

# Appendix A

## Jumper Table Summary

### Setting the CPU Voltage

JP11	CPU Core Voltage (Vcore)
1-2	3.45V (Intel P54C or IDT C6)
3-4	3.52V (Cyrix or AMD K5)
5-6	2.9V (AMD K6-166/200 or Cyrix M2)
7-8	2.8V (MMX P55C)
9-10	3.2V (AMD K6-233)
11-12	2.5V/2.2V/2.0V (Reserved)



**Warning:** Please make sure that you have installed CPU fan properly if Intel PP/MT-233 or AMD K6-200/233 is being selected to use. It may cause your system unstable if you can not meet the heat dissipation requirement from above CPU type. It is recommended to adopt larger fan on these CPU for better air flow in the system.



**Tip:** Normally, for single voltage CPU, Vcpuio (CPU I/O Voltage) is equal to Vcore, but for CPU that needs dual voltage such as PP/MT (P55C) or Cyrix 6x86L, Vcpuio is different from Vcore and must be set to Vio (PBSRAM and Chipset Voltage). The single or dual voltage CPU is automatically detected by hardware circuit.

**Tip:** JP11 pin 11-12 is reserved for future CPU, the most possible value is 2.0V. It is not yet decided when this manual is printed. Use voltage meter or check your distributor before you use pin 11-12.

CPU	Type	JP11	Vcore
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## Jumper Table Summary

INTEL P54C	Single Voltage	1-2	3.45V
INTEL MMX P55C	Dual Voltage	7-8	2.8V
AMD K5	Single Voltage	3-4	3.52V
AMD K6-166/200	Dual Voltage	5-6	2.9V
AMD K6-233	Dual Voltage	9-10	3.2V
Cyrix 6x86	Single Voltage	3-4	3.52V
Cyrix 6x86L	Dual Voltage	7-8	2.8V
Cyrix M2	Dual Voltage	5-6	2.9V
IDT C6	Single Voltage	1-2	3.45V

## Selecting the CPU Frequency

JP3	JP1	JP2	CPU Frequency Ratio	JP6	JP4	JP5	CPU External Clock
1-2	1-2	1-2	1.5x (3.5x)	1-2	1-2	2-3	60MHz
1-2	2-3	1-2	2x	1-2	2-3	1-2	66MHz
1-2	2-3	2-3	2.5x (1.75x)	2-3	1-2	2-3	75MHz
1-2	1-2	2-3	3x	2-3	2-3	1-2	83.3MHz
2-3	2-3	1-2	4x				
2-3	2-3	2-3	4.5x				
2-3	1-2	2-3	5x				
2-3	1-2	1-2	5.5x				



**Note:** JP3 is reserved for future CPU. It is NC pin (no connection) for current CPU on the market. It should be no harm to connect to 1-2 or 2-3. If you find any unstable problem, please try to remove the jumper cap, and leave it Open.



**Note:** Intel PP/MT MMX 233MHz is using 1.5x jumper setting for 3.5x frequency ratio, and AMD PR166 is using 2.5x setting for 1.75x frequency ratio.



**Warning:** INTEL TX chipset supports only 60/66MHz external CPU bus clock, the 75/83.3MHz settings are for internal test only, set to 75/83.3MHz exceeds the specification of TX chipset, which may cause serious system damage.



**Warning:** Cyrix 6x86 P200+ uses 75MHz external clock, the jumper setting shown on the table below is for user's convenient. It may cause serious system damage to use 75MHz clock.

INTEL	CPU Core	Ratio	External	JP3 & JP1 & JP2	JP6 & JP4 & JP5
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## Jumper Table Summary

Pentium	Frequency		Bus Clock		
P54C 90	90MHz =	1.5x	60MHz	1-2 & 1-2 & 1-2	1-2 & 1-2 & 2-3
P54C 100	100MHz =	1.5x	66MHz	1-2 & 1-2 & 1-2	1-2 & 2-3 & 1-2
P54C 120	120MHz =	2x	60MHz	1-2 & 2-3 & 1-2	1-2 & 1-2 & 2-3
P54C 133	133MHz =	2x	66MHz	1-2 & 2-3 & 1-2	1-2 & 2-3 & 1-2
P54C 150	150MHz =	2.5x	60MHz	1-2 & 2-3 & 2-3	1-2 & 1-2 & 2-3
P54C 166	166MHz =	2.5x	66MHz	1-2 & 2-3 & 2-3	1-2 & 2-3 & 1-2
P54C 200	200MHz =	3x	66MHz	1-2 & 1-2 & 2-3	1-2 & 2-3 & 1-2

INTEL Pentium	CPU Core Frequency	Ratio	External Bus Clock	JP3 & JP1 & JP2	JP6 & JP4 & JP5
PP/MT 150	150MHz =	2.5x	60MHz	1-2 & 2-3 & 2-3	1-2 & 1-2 & 2-3
PP/MT 166	166MHz =	2.5x	66MHz	1-2 & 2-3 & 2-3	1-2 & 2-3 & 1-2
PP/MT 200	200MHz =	3x	66MHz	1-2 & 1-2 & 2-3	1-2 & 2-3 & 1-2
PP/MT 233	233MHz =	3.5x	66MHz	1-2 & 1-2 & 1-2	1-2 & 2-3 & 1-2

Cyrix 6x86 & 6x86L	CPU Core Frequency	Ratio	External Bus Clock	JP3 & JP1 & JP2	JP6 & JP4 & JP5
P150+	120MHz =	2x	60MHz	1-2 & 2-3 & 1-2	1-2 & 1-2 & 2-3
P166+	133MHz =	2x	66MHz	1-2 & 2-3 & 1-2	1-2 & 2-3 & 1-2
P200+	150MHz =	2x	75MHz	1-2 & 2-3 & 1-2	2-3 & 1-2 & 2-3

Cyrix M2	CPU Core Frequency	Ratio	External Bus Clock	JP3 & JP1 & JP2	JP6 & JP4 & JP5
MX-PR166	150MHz =	2.5x	60MHz	1-2 & 2-3 & 2-3	1-2 & 1-2 & 2-3
MX-PR200	166MHz =	2.5x	66MHz	1-2 & 2-3 & 2-3	1-2 & 2-3 & 1-2
MX-PR233	200MHz =	3x	66MHz	1-2 & 1-2 & 2-3	1-2 & 2-3 & 1-2
MX-PR266	233MHz =	3.5x	66MHz	1-2 & 1-2 & 1-2	1-2 & 2-3 & 1-2

IDT C6	CPU Core Frequency	Ratio	External Bus Clock	JP3 & JP1 & JP2	JP6 & JP4 & JP5
C6-150	150MHz =	2x	75MHz	1-2 & 2-3 & 1-2	2-3 & 1-2 & 2-3
C6-180	180MHz =	3x	60MHz	1-2 & 1-2 & 2-3	1-2 & 1-2 & 2-3
C6-200	200MHz =	3x	66MHz	1-2 & 1-2 & 2-3	1-2 & 2-3 & 1-2

## Jumper Table Summary

AMD K5	CPU Core Frequency	Ratio	External Bus Clock	JP3 & JP1 & JP2	JP6 & JP4 & JP5
PR90	90MHz =	1.5x	60MHz	1-2 & 1-2 & 1-2	1-2 & 1-2 & 2-3
PR100	100MHz =	1.5x	66MHz	1-2 & 1-2 & 1-2	1-2 & 2-3 & 1-2
PR120	90MHz =	1.5x	60MHz	1-2 & 1-2 & 1-2	1-2 & 1-2 & 2-3
PR133	100MHz =	1.5x	66MHz	1-2 & 1-2 & 1-2	1-2 & 2-3 & 1-2
PR166	116MHz =	1.75x	66MHz	1-2 & 2-3 & 2-3	1-2 & 2-3 & 1-2

AMD K6	CPU Core Frequency	Ratio	External Bus Clock	JP3 & JP1 & JP2	JP6 & JP4 & JP5
PR2-166	166MHz =	2.5x	66MHz	1-2 & 2-3 & 2-3	1-2 & 2-3 & 1-2
PR2-200	200MHz =	3x	66MHz	1-2 & 1-2 & 2-3	1-2 & 2-3 & 1-2
PR2-233	233MHz =	3.5x	66MHz	1-2 & 1-2 & 1-2	1-2 & 2-3 & 1-2

### Disabling the Onboard Super I/O

<u>JP18</u>	<u>Onboard Super I/O</u>
1-2	Enable (default)
2-3	Disable

### Disabling the PS/2 Mouse

<u>JP20</u>	<u>PS/2 Mouse</u>
1-2	Enable (default)
2-3	Disable

### Clear CMOS

<u>JP14</u>	<u>Clear CMOS</u>
1-2	Normal operation (default)
2-3	Clear CMOS