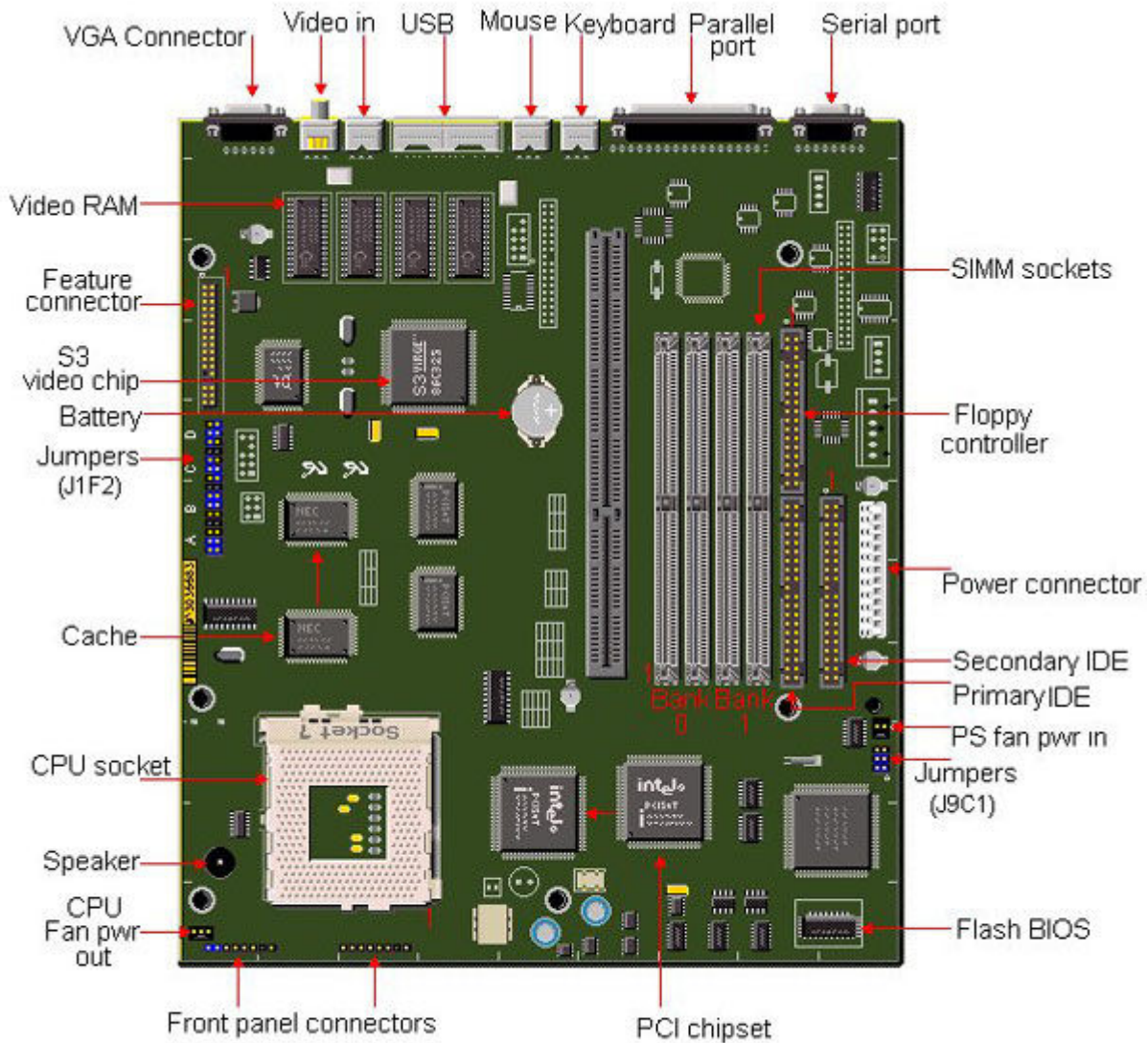


# Packard Bell 682 M/Board



The on-board video chip of your computer will automatically be disabled by the installation of a separate video card.

## Specification

- **Battery** : Socketed 3 volt Lithium coin cell battery at location BT5G1.
- **BIOS** : Flash EEPROM - AMI BIOS.Plug and Play 1.0a spec, support for Windows 95.
- **Bus Architecture** : PCI 2.1/ISA based system bus.66MHz maximum bus speed.

- **Cache** : 16K level 1 cache.May have 256KB Pipelined Burst Cache soldered on board, not upgradable.
- **Chipset** : Intel Triton II 82430VX PCI set.
- **CPU** : Intel Pentium P75, P90, P100, P120, P133, P150, P166, P200 and the 150, 166, 180 & 200MHz Intel Pentium Overdrive Processor with MMX technology.
- **Form Factor** : LPX
- **Interfaces** :
  - Serial DB-9 Serial port
  - Parallel DB-25 Parallel port
  - Keyboard PS/2 keyboard port
  - Mouse PS/2 mouse port
  - S-Video I2C and S-video IN
  - Optional USB Side-by side USB connector.
  - VGA DB-15 VGA port
  - FDD Connector 34-pin on-board header connector
  - HDD Connector 40-pin PCI IDE (fast PIO-4)
  - HDD Connector 40-pin PCI IDE (fast PIO-4)
  - VESA Feature Connector 34-pin header connector
- **PCI Chipset** : Intel Triton 82430VX PCI chipset
- **RAM** : 8MB installed standard/128MB maximum.Uses 4/8/16/32 MB 72-pin SIMMs, 60 or 70ns, EDO or Fast Page RAM Supports only non-parity DRAM.
- **Riser Card** : Desktop Case - 2xISA, 1xPCI, 1xPCI/ISA.Minitower Case - 2xISA, 2xPCI, 1xPCI/ISA.
- **Speaker** : On-board piezo speaker.
- **UART** : Two 16C550A Compatible chips.
- **Video** : Built-in, S3 Trio64V+ PCI graphics controller:
  - 1024 x 768, 256 colours with 1MB
  - 1280 x 1024, 256 colours with 2MB
  - VESA Display Channel supported.
  - DPMS compliant.
- **Video RAM** : S3 Trio64V+ motherboards have 1MB expandable to 2MB.

## Jumpers

Function	Location	Jumpers	Configuration
Host Bus Speed *	J1F2C	1-2, 5-6	66MHz
		2-3, 4-5	60MHz
		2-3, 5-6	50MHz
CPU Clock Ratio	J1F2D	1-2, 4-5	x1.5
		2-3, 4-5	x2.0
		2-3, 5-6	x2.5
		1-2, 5-6	x3.0
CMOS Clear	J1F2A	4-5	Normal
		5-6	Clear
Password Clear	J1F2A	1-2	Password Enabled

		2-3	Password Disabled
CMOS Setup Access	J1F2B	1-2 2-3	Enabled Access Denied
Processor Voltage	J1F2B	4-5 5-6	Standard Voltage (3.3v) VRE
Recovery Mode	J9C1	1-2 2-3 4-5, 5-6	Normal Recovery Reserved

\* Note: PCI clock speed equals ½ Host bus speed

## Battery

This 3V Lithium clip in battery is replaceable with a CR2032 battery.

## Flash Bios Update

### Bios Upgrade Procedure

- Insert the BIOS update diskette into drive A: and reboot the system.
- Press Enter when the first screen appears.
- Select "Update Flash Memory Area from a file" using the Down Arrow key.
- Press Enter.
- The UPDATE FLASH AREA dialog box appears on the screen.
- Select "Update System Bios" and press Enter.
- Select 1006DN0R.BIO file and press Enter.
- Press Enter at the following screen to proceed with programming.
- The BIOS is now re-programmed with the updated BIOS file.
- Remove the disk from drive A.
- Press Enter to reboot the computer system.
- Complete the process by running the CMOS Setup program.

### Bios Upgrade Procedure

- The 'FLASH NORMAL/FLASH RECOVERY' jumper block,J9C1 is located near the Primary Power Connector,J9E2.
- Move the 'FLASH NORMAL/FLASH RECOVERY' jumper block,J9C1 from pins 1-2, 4-5 to pins 2-3, 5-6.
- Insert the BIOS upgrade diskette and reboot the system. No video is available during the procedure.
- The system beeps once and starts copying the recovery code into the CMOS Flash memory. The system beeps twice as the recovery completes.
- Turn off the system and move the jumper block,J9C1 from pins 2-3, 5-6 to pins 1-2, 4-5.
- Leave the BIOS upgrade diskette in the floppy drive, and continue with the original upgrade following the procedure described in 'BIOS UPGRADE PROCEDURE'.

## Cache Upgrade

- This system has got 16KB Internal Cache (integrated into the CPU).
- Some systems come with 256KB External Cache soldered on the motherboard, and some systems come with no External Cache. Both revisions CANNOT be upgraded.

## CPU Upgrades

- This motherboard can accommodate the Intel Pentium P75, P90, P100, P120, P133, P150, P166, P200 and the 150, 166, 180 & 200MHz Intel Pentium Overdrive Processor with MMX technology.
- - Some motherboards have a voltage regulator next to the CPU (ZIF) socket. These revisions can also accommodate a regular Intel Pentium Processor with MMX technology 166, 200 or 233MHz. If the motherboard does not have a voltage regulator, the system does not support the regular Intel Pentium Processor with MMX technology.
- The processors using MMX technology will only be recognised properly by the system if you have BIOS version 1.00.09DN0R or higher (the current BIOS version will appear on the screen immediately after switching on the computer).

CPU Speed	Processor (J1F2B)	Voltage	Clock (J1F2C)	Speed	CPU (J1F2D)	Multiplier
75 MHz	1-2, 4-5		2-3, 5-6		1-2, 4-5	
90 MHz	1-2, 4-5		2-3, 4-5		1-2, 4-5	
100 MHz	1-2, 4-5		1-2, 5-6		1-2, 4-5	
120 MHz	1-2, 4-5		2-3, 4-5		2-3, 4-5	
133 MHz	1-2, 4-5		1-2, 5-6		2-3, 4-5	
150 MHz	1-2, 4-5		2-3, 4-5		2-3, 5-6	
166 MHz	1-2, 4-5		1-2, 5-6		2-3, 5-6	
200 MHz	1-2, 4-5		1-2, 5-6		1-2, 5-6	
MMX Overdrive* 150	1-2, 4-5		2-3, 4-5		1-2, 4-5	
MMX Overdrive* 166	1-2, 4-5		1-2, 5-6		1-2, 4-5	
MMX Overdrive* 180	1-2, 4-5		2-3, 4-5		2-3, 5-6	
MMX Overdrive* 200	1-2, 4-5		1-2, 5-6		2-3, 5-6	
MMX 166**	1-2, 5-6		1-2, 5-6		2-3, 5-6	
MMX 200**	1-2, 5-6		1-2, 5-6		1-2, 5-6	
MMX 233**	1-2, 5-6		1-2, 5-6		1-2, 4-5	

\* The Pentium Overdrive Processor with MMX technology is equipped with an on-package voltage regulator, which adapts the 3.3V system voltage to 2.8V processor voltage.

\*\* Some motherboards have a voltage regulator next to the CPU socket. These revisions can accommodate a regular Intel Pentium processor with MMX technology. To install the MMX processor use the jumper settings from the table above. The motherboard will automatically recognise the MMX processor and adjust the processor voltage. If the motherboard does not come with a voltage regulator on board, the system does not support the MMX processor!

**Warning: INSTALLING AN MMX PROCESSOR ON A MOTHERBOARD THAT DOES NOT HAVE A VOLTAGE REGULATOR MAY CAUSE PERMANENT DAMAGE TO THE PROCESSOR!**

## **RAM Upgrades**

- If you upgrade the system using EDO DRAM SIMMS, the speed of the SIMMS can be 60 or 70ns.
- If you upgrade the system using Fast Page Mode DRAM SIMMS the speed must be 70ns for ALL Pentium systems.
- The SIMMS are 4/8/16/32MB 72-pin and can be x32 or x36 because the motherboard design does not require parity checking.
- Always use silver plated SIMMS. (Do not use gold plated SIMMS)
- Upgrade in pairs. This means you have to fill a bank completely. E.g. when upgrading the system with 8MB, you have to use two 4MB SIMMS instead of one 8MB.
- SIMMS in the same bank must be of the same type. Do not mix SIMM types within a bank. It is however possible to use EDO SIMMS in bank 0 and Fast Page Mode in bank 1.

## **Video Memory Upgrade**

The video memory on this system can be upgraded to 2MB, by using two 256Kx16-50ns SOJ EDO DRAM chips.

(Doc source: <http://www.uktsupport.co.uk/pb/mb/682.htm>)