

2 Configuring the M4Li

Although the M4Li system board is packaged in protective materials, it is important to use care while unpacking and setting up.

Static Electricity

The M4Li is shipped from the factory in an antistatic bag. To reduce the possibility of damage, it is important to neutralize any accumulated static charges on your body before handling the board. The best way to do this is to ground yourself using a special wrist or ankle strap. If you do not have a strap, you should touch both of your hands to a safely grounded object. After you have grounded yourself, ground the M4Li via the solder pads surrounding one of its mounting holes.

Once the M4Li is removed from its packaging, place it on top of the antistatic bag. Carefully inspect the board for damage which may have occurred during shipment.

Office Environment

Make sure the finished computer system is in an area with good ventilation. The system should not be in direct sunlight, near heaters, or exposed to moisture, dust, or dirt.

M4Li Components

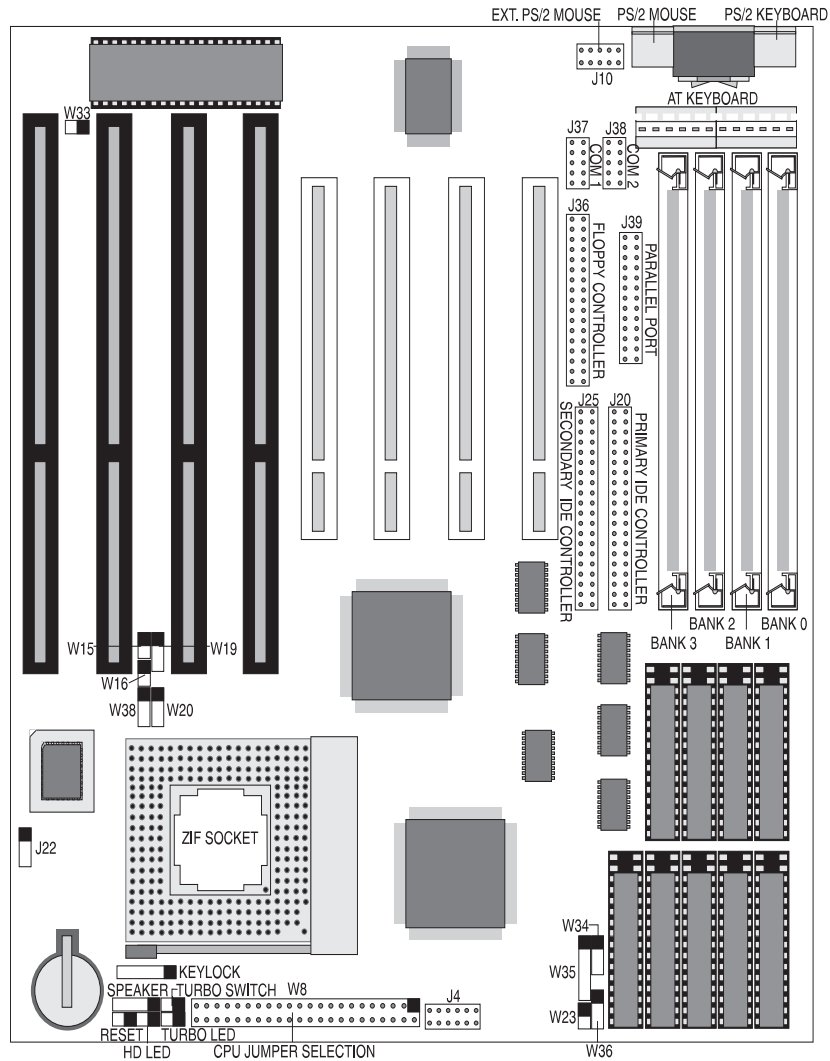


Figure 2-1 M4Li System Board

Note:

ISA Slot 4 and PCI Slot 1 are shared. Only one slot may be used at a time.

PCI slot 1 is not a bus-mastering slot.

CPU Voltage

Warning:

This system board has been factory set to support 5.0V processors. If using a 3.3V, 3.45V, or 4.0V processor, you must install a Power Module (Appendix E). Failure to install a Power Module could result in damage to the CPU.

Table 2-1 lists the voltage requirements for CPUs supported by this system board.

CPU	Manufacturer(s)	Voltage
486SX	Intel	5.0V
486DX	Intel	5.0V
486DX2	Intel, TI	5.0V
486DX2	AMD	3.3V or 5.0V
486SL-series	Intel	5.0V
Write-Back Enhanced 486DX2	Intel	5.0V
486DX4	Intel, AMD	3.3V
Write-Back Enhanced 486DX4	Intel	3.3V
Pentium OverDrive	Intel	5.0V
Cyrix 486DX/DX2/DX4	Cyrix	5.0V
Cyrix 486DX2V-80	Cyrix	3.45V
Cyrix 5X86-100, 120	Cyrix	3.45V

Table 2-1 CPU Voltage Requirements

Jumper Settings

The following diagram illustrates the W8 jumper settings to select the type of CPU installed (Figure 2-2).

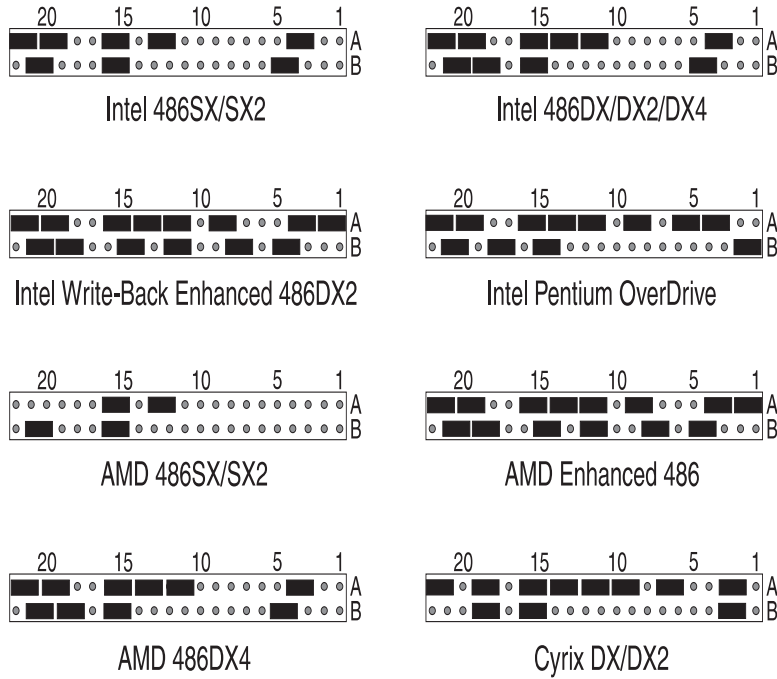


Figure 2-2 CPU Selection

Table 2-2 lists the jumper settings to select the external speed of the CPU.

Jumper	Speed	25MHz	33MHz (default)	40MHz
W15		open	closed	open
W16		open	closed	closed

Table 2-2 CPU Speed Selection

Table 2-3 lists the jumper settings to set the speed of the PCI bus.

Jumper	Function	Setting
W20	PCI Clock = CPU Clock (default)	1-2
	PCI Clock = 1/2 CPU Clock	2-3

Table 2-3 PCI Clock Speed Selection

Note:

If a 40MHz CPU is installed and the system is not stable, configure Jumper W20 for pins 2-3.

Table 2-4 lists the jumper settings to select the size of the external cache.

Jumper	W23	W34	W35	W36	W39
Cache					
0K	open	open	open	open	open
128K	open	1-2	1-2, 4-5	1-2	open
256K (one bank)	closed	1-2	1-2, 3-4	2-3	open
256K (two banks)	closed	2-3	2-3, 4-5	2-3	open
512K (one bank)	closed	1-2	1-2, 4-5	1-2	closed
512K (two banks)	closed	2-3	2-3, 4-5	2-3	closed

Table 2-4 Cache Size Selection

Table 2-5 lists the jumper settings to configure the parallel port for Plug and Play.

Jumper	W28	W29
DMA Channel		
Channel 3 (default)	2-3	2-3
Channel 1	1.2	1.2

Table 2-5 Parallel Port Configuration

Table 2-6 lists the jumper settings to reset the BIOS. With the computer's power off, short Jumper W40 for about five seconds and place the jumper back in the open position. *The jumper must be placed back into the open position for the system to function properly.*

Jumper	Function	Setting
W40	Normal (default) Clear CMOS RAM settings	open closed

Table 2-6 BIOS Reset Jumper

Note:

This will reset all BIOS settings to their defaults. Any changes you have made will be lost.

Table 2-7 lists jumpers with factory reserved settings. **Do not reconfigure these jumpers.**

Jumper	Function	Setting
W19	Reserved	2-3
W33	Reserved	closed

Table 2-7 Reserved Jumper Settings

Table 2-8 lists the jumper settings for case and peripheral connections.

Jumper	Function	Notes
J20	Primary PCI IDE Connector	Can be disabled in CMOS.
J25	Secondary PCI IDE Connector	Can be disabled in CMOS.
J36	Floppy Connector	
J39	Parallel Port Connector	Can be disabled in CMOS.
J37	Serial Port (Com 1)	Can be disabled in CMOS.
J38	Serial Port (Com 2)	Can be disabled in CMOS.
J12 & J13	PS/2 Keyboard & Mouse	PS/2 Version
J15	AT Keyboard	AT Version
J10	External Mouse	AT Version
J26	Power Supply Connector	
J31	Speaker Connector	1-Speaker; 2-N/C; 3-Ground; 4-5V DC
J3	Turbo LED	1-5V DC; 2- Ground
J2	Turbo Switch	
J23	Reset	
J21	HD LED	1-5V DC; 2- Ground
J9	Keylock/ Power LED	1-Power; 2-N/C; 3-Ground; 4-5V DC
J4	Power Module Connector	See Appendix E

Table 2-8 Case and Peripheral Connections

