

1.2 System Board Layout

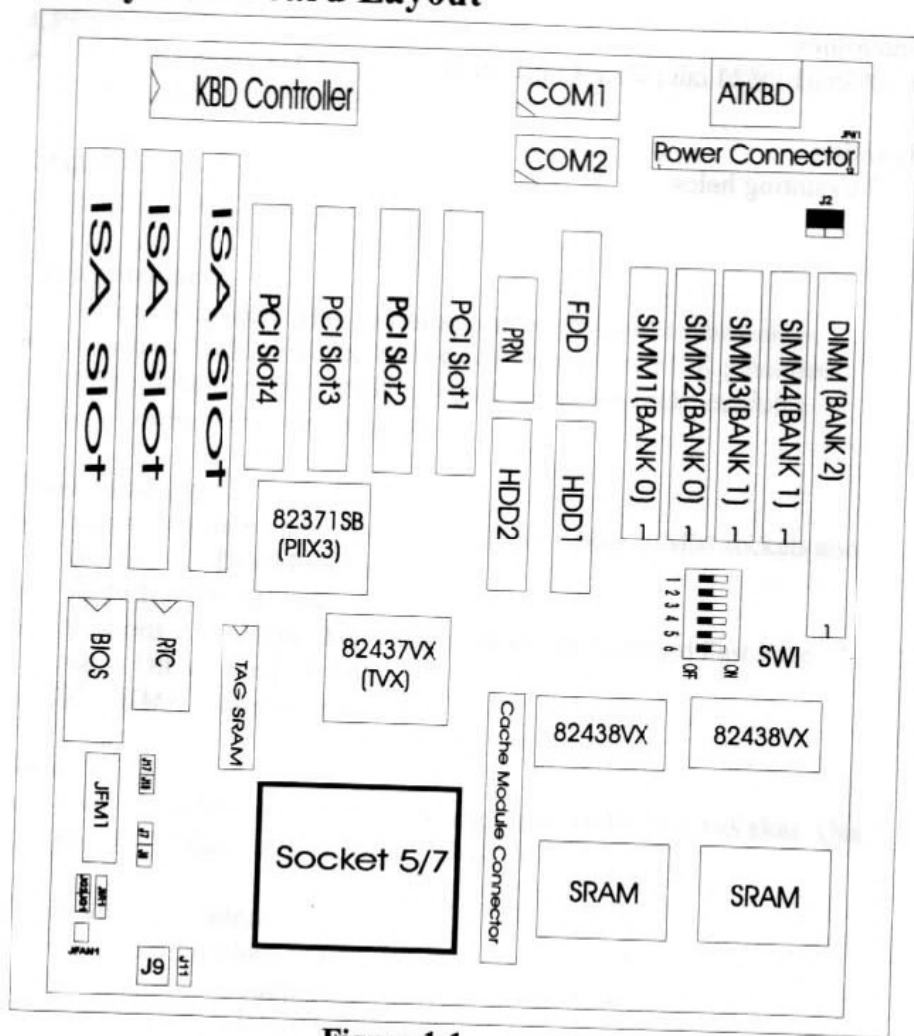


Figure 1-1

Chapter 2 HARDWARE INSTALLATION

2.1 CPU INSTALLATION

After install CPU, adjust SW1 to set CPU SPEED, J7, J8, J9, J11, J17 and J18 to set CPU voltage, and insert CPU fan power cable to JFAN1 to complete CPU installation. (See section 2.1.1, 2.1.2, and 2.1.3)

2.1.1 CPU SPEED SETTING (SW1)

Adjust SW1 (Dip switch) to set CPU speed. Figure 2-1 show SW1 location.

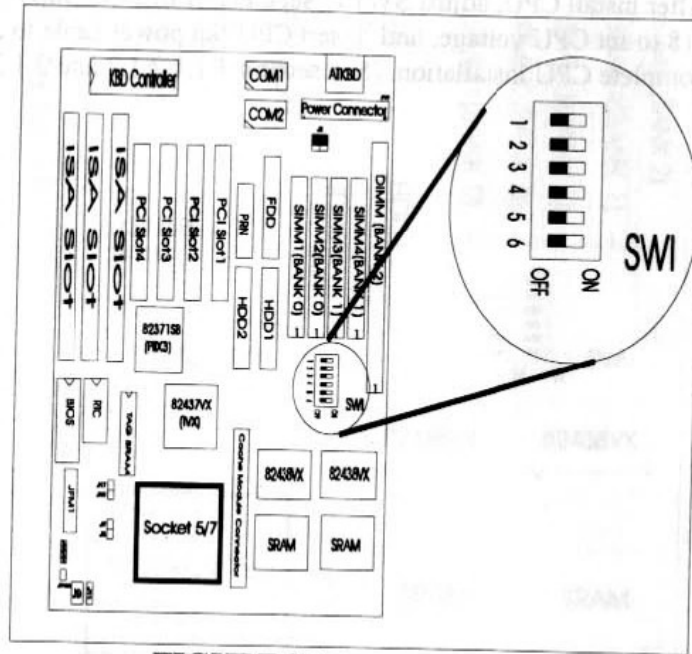


FIGURE 2-1

2.1.1.1 INTEL P54C ~ P55C CPU SPEED SETTING

CPU Type	CPU Speed SW1
P54C-75	
P54C-90	
P54C-100	
P54C-120	
P54C-133	
P54C-150	
P54C-166	
P55C-166	
P54C-200	
P55C-200	
P55C-233	

MMX

2.1.1.2 CYRIX 6x86 ~ 6x86L CPU SPEED SETTING

CPU Type	CPU Speed SW1
P120+(100MHz)	
P133+(110MHz)	
P150+(120MHz)	
P166+(133MHz)	

2.1.1.3 AMD 5k86 ~ K6 CPU SPEED SETTING

CPU Type	CPU Speed SW1
P75(75MHz)	
P90(90MHz)	
P100(100MHz)	
P133(133MHz)	
P166(166MHz)	
P200(200MHz)	

Note 1: The 4 Host Clock frequencies that the system supports are 50MHz, 55MHz, 60MHz, and 66.6MHz. (by adjusting SW1 pin 1,2,3, and 4). See the following chart to set the different Host Clock frequencies.

HOST CLK	SW1 Settings						
50MHZ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			ON
	1	2	3	4			OFF
55MHZ	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			ON
	1	2	3	4			OFF
60MHZ	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ON	
	1	2	3	4	OFF		
66MHZ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			ON
	1	2	3	4			OFF
	1	2	3	4			ON
	1	2	3	4			OFF

Note 2: The DIP Switch SW1 (5,6) is used to set the Core/Bus (Fraction) ratio of the CPU. The actual core speed of the CPU is the Host Clock Frequency multiplied by the Core/Bus ratio. For example:

if $\frac{\text{Host Clock}}{\text{Core/Bus ratio}} = 66.6\text{MHz}$

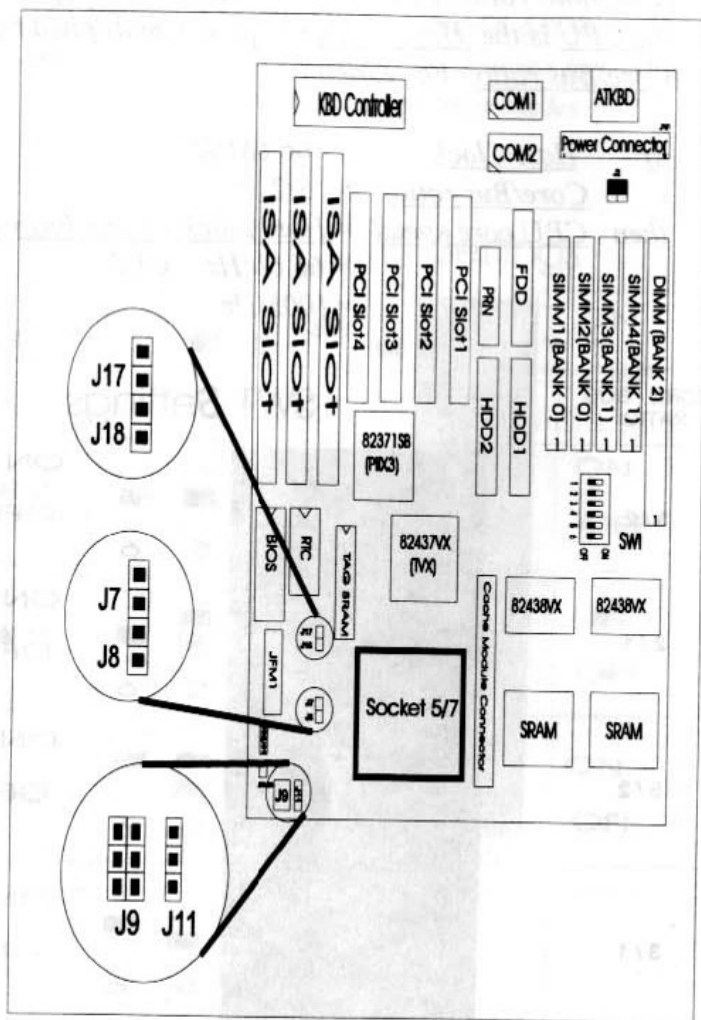
$\frac{\text{Core/Bus ratio}}{\text{Core/Bus ratio}} = 3/2$

then $\text{CPU core speed} = \text{Host Clock} \times \text{Core/Bus ratio}$
 $= 66.6\text{MHz} \times 3/2$
 $= 100\text{MHz}$

CORE / BUS RATIO	SW1 Settings		
3/2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ON
	5	6	OFF
2/1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON
	5	6	OFF
5/2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ON
	5	6	OFF
3/1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON
	5	6	OFF
7/2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ON
	5	6	OFF

Note 3: The PCI Bus Clock is the Host Clock Frequency divided by 2.

2.1.2 CPU VOLTAGE SETTING (J7,J8,J9,J11,J17,J18)



2.1.2.1 For P54C, J7, J8, J9, J11, J17, J18 setting is as below.

CPU VOLTAGE	J7,J8 JUMPER SETTING
3.38V	J7 J8
3.52V	J7 J8

J9,J11 JUMPER SETTING	J17,J18 JUMPER SETTING
J9 J11	J17 J18

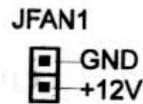
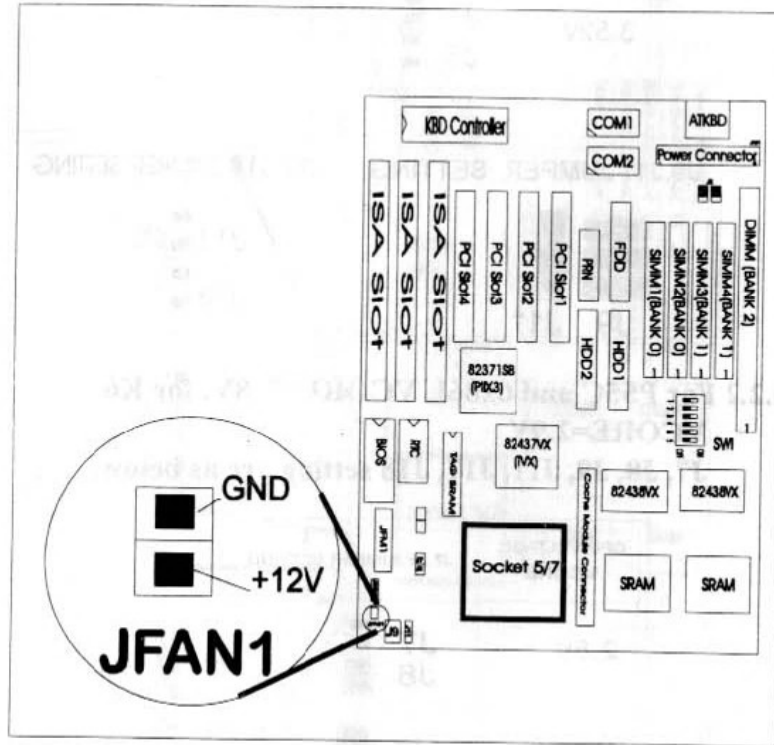
2.1.2.2 For P55C and 6x86L V_{CORE}=2..8V, for K6 V_{CORE}=2.9V
J7, J8, J9, J11, J17, J18 setting are as below:

CPU VOLTAGE V _{CORE}	J7,J8 JUMPER SETTING
2.8V	J7 J8
2.9V	J7 J8

J9,J11 JUMPER SETTING	J17,J18 JUMPER SETTING
J9 J11	J17 J18

2.1.3 CPU FAN POWER CONNECTOR (JFAN1)

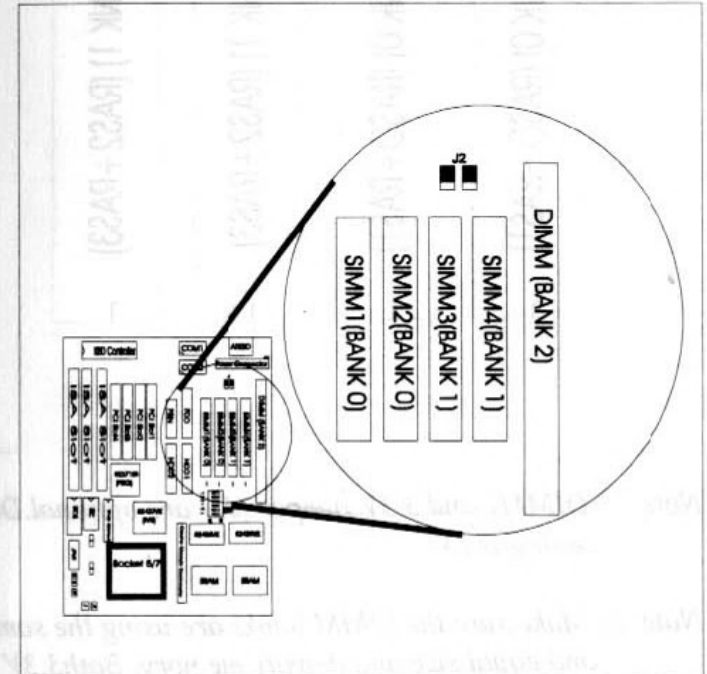
JFAN1 connector support +12V voltage for CPU fan use.

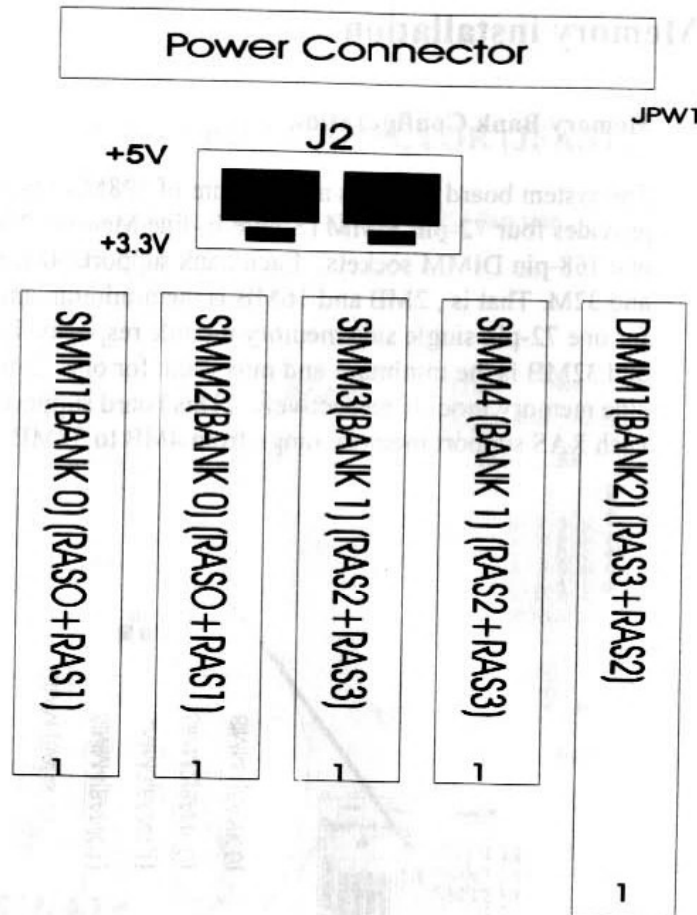


2.2 Memory installation

Memory Bank Configuration

The system board supports a maximum of 128M of memory, and provides four 72-pin SIMM (Single In-line Memory Module) and one 168-pin DIMM sockets. Each bank supports 4M, 8M, 16M, and 32M. That is, 2MB and 16MB is the minimum and maximum for one 72-pin single side memory module respectively, and 4MB and 32MB is the minimum and maximum for one 72-pin double side memory module respectively. (This board support 4 RAS, each RAS support memory range from 4MB to 32MB.)





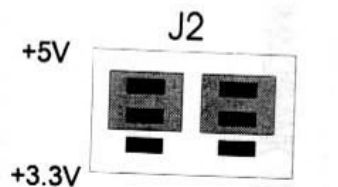
Note 1: 1 DIMM1 and 3.3V jumper (J2) are optional. Default setting is 5V.

Note 2: Make sure the SIMM banks are using the same type and equal size and density memory. Both 3.3V and 5V SIMM memory can be used, but only 3.3V SIMM memory should be used if DIMM memory is installed in the system.

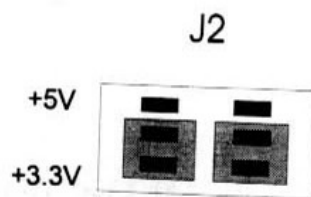
Note 3: To operate properly at least two 72-pin SIMM module must be installed in the same bank or the one 168-pin

DIMM module must be installed. The system cannot operate with only one 72-pin SIMM module installed.
Note 4: Only 3.3V SIMM memory should be installed at the same time as DIMM memory. Otherwise don't install SIMM memory and DIMM memory at the same time. Doing so could damage your system.

Note 5: The DIMM bank supports 3.3V EDO, 3.3V FP, and, unbuffered 3.3V SDRAM. Be sure to adjust the J2, jumpers to the 3.3V position before installing DIMM memory. Below, describe J2 jumper settings on 3.3V and 5V position respectively.



+5V SETTING



+3.3V SETTING

Note 6: This mainboard supports Table Free so memory can be installed on Bank 0 (SIMM1 + SIMM2), Bank 1 (SIMM3 + SIMM4), or Bank 2 (DIMM1).

Note 7: If the SIMM memory is 3.3V the following combinations are O.K. (Remember to adjust J2 to 3.3V settings.)

S=Single D=Double X=Not Installed

SIMM1+SIMM2 Bank 0	SIMM3+SIMM4 Bank 1	DIMM1 Bank 2
S	X	X
S	S	X
S	S	S
S	X	S
S	D	X
S	X	D
D	X	X
D	S	X
D	S	S
D	N	S
D	D	X
D	X	D
X	S	X
X	S	S
X	X	S
X	D	X
X	X	D

