |
| | Menu and Option Setup |
| | Menu |
| F2 Key | Change color from total 16 colors |
| F3 Key | Calendar, only for Status Page Setup Menu |
| F4 Key | Reserved |
| F5 Key | Restore the previous CMOS value from |
| - | BIOS, only for Option |
| | Page Setup Menu |
| F6 Key | Load the default CMOS value from BIOS |
| | default table, only for |
| | Option Page Setup Menu |
| F7 Key | Load the default |
| F8 Key | Reserved |
| F9 Key | Reserved |
| F10 Key | Save all the CMOS changes, only for Main |
| | Menu |

Getting Help Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

Status Page Setup Menu/Option Page Setup Menu

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>.

The Main Menu

Once you enter Award BIOS CMOS Setup Utility, the Main Menu will appear on the Screen. Use arrow keys to select among the items and press to accept or enter the **sub-menu**.

> ROM PC/ISA BIOS (2A434PNA) CMOS SETUP UTILITY AWARD SOFTWARE, INC.

| STANDARD CMOS SETUP | INTEGRATED PERIPHERALS |
|-------------------------|--|
| BIOS FEATURE SETUP | SUPERVISOR PASSWORD |
| CHIPSET FEATURES SETUP | USER PASSWORD |
| POWER MANAGEMENT SETUP | IDE HDD AUTO DETECTION |
| PNP/PCI CONFIGURATION | SAVE & EXIT SETUP |
| LOAD BIOS DEFAULTS | EXIT WITHOUT SAVING |
| LOAD SETUP DEFAULTS | |
| Esc : Quit | $\leftarrow \uparrow \downarrow \rightarrow$: Select Item |
| F10 : Save & Exit Setup | (Shift) F2 : Change Color |

Standard CMOS Setup

This setup page includes all the items in a standard compatible BIOS.

BIOS Features Setup

This setup page includes all the items of Award special enhanced features.

Chipset Features Setup This setup page includes all the items of chipset special features. Power Management Setup This menu provides functions for Green products by allowing users to set the timeout value for monitor and HDD.

PNP / PCI CONFIGURATION SETUP

This menu allows the user to modify PNP / PCI configuration function.

Load BIOS Defaults BIOS defaults indicates the most appropriate value of the system parameter which the system would be in minimum performance.

Load Setup Defaults Chipset defaults indicates the values required by the system for the maximum performance.

INTEGRATED PERIPHERALS This section page includes all the items of IDE hard drive and Programmed Input / Output features.

Supervisor / User Password Setting Change, set, or disable password. It allows you to limit access to the system and Setup, or just to setup.

IDE HDD Auto Detection

Automatically configure hard disk parameters.

HDD Low Level Format

If supported by your system, this provides a hard disk low level format utility.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

Standard CMOS Setup

The item in Standard CMOS Setup Menu are divided into several categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

| ROM PCI/ISA BIOS (2A434PN9) STANDARD CMOS SETUP AWARD SOFTWARE, INC. | | | | | | | | |
|--|----------------------|------|------|------|--|---------------|-----------------------------|---------------|
| Date (mm:dd:yy) : Wee Time (hh:mm:ss) : 12:3 | 1, Dec 28 1 35:50 | 994 | | | | | | |
| HARD DISKS | TYPE | SIZE | CYLS | HEAD | PRECOMP | LANDZ | SECTOR | MODE |
| Primary Master : | Auto | 0 | 0 | 0 | 0 | 0 | 0 | |
| Primary Slave : | Auto | 0 | 0 | 0 | 0 | 0 | 0 | |
| Secondary Master 3 | Auto | 0 | 0 | 0 | 0 | 0 | 0 | |
| Secondary Slave : | Auto | 0 | 0 | 0 | 0 | 0 | 0 | |
| Drive A : 1.44M, 3.5 Drive B : None | in. | | | | | Bas Extend | e Memory : ed Memory : 7 | 640K 7168K |
| Video : EGA/VGA | | | | | | Other M | iemory : | 384K |
| Halt On : All Errors | | | | | | Total | Memory : | 8192K |
| ESC : Quit | | | | | $\uparrow \downarrow \rightarrow \leftarrow : Set$ | elect Item | PU/PD/+/ | -:Modify |
| F1 : Help | | | | | (Shift) F2 : Cl | nange Color | | |

BIOS Features Setup

ROM PCI/ISA BIOS (2A434PN9) BIOS FEATURE SETUP AWARD SOFTWARE, INC

| Virus Warning | : Disabled | Video BIOS Shadow | : Enabled |
|----------------------------|--------------|---|--------------------|
| CPU Internal Cache | : Enabled | C8000-CBFFF Shadow | : Disabled |
| | | CC000-CFFFF Shadow | : Disabled |
| Quick Power On Self Test | : Disabled | D0000-D3FFF Shadow | : Disabled |
| Boot Sequence | : A, C ,SCSI | D4000-D7FFF Shadow | : Disabled |
| Swap Floppy Drive | : Disabled | D8000-DBFFF Shadow | : Disabled |
| Boot Up Floppy Seek | : Enabled | DC000-DFFFF Shadow | : Disabled |
| Boot Up NumLock Status | : On | | |
| Boot Up System Speed | : High | | |
| Gate A20 Option | : Fast | | |
| Memory Parity Check | : Enabled | | |
| Typematic Rate Setting | : Disabled | | |
| Typematic Rate (Chars/Sec) | : 6 | | |
| Typematic Delay (Msec) | : 250 | | |
| Security Option | : Setup | | |
| PCI/VGA Palette Snoop | : Disabled | Esc : Quit $\uparrow \downarrow \rightarrow \leftarrow$ | - : Selection Item |
| OS Select For DRAM > 64MB | : Non-OS2 | F1 : Help PU/PD/+ | /- : Modify |
| Report No FDD For WIN95 | : No | F5 : Old Values (Shift) F | 2 : Color |
| _ | | F6 : Load BIOS Default | |
| | | F7 : Load Setup Default | |

Virus Warning

This category flashes on the screen. During and after 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 can run anti-virus programs 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. |
|----------|--|
| Disabled | No warning message to appear when anything attempt 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 Enabled.

Enabled: Enabled cache

Disabled: Disabled 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.

Enabled: Enable quick POST

Disabled: Normal POST

Boot Sequence

This category determines which drive computer searches first for the hard disk operation system (i.e., DOS).

A, C,SCSI: System will first search for floppy disk drive then second search hard disk driver, then SCSI driver.

C,A,SCSI/ D,A,SCSI/ E,A,SCSI/ F,A,SCSI:

System will first search for IDE hard disk driver (C:D: or E: or F:) then second search floppy disk driver then SCSI hard disk driver.

SCSI,A,C: System will first search SCSI hard disk driver then second search for floppy disk driver then IDE hard disk driver.

CDROM,C,A:

System will first search for the CDROM driver (If the CDROM has a bootable CD title.) and second search hard disk driver then floppy disk driver .

C,CDROM,A:

System will first search for the hard disk driver and second search for CDROM driver (If the CDROM has a bootable CD title,) then search floppy disk driver.

LS120,C: System will first search LS120 disk driver and second search for IDE hard disk driver.

Swap Floppy Drive

Users can enable this item so that the BIOS will see the hardware "Drive A:" as "Drive B:", and hardware "Drive B:" as "Drive A:".

Boot Up Floppy Seek

During POST, BIOS will determine if the Floppy disk drive installed is 40 or 80 tracks. 360 K type is 40 tracks while 720K, 1.2M and 1.44M drive type as they 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.
- **Disabled**: 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

Boot Up System Speed

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

High: Set the speed to high

Low: Set the speed to low

Gate A20 Option

The Gate A20 Option default setting is fast.". This is the optimum setting for this motherboard.

Typematic Rate Setting

This determines the typematic rate.

| Enabled: | Enable typematic rate |
|-----------|------------------------|
| Disabled: | Disable typematic rate |

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 holding the a key, the time between the first and second character will be 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.

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.

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 video speed.

- **Enabled**: Video shadow is enabled
- **Disabled**: Video shadow is disabled

C8000-CBFFF Shadow/DC000-DFFFF 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

Chipset Features Setup

ROM PCI/ISA BIOS (2A434PN9) CHIPSET FEATURE SETUP AWARD SOFTWARE, INC

| SDRAM CAS latency Time | : 3 T | | | |
|---------------------------|------------|-----------------------|---|--|
| SDRAM Clock Ratio Div By | : 4 | | | |
| | | | | |
| 16-bit I/O Recovery (CLK) | : 5 | | | |
| 8-bit I/O Recovery (CLK) | : 5 | | | |
| | | | | |
| USB Controller | : Disabled | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | г оч | | |
| | | Esc : Quit | $\downarrow \downarrow \rightarrow \leftarrow$: Selection Item | |
| | | | PU/PD/+/-: MOOIIY | |
| | | F5: Uld Values | $(Sni\pi)$ F2 : Color | |
| | | FO: Load BIOS Default | | |
| | | F / : Load Setup | Default | |

This setup menu is optimized for this mainboard by your computer vendor. Unless you are a qualified engineer & know the items, functions you are going to modify. We do not recommend you to change the default setting.

USB Controller

Set USB Controller to "Enabled" if you want use any USB devices.

Power Management

ROM PCI/ISA BIOS (2A434PN9) POWER MANAGEMENT SETUP AWARD SOFTWARE, INC.

| Power Management | : User Define | IRQ1 | (KeyBoard) | : ON |
|---------------------------|---------------|--|--------------------|-------|
| | | IRQ3 | (COM 2) | : ON |
| ** PM Timers ** | | IRQ4 | (COM 1) | : ON |
| Doze Mode | : Disabled | IRQ5 | (LPT 1) | : OFF |
| Standby Mode | : Disabled | IRQ6 | (Floppy Disk) | : OFF |
| HDD Power Down | : Disabled | IRQ7 | (LPT 1) | : OFF |
| MODEM Use IRQ | : NA | IRQ9 | (IRQ2 Redir) | : OFF |
| | | IRQ10 | (Reserved) | : OFF |
| Throttle Duty Cycle | : 33.3 % | IRQ11 | (Reserved) | : OFF |
| | | IRQ12 | (PS/2 Mouse) | : OFF |
| RING POWER ON Controlle | er: Enabled | IRQ13 | (Coprocessor) | : OFF |
| Net POWER ON Controller | : Disabled | IRQ14 | (Hard Disk) | : OFF |
| RTC Alram Function | : Disabled | IRQ15 | (Reserved) | : OFF |
| | | | | |
| | | | | |
| | | ESC: Quit $\uparrow \downarrow \rightarrow \leftarrow$: Select Item | | |
| | | F1 : Help $PU / PD / + / - : Modify$ | | |
| | | F5 : Old Values (Shift)F2 : Color | | |
| | | F6 : Load BIOS Defaults | | |
| | | F7 :L | oad Setup Defaults | |

This category determines the power consumption for the system after selecting below items. Default value is Disabled. The following pages tell you the options of each item & describe the meanings of each options.

Note:

Suspend function doesn't work if the Power Management item is set to disabled. Please enable the Power Management item before you can run the suspend mode.

| Item | Options | Descriptions |
|---------------------|----------------|--|
| A. Power Management | 1. Disable | Global Power Management will be disabled |
| | 2. User Define | Users can configure their own power management |
| | 3. Min Saving | Pre-defined timer values are used such that all timers are in their MAX value |
| | 4. Max Saving | Pre-defined timer values are used such that all timers MIN value |

| Item | Options | Descriptions | | |
|-------------------|--|-----------------------------|--|--|
| B. HDD Power Down | 1. Disable | HDD's motor will not off | | |
| (#) Remark 2 | 2. 1. Min | Defines the continuous HDD | | |
| | 2. Min | idle time before the HDD | | |
| | 3. Min | entering power saving mode | | |
| | 4. Min | (motor off) | | |
| | 5. Min | | | |
| | 6. Min | | | |
| | 7. Min | | | |
| | 8. Min | | | |
| | 9. Min | | | |
| | 10. Min | | | |
| | 11. Min | | | |
| | 12. Min | | | |
| | 13. Min | | | |
| | 14. Min | | | |
| | 15. Min | | | |
| | 3. When Suspend | BIOS will turn the HDD' s | | |
| | | motor off when system is in | | |
| | | SUSPEND mode | | |
| | Note: | | | |
| | (2) & (3) can't be selected at the same time When HDD is in power saving mode, any access | | | |
| | | | | |
| | to the HDD will wake the HDD up | | | |
| | | - | | |

PNP / PCI Configuration Setup

ROM PCI/ISA BIOS(2A434PN9) PNP/PCI CONFIGURATION AWARD SOFTWARE, INC.

| PNP OS Installed | : No | PCI IRQ Actived By | : Level |
|-----------------------|----------------|----------------------|--|
| Resources Contorlled | By : Manual | | |
| Reset Configuration D | ata : Disabled | Used MEM base addr | : N/A |
| | | | |
| IRQ-3 assigned to | : PCI/ISA PnP | | |
| IRQ-4 assigned to | : PCI/ISA PnP | | |
| IRQ-5 assigned to | : PCI/ISA PnP | | |
| IRQ-7 assigned to | : PCI/ISA PnP | | |
| IRQ-9 assigned to | : PCI/ISA PnP | | |
| IRQ-10 assigned to | : PCI/ISA PnP | | |
| IRQ-11 assigned to | : PCI/ISA PnP | | |
| IRQ-12 assigned to | : PCI/ISA PnP | | |
| IRQ-14 assigned to | : PCI/ISA PnP | | |
| IRQ-15 assigned to | : PCI/ISA PnP | | |
| IRQ-0 assigned to | : PCI/ISA PnP | | |
| IRQ-3 assigned to | : PCI/ISA PnP | ESC: Quit | $\uparrow \downarrow \rightarrow \leftarrow$: Select Item |
| IRQ-5 assigned to | : PCI/ISA PnP | F1 : Help | PU / PD / + / - : Modify |
| IRQ-6 assigned to | : PCI/ISA PnP | F5 : Old Values | (Shift)F2 : Color |
| IRQ-7 assigned to | : PCI/ISA PnP | F6 : Load BIOS Defa | aults |
| | | F7 : Load Setup Defa | aults |

This category determines the IRQ resources for the system. You can select the items according your system environment. Default value is "Resources Controlled By Auto".

INTEGRATED PERIPHERALS

ROM PC/ISA BIOS(2A434PN9) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.

| IDE HDD Block Mode | : Disable | | | |
|---------------------------|------------|------------------------------|--|-------------|
| Primary IDE Channel | : Enabled | | | |
| Master Driver PIO Mode | : Auto | Build in CPU Audio | | : SB 16 |
| Slave Driver PIO Mode | : Auto | Audio I/O Base Add | ress | : 220H |
| Secondary IDE Channel | : Enabled | MPU-401 I/O Base A | Address | : 330H |
| Master Driver PIO Mode | : Auto | Audio IRQ Select | : | : IRQ 5 |
| Slave Driver PIO Mode | : Auto | Audio Low DMA Se | elect : | : DMA 1 |
| | | Audio High DMA S | elect : | : DMA 5 |
| IDE Primary Master UDMA | : Disabled | Joystick Status | | : Enabled |
| IDE Primary Slave UDMA | : Disabled | | | |
| IDE Secondary Master UDMA | : Disabled | Multiple Monitor Support | | : PCI First |
| IDE Secondary Slave UDMA | : Disabled | | | |
| | | Video Memory Size | : | 2.5 M |
| KBC input clock | : 8 MHz | | | |
| Onboard FDC Controller | : Enabled | Esc : Quit \uparrow | $\downarrow \rightarrow \leftarrow : Sele$ | ection Item |
| Onboard Serial Port 2 | : Auto | F1 : Help PU/PD/+/- : Modify | | Modify |
| UR2 Mode | : Standard | F5 : Old Values (S | Shift) F2 : C | Color |
| Onboard Parallel Port | : 378/IRQ7 | F6 : Load BIOS Defa | ault | |
| Parallel Port Mode | : SPP | F7 : Load Setup Defa | àult | |

This setup menu is optimized for this motherboard by your computer vendor. Unless you are a qualified engineer & know the items, function you are going to modify. We do not recommend you to change the default setting.

Load BIOS Default

When you access "Load BIOS Default", the following message appears:

Load BIOS Default (Y/N) ?N

The BIOS Default values are the "worst case" default, and are the most stable values for the system. Use them if the system is performing erratically due to hardware problems. To load the BIOS Default values, press $\langle Y \rangle$ then $\langle Enter \rangle$.

Load Setup Default

When you access "Load Setup Default", you are shown the following message:

Load Setup Default (Y/N) ?N

The Setup Default values represent the "best case" default, and should provided optimum system performance. To load the Setup Default values, press $\langle Y \rangle$ then $\langle Enter \rangle$.

Supervisor / User Password Setting

When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

If you select System at Security Option of BIOS Features Setup Menu, you will be prompted for the password everytime the system is rebooted or anytime you try to enter Setup. If you select Setup at Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

IDE HDD Auto Detection

This feature allows you to check all the informations on your hard disk formation. When you access "IDE HDD Auto Detection", the system executes auto detection.

At the prompt, it represents all the informations on your HDD, and you are asked:

Do you accept this drive C: (Y/N) ?

- 1 If you accept the test result, press [Y] then [Enter] and the result is saved, then the system continues to detect another HDD.
- 2 If not, press [N] then [enter] and the system continues to detect another HDD.