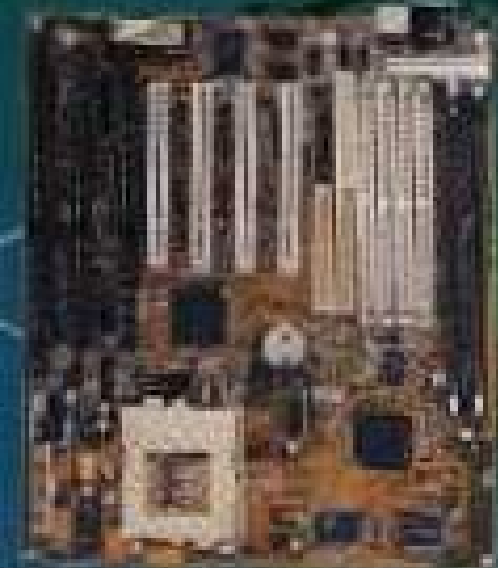


# GCT-SITB USER'S MANUAL

PCI ISA Bus, Pentium® Processor 33 MHz - 133 MHz Mainboard  
With On Board PCI Bus Master IDE and Super Multi-DI

## MAIN BOARD



USER'S MANUAL

# GCT-SITB *Game Color Technology*

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PCI ISA Bus, Pentium® Processor 33 MHz - 133 MHz Mainboard  
With On Board PCI Bus Master IDE and Super Multi-DI

### SOCKET 7

## MAIN BOARD



CE



## Mainboard component Locations

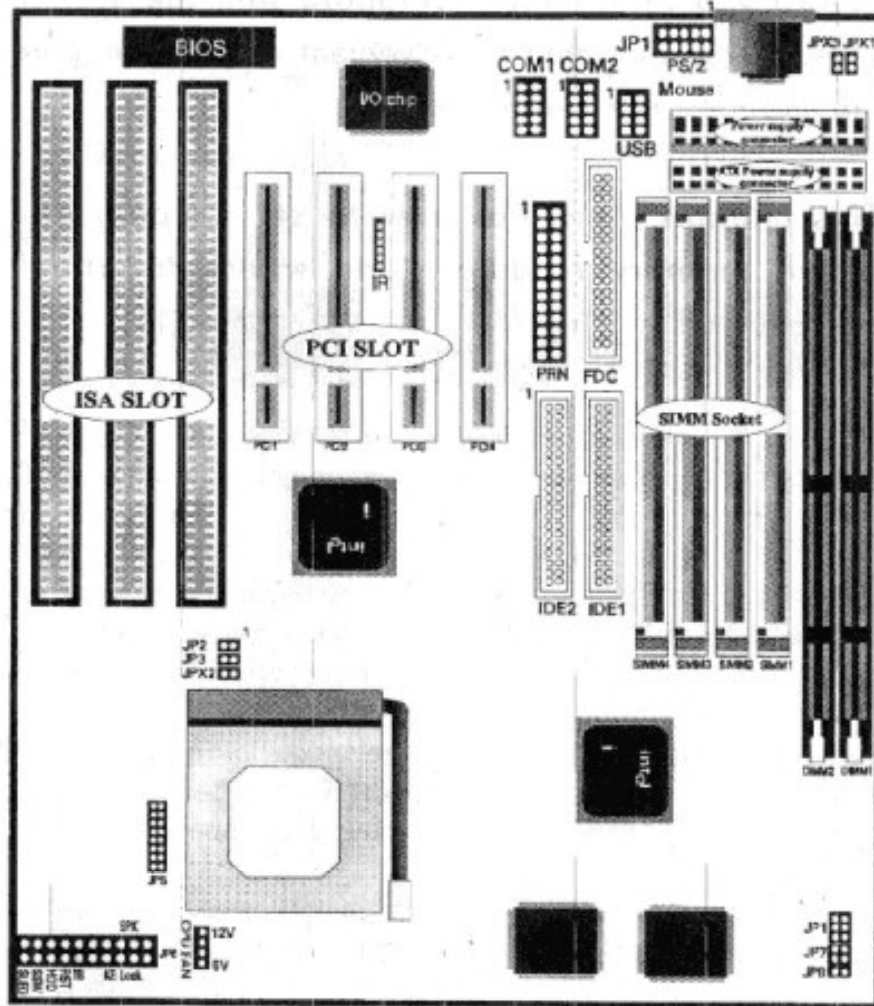


Figure 2-1 Mainboard Component Locations

## Power Precautions

Before you begin configuration, make sure you are working with an unplugged mainboard. Many components are powered by low-voltage current, but there still may be a dangerous electric current coming from the leads and power supply. You should take the following precautions:

- Turn off the power supply, and unplug the power cord before you begin
- Unplug all cables that connect the mainboard to any external devices.

## Connectors

Attach system components and case devices to the mainboard via the mainboard connectors. A description of each connector; and its connector pins follows. See Figure 2-1 for the location of the connectors on the mainboard.

### Note:

Before making connections to the board, make sure that power to the system is turned off.

## Jumper Settings

You can configure hardware options by setting jumper on the mainboard. See Figure 2-1 for jumper locations.

Set a jumper as follows:

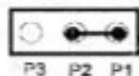
- Short a jumper by placing the plastic jumper cap over two pins of the jumper.
- Open the pins of a jumper by removing the jumper cap.

### Note:

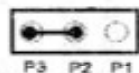
**When you open the jumper, attach the plastic jumper cap to one of the pins so you won't lose it.**

### Symbols:

For setting 3-pin jumpers, the symbols below are used:



Pins 1 and 2 are Shorted with a jumper cap.



Pins 2 and 3 are Shorted with a jumper cap.

For setting 2-pin jumpers, the following symbols are used:



The jumper is Shorted when the jumper cap is placed over the two pins of the jumper.



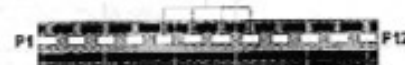
The jumper is Open when the jumper cap is removed from the jumper.

## P1 Power Supply Connectors

The power supply connectors are two six-pin male header connectors. Plug the dual connectors from the power directly onto the board connectors.

Most of power supply have two leads. Each lead has six wires. Two of which are black, orient the connectors, so the black wires are in the middle.

The black wires should be in the middle

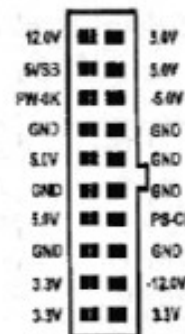


Pin	Description	Pin	Description
1	Power Good	7	Ground
2	+5V DC	8	Ground
3	+12V DC	9	-5V DC
4	-12V DC	10	+5V DC
5	Ground	11	+5V DC
6	Ground	12	+5V DC

## P2 ATX Power Supply Connectors

This connector connects to a ATX power supply. The plug from the power supply will only insert in one orientation because of the different hole sizes.

Find the proper orientation and push down firmly making sure that the pins are aligned.

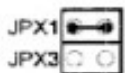
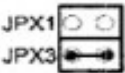


### KB1 Keyboard Connector

A standard five-pin female DIN keyboard connector is located at the rear of the board KB1.

Pin	Description
1	Keyboard Clock
2	Keyboard Data
3	N.C.
4	Ground
5	+5VDC

### JPX1, JPX3 Power Connector Selector

Pin	Description
 JPX1 JPX3	For AT power supply connector
 JPX1 JPX3	For ATX power supply connector

### JPX2 Power Switch Connector

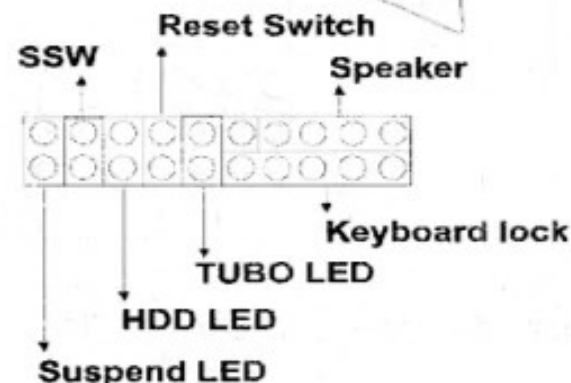
Attach the power switch cable to this connector. Holding the power switch for more than 4 seconds will power off the system. Pushing the power button for less than 4 seconds the system is into sleep mode. This function works for the ATX power supply only.

### USB1 Universal Serial Bus Connector



This connector supports two port USB Bus.

Pin	Description	Pin	Description
1	+5 VDC	5	+5VDC
2	DATA-	6	DATA-
3	DATA+	7	DATA+
4	Ground	8	Ground

### JP6 : Keylock, SPKR, TB, RST, HDD, SSW, SLED





### HDD Hard Disk LED Connector

Pin	Description
 P1	5V
 P2	Active Low

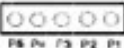
### RST Reset Switch Connector

Attach the Reset switch cable to this connector.

Setting	Description
 P1	Normal Mode
 P2	Reset System

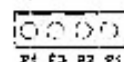
### Keylock

KB Lock is a keylock connector that enables and disables the keyboard and the Power-LED on the case.

Pin	Description
 P1 P2 P3 P4 P5	LED Output
2	NC
3	Ground
4	Keylock
5	GND

## SPKR Speaker Connectors

Attach the system speaker to connector SPKR.



Pin	Description
1	DATA Out
2	NC
3	Ground
4	+5V

## SSW Suspend Switch Connector

Attach the suspend switch cable to this connector.



Description
Normal Mode (Default)
Suspend Mode On

## SLED Suspend Mode LED

### Intel Pentium CPU Bottom Side Marking



R (round) for Voltage Range

V for VBE Voltage Range  
or  
S for Standard Voltage Range

### Intel Pentium CPU Bottom Side Marking



K = V for VBE voltage range  
and  
S for standard voltage range  
I = M for main valid VIO bits  
and  
S for non valid status bits  
M = U is not tested for DP,  
is tested for HP and MP  
and  
S is tested for JH, UP, and MP

### AMD 5K86 CPU Top Side Marking



CPU  
Processor Core

Product Name

Case Temperature:  
W = 65°C R = 70°C Q = 65°C  
Y = 75°C X = 65°C Z = 85°C

Operating Voltage:  
E = 3.45V-3.80V  
G = 3.30V-3.45V  
I = 2.135V-3.465V  
H = 2.76V-3.07V (core I/O)  
J = 2.57V-2.81V (core I/O)  
K = 2.38V-2.62V (core I/O)

Package Type A = 5P104

Internal CPU Frequency



Case Temperature  
R = 70°C

Operating Voltage  
H = 3.1V-3.6V (core I/O)  
S = 3.3V-3.6V (I/O)  
L = 2.75V-3.04V (core I/O)  
N = 3.5V-3.8V (I/O)

Family/Code  
Performance Rating

Package Type  
A = 5P104 GPGA

### Cyrix 6x86 CPU Top Side Marking

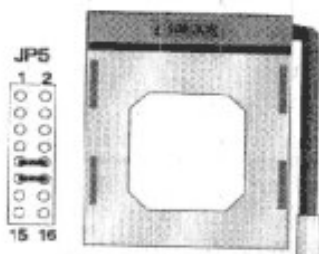


(01A) : 3.3V  
(02A) : 3.52V

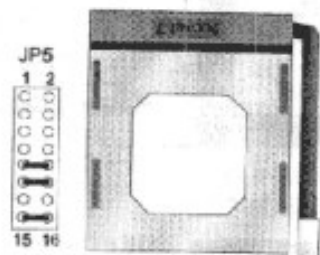


**JP5 - CPU Voltage Regulator Output Selectors**

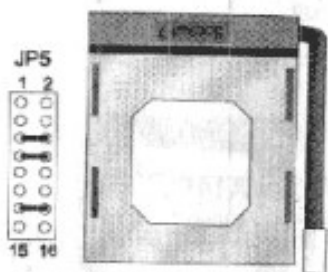
Voltage : 3.52 v CPU



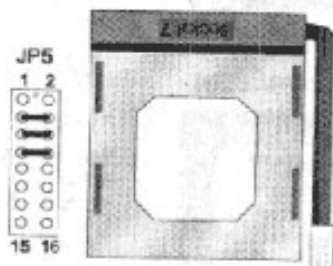
Voltage : 3.3 v CPU



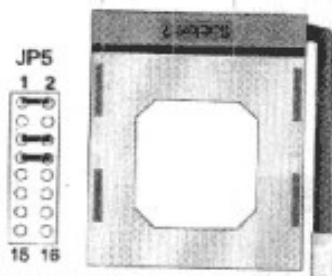
Voltage : 3.2v CPU



Voltage : 2.8v/2.9 v CPU



Voltage : 2.0 v CPU



**Note :**

Intel P54C : core & I/O voltage : 3.3V, 3.52V  
 Intel P55C : core voltage : 2.8V , I/O voltage : 3.3v  
 Cyrix 6x86-PRXX+(M1) : core & I/O voltage :  
 (016) 3.3V (028) 3.52V  
 Cyrix 6x86L-PRXX : core voltage : 2.8V, I/O voltage : 3.3V  
 AMD K5-PRXX : core & I/O voltage : 3.52V  
 AMD K6-166/200 : core voltage : 2.9V & I/O voltage 3.3V  
 AMD K6-233/266 : core voltage : 3.2V & I/O voltage 3.3V  
 New AMD K6-233/266/300 : core voltage : 2.0V & I/O voltage  
 3.3V

Intel CPU	Frequency Ratio
90MHz	1.5 x 60MHz
100MHz	1.5 x 66MHz
120MHz	2.0 x 60MHz
133MHz	2.0 x 66MHz
150MHz	2.5 x 60MHz
150MHz	2.0 x 75MHz
166MHz	2.5 x 66MHz
166MHz	2.0 x 83MHz
200MHz	3.0 x 66MHz
210MHz	2.5 x 83MHz
225MHz	3.0 x 75MHz
233MHz	3.5 x 66MHz
250MHz	3.0 x 83MHz
266MHz	3.5 x 75MHz

AMD K5- PRXX CPU	Frequency Ratio
PR90	1.5 x 60MHz
PR100	1.5 x 66MHz
PR120	1.5 x 60MHz
PR133	1.5 x 66MHz
PR150	2.5 x 60MHz
PR166	2.5 x 66MHz
PR200	3.0 x 66MHz

AMD K6- XXX CPU	Frequency Ratio
165MHz	2.5 x 66MHz
200MHz	3.0 x 66MHz
233MHz	3.5 x 66MHz

Cyrix M1 CPU	Frequency Ratio
6x86-PR133+110MHz	2.0 x 55MHz
6x86-PR150+120MHz	2.0 x 60MHz
6x86-PR166+133MHz	2.0 x 66MHz
6x86-PR200+150MHz	2.0 x 75MHz

Cyrix M2 CPU	Frequency Ratio
6x85L-PR133+110MHz	2.0 x 55MHz
6x85L-PR150+120MHz	2.0 x 60MHz
6x86L-PR166+133MHz	2.0 x 66MHz
6x86L-PR200+150MHz	2.0 x 75MHz

### JP1 CPU Speed Selectors

The mainboard has a clock generator that lets you choose the CPU frequency by settings jumper JP1. You can set the CPU speed to 55/60/66/75/83MHz as shown below.

JP1	1	2	3
55MHz	ON	ON	OFF
60MHz	ON	OFF	OFF
66MHz	OFF	OFF	OFF
75MHz	OFF	ON	OFF
83MHz	ON	ON	ON

### JP7 CPU Internal Clock Speed Selectors



JP7	RATE	
	1	2
x1.5	OFF	OFF
x2.0	ON	OFF
x2.5	ON	ON
x3.0	OFF	ON
x3.5(P55C)	OFF	OFF
x4.0(P55C)	ON	OFF

#### Note:



1. JP8 (ON) for AMD K6 CPU x 3.5
2. CPU Internal Clock Speed = External Input Clock x (table list) factor

### JP2 CPU Jumper Setting

#### JP2

JP2	Description
	For AMD K6 2.9v and 3.3v products (Default)
	For AMD K6 2.0v products

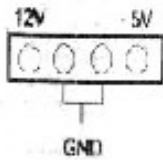
#### JP3

JP3	Description
	Default
	Only for Cyrix 6x86 (3.5V & 3.3V) CPU

**PS/2 Mouse Connector**

PIN	Description	PIN	Description
1	+5VDC	6	N.C.
2	N.C.	7	Ground
3	N.C.	8	Mouse CLK
4	N.C.	9	N.C.
5	Mouse DATA	10	N.C.

**FAN1 CPU FAN POWER**



**J7 : IR Connector**

PIN	Description
1	VCC
2	N.C.
3	IRFX
4	Ground
5	IRTX
6	Fast IR

**COM1, COM2 : Onboard serial port connector**

**IDE 1 : Onboard primary IDE connector**

**IDE 2 : Onboard secondary IDE connector**

**FDC 1 : Onboard floppy drive connector**

**PRN 1 : Onboard parallel (printer) connector**

**Memory Installation**

The mainboard lets you add up to 256MB of system memory via SIMM & DIMM sockets on the mainboard. The mainboard supports the following memory configurations and DIMM socket consists of two 168-pin DIMM Module.

BANK	MEMORY MODULE
DIMM 1	8MB, 16MB, 32MB, 64MB 168PIN DIMM (Single Side or Double Side but SIMM 1 & SIMM 2 must be empty)
DIMM 2	8MB, 16MB, 32MB, 64MB 168PIN DIMM (Single Side, Double Side)
SIMM 1 & SIMM 2	4MB, 8MB, 16MB, 32MB 72PINSIMM (Single Side or Double Side but DIMM1 must be empty)
SIMM 3 & SIMM 4	4MB, 8MB, 16MB, 32MB 72PINSIMM (Single Side or Double Side)

**Notes:**

1. SIMM 3 & SIMM 4 and DIMM 1 the two types DRAM module can not be used at the same time.
2. All SIMMs and DIMM module speed must faster than 70ns
3. All SIMMs and DIMM module can use either single side or double side.
4. SIMM socket: DRAM type Fast Page Mode or Extend DATA Out (EDO).
5. DIMM socket DRAM type: Fast Page Mode (3.3V) or Extend Data Out (EDO) (3.3V) or synchronous DRAM (SDRAM).

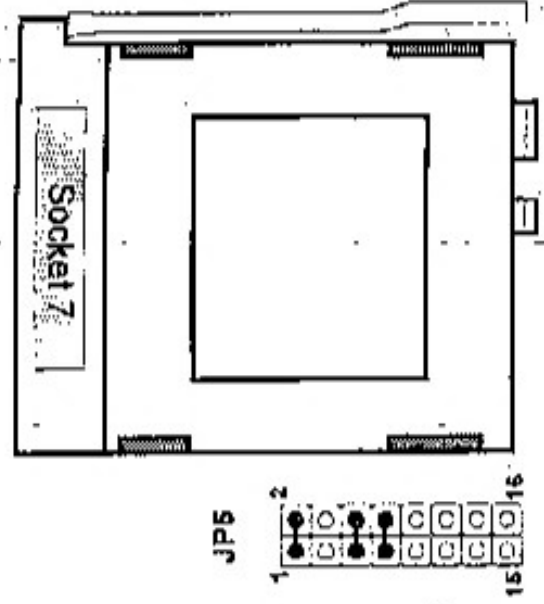


# Additional Information

## AMD K6 3D CPU

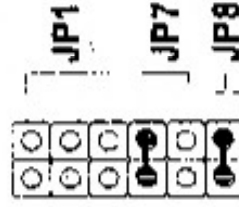
JP5 CPU Voltage Regu

**NEW** Voltage : 2.2 V

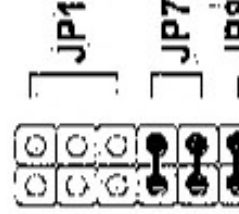


JP1/JP7/JP8 CPU Speed/Internal CPU Speed Selector

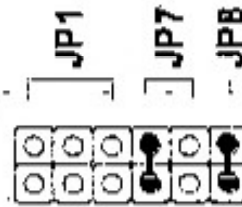
**NEW** AMD-K6/266



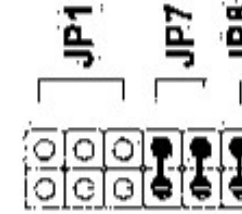
**NEW** AMD-K6/300



**NEW** AMD-K6 3D/266



**NEW** AMD-K6 3D/300



**NEW** AMD-K6 3D/333

