I/O Built-in 486

4DPS

PCI LOCAL BUS SYSTEM BOARD

Your User-friendly Guide !

System Board Specification

Supports Intel 486SX/DX/DX2/DX4, P24D,P24T,
CYRIX DX2/DX4/5X86, AMD 486DX/DX2/DX4
and Enhanced AMD 486DX4 CPU.

Build in two channel IDE controller ATA mode 4 compatible

Enhanced multi-I/O on board-Floppy interface, 2 x 16550 COM port,

Enhanced parallel port and Standard game port.

3 x PCI master slots and PCI specification version 2.0 compliance.

3 x ISA 16-bit bus slots.

Board size 220mm x 170mm.

TOMATO**BOARD**
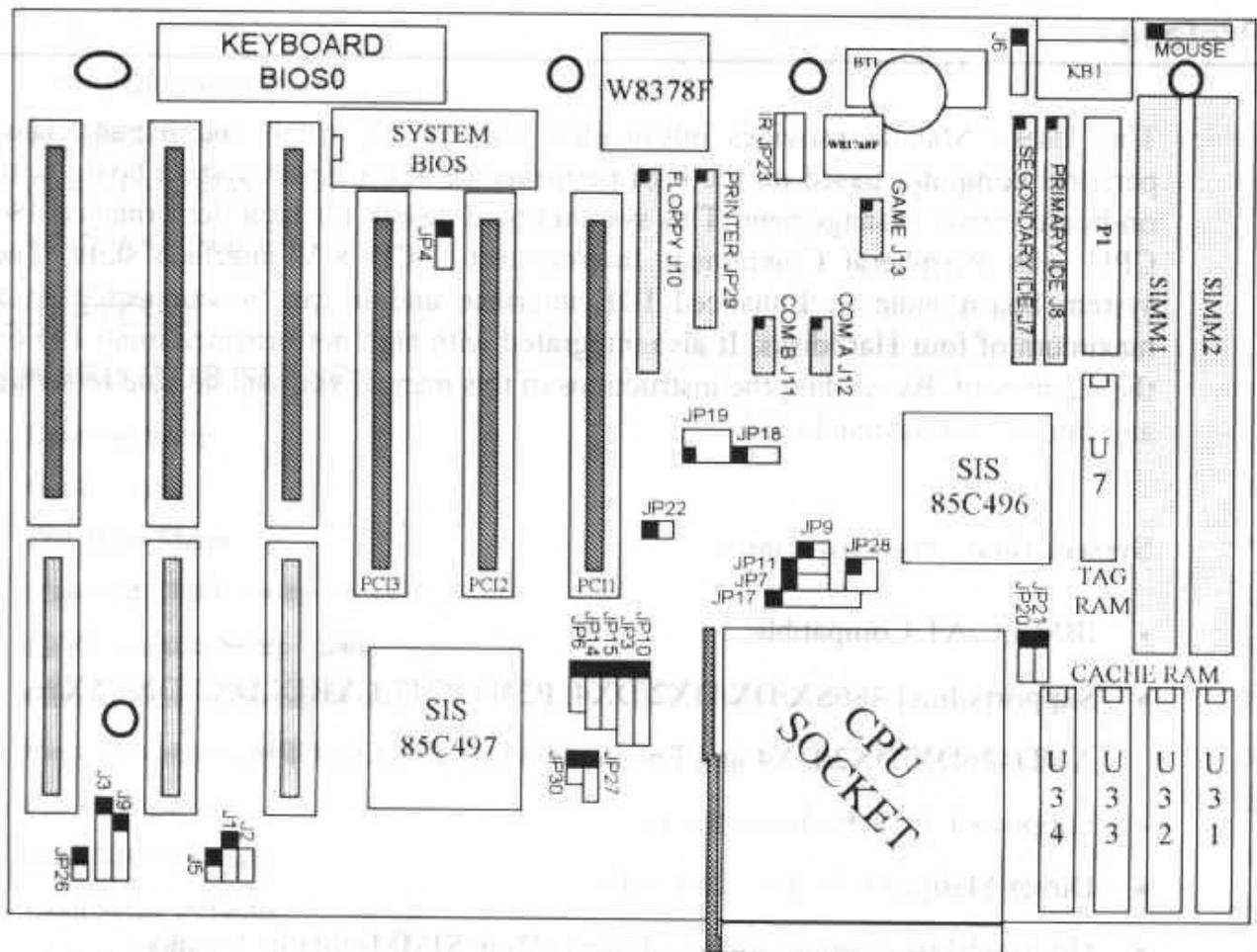
CHAPTER 1

SYSTEM BOARD OVERVIEW

Preface

This User's Manual provides information on how to install and expand your personal computer based on the high performance 486 Chipset system board with on-board power management. This system board design for high performance 486 CPU with Peripheral Component Interconnect (PCI) 5-V interface slots. The system board build in Enhanced IDE interface and it can be connected to a maximum of four Harddisks. It also integrated with high performance multi-I/O on the mainboard. 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.

- Supports Intel 486SX/DX/DX2/DX4, P24D,P24T,CYRIX DX2/DX4/5X86, AMD486DX/DX2/DX4 and Enhanced AMD 486DX4 CPU.

- Supports L1 Cache Write Back CPU system.

- Direct Mapped L2 Cache controller.

- Up to 64 MB Memory on board using 72pin SIMM, totally 2 banks.

- Build in two channel IDE controller ATA mode 4 compatible

- Enhanced multi-I/O on board-Floppy interface, 2 x 16550 COM port, Enhanced parallel port and Standard game port.

- 3 x PCI master slots and PCI specification version 2.0 compliance.

- 3 x ISA 16-bit bus slots.

- Board size 220mm x 170mm.

- Infra-Red port for serial infrared communication.

- PS2 mouse interface.

    * NOT all models support the Infra-Red and PS2 mouse interfaces.

Layout Of System Board

KEYBOARD BIOS0

W8378F

SYSTEM BIOS

JP4

IR JP23

FLOPPY J10

PRINTER JP29

GAME J13

COM B J11

COM A J12

BT1

W8378F

J6

KB1

MOUSE

SECONDARY IDE J7

PRIMARY IDE J8

P1

SIMM1

SIMM2

PCI3

PCI2

PCI1

JP19

JP18

JP22

JP9

JP28

JP11

JP7

JP17

JP10

JP3

JP15

JP14

JP6

JP30

JP27

SIS 85C496

U7

TAG RAM

JP21

JP20

CACHE RAM

SIS 85C497

CPU SOCKET

U34

U33

U32

U31

J3

J9

JP26

J5

J11

J2

Drawing no. : LO-4DPS-0020A

The system board size is 220 x 170 mm.

Jumper Settings

CPU SELECT   (* Default jumper setting for Enhanced AMD 486DX4-100)
JP6 JP14 JP15 JP3 JP10
JP9 JP11 JP7 JP17

INTEL CPU	
Intel SX	**Intel SL-Enhanced SX/SX2**
Intel DX/DX2-66	**Intel SL-Enhanced DX/DX2**
Intel DX4	**Intel P24D**
Intel Pentium Overdrive (P24T)	

Jumper Settings

CPU SELECT   (* Default jumper setting for Enhanced AMD 486DX4-100)
JP6 JP14 JP15 JP3 JP10
JP9 JP11 JP7 JP17

INTEL CPU	
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Intel DX4	**Intel P24D**
Intel Pentium Overdrive (P24T)	

Jumper Settings

CPU SELECT   (* Default jumper setting for Enhanced AMD 486DX4-100)
JP6 JP14 JP15 JP3 JP10
JP9 JP11 JP7 JP17

AMD CPU	
AMD DX/DX2/DX4	**Enhanced AMD DX4-100/DX4-120** *

Cyrix CPU	
Cyrix 486S	**Cyrix 486DX2/DX4**
Cyrix 5X86	**Cyrix 486 DX4 V**

CPU Voltage Select
JP30 JP27 JP28

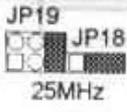| Voltage	Setting	
3.3V *		JP28
5V		JP28

Jumper Settings

Cache RAM Size Select :
JP20 JP21

SIZE	128K	256K	512K
CACHE	32K8x4	64K8x4	128K8x4
TAG U7	32K8 or 16K8	32K8 or 16K8	64K8
U31-U34	32K8	64K8	128K8
Setting	JP21 JP20	JP21 JP20	JP21 JP20

CPU Frequency Select :
JP19 JP18

CPU Type	SX-25, DX-25, SX2-50, DX4-75	SX-33, DX-33, DX2-66, DX4-100	DX-40, DX2-80, DX4-120	DX-50
Frequency	25Mhz	33Mhz *	40Mhz	50Mhz
Setting	JP19 JP18 25MHz	JP19 JP18 33MHz	JP19 JP18 40MHz	JP19 JP18 50MHz
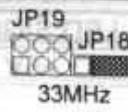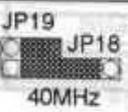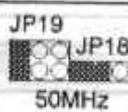
CMOS Setting Clear :
J6

CMOS	NORMAL *	CLEAR CMOS
J6	1-2	3-4

BIOS Select.:
JP4

BIOS	EPROM	FLASH ROM
JP4	2-3	1-2

Default Jumper :
JP22 : OPEN

SIMM RAM Support

The system board supports flexible SIMM configuration:

- Flexible memory bank location and size.

- Accept 2 pieces of 72-pin SIMM sockets, SIMM 1/ 2, total 2 banks.

- Support SIMM type: 1Mx36, 2Mx36, 4Mx36.

The following DRAM table is for your reference:

	SIMM1			
SIMM 2	**NONE**	**1Mx36**	**2Mx36**	**4Mx36**
NONE	XXXXX	4MB	8MB	16MB
1Mx36	4MB	8MB	12MB	20MB
2Mx36	8MB	12MB	16MB	24MB
4Mx36	16MB	20MB	24MB	32MB

AMENDMENT

The Updated CPU Jumper Settings

Update the jumper setting of INTEL DX4 (write back),
AMD 5X86 CPU & 40/133MHz CPU clock.

CPU SELECT

JP6 JP14 JP15 JP3 JP10 , JP9 JP11 JP7 JP17

AMD CPU	INTEL CPU
AMD 5X86	INTEL DX4 (write back)

CPU Frequency Select

JP19 JP18

CPU Type	DX-33, DX2-66, DX4-100/133	DX-40, DX2-80, DX4-120
Frequency	33Mhz	40Mhz
Setting	33MHz	40MHz