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4.10 硬盘IDE自动检测(IDE HDD Auto Detection)

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

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

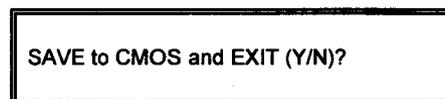
Select Primary Master Option (N=Skip): N							
OPTIONS	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
2(Y)	540	524	32	0	1047	63	LBA
1	540	1048	16	65535	1047	63	NORMAL
3	540	524	32	65535	1047	63	LARGE

Note: Some OSes (like SCO-UNIX) must use "NORMAL" for installation

此功能选项可以自动检测你的硬盘参数，仅仅要求你回答“Y”确认，免去你输入之烦恼。

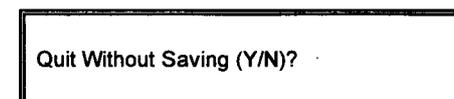
4.11 存储并退设置程序(Save and Exit Setup)

最后，在完成修改系统参数，你可以选择主萤幕“Save and Exit Setup”项或者按“F10”键，应答“Y”存储所设置的参数。



4.12 退出并且不存储(Exit without Saving)

或许，你愿意保留修改前的系统参数，请选择此功能或者“ESC”键，应答“Y”放弃存储，退出设置程序。



4.13 RHINO 20快速设置引导图

请参照英文部分。

Integrated IDE, Super I/O Subsystem

- ◆ IDE Support Built-in PCI IDE controller
Two connectors supporting up to 4 IDE drives
Support Mode 3, 4 IDE, Ultra DMA-33 IDE, LS-120 floppy drive, Internal ZIP ATAPI drive & ATAPI CD-ROM
- ◆ On Board I/O One Floppy Port supporting 2 floppy drives of 360KB/720KB/1.2MB/1.44MB/2.88MB capacity.
Two Serial Ports (16550 Fast UART compatibles)
One Parallel Port (Standard, ECP, EPP supported)

PS/2 Mouse

- ◆ PS/2 Mouse 6-pin mini-DIN connector on board

Power Management

- ◆ Green Functions Support various Power Management schemes
Power On Suspend
Suspend to RAM
Suspend to Disk

BIOS Subsystem

- ◆ BIOS Type AWARD
- ◆ BIOS Shadowing Shadow RAM for System and Video BIOS
- ◆ BIOS Features Built-in setup, Power-on self test, Drive table optimization, User-definable drive types, Password Protection, Shadowing options

Plug & Play / BIOS Update

- ◆ Plug & Play BIOS Microsoft Windows95™ and Plug and Play BIOS compliant
- ◆ Flash EEPROM Use Flash EEPROM (1M bits) to allow easy BIOS update

4.7 综合周边设备(Integrated Peripherals)

ROM PCI/ISA BIOS INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.		
IDE HDD Block Mode	: Enabled	USB Keyboard support : Disabled
IDE Primary Master PIO	: Auto	
IDE Primary Slave PIO	: Auto	
IDE Secondary Master PIO	: Auto	
IDE Secondary Slave PIO	: Auto	
IDE Primary Master UDMA	: Auto	
IDE Primary Slave UDMA	: Auto	
IDE Secondary Master UDMA	: Auto	
IDE Secondary Slave UDMA	: Auto	
On-Chip Primary PCI IDE	: Enabled	
On-Chip Secondary PCI IDE	: Enabled	
KBC input clock	: 8 MHz	
Onboard FDC Controller	: Enabled	
Onboard Serial Port 1	: 3F8/IRQ4	
Onboard Serial Port 2	: 2F8/IRQ3	
UR2 Mode	: Standard	
Onboard Parallel Port	: 378/IRQ7	ESC : Quit ↑↓→← : Select Item
Parallel Port Mode	: SPP	F1 : Help PU/PD/+/- : Modify
		F5 : Old Values (Shift) F2 : Color
		F7 : Load Setup Defaults

IDE HDD Block Mode(硬盘IDE模块传输)

IDE Primary/Secondary Master/Slave PIO(硬盘IDE PIO模式传输)

IDE Primary/Secondary Master/Slave UDMA (硬盘IDE Ultra DMA-33模式传输)

Onboard FDC Controller(主板软盘驱动器FDC控制)

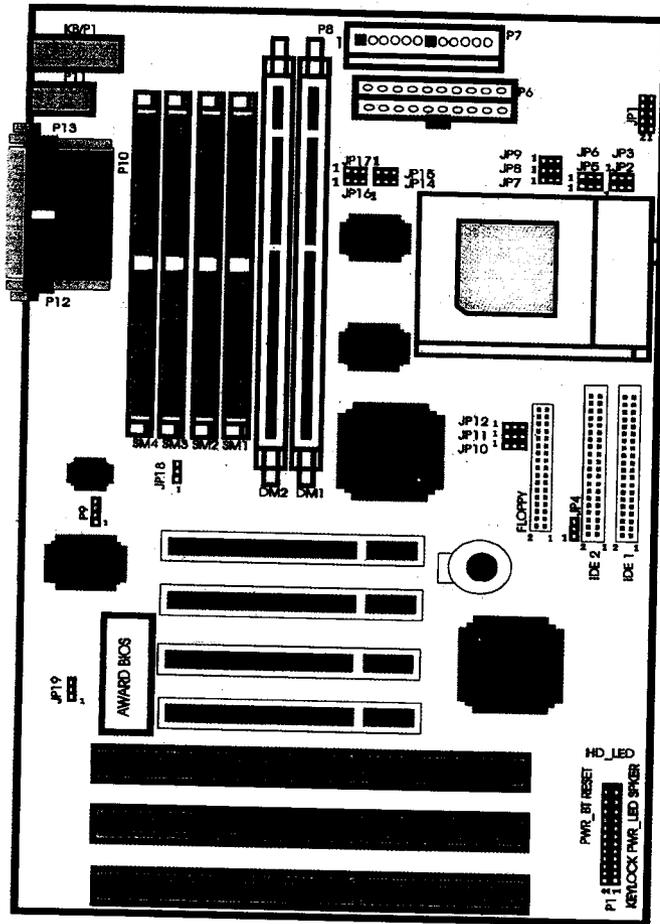
主板上带有软盘驱动器FDC接口，选择Enable使能该接口；如果你安装了带FDC接口的输入/输出功能卡，并想使用卡上FDC接口，请选择Disable，屏蔽板上FDC接口。

Onboard Serial Port 1/2(分配主板上串行口逻辑地址)

Onboard Parallel Port(分配主板上并行口逻辑地址)

HARDWARE INSTALLATION & UPGRADE

2.1 Layout of RHINO 20 Main Board



Power Management(能源管理)

提供三种能源管理省电的模式: 打盹模式(Doze), 待命模式(Stand-by), 沉睡模式(Suspend).

Max Saving(省电最多设定)

每个省电模式均为1分钟

Min Saving(省电最少设定)

每个省电模式均为1小时

User Define(用户定义)

你可以自定义进入每种省电模式的等待时间

Disable

关闭能源管理功能

PM Control by APM(APM控制电源管理)

如果你的操作系统支持APM(Advanced PowerManagement), 建议选择Yes.

Video Off Method(显示器节能方式)

屏幕显示节能方式包括: V/H SYNC+Blank, DPMS, Blank.

IRQ 8 Break Suspend(唤醒事件)

系统在省电模式下, 将监测预设的唤醒事件, 即使能的各个中断, 以恢复系统正常工作. 选择Enable使能IRQ8作为实时钟唤醒系统的事件.

Reload Global Timer Events

选择唤醒事件Enable, 系统将对这些事件进行监测; 当然, 选择Disable, 在省电模式下, 这些事件不被系统监测.

CPU FAN off in suspend

选择Enabled, 在省电模式下, CPU风扇会自动停止, 以降低电源开销和系统噪音.

Resume by Ring

选择Enabled, 用户可通过一根电话线和连接在你的计算机上的Modem 打开你的计算机, 实现远程通讯.

2.3 CPU Cooling Fan and Heatsink

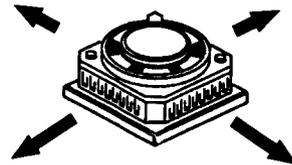
Cooling Fan Connector (P4)

Pin No.	Pin Name
1	FAN GND
2	+12V
3	FAN GND

CPU cooling fan is inevitable to the functionality of high speed CPU. The higher the core frequency of CPU, the more heat will be generated. Poor ventilation of the CPU and the voltage regulator will cause overheat. Permanent damage to the motherboard or even damage to the CPU itself will result in the worst case.

Besides, the orientation of the CPU cooling fan can improve the ventilation of the motherboard in the case. The conduction of the airflow can enhance the cooling effect to the voltage regulator and onboard heatsink by continuously keeping the air-stream flows.

Important: Make sure the fins of the heating beneath the CPU cooling fan is pointed to the direction of the voltage regulator.



2.4 Reset CMOS

If the setting of the system setup is done improperly, it may make the system malfunction. If this happens, turn off the power and set jump JP4 to 1-2 to clear the internal CMOS status register. Wait for at least 5 seconds to ensure that the CMOS content has been completely cleared. Next, set the jumper JP4 back to 2-3 and turn on the power. The BIOS will find the CMOS status register having been reset and will regard the setup information invalid, so it will prompt you to correct the information.

2.5 Modem Ring

JP18	Modem Ring Port
1-2	COM1
2-3*	COM2

If the serial port is used for a modem, set correctly jumper JP18 to 1-2 for COM1 or 2-3 for COM2. The computer will be turned on when modem receives a call.

4.4 芯片参数设定(Chipset Features Setup)

ROM PCI/ISA BIOS CMOS SETUP UTILITY CHIPSET FEATURES SETUP	
Auto Configuration	: Enabled
DRAM Timing	: 70ns
DRAM Leadoff Timing	: 10/6/4
DRAM Read Burst (EDO/FP)	: x333/x444
DRAM Write Burst Timing	: x333
Fast EDO Lead Off	: Disabled
Refresh RAS# Assertion	: 5 Clks
Fast RAS To CAS Delay	: 3
DRAM Page Idle Timer	: 4 Clks
DRAM Enhanced Paging	: Enabled
Fast MA to RAS# Delay	: 2 Clks
SDRAM (CAS Lat/RAS-to-CAS)	: 3/3
SDRAM Speculated Read	: Disabled
System BIOS Cacheable	: Enabled
Video BIOS Cacheable	: Enabled
8 Bit I/O Recovery	: 1
16 Bit I/O Recovery	: 1
Memory Hole At 15M-16M	: Disabled
PCI 2.1 compliance	: Enabled

ESC : Quit ↑↓→← : Select Item
F1 : Help PU/PD/+/- : Modify
F5 : Old Values (Shift) F2 : Color
F7 : Load Setup Defaults

Auto Configuration(自动设置)

选择Enable, 系统将自动设置与内存有关的参数; 选择Disable, 系统会提供可选项给你调整。

注意:

如果对系统及内存的内部结构不是很清楚, 建议你采用Enable, 即系统自动配置并优化内存参数。有关可选项参数请参考英文部份。

DRAM Timing(选择内存速度)

DRAM Leadoff Timing

设置内存的预备时序

Fast EDO Lead Off

设置EDO充电时序

Fast MA to RAS# Delay(插入RAS#等待周期)

SDRAM (CAS Lat/RAS -to- CAS)(插入内存读, 写及刷新延时)

**ATX Power Connector
(P6)**

Pin No.	Pin Name
1	+3.3V
2	+3.3V
3	GND
4	+5V
5	GND
6	+5V
7	GND
8	PWR GD
9	STB5V
10	+12V
11	+3.3V
12	-12V
13	GND
14	PWR ON
15	GND
16	GND
17	GND
18	-5V
19	+5V
20	+5V

**PS/2 Keyboard Connector
(KB/P1, Lower)**

Pin No.	Pin Name
1	Data
2	NC
3	GND
4	+5V
5	CLK
6	NC

USB Connector (P11)

Pin No.	Pin Name
1	+5V
2	Port 0-
3	Port 0+
4	GND
5	+5V
6	Port 1-
7	Port 1+
8	GND

Quick Power On Self Test(快速开机系统自检)

选择Enable, 可以通过跳过自检程序的某些可选项, 缩短系统启动时间; 建议你选择Disable, 诊断系统各部件正常后再进行工作。

Boot Sequence(开机磁碟装载次序)

标准IBMPC机是从软盘驱动器 A 装载DOS操作系统, 所以, IBM兼容机被设计为首先从驱动器A启动, 再到硬盘驱动器; 随着光盘驱动器的普及, 增添了首先从光驱CD-ROM启动的功能。你可以通过此选择项改变开机时磁碟机的顺序。

Swap Floppy Driver(软盘驱动器逻辑互换)

系统有两个软盘驱动器, 选择Enable可以互换彼此的逻辑驱动符, 而物理连接不变。

Boot Up Floppy Seek(检测软盘驱动器)

选择Enable, BIOS在开机时会检测软盘驱动器是否存在。如果BIOS没有发现软驱, BIOS会给出提示信息。

Boot Up NumLock Status(开机后数字键盘的状态)

选择ON设定开机后数字键盘为数字键输入模式; OFF为方向键输入模式。

Boot Up System Speed(系统速度)

选择High开机后系统速度为CPU本身速度; Low为AT总线的速度。当你使用了一些低速的外设或者运行了一些早期的软件, 请选择Low选项。

Typematic Rate Setting(键盘输入设定)

选择Enable, 键盘重复输入的速率由键盘输入速率和键盘输入延时决定。当然, 你选择Disable得到的是出厂时的预设值, 如果不是特殊要求, 它应该能满足一般要求。

Typematic Rate (键盘输入速率; 单位: 字符/秒)

键盘输入设置选择为Enable时, 键盘输入速率可供选项为: 6/8/10/12/15/20/24/30字符每秒。

Typematic Delay (键盘输入延时; 单位: 毫秒)

键盘输入设置选择为Enable时, 键盘输入延时可供选项为250,500,750和1000毫秒。

CMOS SETUP CONFIGURATION

BIOS Setup

Award's BIOS provides a built-in Setup utility for specifying the basic system configurations and hardware settings. The parameters will be stored in a battery backed CMOS RAM so data will be retained even when the power is turned off. In general, the information saved in the CMOS RAM stays unchanged unless there is configuration change in the system, such as hard drive replacement or new equipment change.

It is possible that CMOS had a battery failure which cause data lose in CMOS RAM. If so, re-enter system configuration parameters become necessary.

When you need to enter setup message, turn on the computer, the system provides you with the opportunity to run setup utility. This appears during the Power-On Self Test (POST). Press the <Delete> key to call up the Setup utility. If you are little bit late pressing the mentioned key(s), POST will continue with its test routines, thus preventing you from calling up Setup.

The BIOS supports Software Turbo Speed features. You can simply press the <Ctrl>, <Alt>, and <+> keys at the same time to enable the Turbo Speed feature; and press the <Ctrl>, <Alt>, and <-> keys at the same time to disable the feature.

4.1 CMOS Setup Utility

When you invoke Setup utility, the CMOS Setup Utility main program screen will appear with the follow options:

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

4.2 BIOS基本参数设置(STANDARD CMOS SETUP)

ROM PCI/ISA BIOS STANDARD CMOS SETUP AWARD SOFTWARE, INC.							
Date (mm:dd:yy) : Wed, Apr 28 1997							
Time (hh:mm:ss) : 15:38:55							
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR MODE
Primary Master	:Auto	0	0	0	0	0	0 Auto
Primary Slave	:Auto	0	0	0	0	0	0 Auto
Secondary Master	:Auto	0	0	0	0	0	0 Auto
Secondary Slave	:Auto	0	0	0	0	0	0 Auto
Drive A : 1.44M, 3.5 in.						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			

BIOS基本参数设置显示如上。系统 BIOS能够自动检测内存的大小, 类型, 因此无须改变内存部分。这里只有几项需设置。每一项可以有一个或多个选择。它允许您改变系统的日期, 时间, IDE硬盘, 软驱A: 和B:的规格, 以及开机显示模式和POST错误。

硬盘设置

TYPE:

根据驱动器的参数值, 选择“1”~“45”填入空格; 选择“User”填入空格, 自定义硬盘参数; 或者选择“Auto”, 由系统自动检测硬盘驱动器的形式。

SIZE:

硬盘的大小, 单位为MB(兆字节)。

CYLS:

硬盘的柱面数。

HEAD:

硬盘的读写磁头数, 范围为: 1-16。

PRECOMP:

硬盘改变写时间的柱面数。

LANDZ:

硬盘停止工作时磁头在硬盘柱面的停留位置。

SECTOR:

硬盘每个磁道的扇区数。数值为“1”到“64”。

CYLS:

The cylinder number of the hard disk.

HEAD:

The read/write head number of hard disk. The range is from "1" to "16".

PRECOMP:

The cylinder number at which the disk drive changes the write timing.

LANDZ:

The cylinder number that the disk drive heads (read/write) are seated when the disk drive is parked.

SECTOR:

The sector number of each track defined on the hard disk. The range is from "1" to "64".

MODE:

Select "Auto" to detect the mode type automatically. If your hard disk supports the LBA mode, select "LBA" or "Large". However, if your hard disk cylinder is more than 1024 and does not support the LBA function, you have to set at "Large". Select "Normal" if your hard disk supporting cylinders is below 1024.

4.3 BIOS Features Setup

ROM PCI/ISA BIOS BIOS FEATURES SETUP AWARD SOFTWARE, INC.			
Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000 - CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000 - CFFFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	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	: Disabled	DC000 - DFFFF Shadow	: Disabled
Boot Up NumLock Status	: On		
Boot Up System Speed	: High		
Typematic Rate Setting	: Disabled		
Typematic Rate (Chars/Sec)	: 6		
Typematic Delay (Msec)	: 250		
Security Option	: Setup	ESC : Quit	↑↓→← : Select Item
PCI/VGA Palette Snoop	: Disabled	F1 : Help	PU/PD/+/- : Modify
OS Select For DRAM > 64MB	: Non-OS2	F5 : Old Values (Shift) F2	: Color
		F7 : Load Setup Defaults	

3. 存储器子系统配置

3.1 同步SDRAM (Sync. DRAM) /快页模式/EDO DRAM 的安装

RHINO 20 有4个SIMM和2个DIMM内存插槽，分别标注 SM1, SM2, SM3, SM4和DM1, DM2。因为CPU是64位数据界面，对32位数据的SIMM，必须成对安装，SM1和SM2同BANK，SM3和SM4同BANK；当然对同64-位数据的DIMM，DM1, DM2不作这样的要求。

如果你同时使用DIMM, SIMM, DM2和SM1, SM2不要同时安装；你的DM1, DM2是64MB时，SM3和SM4不能安装。建议同时安装(SM1, SM2, SM3, SM4和DM1)，或同时安装(SM3, SM4和DM1, DM2)。

RHINO 20能支持256M容量内存。SIMM支持4M/8M/16M/32M/64M快页模式和EDO，DIMM支持8M/16M/32M/64M/128M快页模式(FPM)，EDO或者SDRAM。

如果您使用DIMM，务必正确为其设定电压。

为了您的方便，我们总结下表供您参考：

	内存类型	72-脚 SIMM内存条, 168-脚 DIMM内存条
SM 1, 2	快页式(FPM)/EDO	4MB, 8MB, 16MB, 32MB, 64MB (DM2不能使用)
SM 3, 4	快页式(FPM)/EDO	4MB, 8MB, 16MB, 32MB, 64MB (DM1, DM2不能用64M和128M)
DM 1	同步SDRAM/EDO	8MB, 16MB, 32MB, 64MB, 128MB (SM1, 2, 3, 4不能使用)
DM 2	同步SDRAM/EDO	8MB, 16MB, 32MB, 64MB, 128MB (SM1, 2 不能使用)
	内存最大容量	256MB

Boot Up NumLock Status

Toggle between On or Off to control the state of the NumLock key when the system boots. When toggled On, the numeric keypad generates numbers instead of controlling cursor operations.

Boot Up System Speed

Select High to boot at the default CPU speed; select Low to boot at the speed of the AT bus. Some add-in peripherals or old software (such as old games) may require a slow CPU speed. The default setting is High.

Typematic Rate Setting

When Disabled, the following two items (Typematic Rate and Typematic Delay) are irrelevant. Keystrokes repeat at a rate determined by the keyboard controller in your system. When Enabled, you can select a typematic rate and typematic delay.

Typematic Rate (Chars/Sec)

When the typematic rate setting is enabled, you can select a typematic rate (the rate at which character repeats when you hold down a key) of 6, 8, 10, 12, 15, 20, 24 or 30 characters per second.

Typematic Delay (Msec)

When the typematic rate setting is enabled, you can select a typematic delay (the delay before key strokes begin to repeat) of 250, 500, 750 or 1000 milliseconds.

Security Option

If you have set a password, select whether the password is required every time the System boots, or only when you enter Setup.

PCI/VGA Palette Snoop

Some nonstandard VGA such as graphics accelerators or MPEG video cards may not show colors properly. The setting Enabled can correct it. Otherwise, leave at Disabled.

OS Select for DRAM > 64MB

Select OS2 only if you are running OS/2 operating system with greater than 64 MB of RAM on your system.

Shadow

Software that resides in a read-only memory (ROM) chip on a device is called firmware. The Award BIOS permits shadowing of firmware such as the system BIOS, video BIOS, and similar operating instructions that come with some expansion peripherals, for example, a SCSI adaptor.

Shadowing copies firmware from ROM into system RAM, where the CPU can read it through the 16-bit or 32-bit DRAM bus. Firmware not shadowed must be read by the system through the 8-bit X-bus. Shadowing improves the performance of the system BIOS and similar ROM firmware for expansion peripherals, but it also reduces the amount of high memory (640 KB to 1 MB) available for loading device drivers, etc.

Enable shadowing into each section of memory separately. Many system designers hardware shadowing of the system BIOS and eliminate a System BIOS Shadow option.

2.6 设定内存DIMM的电压

	JP16, JP17
3.3V*	2-3
5V	1-2

2.7 接口连线

电源指示灯接头(P1:5-9)

Pin	信号名称
5	+5V
7	空
9	LED

键盘锁定接头(P1:1-3)

Pin	信号名称
1	键盘锁定
3	地

扬声器接头(P1:13-19)

Pin	信号名称
13	+5V
15	空
17	空
19	数据输出

复位接头 (P1:18-20)

Pin	信号名称
18	地
20	复位信号

硬盘指示灯(P1:23-24)

Pin	信号名称
23	LED-
24	LED+

电源按钮接头(P1:10-14)

Pin	信号名称
10	PWR BT
14	+3V

PS/2鼠标接头(KB/P1,Upper)

Pin	信号名称
1	数据输出
2	空
3	地
4	+5V
5	时序输出
6	空

USB接头(P11)

Pin	信号名称
1	+5V
2	Port 0-
3	Port 0+
4	地
5	+5V
6	Port 1-
7	Port 1+
8	地

Fast MA to RAS# Delay

Inserts an additional wait state before the beginning of a memory read. The setting of this parameter depends on the board design. Do not change from the manufacturer's default unless you are getting memory addressing errors.

SDRAM (CAS Lat/RAS -to- CAS)

This field lets you insert a timing delay between the CAS and RAS strobe signals, used when DRAM is written to, read from, or refreshed. Lower value gives faster performance; and upper value gives more stable performance.

SDRAM Speculativd

Leave this field at default of Disabled

DRAM Read Burst (EDO/FP)

Set the timing for burst-mode reads from DRAM. The lower the timing numbers, the faster the system addresses memory.

DRAM Write Burst Timing

Set the timing for burst-mode writes from DRAM. The lower the timing numbers, the faster the system addresses memory.

System BIOS Cacheable

Selecting Enabled allows caching of the system BIOS ROM at F0000h-FFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

Video BIOS Cacheable

Selecting Enabled allows caching of the video BIOS ROM at C0000h to C7FFFh, resulting in better video performance. However, if any program writes to this memory area, a system error may result.

8/16 Bit I/O Recovery Time

The I/O recovery mechanism adds bus clock cycles between PCI-originated I/O cycles to the ISA bus. This delay takes place because the PCI bus is so much faster than the ISA bus.

These two fields let you add recovery time (in bus clock cycles) for 16-bit and 8-bit I/O.

Memory Hole at 15M-16M

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.

2. 硬件安装及升级介绍

2.1 RHINO 20主板零件位置图

请参照英文部分。

2.2 CPU相关设定

RHINO 20支持Intel Pentium P54C,P55C,AMD K5/K6,Cyrix/IBM 6x86/6x86L/6x86MX 等CPU.

- ◆ 根据不同的CPU, 小心设置其内核电压, 选择错误会对CPU造成物理性的损坏.
- ◆ P55C是带MMX技术的Pentium处理器的统称.
- ◆ 跳线中的 “*” 标记为出厂时的缺省设置.

选择CPU的工作频率

JP2	JP3	JP10	JP11 (Option)	JP5	JP6 (For AMD K6)	CPU Clock	CPU TYPE
1-2	2-3	1-2	1-2	1-2	Open	55 MHz	Cyrix/IBM 6x86-P133+
1-2	1-2	1-2	2-3	1-2	Open	60 MHz	Intel P54C-90 *
1-2	2-3	1-2	2-3	1-2	Open		Intel P54C-120
2-3	2-3	1-2	2-3	1-2	Open		Intel P54C-150
2-3	1-2	1-2	2-3	1-2	Open		Intel P54C-180
1-2	2-3	1-2	2-3	1-2	Open		Cyrix/IBM 6x86-P150+
2-3	2-3	1-2	2-3	1-2	Open		Cyrix/IBM 6x86MX-PR166
1-2	1-2	1-2	2-3	1-2	Open		AMD K5-PR90
1-2	2-3	1-2	2-3	1-2	Open		AMD K5-PR120
2-3	2-3	1-2	2-3	1-2	Open	AMD K5-PR150	
1-2	1-2	2-3	2-3	2-3	Open	66 MHz	Intel P54C-100
1-2	2-3	2-3	2-3	2-3	Open		Intel P54C-133
2-3	2-3	2-3	2-3	2-3	Open		Intel P54C-166
2-3	2-3	2-3	2-3	2-3	Open		Intel P55C-166
2-3	1-2	2-3	2-3	2-3	Open		Intel P54C-200
2-3	1-2	2-3	2-3	2-3	Open		Intel P55C-200
1-2	1-2	2-3	2-3	2-3	Open		Intel P55C-233
1-2	2-3	2-3	2-3	2-3	Open		Cyrix/IBM 6x86-P166+
2-3	2-3	2-3	2-3	2-3	Open		Cyrix/IBM 6x86L-P166+
1-2	1-2	2-3	2-3	2-3	Open		Cyrix/IBM 6x86MX-PR200
1-2	1-2	2-3	2-3	2-3	Open		AMD K5-PR100
2-3	2-3	2-3	2-3	2-3	Open		AMD K5-PR133
2-3	2-3	2-3	2-3	2-3	Open		AMD K5-PR166
2-3	1-2	2-3	2-3	2-3	Open		AMD K6/166
2-3	1-2	2-3	2-3	2-3	Open		AMD K6/200
1-2	1-2	2-3	2-3	2-3	Open		AMD K6/233
1-2	2-3	2-3	1-2	2-3	Open	75 Mhz	Cyrix/IBM 6x86-P200+
2-3	2-3	2-3	1-2	2-3	Open		Cyrix/IBM 6x86MX-PR233

DPMS Support Select this option if your monitor supports the Display Power Management Signaling (DPMS) standard of the Video Electronics Standards Association (VESA). Use the software supplied for your video subsystem to select video power management values.

Blank Screen System only writes blanks to the video buffer.

IRQ 8 Break Suspend
Enable real-time to wake up system.

Reload Global Timer Events
Set Enabled to wake up system when selected device active.

CPUFAN off in suspend
When enabled this option, the CPU fan will power off automatically in suspend mode.
This feature reduces both energy consumption and noise, and it is a important feature in future PC systems.

Resume by Ring
This option allow a computer to be turned on remotely through a modem. With this function, user can access information from their computer from anywhere in the world.

4.6 PnP/PCI Configuration

ROM PCI/ISA BIOS PNP/PCI CONFIGURATION AWARD SOFTWARE, INC.			
PnP OS Installed	: No	PCI IDE IRQ Map To	: PCI-AUTO
Resources Controlled By	: Auto	Primary IDE INT#	: A
Reset Configuration Data	: Disabled	Secondary IDE INT#	: B
		ESC : Quit	↑↓→← : Select Item
		F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values (Shift) F2	: Color
		F7 : Load Setup Defaults	

Resources Controlled By
The Award Plug and Play BIOS can automatically configure all the boot and Plug and Play compatible devices. If you select Auto, all the interrupt request (IRQ) and DMA assignment fields disappear, as the BIOS automatically assigns them.

◆ I/O接口
1个软驱接口, 支持2个软盘驱动器 (360KB/720KB/1.2MB/1.44MB/2.88MB)
2个串行口 (16550 Fast UART)
1个并行口 (Standard, ECP, EPP)

PS/2鼠标

◆ PS/2鼠标 PS/2鼠标接口为板上 PS/2插座

电源管理

◆ 环保功能
支持多种电源管理规范
支持电源暂停工作(Power-on-Suspend)
支持内存暂停工作(Suspend-to-RAM)
支持硬盘暂停工作(Suspend-to-Disk)

BIOS子系统

◆ BIOS TYPE AWARD BIOS
◆ BIOS影像 影像系统及其它BIOS到专门的RAM
◆ BIOS特征 具有设置 通电自检, 驱动器优化, 用户自定义驱动器类型, 密码保护, 屏蔽选项等功能

即插即用BIOS升级

◆ 即插即用(PnP)BIOS 符合Windows 95即插即用规范
◆ 用电擦写 EEPROM 使用电可擦写EEPROM内容, 方便升级

USB设备

◆ USB设备 兼容 Intel Universal HCI v1.0和USB v1.0标准
2个可编程USB接口

其它功能

◆ 最大消耗功率: 41 W
◆ 3.3V/3.5V供电VIO
◆ 2.5V~3.2V供电VCORE, 以支持MMX技术的CPUs
◆ 接头 复位, 键盘锁定, 扬声器, 硬盘指示灯, 电源指示灯, CPU风扇等
◆ 主板大小尺寸 192毫米X302毫米
◆ 系统停止工作时CPU风扇亦即自动停止工作
◆ 通过调制解调器(Modem)自动打开计算机, 实现资源共享
◆ 电源按钮 当连接ATX电源供应器时, 支持电源开关; 在系统打盹(Doze), 待命(Standby), 沉睡(Suspend)时唤醒系统; 在系统满负荷工作时按该按钮可将系统带进不同的省电模式; 当连接ATX电源供应器时; 按住按钮持续4秒关电源

4.7 Integrated Peripherals

ROM PCI/ISA BIOS INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.			
IDE HDD Block Mode	: Enabled	USB Keyboard Support	: Disabled
IDE Primary Master PIO	: Auto		
IDE Primary Slave PIO	: Auto		
IDE Secondary Master PIO	: Auto		
IDE Secondary Slave PIO	: Auto		
IDE Primary Master UDMA	: Auto		
IDE Primary Slave UDMA	: Auto		
IDE Secondary Master UDMA	: Auto		
IDE Secondary Slave UDMA	: Auto		
On-Chip Primary PCI IDE	: Enabled		
On-Chip Secondary PCI IDE	: Enabled		
KBC input clock	: 8 MHz		
Onboard FDC Controller	: Enabled		
Onboard Serial Port 1	: 3F8/IRQ4		
Onboard Serial Port 2	: 2F8/IRQ3		
UR2 Mode	: Standard		
Onboard Parallel Port	: 378/IRQ7	ESC : Quit	↑↓←→ : Select Item
Parallel Port Mode	: SPP	F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values (Shift) F2 : Color	
		F7 : Load Setup Defaults	

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support.

IDE Primary/Secondary Master/Slave PIO

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

IDE Primary/Secondary Master/Slave UDMA

The integrated peripheral controller contains an IDE interface with support for DMA-33 mode. Select Enabled to activate each channel separately.

On-Chip Primary/Secondary PCI IDE

You may separately disable the primary/secondary channel.

Onboard FDC Controller

Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you install an add-in FDC or the system has no floppy drive, select Disabled in this field.

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In the Security Option item in the BIOS Features Setup screen, select System or Setup:

System Enter a password each time the system boots and when ever you enter setup.
Setup Enter a password when ever you enter Setup.

NOTE: To clear the password simply press Enter when asked to enter a password. Then the password function is disabled.

4.10 IDE HDD Auto Detection

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

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

Select Primary Master Option (N=Skip): N							
OPTIONS	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
2(Y)	540	524	32	0	1047	63	LBA
1	540	1048	16	65535	1047	63	NORMAL
3	540	524	32	65535	1047	63	LARGE

Note: Some OSes (like SCO-UNIX) must use "NORMAL" for installation

The IDE Hard Disk Drive Auto Detection feature automatically configurations your new hard disk. Use it for a quick configuration of new hard drives. This feature allows you to set the parameters of up to four IDE HDDs. The option with "(Y)" are recommended by the system BIOS. You may also keys in your own parameters instead of setting by the system BIOS. After all setting, press ESC key to return the main menu. For confirmation, enter the Standard CMOS Setup feature.

4.11 Save and Exit Setup

After you have made changes under Setup, press <ESC> to return to the main menu. Move cursor to "Save and Exit Setup" or press "F10" and then press "Y" to change the CMOS Setup. If you did not change anything, press <ESC> again or move cursor to "Exit Without Saving" and press "Y" to retain the Setup settings. The following message will appear at the center of the screen to allow you to save data to CMOS and exit the setup utility:

SAVE to CMOS and EXIT (Y/N)?

4.12 Exit without Saving

If you select this feature, the following message will appear at the center of the screen to allow you to exit the setup utility without saving CMOS modifications:

Quit Without Saving (Y/N)?