

# Packard Bell 22/23 M/Board

## Specification

- **Battery** : 3.6V DC Lithium (removable)
- **BIOS** : 128 KB - Phoenix BIOS V1.01.08
- **Bus Architecture** : ISA based system bus
- **Cache** : 8 KB Internal (Level 1) Cache Write Through External (Level 2)
- **CPU** : Intel 486 processor
- **Interfaces** :
  - 1 DB-25 Parallel Port
  - 2 DB-9 Serial port
  - 1 PS/2 Keyboard Port
  - 1 PS/2 mouse port
  - 1 15-pin VGA
- **RAM** : 4 MB Standard on Motherboard 32 MB Maximum
- **Speaker** : Piezoelectric soldered on motherboard
- **Video** : Built in Oak Extended VGA

## Jumpers

\* Indicates default settings. For J27 the default setting depends on the original CPU configuration.

When Modem Port is Enabled (J11 JUMPED), it becomes COM1 and Serial Port 1 is disabled.

Function	Jumper	Description
Modem Select (J11)	CLOSED OPEN	* Enabled Disabled
Mouse Select (J12)	CLOSED OPEN	* Enabled Disabled
VGA Select (J13)	1-2 3-4	* Enabled Disabled
Serial 1 Select (J14)	1-2 2-3	* COM1 COM3
Serial 2 Select (J15)	1-2 2-3	* COM2 COM4
Parallel Port (J16)	1-2 2-3	* LPT1 LPT2
Parallel Port IRQ (J18)	1-2 2-3	* IRQ 7 IRQ 5
Interlacing (J19)	CLOSED OPEN	* Interlaced Non-Interlaced
IDE Address (J20)	1-2 2-3	* Primary Secondary
FDD Address (J22)	1-2 2-3	* Primary Secondary
Speaker Select (J26)	1-2	* Onboard

	2-3	External
CPU Select (J27)	486 486sx 487	486DX installed 486SX installed 487 installed
Speaker Select (J28)	NC C	* No Cache Cache Installed

## Upgrades

- **Cache :** The following cache modules are supported on this system :
  - Intel Turbo Cache 485 MA (64K) (Available from Intel)
  - Intel Turbo Cache 485 MB (128K) (Available from Intel)
  - PB Cache (128K) (Available from Packard Bell)
- **Maths Co-Processor :** This system supports a math co-processor. It does not support upgrade processors (ODPs and OPDRs). The CPU frequency cannot be changed. **WARNING!** Do not insert a 20 or 25MHz processor into a 33MHz system. See jumpers section for necessary jumper changes.
- **RAM :** 32MB maximum. 256k/1MB/4MB 30 pin SIMMs, recommended speed is 80ns. No jumper changes necessary.
- **Video Memory :** This system has 512k video memory soldered (not upgradeable).