

Introduction

The 4/5x86 PC/AT mainboard is a high-performance system board that supports 486DX4/DX2/DXSXSL Enhanced 486, P24T, P24D, Cyrix CX486DX2/DX4/5x86, AMD Enhanced/AM5x86, UMC, TI, IBM 486 CPUs and Intel DX4. The mainboard offers a high degree of flexibility in configuration and is fully IBM PC/AT compatible.

Key Features

- Support CPUs running at 25/33/40/50/66/75/80/100/120/133 MHz including:
 - Intel P24D, P24T, 486DX4(P24C), 486 OverDrive, Pentium Over Drive, 80486DX2/DXSXSL
 - Cyrix CX486DX4/DX2/DXSXSL, 5x86
 - AMD DX4/DX2/AM5x86
 - UMC U5
 - TI 80486 DX2
 - IBM 80486 DX2
- Support 4/5x86 VRM
- PCI / Host Bridge compliant to PCI specification Ver. 2.0
- Supports Write Back mode internal (Level 1) CPU Cache
- Supports Write Back policy for external (Level 2) high performance Cache
- Flexible Cache RAM size 64/128/256/512KB one bank with 16 bytes line size
- EDO DRAM Auto Support
- DRAM Auto-Banking (Table - Free) configuration
- Supports four banks of DRAM by means of two 72-pin SIMM sockets with memory size up to 256MB using variable combinations of 256K, 1M, 2M, 4M, 8M, 16M, 32M, 64M SIMM Modules
- Provides four power management modes for SMM (System Management Mode) or non-SMM CPUs
- Three PCI connectors and four 16 bit ISA I/O slots
- Supports 3.3V/3.45V/3.6V/4.0V low power CPU & normal 5V CPU
- On board ZIP socket
- On board two enhanced IDE interfaces that supports ATA spec mode 0 to mode 4 IDE HDD
- On board two 16550 compatible enhanced serial ports (UARTs), one Floppy Disk interface connector
- On board EP/ECP high performance parallel port
- On board Game port (joystick) interface
- Plug and Play Flash ROM BIOS support (Optional)
- Infrared port for remote communication (Optional)
- PS/2 mouse port support (Optional)

Hardware Configuration

Connector Locations:

Caution : Improper Jumper settings of the Mainboard will result in System Malfunction



JS - Flash EPROM ROM Voltage Selector (Optional)	
Description	J5
5 volt Flash Programming	<input checked="" type="checkbox"/>
12 volt Flash Programming	<input checked="" type="checkbox"/>
3.3 MHz	<input checked="" type="checkbox"/>
EPROM (default) 'NORMAL' EPROMOTP	<input checked="" type="checkbox"/>
40 MHz (default)	<input checked="" type="checkbox"/>
50 MHz	<input checked="" type="checkbox"/>

J28 - CPU Speed Jumpers	
CPU Clock	J28
25 MHz	<input checked="" type="checkbox"/>
33 MHz	<input checked="" type="checkbox"/>
40 MHz	<input checked="" type="checkbox"/>
50 MHz	<input checked="" type="checkbox"/>

CPU Installation

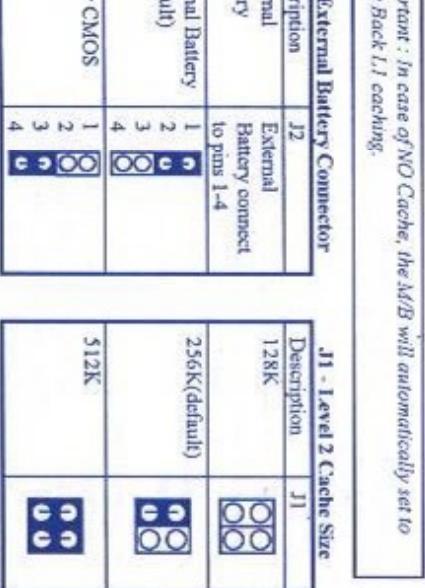
Caution : Make sure CPU VCC was set correctly before CPU Type Jumpers

J8 - 9, J35, J36 - CPU VCC Power Selectors

CPU Power	J36	J35	J9, J8
3.3 Volts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.6 Volts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.9 Volts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4 Volts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 Volts	Don't Care	Don't Care	<input checked="" type="checkbox"/>

IF VRM is used, ignore J36, J35.

CPU Power	J39	J9, J8
3.3 Volts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.6 Volts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 Volts	Don't Care	<input checked="" type="checkbox"/>



J37, J38 - ECP Port DMA Channel Selectors

Description	J37	J38
DMA Channel 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DMA Channel 3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Default	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

J34 - Keylock & Power LED Connector

Pin	Description	Pin	Description
1	LED Output	J24	J13
2	NC	J25	J22 J20 J18 J14
3	Ground	D7 J26	J23 J21 J19 J17 J16 J15
4	Keylock	<input checked="" type="checkbox"/>	J12
5	Ground	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

J6-J7, J8-J9 and J12-J27 are involved in CPU Type selection:

AMD AM5x86 :



AMD DX4 Enhanced :



AMD DX / DX2 / DX4 :



Cirrix / IBM / SGS / TI 5x86 :



Cirrix / IBM / SGS / TI DX4 :



Cirrix / IBM / SGS / TI DX2 :



Intel P24D :



Intel P24T :



Intel DX4-100 :



Intel DX-S / DX2-S :



Intel DX / DX2 :



Intel SX :



IMC DX / DX2 :



CMOS Setup

Important - You are recommended to double click Optimal icon under DISFA U.I.T windows and then select YES to load optimal value after the assembly of the system.

The following parameters can be set by CMOS setup:

- HDD IDE Drive Parameter;

- Time/Date adjustment;

- FDD Drive Parameter;

- System Parameter.

You may use keyboard or mouse to change any of the above settings. There are four main category that can be sub-divide into several functions blocks:

1. SETUP:

Standard - allow to set Time/Date, FDD and HDD parameter.

Advanced - allow to set special features such as shadow memory, boot up sequence, LBA mode for HDD greater than 520MB, etc;

Chipset - allow to adjust system speed parameters by changing wait

Power Management - allow to change Green PC computing parameter.

Peripheral - individually enable/disable I/O ports or change port addresses.

2. UTILITY:

Detect master - Auto detect Primary IDE HDD type.

Detect slave - Auto detect Slave IDE HDD type.

Color set - Select one of four colours set for setup windows.

3. SECURITY:

Password- change system password for different level of system protection.

Anti-Virus - Protect your system from virus infection.

4. DEFAULTS:

Optimal - to load default settings for optimal usage.

Fail-safe - settings caused system performs slowest but safe.

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4/5x86

SYL8884PCI - EIC

USER'S GUIDE