

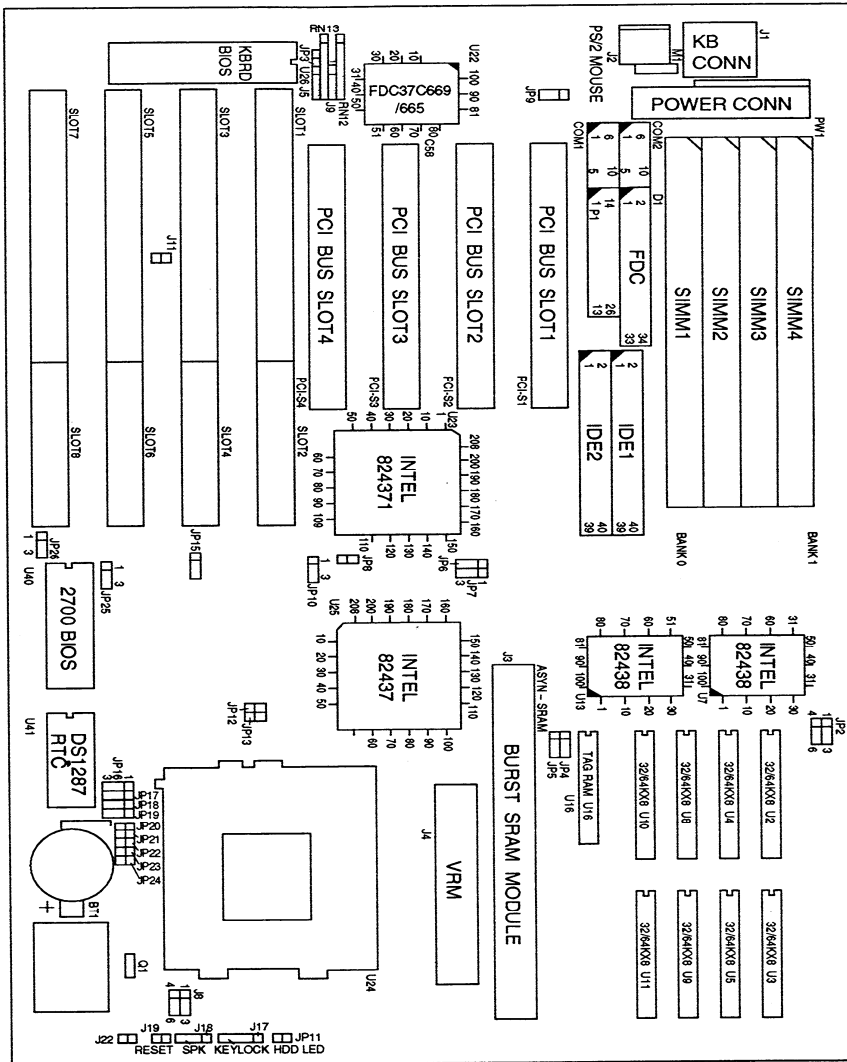
CHAPTER 3

Hardware Description

Hardware Description



3.1 Component Layout and Connectors



3.2 Jumper Switch Settings and connectors Summary

Before installing your PENTIUM PCI system board, make sure the jumpers and connectors are set to the correct position.

There are:

JP20	CMOS RAM discharge
JP4, JP5, JP16, JP17	Cache memory install
JP12, JP13	CPU clock selection
JP21, JP22	CPU Type selection

The Connectors are:

JP11	ON Board IDE LED
PW1	Power connector
J19	Reset connector
J22	Turbo LED
J18	Speaker connector
J17	Keylock and Power LED

Note:

If you decide to change a jumper setting, make sure the board has been disconnected from the power source first. This is to protect both you and mainboard from damage.

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At Bus CLOCK Select (JP10)

JP10	CLOCK
1-2	For 75, 125 MHz CPU (divided by 3)
* 2-3	For other CPU (divided by 4)

Bus Fraction Core/Bus Ratio Select (JP21, JP22) & CPU Type Select (JP12, JP13)

Ratio	CPU TYPE	JP12	JP13	JP21	JP22
3/2	75 (50) MHz	OPEN	OPEN	OPEN	OPEN
	90 (60) MHz	CLOSE	OPEN	OPEN	OPEN
*	100 (66) MHz	CLOSE	CLOSE	OPEN	OPEN
2/1	100 (50) MHz	OPEN	OPEN	CLOSE	OPEN
	120 (60) MHz	CLOSE	OPEN	CLOSE	OPEN
	133 (66) MHz	CLOSE	CLOSE	CLOSE	OPEN
5/2	150 (60) MHz	CLOSE	OPEN	CLOSE	CLOSE
3/1	180 (60) MHz	CLOSE	OPEN	OPEN	CLOSE

Pipeline Select (JP23)

JP23	Address Pipeline
OPEN	Disable Address Pipeline
* CLOSE	Enable Address Pipeline

Write-Back/Write-Through Cache Select (JP24)

JP24	L1 Cache
* OPEN	Write-Back Cache
CLOSE	Write-Through Cache

"*" is default. By the factory jumper setting.

External Connections:

Keyboard Connector (J1)

The keyboard connector is a 5-pin DIN connector
The pin assignments are:

PINOUT	ASSIGNMENTS
1	KEYBOARD CLOCK
2	KEYBOARD DATA
3	NO CONNECTION
4	GROUND
5	+5V

Keylock & Power LED (J17)

PINOUT	ASSIGNMENTS
1	POWER LED
2	NC
3	GROUND
4	KEYLOCK
5	GROUND

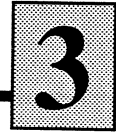
Turbo LED Connector (J22)

PINOUT	ASSIGNMENTS
1	ANODE
2	CATHODE

Turbo Switch (Keyboard)

PINOUT	FUNCTION
Ctrl-ALT-	NORMAL
Ctrl-ALT+	TURBO

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Power Connector (PW1)

The power connector is used to connect power lines and power good signal from the power supply's P8 & P9 connectors to the system board.

The pin assignments are:

PINOUT	ASSIGNMENTS
1	POWER GOOD
2	+5V
3	+12V
4	-12V
5	GROUND
6	GROUND
7	GROUND
8	GROUND
9	-5V
10	+5V
11	+5V
12	+5V

Reset Connector (J19)

PINOUT	ASSIGNMENTS
1	POWER GOOD
2	GROUND

Speaker Connector (J18)

PINOUT	FUNCTION
1	SPEAK OUT
2	GROUND
3	GROUND
4	+5

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JP3: Color/Mon Selector

PINOUT	ASSIGNMENTS
OPEN	MONO-MONITOR
CLOSE	COLOR-MONITOR

JP20: CMOS DISCHARGE

PINOUT	ASSIGNMENTS
OPEN	MORMAL
CLOSE	CLEAR CMOS RAM

JP26: EPROM TYPE

PINOUT	ASSIGNMENTS
2-3	+5V, NORMAL EPROM
1-2	+12V, FLASH ROM

ON Board PCI IDE CONNECTOR (IDE1, IDE2)

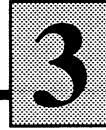
JP11: PRIMARY & SECONDARY HDD LED

PINOUT	ASSIGNMENTS
1	ANODE
2	CATHODE

ON Board PS/2 MOUSE (J2, M1)

PINOUT	ASSIGNMENTS
1	MDATA
2	NC
3	GROUND
4	VCC
5	MCLK

Hardware Description



VRM FEATURE PIN SIGNAL

1. GROUND	16. GROUND
2. GROUND	17. GROUND
3. +12V	18. 3.3V
4. 3.3V	19. 3.3V
5. 3.3V	20. 3.3V
6. 3.3V	21. 3.3V
7. VCORE	22. VCORE
8. VCORE	23. VCORE
9. GROUND	24. VCORE
10. VCORE	25. VCORE
11. PWRGD	26. UPVRM#
12. SENSE	27. DISABLE
13. GROUND	28. GROUND
14. +5V	29. +5V
15. +5V	30. +5V

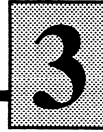
3.3 Memory RAM Modules Installaton

The section describes the combination of BEK-5723 memory. The mainboard support 2 bank (bank0 and bank1) of 72 pin modules, accepts 1MB, 4MB, 16MB and 32MB DRAM on board.

Memory Configuraton Option

BANK 0 MEMORY	BANK 1 72PIN	BANK 2 72PIN	BANK 3 72PIN	TOTAL MEMORY
1MB	1MB	—	—	2MB
4MB	4MB	—	—	8MB
8MB	8MB	—	—	16MB
16MB	16MB	—	—	32MB
32MB	32MB	—	—	64MB
1MB	1MB	1MB	1MB	4MB
4MB	4MB	4MB	4MB	16MB
8MB	8MB	8MB	8MB	32MB
16MB	16MB	16MB	16MB	64MB
32MB	32MB	32MB	32MB	128MB

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3.4 Cache Memory Installaton

(1) 256KB Cache RAM
BANK0 (U2, U3, U4, U5, U8, U9, U10, U11): 32K8 SRAM 8 PCS
TAG RAM (U16): 32K8 1PC

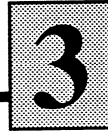
(2) 512KB Cache RAM
BANK0 (U2, U3, U4, U5, U8, U9, U10, U11): 64K8 SRAM 8 PCS
TAG RAM (U16): 32K8 1PC

Note: (1) JP2
2-3, 5-6: MIX VOLTAGE SRAM
1-2, 4-5: 3.3V SRAM
(2) TAG RAM (U16): 5V

CACHE SIZE	JP4	JP5	JP16	JP17
256K	1-2	2-3	1-2	1-2
512K	2-3	2-3	2-3	2-3

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JP27, JP28: ECP MODE DMA CHANNEL

JP27	JP28	ECP MODE DMA CHANNEL
2-3	2-3	DREQ1, DACK1
1-2	1-2	DREQ3, DACK3

COM1: Serial-1

COM2: Serial-2

P1: Print Port connector

FDC1: FDD Connector

IDE2: Secondary IDE Connector

IDE1: Primary IDE Connector