

CHAPTER 1

SYSTEM BOARD OVERVIEW

Preface

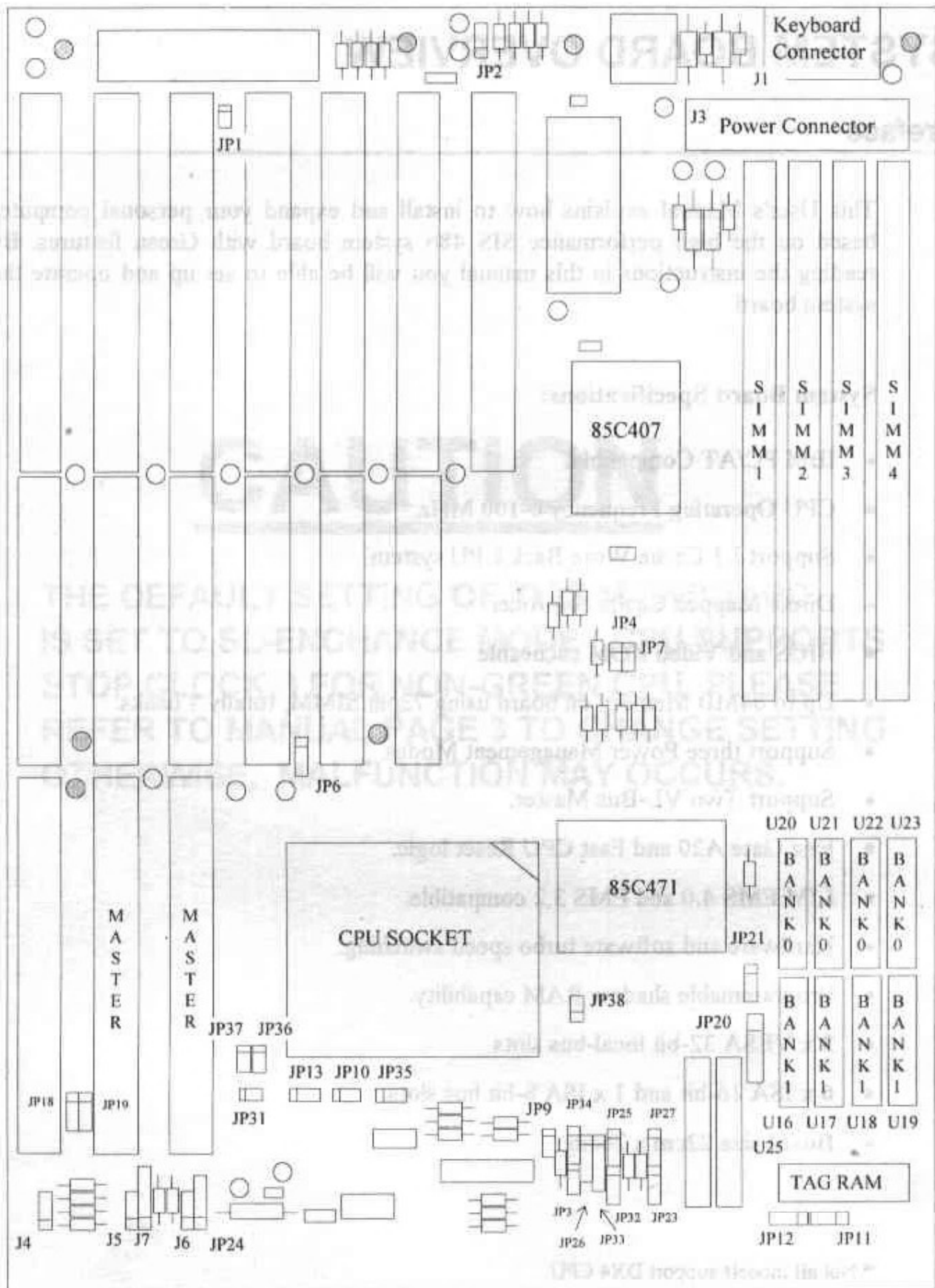
This User's Manual explains how to install and expand your personal computer based on the high performance SIS 486 system board with Green features. By reading the instructions in this manual you will be able to set up and operate the system board.

System Board Specifications:

- IBM PC/AT Compatible.
- CPU Operating Frequency 0-100 MHz.*
- Support L1 Cache Write Back CPU system.
- Direct Mapped Cache controller.
- BIOS and Video ROM cacheable.
- Up to 64MB Memory on board using 72pin SIMM, totally 4 banks.
- Support three Power Management Modes.
- Support Two VL-Bus Master.
- Fast Gate A20 and Fast CPU Reset logic.
- LIM EMS 4.0 and EMS 3.2 compatible.
- Hardware and software turbo speed switching.
- Programmable shadow RAM capability.
- 3 x VESA 32-bit local-bus slots.
- 6 x ISA 16-bit and 1 x ISA 8-bit bus slots.
- Board size 22cm x 26cm.

* Not all models support DX4 CPU.

Layout Of System Board



Jumper Settings

• CPU TYPE

CPU	JP4	JP7	JP9	JP23	JP25	JP26	JP27	JP32	JP33	JP34
INTEL SL-Enhance 486SX/SX2	2-3	1-2	OP	OP	2-3	2-3	OP	2-3	3-4	2-3
INTEL SL-Enhance 486DX	2-3	1-2	OP	OP	2-3	1-2, 3-4	OP	2-3	3-4	2-3
INTEL 486DX4	2-3	1-2	OP	OP	2-3	1-2, 3-4	OP	2-3	3-4	2-3
UMC U5S-SUPER 25/33/40	2-3	1-2	OP	OP	2-3	2-3	OP	2-3	3-4	2-3
AMD 486DX2	2-3	1-2	OP	OP	OP	1-2, 3-4	2-3	2-3	OP	OP
AMD 486DX4	2-3	1-2	OP	OP	OP	1-2, 3-4	1-2	2-3	OP	OP
Non SL-Enhance 486SX	2-3	1-2	OP	OP	OP	2-3	OP	2-3	OP	OP
Non SL-Enhance 486DX	2-3	1-2	OP	OP	OP	1-2, 3-4	OP	2-3	OP	OP
Cyrix 486S (M6) **	1-2	2-3	OP	OP	1-2	2-3	OP	2-3	2-3,4-5	1-2
Cyrix 486S2 **	1-2	2-3	CL	OP	1-2	2-3	OP	2-3	2-3,4-5	1-2
Cyrix 486DX/DX2(M7) **	1-2	2-3	OP	OP	1-2	1-2, 3-4	OP	2-3	2-3	1-2
P24D	1-2	1-2	OP	1-2	2-3	1-2, 3-4	2-3	1-2	1-2,3-4	2-3
P24T	1-2	1-2	OP	OP	2-3	1-2, 3-4	OP	1-2	3-4	2-3

CL=CLOSE OP=OPEN

** Only support 5V Cyrix CPU

• CPU VOLTAGE SELECT

CPU VOLTAGE	JP38
5V	CLOSE
3.3V (± 5 %)	OPEN

* 4DVS05 SUPPORTS 5V CPU ONLY.

* 4DVS00 SUPPORTS BOTH 3.3V & 5V CPU.

• EXTERNAL CPU CLOCK

CPU CLOCK	JP10	JP13	JP31
SX-25 / SX2-50 / DX-25 / DX2 -50 / DX4-75	OP	OP	OP
DX-33 / DX2-66 / DX4-100	CL	CL	OP
DX-40 / DX2-80	CL	OP	OP
DX-50	OP	CL	OP

• CACHE RAM SETTING

SIZE	JP11	JP12	JP21	JP20	U25	U16-U19 BANK 1	U20-U23 BANK 0
128K	1-2	1-2	1-2	1-2, 3-4	8K X 8	N/A	32K X 8
256K	2-3	1-2	2-3	2-3, 4-5	32K X 8	32K X 8	32K X 8
256K	2-3	1-2	1-2	1-2, 3-4	32 X 8	N/A	64K X 8

- VL-BUS JUMPER SETTING**

BUS SPEED	JP18
≤ 33 MHz	1-2
> 33 MHz	2-3

WAIT STATE	JP19
0 WS	1-2
1 WS	2-3

- MONITOR TYPE**

MODE	JP1
EGA	CLOSE
MONO, VGA	OPEN

- CMOS DISCHARGE**

SETTING	JP2
NORMAL	1-2
DISCHARGE	2-3

- CACHE-WRITE MODE (FOR P24D CPU) / AMD CLOCK MULTIPLIER**

MODE	JP27
P24D WRITE BACK / AMD DX4-100	1-2
P24D WRITE THROUGH / AMD DX2-66 / AMD DX2-80	2-3
OTHER CPU	OPEN

MODE	JP6
P24T WRITE BACK	OPEN
P24T WRITE THROUGH	CLOSE
OTHER CPU	OPEN

- Factory Default Setting**

JP35	OPEN
JP36	OPEN
JP37	OPEN

SIMM RAM Support

The system board supports flexible SIMM configuration:

- Flexible memory bank location and size.
- Accept 4 pieces 72-pin SIMM sockets, SIMM 1/ 2/ 3/ 4, total 4 banks.
- Support SIMM type: 256K, 512K, 1MB, 4MB, 16MB.

The following DRAM table is for your reference:

Total Memory	SIMM1	SIMM2	SIMM3	SIMM4
1MB	256K*36	X	X	X
4MB	256K*36	256K*36	256K*36	256K*36
4MB	1MB*36	X	X	X
8MB	1MB*36	1MB*36	X	X
16MB	1MB*36	1MB*36	1MB*36	1MB*36
16MB	4MB*36	X	X	X
32MB	4MB*36	4MB*36	X	X
64MB	4MB*36	4MB*36	4MB*36	4MB*36