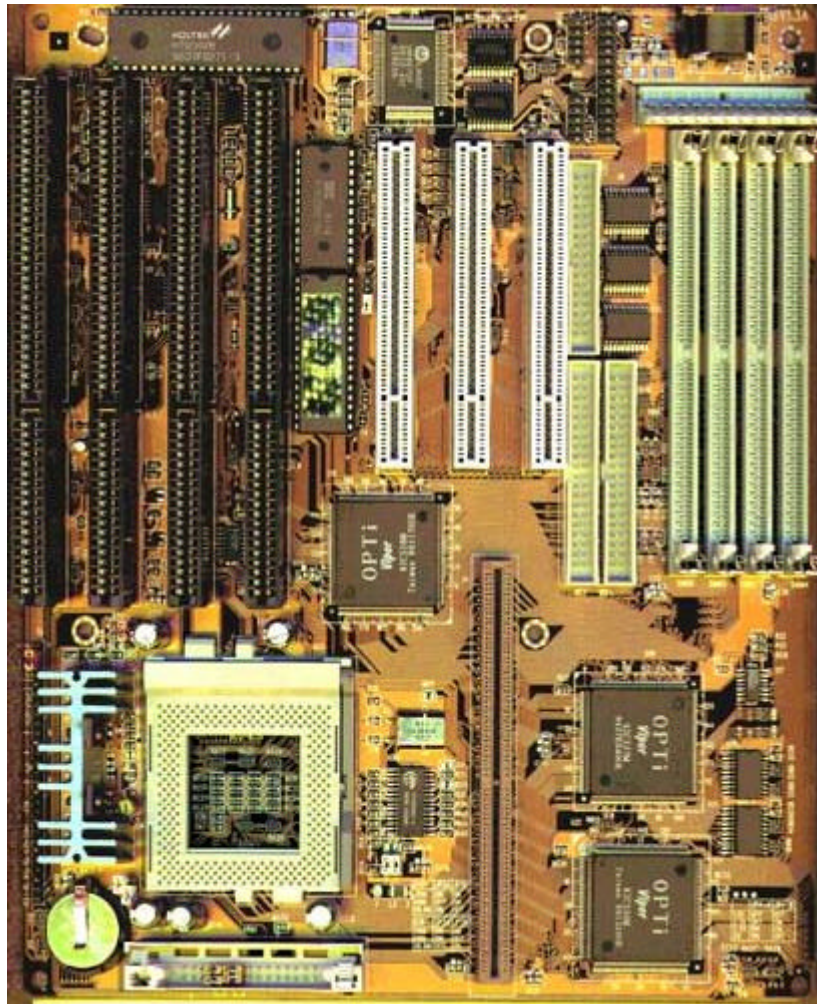


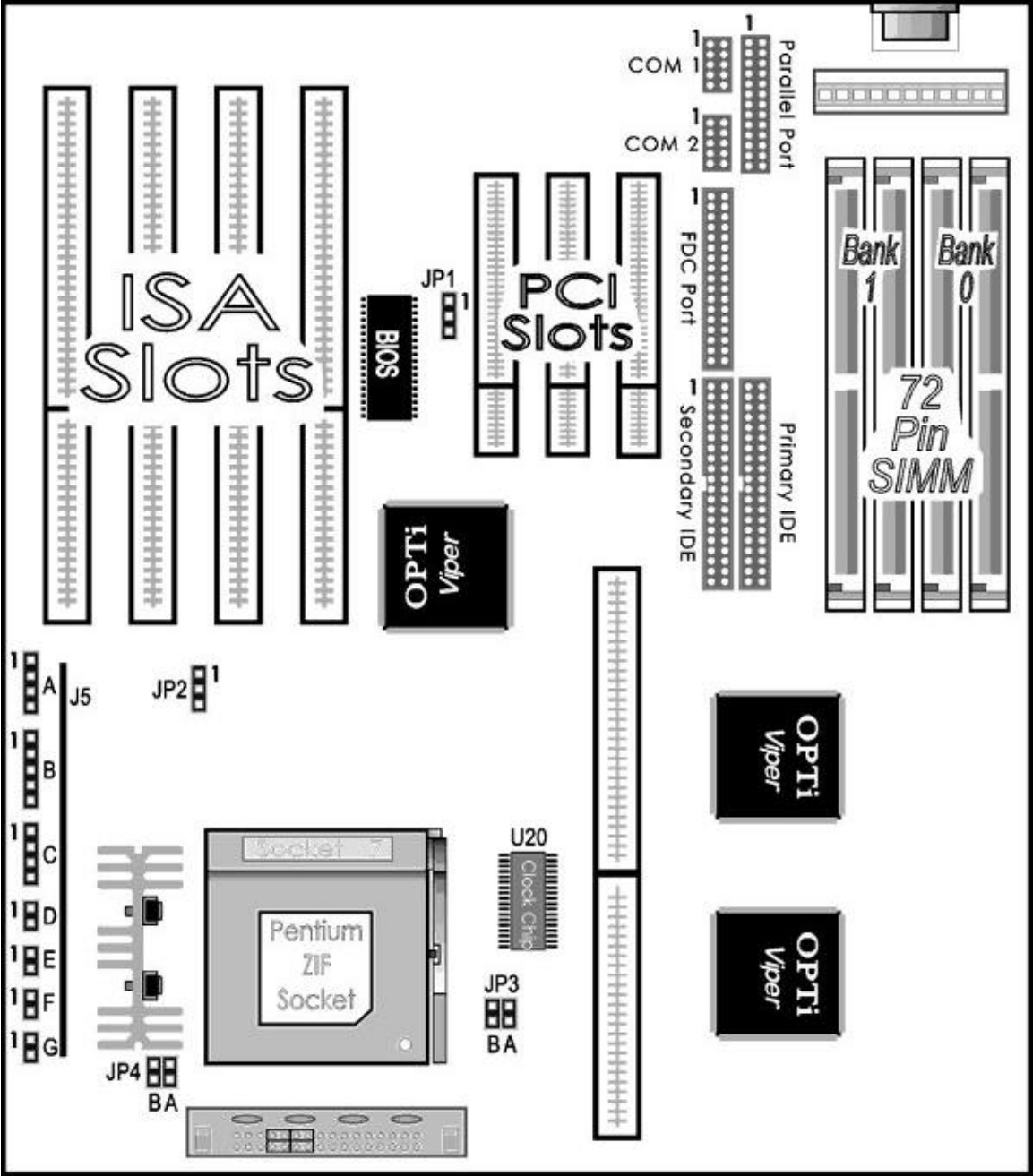
# PCChips M519 Motherboard Manual



## Overview

- Award Bios id string 10/08/96-Opti-VIPER-M-2A5UNH01C-00
- 4-72 pin SIMM slots (8-512MEG FPM/EDO)
- 0-168pin DIMM slot
- 3-32bit PCI Bus slots
- 4-16bit ISA slots
- 160pin 256K/512K pipeline cache COAST 3.0+ module optional
- OPTi VIPER-M chipset
- P55c Voltage Regulator Module (VRM) optional
- Supports 3.3v/3.5v CPU's and clock speeds 1.5x/2x/2.5x/3x.
- 321pin ZIF socket 7 which supports these processors:
  - INTEL Pentium P54C 75~200 MHz, P55C w/VRM
  - Cyrix/IBM 6x86 P120+/P150+/P166+, AMD K5 PR75~PR166 CPUs
- Supports 50/60/66 MHz external clock speeds
- Multi-I/O chip supports:
  - 2 PCI Enhanced IDE Ports (Supports 4 Devices PIO 0-4)
  - 2 High Speed Serial Ports (16550 UART Compatible)
  - 1 Enhanced Parallel Port (SPP, EPP, ECP capable)
  - 1 Floppy Drive Port (Supports 2 Floppy Drives)
- Manufactured by: 1437 Hsing Tech Enterprise Co., LTD.
- Sold as: Ability, Ampttron, Aristo, Eurone/Matsonic, Houston Tech, PCWare(Alton), Protac, PcChips, and Sybercom

Layout



# M519

## Power Supply Connector

The power supply connectors are two six-pin male header connectors. Plug the dual connectors from the power directly onto the board connectors.

Most of power supply have two leads. Each lead has six wires. Two of which are black, orient the connectors, so the black wires are in the middle.

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Power Supply Connectors

Pin	Description	Pin	Description
1	Power Good	7	Ground
2	+ 5V DC	8	Ground
3	+ 12V DC	9	- 5V DC
4	- 12V DC	10	+ 5V DC
5	Ground	11	+ 5 V DC
6	Ground	12	+ 5V DC

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## J1 Keyboard Connector

A standard five-pin female DIN keyboard connector is located at the rear of the board J1.

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Keyboard  
Connector

Pin	Description
1	Keyboard Clock
2	Keyboard Data
3	N.C.
4	Ground
5	+ 5VDC

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## HDD LED Connector

### HDD LED Connector

Pin	Description
1	5V
2	Active Low

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## Reset Switch Connector

Attach the Reset switch cable to this connector

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### Reset Connector

Setting	Description
Open	Normal Mode
Short	Reset System

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## Internal / External Battery Selectors

### Battery Selectors

Description	J7
External Battery	Pin 1 and pin 4 to connect external battery
Internal Battery	Pin 2-3 short
Clear CMOS	Pin 3-4 short

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## Keylock & Power LED Connector

Keylock connector that enables and disables the keyboard and the Power-LED on the case.

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### Keylock & Power LED Connector

Pin	Description
1	LED Output
2	N.C.
3	Ground
4	Keylock

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## Speaker Connector

Attach the system speaker to connector.

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### Speaker Connectors

Pin	Description
1	DATA Out
2	N.C.
3	Ground
4	+ 5V

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## JP1 Flash ROM Voltage Selector

The mainboard can use two types of Flash ROM 5 volt and 12 volt. Set the mainboard for either type with jumper JP1. You can update both types with new BIOS files as they come available.

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### Flash ROM Voltage Selector

Description	JP1
12 volt Flash ROM	Pin 1-2 short
EPROM and 5 volt Flash ROM	Pin 2-3 short

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## JP3 CPU CLK Selectors

The mainboard has a clock generator that lets you choose the CPU frequency by settings jumpers JP3. You can set the CPU speed to 50 / 60 MHz or 66 MHz as shown below.

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**CPU CPU CLK  
Selectors**

JP3A	JP3B	
ON	ON	50 MHz
ON	OFF	60 MHz
OFF	ON	66 MHz

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## JP4 - CPU CLK Internal 1.5 x, 2 x, 2.5 x, 3 x Selectors

**CPU Internal  
Clock Selectors**

JP4-A	JP4-B	
OFF	OFF	1.5 x
OFF	ON	2.0 x
ON	ON	2.5 x
ON	OFF	3.0 x

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**NOTE:**

<b>CPU Internal Clock Speed = (External Input Clock) x (table list) factor.</b>
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## JP2 CPU Voltage Regulator Output Selectors

**CPU Voltage Regulator Output  
Selectors**

Description	JP2
3.3 Volt (STD/VR)	Pin 2-3 short
3.5 Volt (VRE)	Pin 1-2 short (default)

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## External Cache Configuration

This mainboard supports a cache module socket you can install pipeline burst SRAM on a cache module in the cache module slot, the cache module size can either 256KB or 512KB.

External Cache Configuration

Cache Type	Size	Data Chip Size	Tag Chip Size
Pipeline Burst	256KB	32k32 x 2 pcs	8k8, 16k8 or 32kx8 x 1 pc
	512KB	32k32 x 4 pcs	16k8 or 32k8 x 1 pc
	512KB	64k32 x 2 pcs	16k8 or 32k8 x 1 pc