M519

• M519 MainBoard. *Key Features*

- **1. Use *OPTi VIPER-M* chipset.**
- **2. Supports 586 type processors running at 75~200 MHz.**
- **3. Supports Cyrix 6x86 CPU.**
- **4. Supports AMD 5_K86 CPU.**
- **5. Interfaces host buses with the PCI local bus operation at 33.3 MHz.**
- **6. Supports 160 pin second level cache connector.**

    a) Supports 256K/512K pipelined synchronous SRAM module

- **7. DRAM size from 4 MB to 512 MB**
- **8. Supports DRAM Auto-Banking**
- **9. Supports mixed fast page mode, EDO DRAM and burst EDO DRAM bank-by-bank**
- **10. On board CR2032 3.0V Lithium battery**
- **11. Four ISA slots and three PCI slots**
- **12. Supports super I/O controller**

    a) Two IDE connectors
    b) Two RS232 connectors
    c) One parallel connector
    d) One FDC connector

- **13. One ZIF CPU socket**
- **14. Supports VRM socket**

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.

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

J1 Keyboard Connector

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

Keyboard Connector

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

HDD LED Connector

HDD LED Connector

Pin	Description
1	5V
2	Active Low

Reset Switch Connector

Attach the Reset switch cable to this connector

Reset Connector

Setting	Description
Open	Normal Mode
Short	Reset System

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

Keylock & Power LED Connector

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

Keylock & Power LED Connector

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

Speaker Connector

Attach the system speaker to connector.

Speaker Connectors

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

JP1 Flash ROM Voltage Selector

The mainboard can uses 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.

Flash ROM Voltage Selector

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

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.

CPU CPU CLK Selectors

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

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

NOTE:

CPU Internal Clock Speed = (External Input Clock) x (table list) factor.

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)

External Cache Configuration

This mainborad 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 eirher 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