80486

PCI ALL-IN-ONE MAINBOARD

User's Manual

ENDAT-486PL/TL

486 PL/TL SYSTEM

Rev. 3C

ENDAT-486PL/TL

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Manufacturer Notice(IMPORTANT)

This manual covers two different layout models of 486 PCI Green All-in-one mother board which are manufacturer currently offer to market. The respective board layout outline are shown on Chapter 1.4. Please refer to the following description to make sue which model you have before reading.

486 PCI BUS All-In-One Mother Board Specification

Model	486TL	486PL
CPU	3.3V/5V 486 or 5x86 CPU	3V / 5V 486 or 5x86 CPU
ZIF socket	Yes	Yes
System Chipset	SiS 496/497 Dark green	SiS 496/497 Dark green
VGA Chipset	PCI Bus Cirrus 54M30	PCI Bus Cirrus 54M30
Video RAM	512K - 2MB	512K - 2MB
VGA Feature Connector	Yes	Yes
IDE1, IDE2	Yes	Yes
Multi-I/O	Enhance LGS Prime 3C	Enhance SMC37C665/669
External Cache	up to 512KB	up to 512KB
Expansion Slot	Extension for PCI/ISA Bus	Extension for PCI/ISA Bus
PCI slot ID select (max. 3 PCI slot on raiser card)	PCI 1 : AD23 PCI 2 : AD22 PCI 3 : AD21	PCI 1 : AD23 PCI 2 : AD22 PCI 3 : AD21
Location of Expansion Slot	On 6th Slot of STD M/B	On 7th Slot of STD M/B
Keyboard Jack	STD PC/AT or Two mini DIN	Two mini DIN
PS/2 Mouse port	Optional	Yes
VGA & Multi I/O pin Header	Yes	No
SIMM Socket	72Pin * 2	72Pin * 2
Form Factor	PC/AT	WD/LPX
Dimension	220x220mm 8.66”x8.66”	200x220mm 7.87”x8.66”

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Chapter 1 : Introduction

Your 80486 All-In-One PCI motherboard is a full-featured IBM PC/AT compatible board offering a unique modular architecture that lets you upgrade the system by simply replacing the CPU.

The board supports following CPUs:

- Intel/AMD 486DX/DX2/DX4
- Intel 486X
- Intel SL SX and Intel SL DX/DX2/DX4
- Intel P24T and P24D
- Cyrix 486 M7
- Cyrix 5x86
- AMD Enhanced DX/DX2/DX4 (V8B/V8T)/5x86 P-75
- IBM 486/5x86C
- ST486 DX2/DX4

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The board's optional high-performance 32-or 64-bit Peripheral Component Interconnect (PCI) local bus lets you add highly integrated peripheral controller components, peripheral add-on boards, and processor/memory systems. The board's Industry Standard Architecture (ISA) bus slot allows you to choose from thousands of 8 bit or 16 bit industry-standard add-on boards.

A floppy disk drive controller, VGA display circuitry, PS/2 mouse connector serial ports (16C550), and parallel port (with EPP and ECP mode)are included so that you can easily connect peripheral devices without using expansion slots. In additional, an IDE hard disk driver controller is include. so that you can connect up to four IDE hard disk drives.

The main board is fully compatible with the thousands of software applications developed for IBM PC/AT compatible computers. The control logic provides high-speed performance for the most advanced multi-user, multitasking applications available today.

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1.1 Features

The main board offers the following advanced features:

- High-speed upgradeable CPU.
- Selectable CPU voltage : 3.3V, 3.45V, 4.0V, and 5.0V.
- On-board clock generator lets you change CPU speed by jumper switch to 2X, 2.5X, 3X, 4X clock.
- ZIF (Zero-Insertion Force) CPU socket.
- On-board VGA display circuitry.
- On-board PS/2 mouse connector.
- EISA expansion slot includes both PCI & ISA signal.
- Auto-detected of installed DRAM memory.
- Support DRAM "Table free" configuration.
- Support Extended Data Out (EDO) SIMM module
- Optional 128KB, 256KB, or 512KB SRAM.
- Supports 512KB(min), 1MB, or 2MB (max) video memory.
- On-board IDE hard disk drive controller : supports up to Mode 4 hard disk drives.
- Support IDE 2
- On-board peripheral ports: Two on-board serial ports (16C550).
- Parallel port with bi-direction lines: Supports Enhanced Parallel Port (EPP) & Extended Capabilities Port (ECP).
- Supported L2 cache up to 512KB
- On-board floppy disk drive controller.
- Licensed AWARD BIOS.
- Selectable BIOS type: EPROM, Flash (Optional) ROM.
- Lithium coin battery.
- Hardware "Green" function support.
- Support CPU “stop clock” mode for Intel/Cyrix CPUs
- On-board FDC/HDC/serial/parallel port can be disabled by BIOS.
- On-board VGA can be disabled by jumper setting.
- All I/O port address and IRQ can be setting by BIOS.

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1.2 Unpacking

The main board comes securely packaged in a sturdy cardboard shipping carton. In addition to this User's Guide, the shipping carton contains:

- The 486 All-in-One PCI main board
- Cables: IDE and FDD.
- IDE Drivers distribution floppy disk: includes drivers for Windows 3.1, Windows NT 3.x, OS2 and Novell Netware.
- VGA Utilities and Software Drivers distribution floppy disks.

If any of these items is missing or damaged, contact the dealer from whom you purchased the main board. Save the shipping materials and carton in case you want to ship or store the board in the future.

NOTE: Leave the main board in its original packing until you are ready to install it.

1.3 Electrostatic Discharge Precautions

Make sure you ground yourself before handling the mainboard or other system components. Electrostatic discharge can easily damage the components. Note that you must take special precaution when handling the mainboard in dry or air-conditioned environments.

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1.4 Mainboard Layout

486PL System Mainboard Outline

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486TL System Mainboard Outline

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Chapter 2 : Setting Up the Main Board

This chapter describes getting your main board ready for operation.

It includes instructions for:

- Installing a CPU upgrade
- Installing DRAM memory, SRAM cache memory, and video memory
- Make sure and correct CPU operating voltage, jumper setting and frequency.
- Make sure the direction of the CPU, otherwise the CPU will to be burn out, even burn the main board also.
- It also provides descriptions of making board connections and replacing the lithium battery.

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2-1 Jumper and Connector

Function of Jumpers	
CPU TYPE	JP7-JP10, JP16, JP21-JP30
CPU VOLTAGE	JP32,JP33
CPU CLOCK	JP17
CACHE SIZE	JP18, JP19
PCI SLOT CLOCK	JP13
ON-BOARD VGA	JP5
CLEAR CMOS	JP6
COLOR/MONO DISPLAY	JP14
IR FUNCTION	JP3, JP4
POWER GOOD	JP20
BUZZER ON/OFF	JP31
CPU CLOCK	JP12

JP3 & JP4 : IR FUNCTION SETTING

1-2 : IF U3 IS 665IR, IR VIA CN7

2-3 : IF U3 USE 665GT/669, U3 USE 665IR NOT USE IR FUNCTION.

JP5 : ON-BOARD VGA ENABLE/DISABLE

VGA chip	JP5
ENABLE	1-2 (DEFAULT)
DISABLE	2-3

JP6 : CLEAR CMOS

1-2	NORMAL (DEFAULT)
2-3	CLEAR

JP12 : CPU CLOCK

1-2	CPUCLK = ACLK
2-3	CPUCLK = ACLK + DELAY TIME (DEFAULT)

JP13 : BUS CLOCK SELECT

1-2 : IF CPU CLOCK ≤ 33MHz (PCICLK = CPUCLK)

2-3 : IF CPU CLOCK > 32MHz (PCICLK = CPUCLK/2)

JP14 FOR COLOR or MONO DISPLAY

COLOR	SHORT
MONO	OPEN

JP31 : BUZZER ON / OFF

SHORT : ON

OPEN : OFF

OTHER JUMPER SETTING

JP20	POWER GOOD SIGNAL
1-2	POWER SUPPLY
2-3	INTERNAL(DEFAULT)

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J1 : FOR EXTERNAL BATTERY

PIN 1 : BATTERY +
PIN 4 : BATTERY -

J2 : POWER CONNECTOR

J3 : BREAK SWITCH

J4 : FRONT PANEL CONNECTOR

RESET	HD LED	TB LED	TB-SW
SPK		KBLOCK	

CONNECTOR OVERVIEW :

CN1 : PS/2 Keyboard connector	CN6 : VGA connector
CN2 : PS/2 Mouse connector	CN7 : IR connector
CN3 : COM1 or COM3	CN8 : Feature connector
CN4 : COM2 or COM4	CN9 : FDD connector
CN5 : Printer port	CON1 : IDE1 CON2 : IDE2

CN2A : PS/2 MOUSE PORT CONNECTOR (486TL ONLY)

Pin 1	MS-Data
Pin 2	X
Pin 3	GND
Pin 4	Vcc
Pin 5	MS-CLK
Pin 6	X

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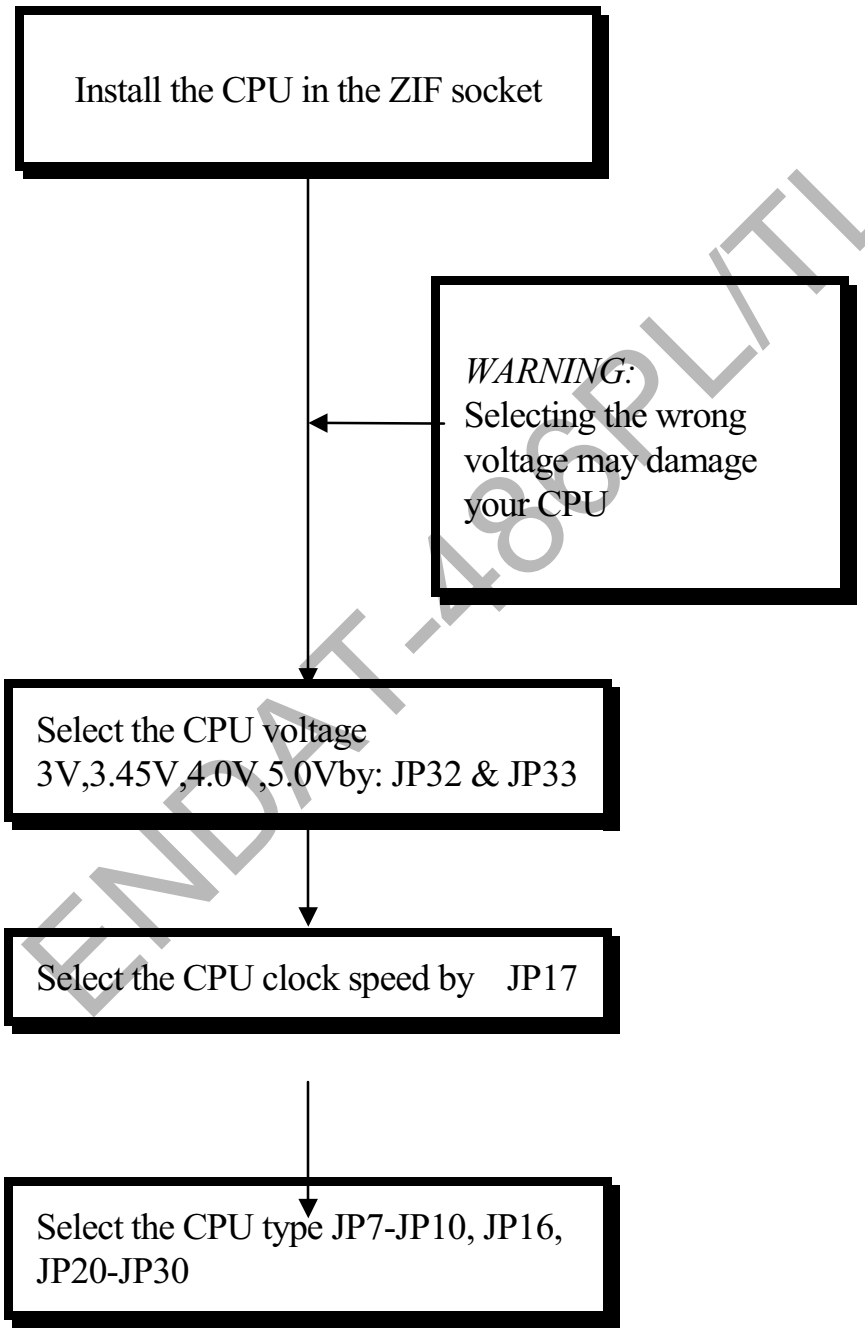
2-2 Installing a CPU: Overview

The flowchart below illustrates the procedures that you will follow to install a CPU.



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2-3 Installing a CPU upgrade

You can upgrade your main board by simply replacing the CPU and changing the settings of jumper switches on the board. The board supports the following high-performance CPUs:

- Intel/AMD 486DX/DX2/DX4
- Intel 486SX
- Intel SL SX and Intel SL DX/DX2/DX4
- Cyrix 486 M7(ST, IBM)
- Cyrix 5x86
- AMD Enhanced DX2/DX4 Writeback/Writethrough
- AMD Enhanced SX Writeback

2-3-1 CPU OPERATION VOLTANG SETTING by JP32, JP33

		3.3 V	3.45 V	4.0 V	5.0V
JP32	1-2	SHORT	OPEN	OPEN	N/A
JP32	3-4	OPEN	SHORT	OPEN	N/A
JP32	5-6	OPEN	OPEN	SHORT	N/A
JP33	CLOSE	1-3,2-4	1-3,2-4	1-3,2-4	1-2,3-4

2-3-2 CPU AND BUS CLOCK SPEED SETTING by JP13, JP17

CPU CLOCK SELECT (JP17 OHLY)				
JP13	1-2	1-2	2-3	2-3
JP17	25Mhz	33 MHz	40 MHz	50 MHz
1-2	OPEN	SHORT	SHORT	OPEN
3-4	OPEN	SHORT	OPEN	SHORT
5-6	OPEN	OPEN	OPEN	OPEN

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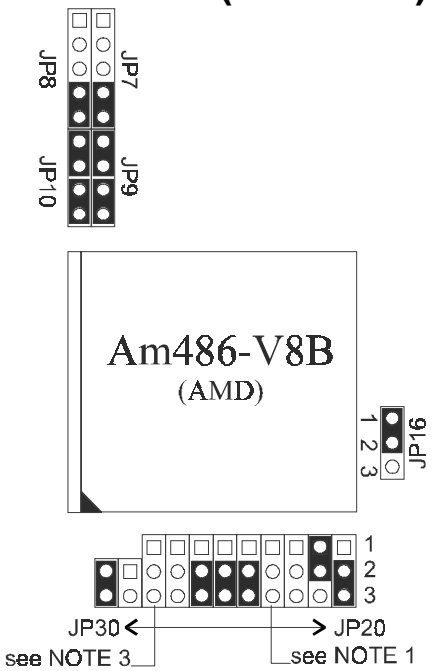
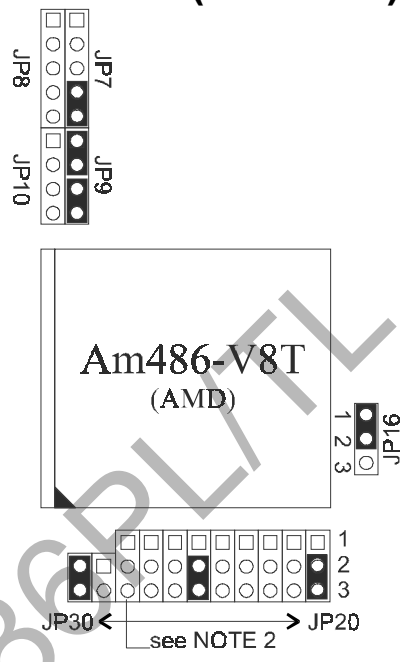
2-3-3 CPU TYPE SETTING FOR 486PL

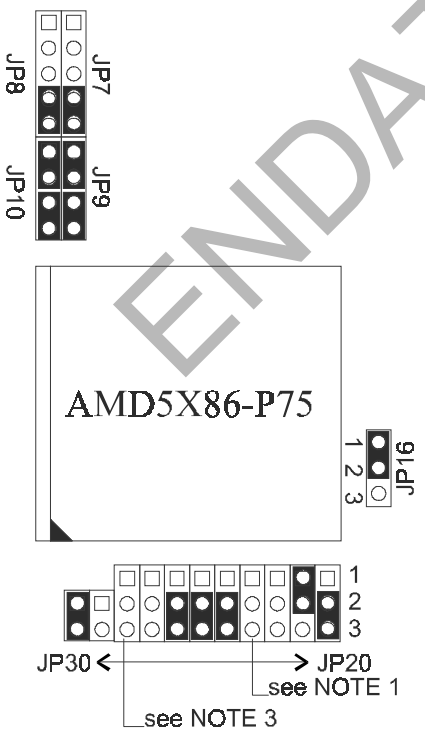
1. Am486 V8B(DX2/DX4)



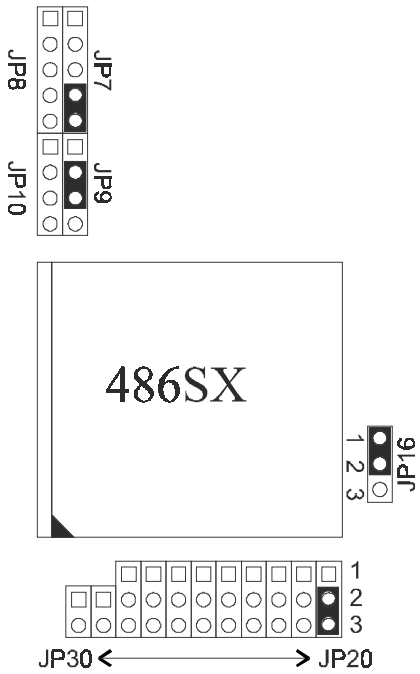
2. Am486 V8T(DX2/DX4)



3. AMD 5x86-P75



4. Intel 486SX



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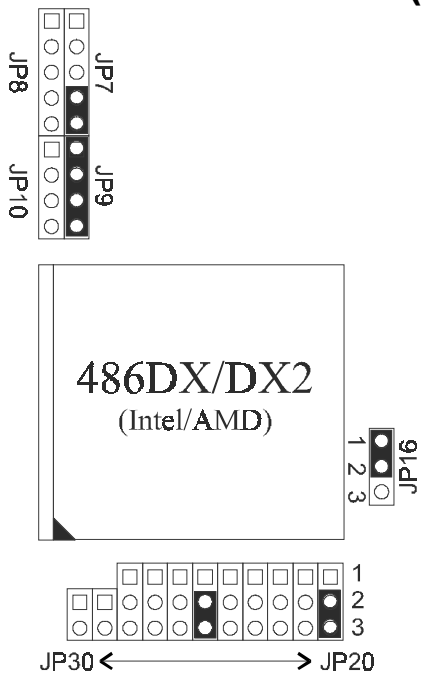
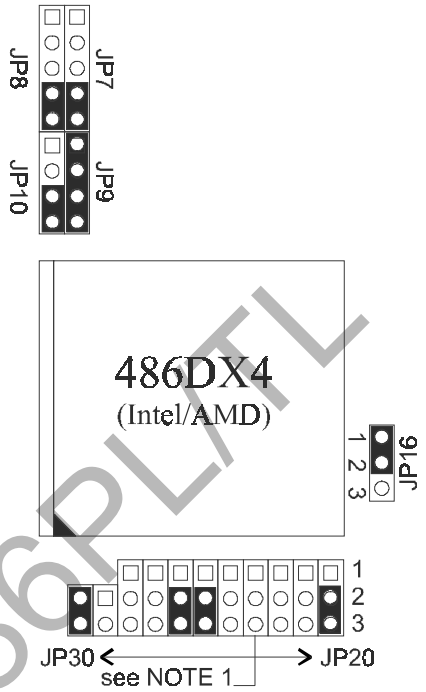
CPU TYPE SETTING FOR 486PL

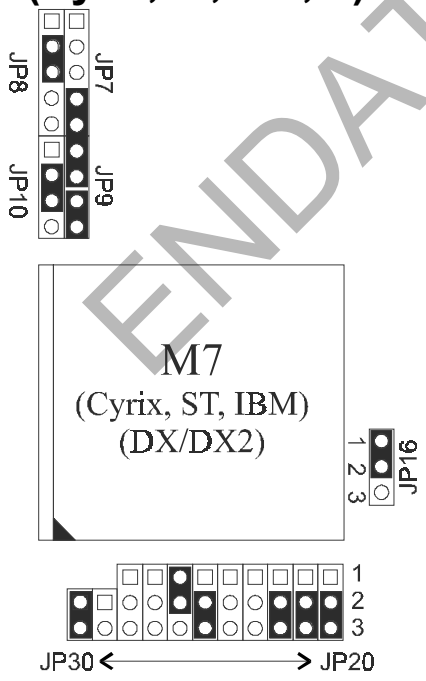
5. Intel/AMD 486DX/DX2 (5V)



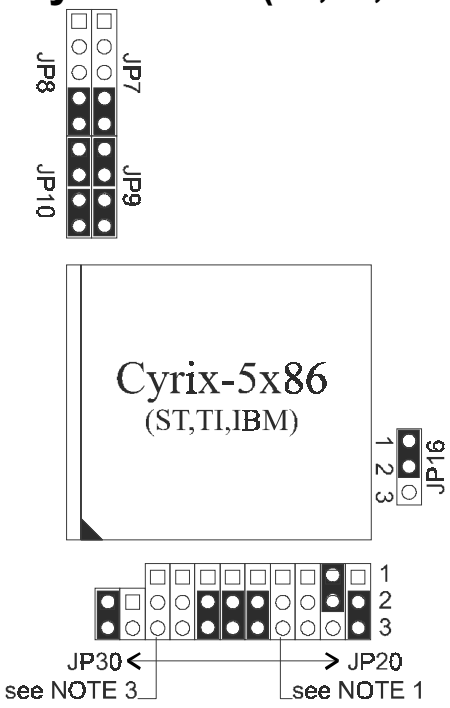
6. Intel 486DX4



7. M7 (Cyrix,ST,IBM,TI)



8. Cyrix -5x86 (ST, TI, IBM)



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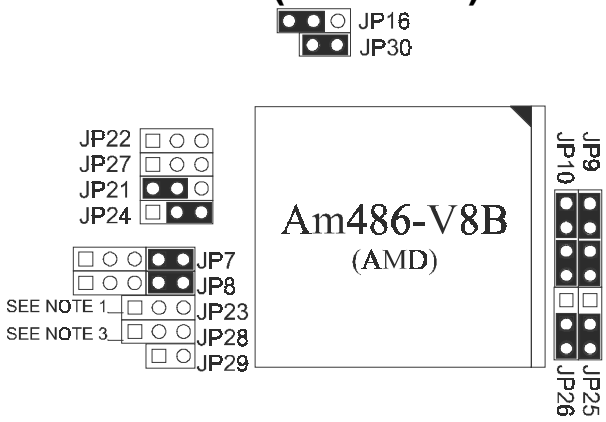
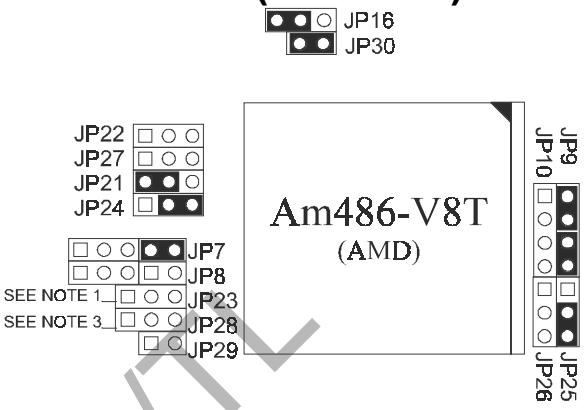
2-3-4 CPU TYPE SETTING FOR 486TL

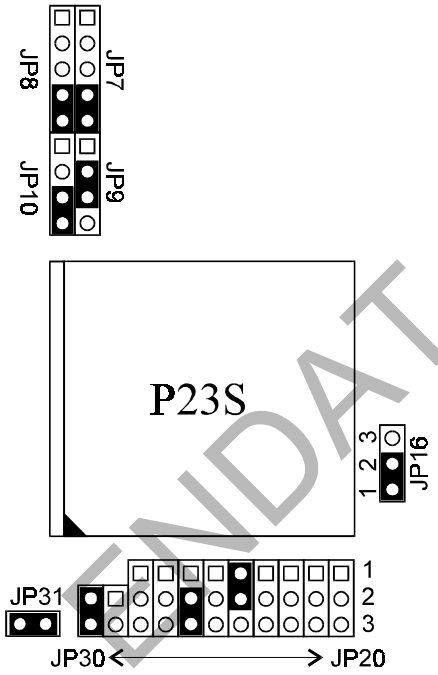
1. Am486 V8B (DX2/DX4)



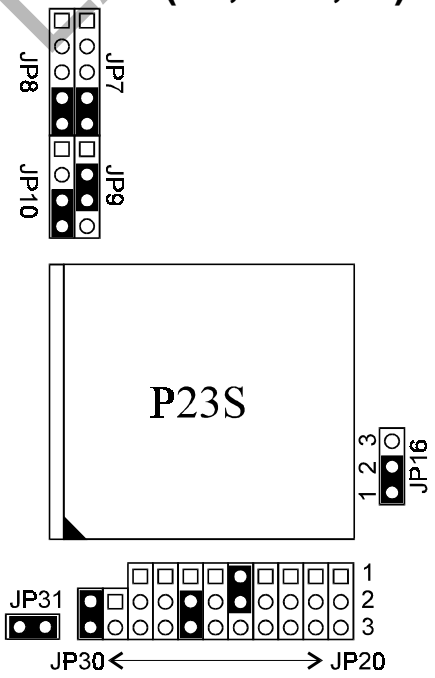
2. Am486 V8T (DX2/DX4)



3. AMD 5x86-P75



4. Cyrix-5x86 (ST, IBM, TI)



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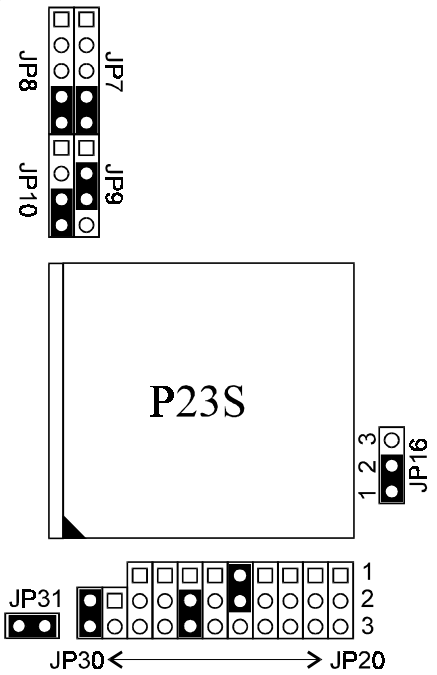
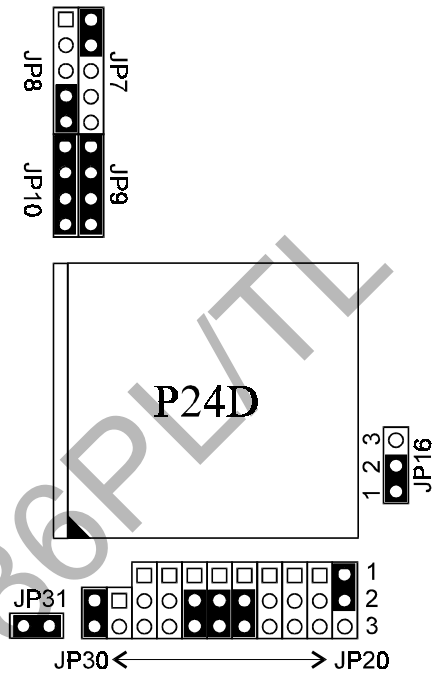
CPU TYPE SETTING FOR 486TL

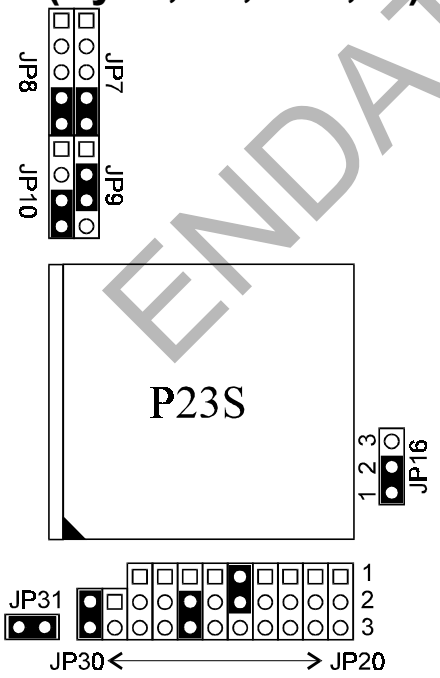
5. Intel/AMD 486DX/DX2 (5V)



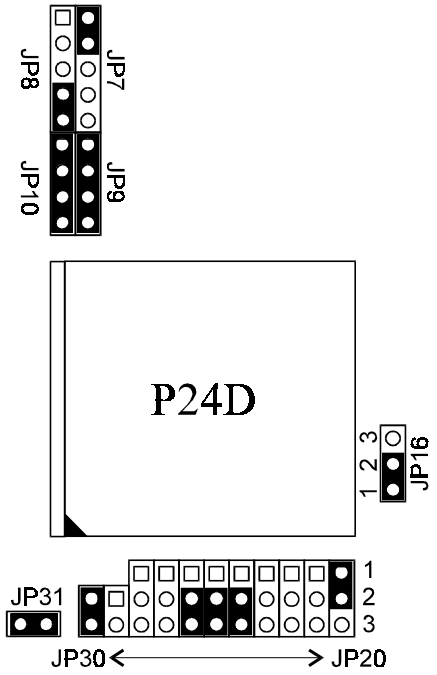
6. Intel/AMD 486DX4



7. M7 (Cyrix, ST, IBM, TI)



8. Intel 486SX



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CPU TYPE SETTING :

	M7 (Cyrix, ST, TI, IBM)	Am486-V8T	Am486-V8B	AMD 5x86	Cyrix-5x86
JP7	4-5	4-5	1-2	1-2	4-5
JP8	2-3	OPEN	4-5	4-5	4-5
JP9	1-2, 3-4	1-2, 3-4	1-2, 3-4	1-2, 3-4	1-2, 3-4
JP10	2-3	OPEN	1-2, 3-4	1-2, 3-4	1-2, 3-4
JP16	1-2	1-2	1-2	1-2	1-2
JP21	2-3	OPEN	1-2	1-2	1-2
JP22	2-3	OPEN	OPEN	OPEN	OPEN
JP23	OPEN	OPEN	Note 1	Note 1	Note 1
JP24	OPEN	OPEN	2-3	2-3	2-3
JP25	2-3	2-3	2-3	2-3	2-3
JP26	1-2	OPEN	2-3	2-3	2-3
JP27	OPEN	OPEN	OPEN	OPEN	OPEN
JP28	OPEN	Note 2	Note 3	Note 3	OPEN
JP29	OPEN	OPEN	OPEN	OPEN	OPEN
JP30	SHORT	OPEN	SHORT	SHORT	SHORT
	486SX	486DX/DX2	486DX4	P24D	P23S
JP7	4-5	4-5	4-5	1-2	4-5
JP8	OPEN	OPEN	4-5	4-5	4-5
JP9	2-3	1-2, 3-4	1-2, 3-4	1-2, 3-4	2-3
JP10	OPEN	OPEN	3-4	1-2, 3-4	3-4
JP16	1-2	1-2	1-2	1-2	1-2
JP21	OPEN	OPEN	OPEN	1-2	OPEN
JP22	OPEN	OPEN	OPEN	OPEN	OPEN
JP23	OPEN	OPEN	Note 1	OPEN	OPEN
JP24	OPEN	OPEN	OPEN	2-3	1-2
JP25	OPEN	2-3	2-3	2-3	OPEN
JP26	OPEN	OPEN	2-3	2-3	2-3
JP27	OPEN	OPEN	OPEN	OPEN	OPEN
JP28	OPEN	OPEN	OPEN	Note 3	OPEN
JP29	OPEN	OPEN	OPEN	OPEN	OPEN
JP30	OPEN	OPEN	SHORT	SHORT	SHORT

END 486PL

NOTE 1:

JP23 : Setting for DX4, Cyrix-5x86/Am486-V8B, Am5x86-P75

	DX4	Cyrix-5x86 Am486-V8B	Am5x86- P75
1-2	2.5X	N/A	N/A
2-3	2.0X	2.0X	4.0X
OPEN	3.0X	3.0X	N/A

NOTE 2:

JP28 : Setting for Am486-V8T

JP28	DX2	DX4
1-2	N/A	3.0X
2-3	SHORT	2.0X

NOTE 3:

JP28 : Setting for P24D/Am5x86-P75/Am486-V8B

P24D/Am5x86-P75/Am486-V8B

1-2	WRITE	BACK
2-3	WRITE	THROUGH

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2-4 Installing Memory

The main board accepts combinations of SIMMs with different sizes; furthermore, you can install SIMMs in either socket. Depending on the desired memory capacity and the SIMM size, you can install one or two SIMMs on the board. The board automatically detects installed SIMMs; no configuration via jumper switches or BIOS setup is necessary.

The main board support two types of RAM module:

- **Dynamic Random-Access Memory (DRAM)** packaged in Single in-Line Memory Modules (SIMMs). These modules occupy sockets on the main board and provide total of from 1MB to 128MB of on-board system memory
- **Extended Data Output(EDO) RAM** Module also available

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2-5 Installing SRAM Cache Memory

Static Random-Access Memory (SRAM). These optional memory chips occupy sockets on the main board and provide 128KB, 256KB, or 512KB of CACHE memory.

Install SRAM cache memory chips in on-board sockets as follows:

1. When installing the 8Kx8 or 32Kx8 SRAM chips please make sure that the four pins at the pin 1 of the socket are exposed.
2. Carefully but firmly press the chip into the socket, applying even pressure to both ends of the chip.
3. Set jumpers JP18, JP19 to choose 128KB, 256KB, or 512KB of jumper setting.

CACHE MEMORY SIZE JUMPER SETTING

CACHE SIZE	JP18	JP19	U22, U25 U28, U30	(TAG RAM) U24
128 KB	1-2	1-2	32K x 8	8 K x 8
256 KB	1-2	2-3	64K x 8	32 K x 8
512 KB	2-3	2-3	128K x 8	32 K x 8

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2-6 Installing VGA DRAM

The main board supports 512KB, 1MB, or 2MB video memory. The amount of video memory on your system board determines the number of colors and the video graphics resolutions.

For 512K video memory upgrade to 1MB, install video RAM on U10 sockets

For 1MB video memory upgrade to 2MB, install video RAM on U9,U11 sockets

2-7 Install Raiser Card (Max 3 PCI slot on raiser card)

PCI slot No.	IDSEL	INT #
PCI 1	AD23	A, B, C, D
PCI 2	AD22	B, C, D, A
PCI 3	AD21	C, D, A, B

CAUTION:
Can not insert PCI bus Add-On card into On-board expansion slot directly.

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Chapter 3. Award BIOS Setup

Use the CMOS Setup program to modify the system parameters to reflect the environment installed in your system and customize the system as desired. By pressing the <DEL.> key to enter the CMOS Setup Program when turn on the power. By windows-driven the AWARD BIOS Setup can be accessed via arrow keys and press <Enter> to choose a option to configure to system properly.

In the main menu, press F10 or "SAVE & EXIT SETUP" to save your changes and reboot the system. Choosing "WXIT WITHOUT SAVING" to ignore the changes and exit the setup procedure. Pressing <ESC> at anywhere during the setup will return to the main menu.

Due to the "THE BIOS FEATURE SETUP", "CHIPSET FEATURE SETUP" and "PCI CONFIGURATION SETUP" require the board knowledge on PCI/AT system architecture and SIS 85c496/497 system chipset specification. They are intended to be used by well-trained technicians and experienced user. Incorrect setup could cause system malfunction.

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3.1 Quick Setup

In most cases, you can quickly configure the system by following procedure. The manufacturer highly recommends you to use 'Quick Setup' for setting CMOS to avoid any unpredictable results.

1. Choose "STANDARD CMOS SETUP" from the main menu., configure the date and time, hard disk type, floppy diskette drive type, etc..
2. Choose "LOAD SETUP DEFAULTS" form the menu for loading the defaults from the BIOS Feature Setup and Chipset Features Setup which is set by manufacture for most stable normal configuration.
3. Make sure what is your internal cache access mode of CPU and choose

the ‘CPU Internal Cache’ of “CHIPSET FEATURES SETUP” to match it’s mode.

4. Press F10 or “SAVE & EXIT SETUP” to save the changes and reboot the system.

3.2 Description of BIOS setup options

Please make clearly the means of those option parameters, improper setting will cause hang or get bad performance. Most items are very clear to understand from the screen prompt. A few special important item will describe below. The manufacturer highly recommend you to use the “Default” setting to avoid any unpredictable results.

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OPTION	FUNCTION
STANDARD CMOS SETUP	Configure the date & time, H/Fdd type etc.
BIOS FEATURE SETUP	Configure advanced system options such as dis/enabled cache and shadow ram.
CHIPSET FEATURE SETUP	Setting advanced chipset options such as bus clock, DRAM, Cache speed.
POWER MANAGEMENT SETUP PCI CONFIGURATION SETUP	Setup the CPU Internal Cache access mode with “Write-Thru” or “Write-Back” En/disabled the on board HDC/FDC controller. Select the address for I/O ports. Enable Power saving/Green function Setting PCI configuration such as INT#,IRQ etc.
LOAD SETUP DEFAULTS	Load optimized BIOS setting
PASSWORD SETTING	Enable the password checking for system security
IDE HDD AUTO DETECTION	Auto detect the HDD type
HDD LOW LEVEL FORMAT	Perform the low level format for hard disk
Virus Warning	When enabled, any attempt to write to the boot sector or partition table will halt the system and cause a warning prompt

Boot Up System Speed	Choose the system boot-up with High or Low speed 'Setup' - Checking the password only when you attempt to enter the CMOS Setup.
Security Option	'System' - Checking the password when system booted each time. In case of forgetting the password please use JP6 to clear the CMOS data and perform the BIOS setup again.

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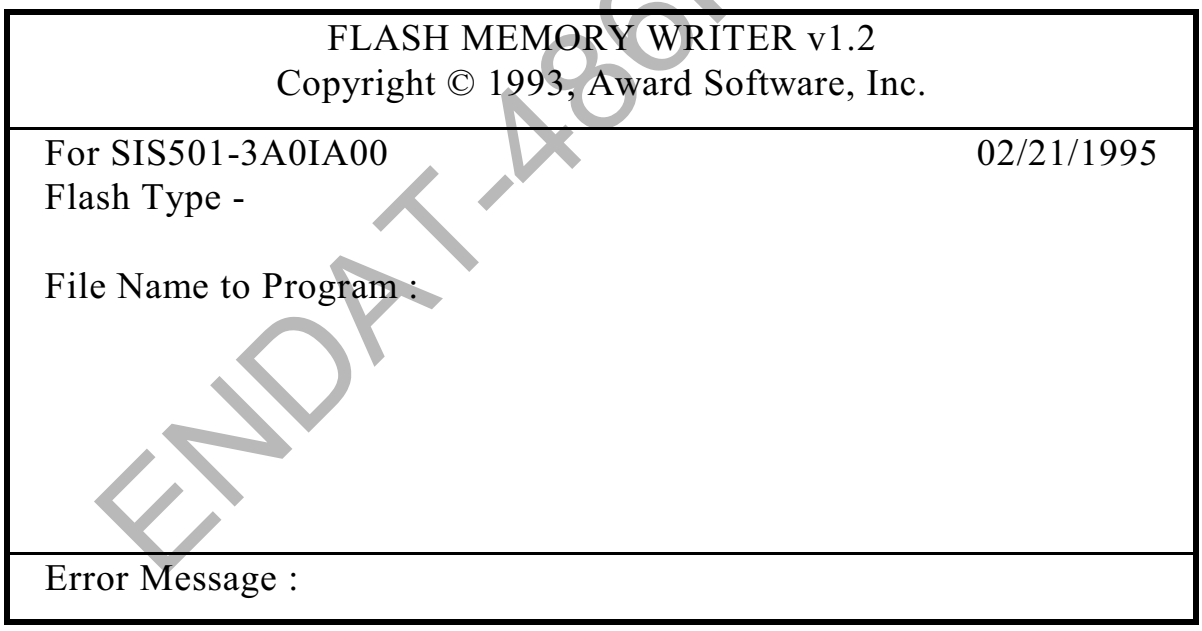
Appendix A. Flash Memory Utility

If your main board has flash memory, you can use this utility to update the system BIOS from a disk file. Be aware that the improperly changing the system BIOS will cause the system to malfunction.

Using utility as follows:

1. Insert the Flash Memory Utility distribution floppy diskette in drive A:
2. At the DOS prompt, type A:>AWDFLASH and press <Enter>



3. Enter the name of the system BIOS disk file in the File Name to Program field. The following message appears in the Error Message field:
   Are you sure to program (y/n) ?
4. To update the flash memory from the system BIOS disk file, type Y.
5. After complete updating please re-boot the system.

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Appendix B : Connector PIN assignment

CN1 : PS/2 Keyboard connector

Pin No.	Description
1	Keyboard data
2	N.C.
3	Ground
4	+ 5V DC
5	Keyboard clock
6	N.C.

CN2 : PS/2 Mouse connector

Pin No.	Description
1	Mouse data
2	N.C.
3	Ground
4	+ 5V DC
5	Mouse clock
6	N.C.

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CN3, CN4 : COM1 or COM3, COM2 or COM4

Pin No.	Description	Pin No.	Description
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI
5	GND		

CN5 : Printer (LPT) port.

Pin No.	Description	Pin No.	Description
1	STB#	10	ACK#
2	PD0	11	BUSY
3	PD1	12	PE
4	PD2	13	SLCT
5	PD3	14	AFD#
6	PD4	15	ERR#
7	PD5	16	INIT#
8	PD6	17	SLIN#
9	PD7	18-25	GND

CN6 : VGA connector.

Pin No.	Description	Pin No.	Description
1	RED	9	GND
2	GREEN	10	GND
3	BLUE	11	N.C.
4	N.C.	12	MONIT
5	GND	13	H.Sync.
6	GND	14	V.Sync.
7	GND	15	N.C.
8	GND		

CN7 : IR Connector (If U3 use 37C665IR).

EMBEDDED

CN8 : Feature connector.

Pin No.	Description	Pin No.	Description
1	PXD0	10	BLANK#
2	PXD1	11	H.Sync
3	PXD2	12	V.Sync
4	PXD3	13-16	GND
5	PXD4	22-24	GND
6	PXD5	17	EXENPD
7	PXD6	18	EXSYNC
8	PXD7	19	ECTCLK
9	PCLK	20-21	N.C.
		25-26	N.C.

CN9 : FDD Connector.

Pin No.	Description	Pin No.	Description
1,3,5,7	GND	14	DSA#
9,11,13	GND	16	MOB#
15,17,19	GND	18	DIR
21,23,25	GND	20	STEP#
27,29,31	GND	22	WD#
33	GND	24	WE#
2	RWC#	26	TRAK0
4,6	N.C.	28	WP#.
8	INDEX#	30	RDATA#
10	MOA#	32	HEAD#
12	DSB#	34	DSKCHG#

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CON1, CON2 : IDE1, IDE2 Connector.

Pin No.	Description	Pin No.	Description
2,19,22	GND	13	IDE data2
24,26,30	GND	14	IDE data13
40	GND	15	IDE data1
20,21,28	N.C.	16	IDE data14
29,32,34	N.C.	17	IDE data0
1	IDE reset	18	IDE data15
2			
3	IDE data7	23	IDE Write
4	IDE data8	25	IDE read
5	IDE data6	27	IDE ready
6	IDE data9	31	IDE IRQ
7	IDE data5	33	IDE A1
8	IDE data10	35	IDE A0
9	IDE data4	36	IDE A2
10	IDE data11	37	IDECS1#
11	IDE data3	38	IDECS3#
12	IDE data12	39	HDLED0#

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Expansion slot to PCI/ISA pin assignment:

Pin No.	Description	Pin No.	Description
A1	- IOCHK	B1	GND
A2	SD7	B2	RSTDRV
A3	SD6	B3	VCC
A4	SD5	B4	IRQ9
A5	SD4	B5	- 5V
A6	SD3	B6	DRQ2
A7	SD2	B7	- 12V
A8	SD1	B8	- OWS
A9	SD0	B9	+ 12V
A10	INCHRDY	B10	GND
A11	AEN	B11	- SMEMW
A12	SA19	B12	- SMEMR
A13	SA18	B13	- IOW
A14	SA17	B14	- IOR
A15	SA16	B15	- DACK3
A16	SA15	B16	DRQ3
A17	SA14	B17	- DACK1
A18	SA13	B18	DRQ1
A19	SA12	B19	REFRESH
A20	SA11	B20	SYSCLK
A21	SA10	B21	IRQ7
A22	SA9	B22	IRQ6
A23	SA8	B23	IRQ5
A24	SA7	B24	IRQ4
A25	SA6	B25	IRQ3
A26	SA5	B26	- DACK2
A27	SA4	B27	TC
A28	SA3	B28	BALE
A29	SA2	B29	VCC
A30	SA1	B30	OSC
A31	SA0	B31	GND

NDA Only

Pin No.	Description	Pin No.	Description
C1	-SBHE	D1	- MEMCS16
C2	LA23	D2	- IOCS16
C3	LA22	D3	IRQ10
C4	LA21	D4	IRQ11
C5	LA20	D5	IRQ12
C6	LA19	D6	IRQ13
C7	LA18	D7	IRQ14
C8	LA17	D8	- DACK0
C9	- MEMR	D9	DRQ0
C10	- MEMW	D10	- DACK5
C11	SD8	D11	DRQ5
C12	SD9	D12	- DACK6
C13	SD10	D13	DRQ6
C14	SD11	D14	- DACK7
C15	SD12	D15	DRQ7
C16	SD13	D16	VCC
C17	SD14	D17	MASTER
C18	SD15	D18	GND

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Pin No.	Description	Pin No.	Description
E1	GND	F1	GND
E2	GND	F2	GND
E3	- PCIINT1	F3	- PCIINT3
E4	- PCIINT2	F4	- PCIINT4
E5	VCC	F5	VCC
E6	KEY	F6	KEY
E7	VCC	F7	VCC
E8	- PCIRST	F8	PCLKF
E9	- GNT0	F9	GND
E10	- REQ0	F10	- GNT1
E11	GND	F11	GND
E12	PECLKE	F12	- REQ1
E13	GND	F13	AD31
E14	AD30	F14	AD29
E15	3.3V	F15	3.3V
E16	KEY	F16	KEY
E17	3.3V	F17	3.3V
E18	AD28	F18	AD27
E19	AD26	F19	AD25
E20	AD24	F20	- CBE3
E21	AD22	F21	AD23
E22	AD20	F22	AD21
E23	AD18	F23	AD19
E24	3.3V	F24	3.3V
E25	KEY	F25	KEY
E26	3.3V	F26	3.3V
E27	AD16	F27	AD17
E28	- FRAME	F28	- IRDY
E29	- CBE2	F29	- DEVSEL
E30	- TRDY	F30	- PLOCK
E31	- STOP	F31	- PERR

INDATASORL/TL

Pin No.	Description	Pin No.	Description
G1	SDONE	H1	- SERR
G2	- SBO	H2	AD15
G3	- CBE1	H3	AD14
G4	PAR	H4	AD12
G5	GND	H5	GND
G6	KEY	H6	KEY
G7	GND	H7	GND
G8	AD13	H8	AD10
G9	AD11	H9	AD8
G10	AD9	H10	AD7
G11	- CBE0	H11	AD5
G12	AD6	H12	AD3
G13	AD4	H13	AD1
G14	AD2	H14	AD0
G15	KEY	H15	KEY
G16	VCC	H16	VCC
G17	VCC	H17	VCC
G18	GND	H18	GND
G19	GND	H19	GND

ENDAT 6RL/TL