# Chapter 2
Jumper Configuration

The mainboard offers a set of jumper settings to facilitate clock frequency adjustments and other important selections.
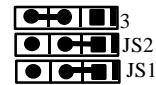
System Clock Selection

In this TX Baby AT mainboard, there are five selections of SC (System Clock). Users have to set a group of jumpers as shown in the following illustration to determine which system clock is used.
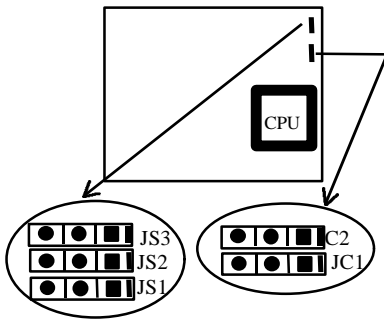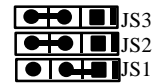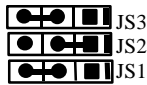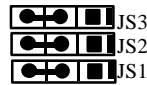

System Clock 50MHz:
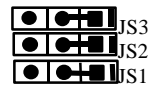
System Clock 55MHz:

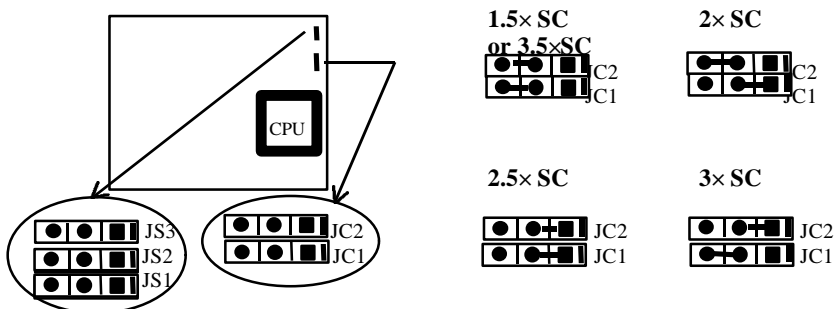System Clock 60MHz :

System Clock 75MHz: System Clock 66MHz :

Clock Multiplier Selection

The Intel Pentium CPU multiple clock settings are as shown below:

** Note: SC -- System Clock

**1.5× SC
or 3.5×SC**

2× SC

2.5× SC

3× SC

* Remark: 3.5× SC is only for 233MHz Pentium MMX CPU & K6 CPU.
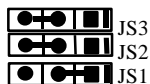
CPU Frequency Selection

According to the CPU's specification, set the system clock and clock multiplier carefully. The following illustrations list all jumper settings for the major types of CPUs.

For Intel Pentium 75~233MHz

75=1.5 × 50MHz: 90=1.5 × 60MHz: 100=1.5 × 66MHz:
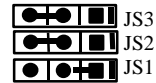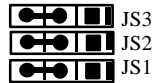

120=2 × 60MHz: 133=2 × 66MHz: 150=2.5 × 60MHz:

JS3
JS2
JS1

JC2
JC1

JS3
JS2
JS1

JC2
JC1

JS3
JS2
JS1

JC2
JC1
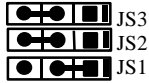
166=2.5× 66MHz: 180=3× 60MHz: 200=3× 66MHz:

JS3
JS2
JS1

JC2
JC1

JS3
JS2
JS1

JC2
JC1

JS3
JS2
JS1

JC2
JC1

233=3.5 × 66MHz:

JS3
JS2
JS1

JC2
JC1
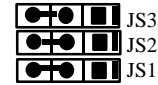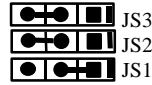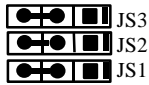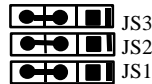
* **Remark: 3.5× SC is only for Pentium MMX CPU.**

For Cyrix 6× 86 CPU

P120+(100MHz)=50MHz × 2:   P133+(110MHz)= 55MHz × 2:

JS3
JS2
JS1

JC2
JC1
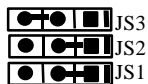
P150+(120MHz)=60MHz × 2:   P166+(133MHz)= 66MHz × 2:

JS3
JS2
JS1

JC2
JC1

P200+(150MHz)= 75MHz × 2:

JS3
JS2
JS1

JC2
JC1

** **Note:**
The maximum speed of Intel PCIset specification is 66MHz only, it's recommended by Intel not to set system clock frequency at 75MHz.

For Cyrix 6×86MX CPU

MX-PR166(150MHz)= 60MHz × 2.5:

JS3

JS2
JS1

JC2
JC1
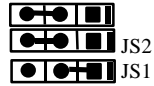
MX-PR200(150MHz)= 75MHz × 2:

JS3
JS2
JS1

JC2
JC1
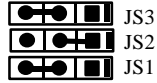
MX-PR200(166MHz)= 66MHz × 2.5:

JS3
JS2
JS1

JC2
JC1

MX-PR233(188MHz)= 75MHz × 2.5:

JS3
JS2
JS1

JC2
JC1

MX-PR233(200MHz)= 66MHz × 3:

JS3
JS2
JS1

JC1
JC2
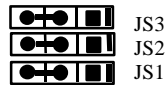
For AMD K5 CPU

PR75 (75MHz) = 50MHz × 1.5:

$$\boxed{\bullet \mid \bullet\!\!-\!\!\blacksquare} \text{ JS3}$$
$$\boxed{\bullet \mid \bullet\!\!-\!\!\blacksquare} \text{ JS2}$$
$$\boxed{\bullet \mid \bullet\!\!-\!\!\blacksquare} \text{ JS1}$$

$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JC2}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JC1}$$
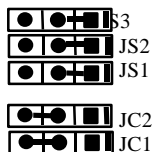
PR90, PR120 (90MHz) = 60MHz × 1.5:

$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS3}$$
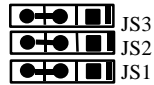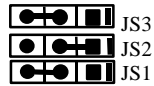$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS2}$$
$$\boxed{\bullet \mid \bullet\!\!-\!\!\blacksquare} \text{ JS1}$$

$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JC2}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JC1}$$
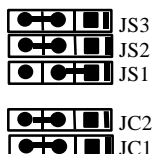
PR100, PR133 (100MHz) = 66MHz × 1.5:

$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS3}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS2}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS1}$$

$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JC2}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JC1}$$

PR166 = 66MHz × 2.5:

$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS3}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS2}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS1}$$

$$\boxed{\bullet \mid \bullet\!\!-\!\!\blacksquare} \text{ JC2}$$
$$\boxed{\bullet \mid \bullet\!\!-\!\!\blacksquare} \text{ JC1}$$

PR200 = 66MHz × 3:

$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS3}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS2}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS1}$$

$$\boxed{\bullet \mid \bullet\!\!-\!\!\blacksquare} \text{ JC2}$$
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JC1}$$
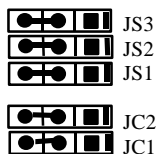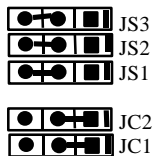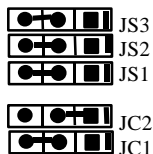
For AMD K6 CPU

K6 - 166 (166MHz) = 66MHz × 2.5:
$$\boxed{\bullet\!\!-\!\!\bullet \mid \blacksquare} \text{ JS3}$$

JS2
JS1

JC2
JC1

K6 - 200 (200MHz) = 66MHz × 3:

JS3
JS2
JS1

JC2
JC1
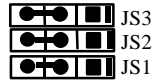
K6 - 233 (233MHz) = 66MHz × 3.5:

JS3
JS2
JS1

JC2
JC1
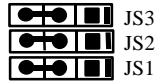
CPU Type & Voltage Selection

JV5

CPU

JV1JV2JV3JV4
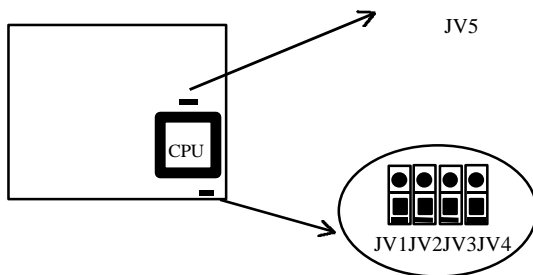
For single voltage CPU (Intel Pentium Processor):

3.3V Voltage   3.5V Voltage

JV1JV2JV3JV4   JV5   JV1JV2JV3JV4   JV5
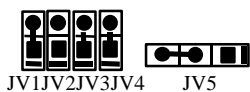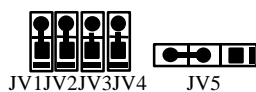
For dual voltage CPU (Pentium Processor with MMX ᵀᴹ Technology):

I/O voltage selection:
3.3V I/O voltage

JV5

Core voltage selection:

2.8V core voltage   2.9V core voltage   3.2V core voltage

JV1JV2JV3JV4   JV1JV2JV3JV4   JV1JV2JV3JV4

Clear CMOS

2-8

Normal

JP6

CPU

JP6

Clear CMOS
close once

JP6
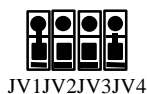
**✱✱Note： Power down the AC Supply (110/220V) when
                 wanting to clear CMOS.**

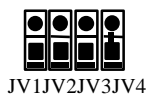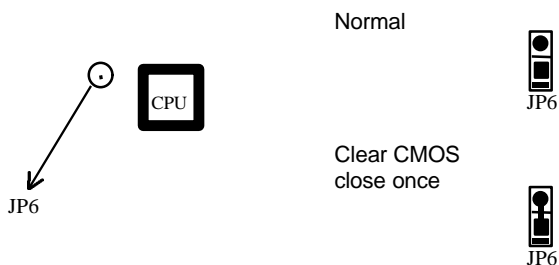"✱"   : Represents default jumper settings.

Memory Configuration

The TX Baby AT mainboard provides 4 SIMM slots and 2 DIMM slots for
providing a flexible memory size from 8MB up to 256MB main memory.
Please do not plug in two different brands of SIMMs on a bank simultaneously.

This mainboard supports 72-pin SIMM of 4MB, 8MB, 16MB, 32MB or 64MB.
The DRAM can be 60ns/70ns Fast Page mode of EDO DRAM. SIMMs must
be installed in pairs so that each bank contains two of the same size memory
modules. Two slots support 3.3V Synchronous DRAM (SDRAM) or 3.3V
unbuffered EDO DIMM of 8MB, 16MB, 32MB, 64MB.

3.3V/unbuffered   Synchronous
DRAM

3.3V/unbuffered EDO DRAM

SIMM
slots

Bank 0

Bank 1

Fast Page Mode DRAM
EDO DRAM
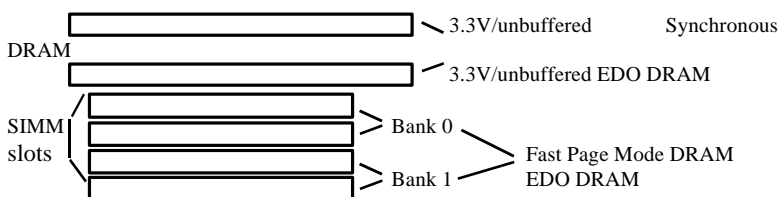
If using DIMM together with SIMM, refer to the following table:

DIMM1	DIMM2	SIMM1 & 2	SIMM3 & 4
None	Don't care	Single-row or Double row SIMM	Don't care
Single-row DIMM	Don't care	Single-row SIMM	Don't care

Double-row DIMM	Don't care	None	Don't care

If using DIMM or SIMM only, refer to the following table:

Total Memory	SIMM1 & 2	SIMM3 & 4	DIMM1	DIMM2
8 MB	4 MB × 2	----	----	----
	----	----	8 MB	----
16 MB	8 MB × 2	----	----	----
	4 MB × 2	4 MB × 2	----	----
	----	----	16 MB	----
	----	----	8 MB	8 MB
24 MB	8 MB × 2	4 MB × 2	----	----
32 MB	8 MB × 2	8 MB × 2	----	----
	16 MB × 2	----	----	----
	----	----	16 MB	16 MB
	----	----	32 MB	----
48 MB	16 MB × 2	8 MB × 2	----	----
	----	----	32 MB	16 MB
64 MB	16 MB × 2	16 MB × 2	----	----
	32 MB × 2	----	----	----
	----	----	32MB	32MB
72 MB	32 MB × 2	4 MB × 2	----	----
80 MB	32 MB × 2	8 MB × 2	----	----
96 MB	32 MB × 2	16 MB × 2	----	----
128 MB	32 MB × 2	32 MB × 2	----	----
256 MB	64 MB × 2	64 MB × 2	----	----

* Remark:
1. **If DIMM1 and/or DIMM2 has 64MB or 128MB DIMMs with 64 bit SDRAM cells, SIMM1, 2, 3 & 4 must be empty.**

2. **DRAM and SDRAM modules can be installed in a variety of configurations. Please note that not all possible combinations of installation are listed here.**