3 Jumpers and Connectors

What kind of CPU are you using ?

This section contains the detail descriptions of Intel, AMD, Cyrix, and UMC processors. Before you setting the jumpers, you should read this section to know the CPU voltage, CPU clock, etc.

- **Intel CPU:**
  - **Intel486 SX SL Enhance processor**

A80486SX-xx:	Product No. - Frequency (either 25 or 33 MHz)
FFFFFFFF:	FPO#
&E5V1XSX###:	&E=SL Enhance; 5 volt; 1X clock; spec#

  - **IntelSX2 SL Enhance processor**

A80486SX2-50:	Product No. - Frequency (50MHz)
FFFFFFFF:	FPO#
&E5V1XSX###:	&E=SL Enhance; 5 volt; 1X clock; spec#

  - **Intel486 DX SL Enhance processor**

A80486DX-33:	Product No. - Frequency (33 MHz)
FFFFFFFF:	FPO#
&E5V1XSX###:	&E=SL Enhance; 5 volt; 1X clock; spec#

  - **IntelDX2 SL Enhance processor**

A80486DX2-xx:	Product No. - Frequency (either 50 or 66 MHz)
FFFFFFFF:	FPO#
&E5V1XSX###:	&E=SL Enhance; 5 volt; 1X clock; spec#

  - **IntelDX2 SL Enhance L1-WB processor (P24D)**

A80486DX2-xx:	Product No. - Frequency (either 50 or 66 MHz)
FFFFFFFF:	FPO#
&EW5V1XSX###:	&E=SL Enhance; W=L1-Write Back; 5 volt; 1X clock; SX954/SX955

- **IntelDX4 SL Enhance processor (P24C)**

  A80486DX4-xx: Product No. - Frequency (either 75 or 100 MHz)
  FFFFFFFF: FPO#
  &E3VOLTSX###: &E=SL Enhance; 3.3 volt; New S-spec#

- **IntelDX2 OverDrive processor**

  DX2ODPR-xx: Product No. - Frequency (either 50 or 66 MHz)
  FFFFFFFF: FPO#
  ##### v4.0: SL Enhance; 5 volt

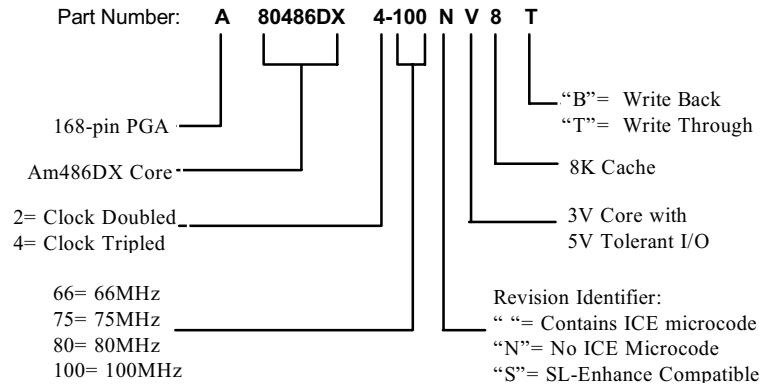
- **IntelDX4 OverDrive processor**

  DX4ODPR-xx: Product No. - Frequency (either 75 or 100 MHz)
  FFFFFFFF: FPO#
  ##### v1.x: SL Enhance; 5 volt

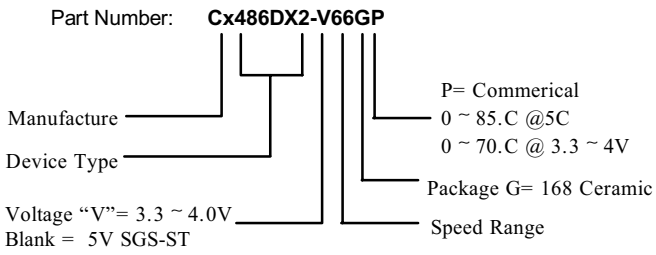
- **IntelDX/SX/DX2/SX2 Non-SL Enhance processor**

  A80486xx-xx: Product No. - Frequency (25/33/50/66 MHz)
  FFFFFFFF: FPO#
  SX###: 5 volt

❑ AMD CPU:



❑ Cyrix CPU:



CPU Type	CxDX4-100GP4	DxDX4-100GP
Surface Mark	Cx486DX4-100GP DX4-P/O 3.45V	Cx486DX4-100GP 3.45V

Part Number	CPU Frequency	Nominal Voltage	Voltage range
Cx486DX2-V50	50 MHz	3.3 or 3.6 Volts	3.15 - 3.75 Volts
Cx486DX2-V66	66 MHz	3.6 Volts	3.45 - 3.75 Volts
Cx486DX2-V80	80 MHz	4.0 Volts	3.8 - 4.2 Volts
CxDX4-100GP	100 MHz	3.45 Volts	3.45 - 3.6 Volts
CxDX4-100GP4	100 MHz	3.45 Volts	3.45 - 3.6 Volts
Cx5X86-100/120GP	100/120 MHz	3.45 Volts	3.45 - 3.6 Volts

SGS, TI, and IBM CPU are compatible with Cyrix CPU. Please contact with your CPU vendor for the detailed information.

If there are no "V" (Voltage) on the surface of your AMD, Cyrix, or UMC CPU, the meaning is 5V core CPU.

Setting the Jumpers

The table below summarizes the functions and jumper settings of each jumper on the UP8812 AIO. Please refer to the next section for the graphic descriptions.

Function		Jumper Settings
CPU Type	Intel 80486DX/DX2 AMD Am486DX/DX2 Am486DX4 NV8T	JP9 open JP10 open JP12 short 1-2 JP13 short 1-2 JP15 open JP16 open JP17 open JP18 short 1-2 JP21 open JP23 open JP25 open JP26 short 1-2 JP27 open JP28 short 1-2, 3-4 JP29 open
	Intel 80486DX/DX2/DX4 (SL Enhance, L1 Write-Through) ☆ see the page 3-7 Overdrive DX2/DX4 ODPR	JP9 short 2-3 JP10 open JP12 short 1-2 JP13 short 1-2 JP15 open JP16 open JP17 short 1-2 JP18 short 2-3 JP21 open JP23 open JP25 short 1-2 JP26 short 1-2 JP27 open JP28 short 1-2, 3-4 JP29 short 2-3, 4-5

Continued .....

Function		Jumper Settings
CPU Type	Intel 80486SX (PGA)	JP9 open JP10 open JP12 short 1-2 JP13 short 1-2 JP15 open JP16 open JP17 open JP18 short 1-2 JP21 open JP23 open JP25 open JP26 open JP27 open JP28 short 2-3 JP29 open
	Intel 80486SX (SL Enhance)	JP9 open JP10 open JP12 short 1-2 JP13 short 1-2 JP15 open JP16 open JP17 short 1-2 JP18 short 2-3 JP21 open JP23 open JP25 short 1-2 JP26 open JP27 open JP28 short 2-3 JP29 short 2-3, 4-5
	Intel PD5V (P24T)	JP9 open JP10 open JP12 short 1-2 JP13 short 1-2 JP15 short 1-2 JP16 open JP17 short 1-2 JP18 short 1-2 JP21 open JP23 short JP25 short 1-2 JP26 short 2-3 JP27 short 1-2 JP28 short 1-2, 3-4 JP29 short 2-3, 4-5

Continued .....

Function		Jumper Settings
CPU Type	Intel 80486DX/DX2/DX4 (SL Enhance, L1 Write-Back) ☆ see the page 3-7 AMD Am486DX2/DX4 SV8B (SL Enhance, L1 Write-Back) Am5x86-P75 Cyrix Cx486DX4-100GP4 Cx5x86	JP9 short 1-2 JP10 open JP12 short 1-2 JP13 short 1-2 JP15 open JP16 open JP17 short 1-2 JP18 short 2-3 JP21 open short (for AMD Am5x86-P75) JP23 open JP25 short 1-2, 3-4 JP26 short 1-2 JP27 open JP28 short 1-2, 3-4 JP29 short 2-3, 4-5
	Cyrix Cx486S (M6)	JP9 open JP10 open JP12 short 1-2 JP13 short 2-3 JP15 short 2-3 JP16 short 2-3 JP17 short 1-2 JP18 short 2-3 JP21 open JP23 open JP25 short 2-3 JP26 open JP27 short 2-3 JP28 short 2-3 JP29 short 1-2, 3-4

Continued .....

Function		Jumper Settings
CPU Type	Cyrix Cx486DX/DX2/DX4 (M7)	JP9 open JP10 open JP12 short 1-2 JP13 short 2-3 JP15 short 2-3 JP16 short 2-3 JP17 short 1-2 JP18 short 2-3 JP21 open JP23 open JP25 short 2-3 JP26 short 1-2 JP27 short 2-3 JP28 short 1-2, 3-4 JP29 short 1-2, 3-4
Intel 80486DX4	2X External Clock	JP21 short
Internal Clock	3X External Clock	JP21 open
CPU Clock Select	25 MHz	JP5 short 1-2
	33 MHz	JP5 short 1-2, 3-4, 5-6
	40 MHz	JP5 short 1-2, 3-4
	50 MHz	JP5 short 5-6
CPU Voltage	5V	JP30 open JP32 short 1-2 JP33 short 1-2
	3.3V	JP30 short 1-2 JP32 short 2-3 JP33 short 2-3
	3.45V	JP30 short 3-4 JP32 short 2-3 JP33 short 2-3
	3.6V	JP30 short 5-6 JP32 short 2-3 JP33 short 2-3
	4.0V	JP30 short 7-8 JP32 short 2-3 JP33 short 2-3

Continued .....

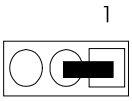
Function		Jumper Settings
External Cache	128K (32Kx8 SRAMs in one bank)	JP6 open JP7 open JP8 open JP14 open JP19 open JP24 short 2-3
	256K (32Kx8 SRAMs in two banks)	JP6 short JP7 open JP8 open JP14 open JP19 open JP24 short 1-2
	256K (64Kx8 SRAMs in one bank)	JP6 short JP7 open JP8 open JP14 open JP19 short 1-2 JP24 short 2-3
	512K (64Kx8 SRAMs in two banks)	JP6 short JP7 short JP8 open JP14 open JP19 short 2-3 JP24 short 1-2
External Cache	512K (128Kx8 SRAMs in one bank)	JP6 short JP7 short JP8 open JP14 short 1-2 JP19 short 1-2 JP24 short 2-3
	1M (128Kx8 SRAMs in two banks)	JP6 short JP7 short JP8 short JP14 short 2-3 JP19 short 2-3 JP24 short 1-2
On-board Multi-I/O	Enabled	JP3 short 1-2
	Disabled	JP3 short 2-3

Continued .....

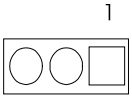
Function		Jumper Settings
ROM Type of BIOS	EPROM	JP1 open
	Programming Flash ROM with +5 Voltage	JP1 short 1-2
	Programming Flash ROM with +12 Voltage	JP1 short 2-3

Table 3 -1. Jumper Settings

Graphic Descriptions of Jumper Settings



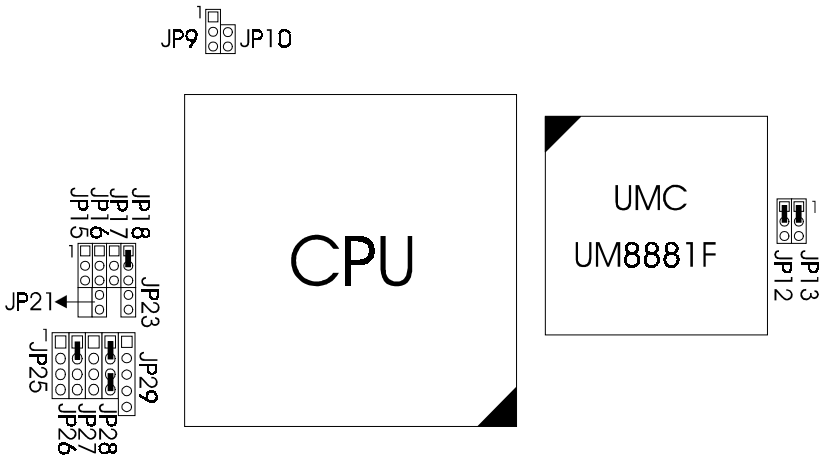
means Pins 1 & 2 are set as "short"



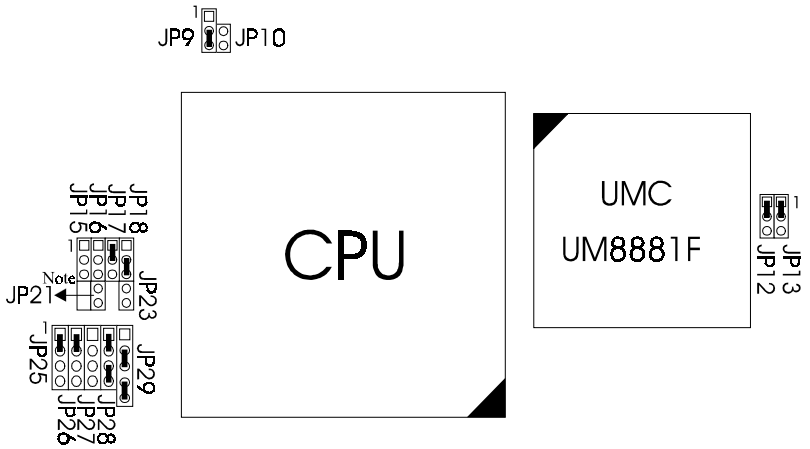
means that this jumper is set as "open."

CPU Type

1. Intel 80486DX/DX2, AMD Am486DX/DX2, Am486DX4 NV8T



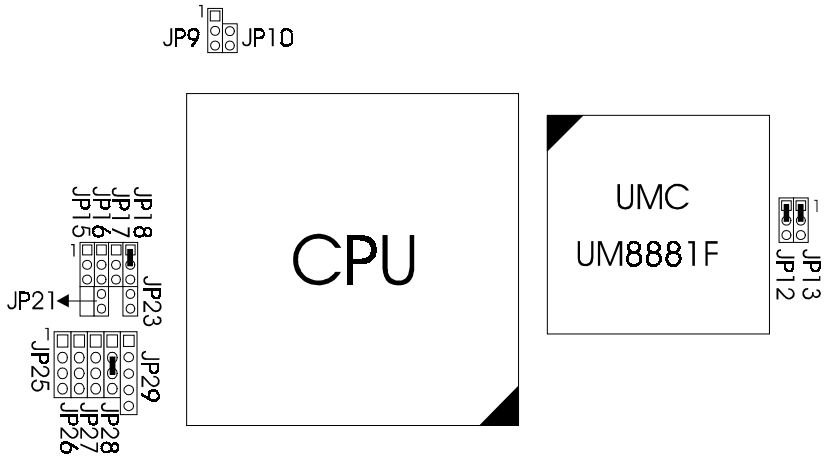
2. Intel 80486DX/DX2/DX4 (SL Enhance, L1 Write-Through), Overdrive DX2/DX4 ODPR



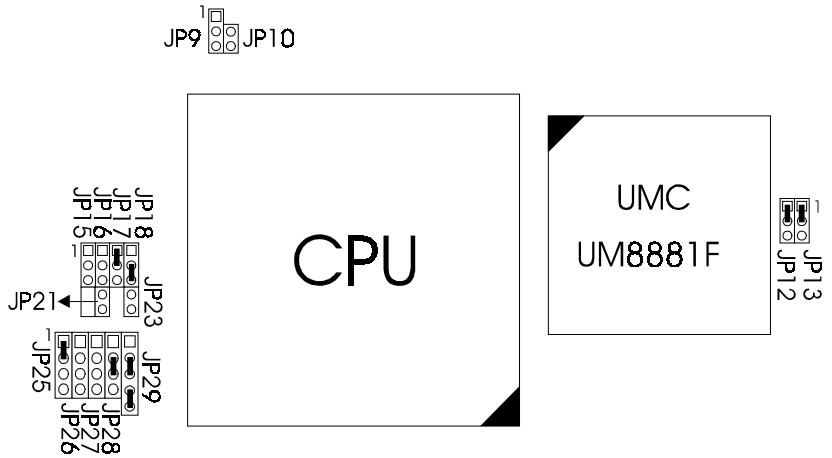
Note: Intel 80486DX4 CPU, AMD Am486DX2/DX4 SV8B CPU ---

Internal Clock = 2X External Clock then JP21 short
Internal Clock = 3X External Clock then JP21 open

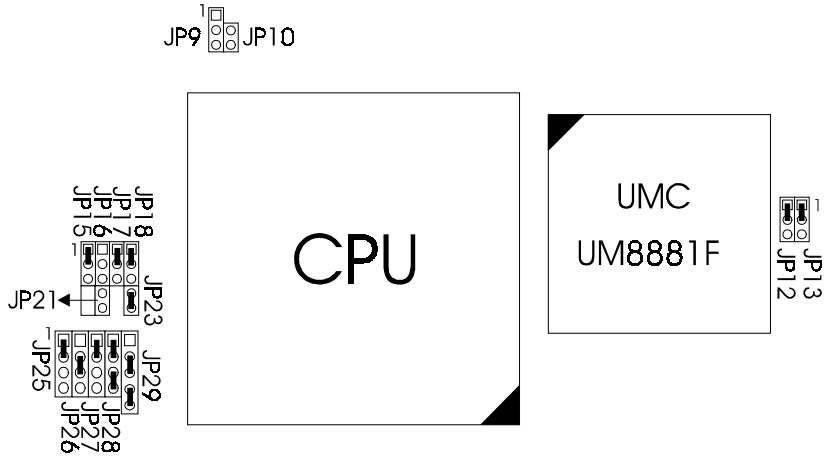
3. Intel 80486SX (PGA)



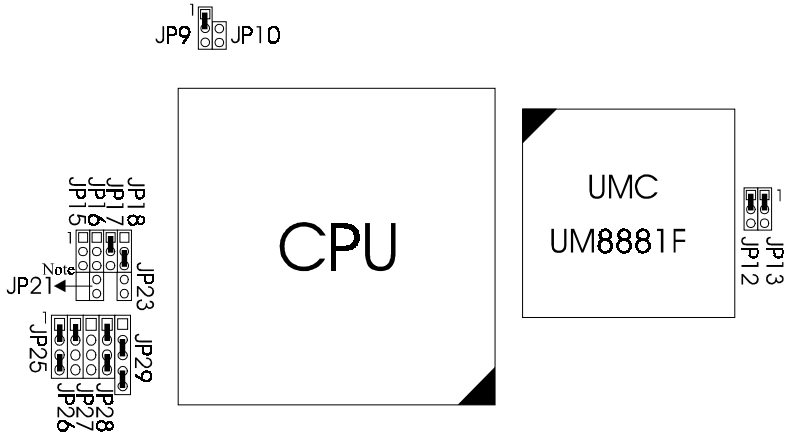
4. Intel 80486SX (SL Enhance)



5. Intel PD5V (P24T)



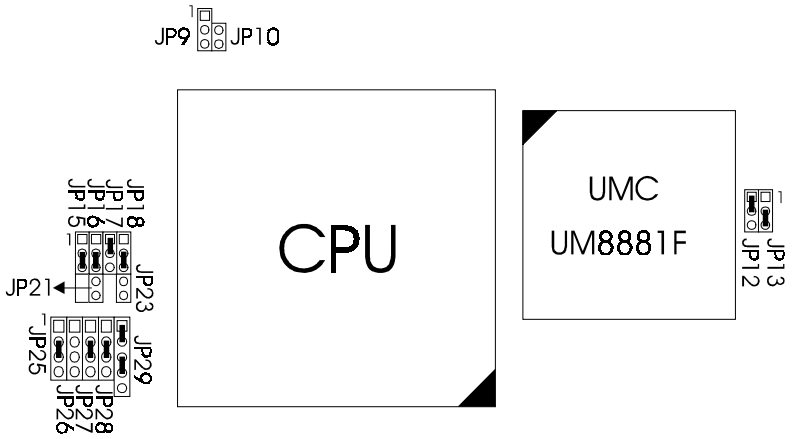
6. Intel 80486DX/DX2/DX4 (SL Enhance, L1 Write-Back);
   AMD Am486DX2/DX4 SV8B (SL Enhance, L1 Write-Back),
   Am5x86-P75; Cyrix Cx486DX4-100GP4, Cx5x86



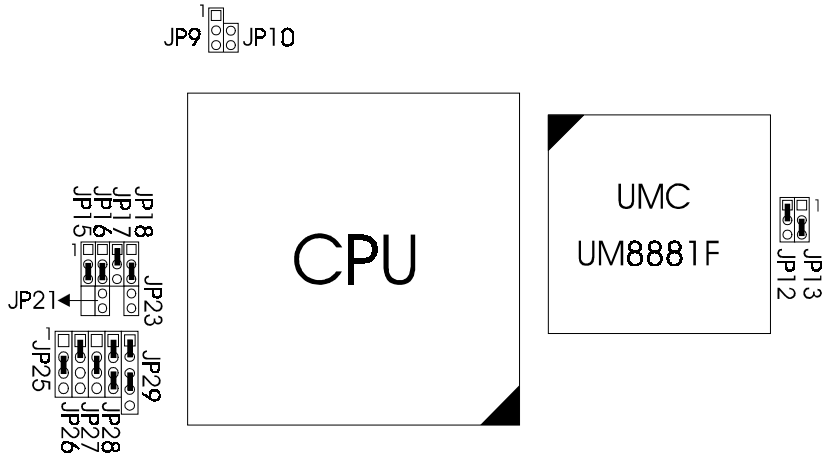
Note: Intel 80486DX4 CPU ---
Internal Clock = 2X External Clock then JP21 short
Internal Clock = 3X External Clock then JP21 open

AMD Am5x86-P75 CPU --- JP21 short

7. Cyrix Cx486S (M6)

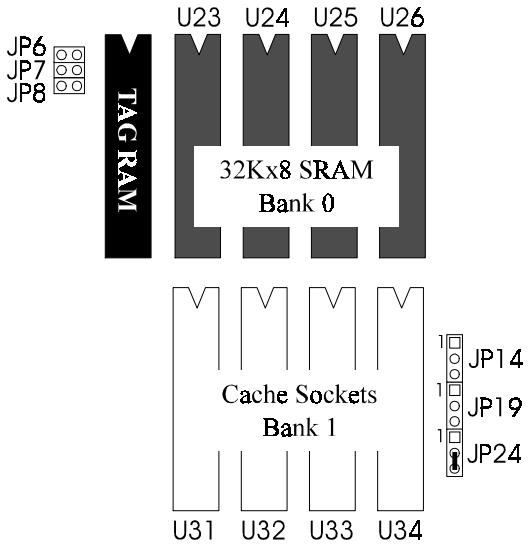


8. Cyrix Cx486DX/DX2/DX4 (M7)

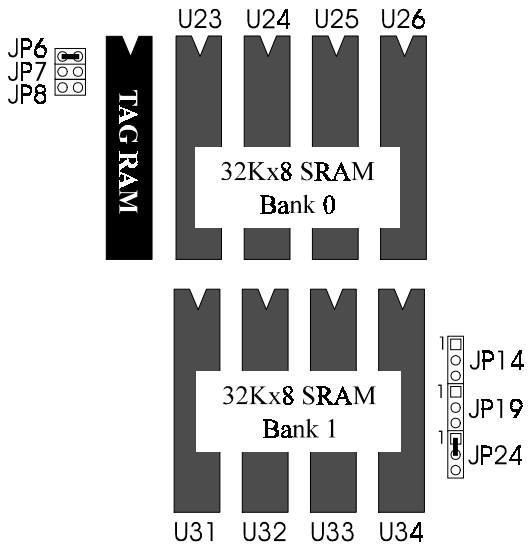


External Cache

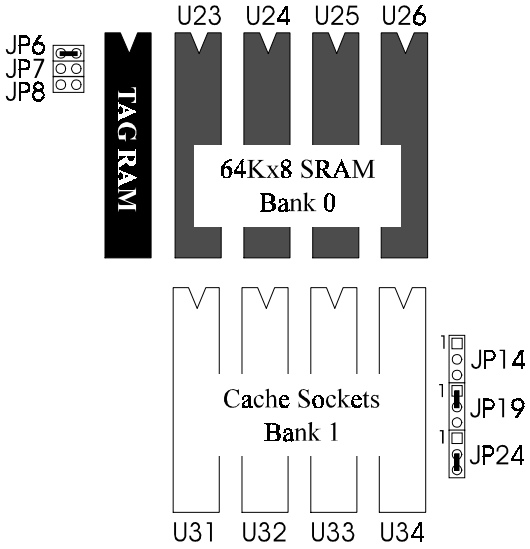
1. 128K (32Kx8 SRAMs in one bank)



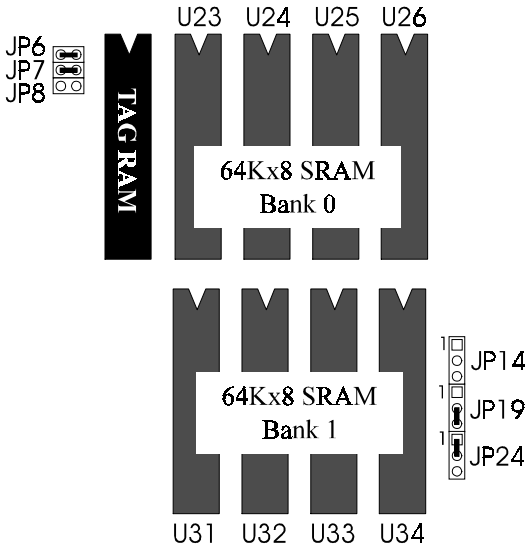
2. 256K (32Kx8 SRAMs in two banks)



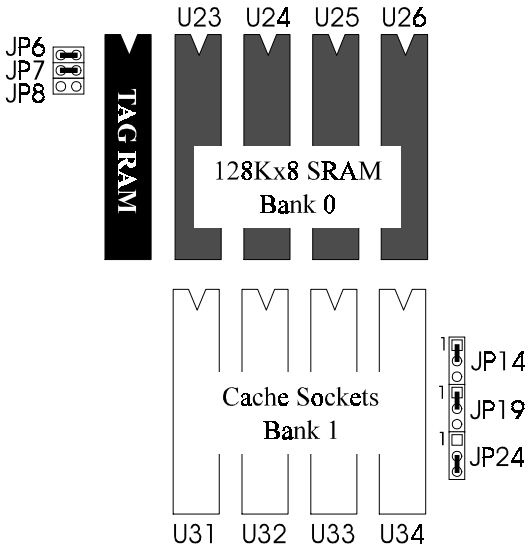
3. 256K (64Kx8 SRAMs in one bank)



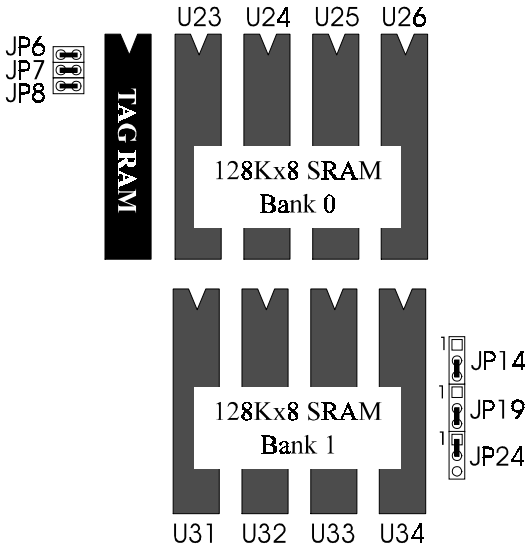
4. 512K (64Kx8 SRAMs in two banks)



5. 512K (128Kx8 SRAMs in one bank)



6. 1M (128Kx8 SRAMs in two banks)


U23
U24
U25
U26
JP6
JP7
JP8
TAG RAM
128Kx8 SRAM
Bank 0
128Kx8 SRAM
Bank 1
JP14
JP19
JP24
U31
U32
U33
U34

Connectors

The following table lists the connectors located on the UP8812 AIO. They are used to connect with some peripheral devices to enhance the operating performance of the system.

Please refer to the mainboard layout figure on next page for their positions.

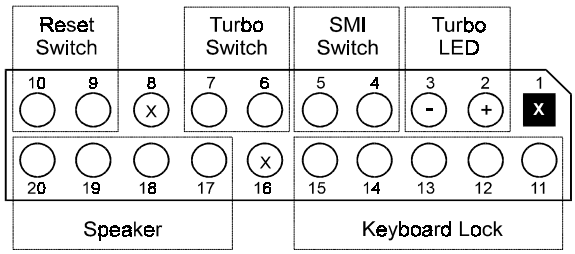
Connector	Function
J1	PS/2 Mouse Connector (optional)
J2	PS/2 Keyboard Connector (optional)
J3	Serial Port 1 (COM1)
J4	Serial Port 2 (COM2)
J5	Parallel Port
J9	Secondary IDE Connector
J10	Primary IDE Connector
J11	Floppy Connector
J13	HDD LED Connector
J14	5-pin PS/2 Mouse Connector (optional)
JP31	 X: No Function
KB1	AT Keyboard Connector
PS1	Power Connector

Table 3 -2. Connectors

Board Layout

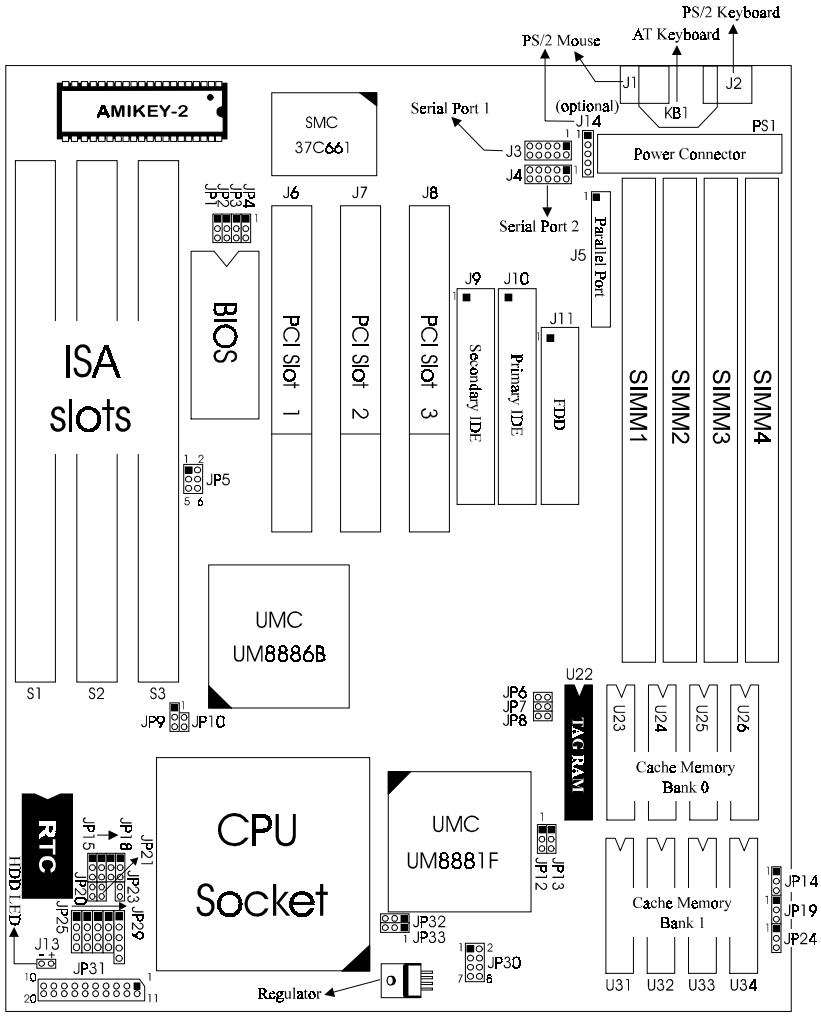


Figure 3 -1. UP8812 AIO Main board Layout