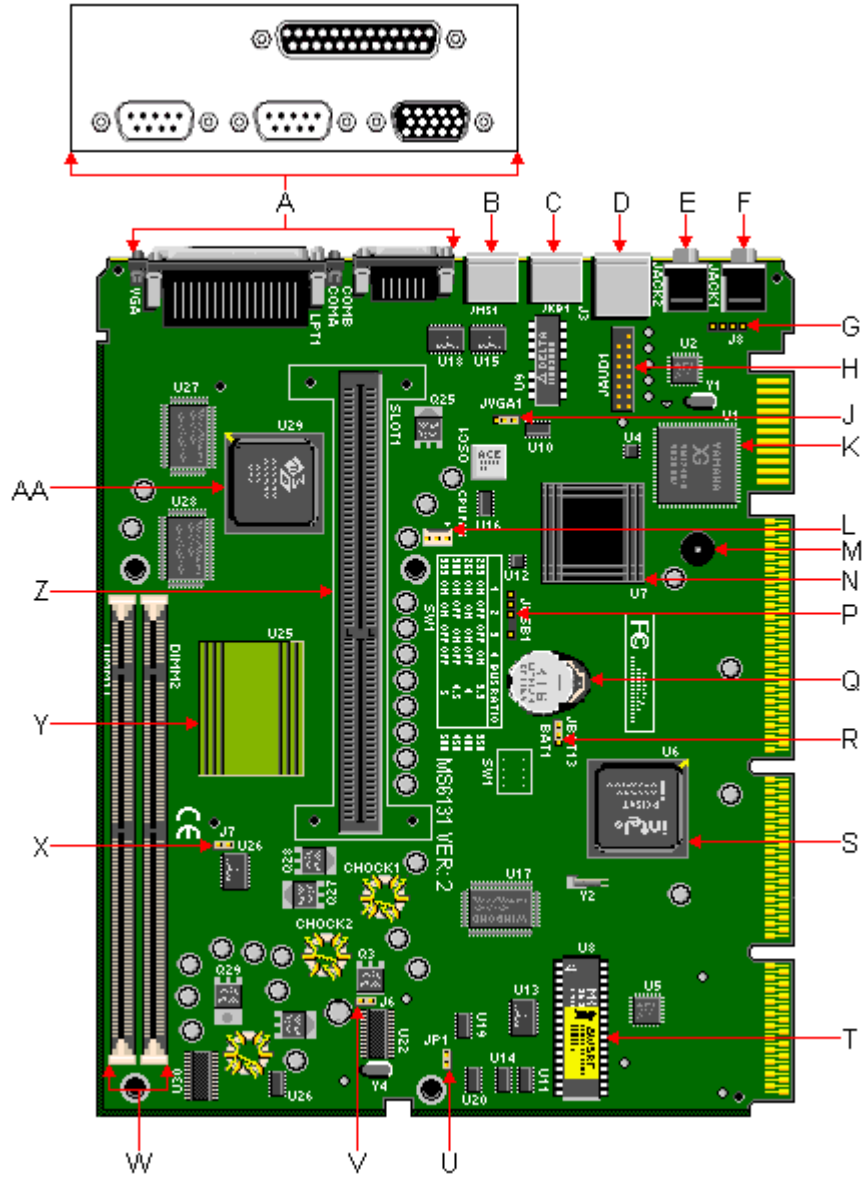


# Packard Bell 1020 M/Board



Item	Description	Item	Description
A	Parallel, Serial & VGA Ports	P	Rear USB Port Header (JUSB1)
B	PS/2 Mouse Port	Q	Battery
C	PS/2 Keyboard Port	R	CMOS Clear Jumper (JBAT1)
D	RJ-45 Network Cable Jack	S	Intel 82371EB PIIX4E Chipset
E	Microphone Jack	T	Award Flash BIOS
F	Speaker Jack	U	Power-On Mode Jumper (JP1)
G	Aux Line-In Connector (J8)	V	CPU Bus Frequency Selection Jumper (JK1/J6)
H	MIDI/Game Port Connector Header (JAUD1)	W	DIMM Sockets
J	Onboard VGA Jumper (JVGA1)	X	AGP Bus Frequency Selection Jumper (JK2/J7)
K	Yamaha YMF740C-V Audio Controller	Y	Intel FW82443BX AGP Controller Chipset

L	CPU Fan Power Connector	Z	CPU Socket (SLOT1)
M	Piezo Buzzer	AA	ATI 3D RagePro/Rage IIC
N	Intel 82558 10/100M Ethernet Controller		

## Specification

- **Audio** : Yamaha YMF740 Audio Controller
- **Battery** : CR2032 Lithium 3V Socketed
- **BIOS** : Intel E28F002BXT80 2 MBit Flash EPROM. System BIOS by Award
- **Bus** : PCI/ISA based system bus. 100MHz maximum bus speed
- **Cache** : 32K level 1 cache. 0, 128, 256 or 512KB level 2 cache in the Single Edge Contact cartridge (Not upgradeable).
- **Chipset** : Intel 82443BX PCI AGP Controller (PAC). Intel 82371EB PCI chipset (PIIX4E)
- **CPU** : Supports the following processors:
  - 66MHz Front-side Bus:
    - Celeron 300A/128K cache
    - Celeron 333A/128K cache
    - Celeron 366/128K cache
  - 100MHz Front-side Bus:
    - Pentium II 350/512K cache
    - Pentium II 400/512K cache
    - Pentium II 450/512K cache
    - Pentium III 450/512K cache
    - Pentium III 500/512K cache
- **Interfaces** :
  - 2 DB-9 Serial ports
  - 1 DB-25 Parallel port
  - 1 DB-15 VGA port
  - 1 PS/2 keyboard port
  - 1 PS/2 mouse port
  - 1 RJ-45 LAN connector
  - 2 Stereo mini-jacks for Line In & Line Out
- **Network** : Intel 82558 10/100M Ethernet Chipset
- **RAM** : 2 168-pin DIMM sockets, upgradeable to 512MB total SDRAM
- **Video** : ATI 3D Rage Pro AGP 2X Video Chipset
- **Video RAM** : 2 or 4 MB SGRAM onboard (Non-upgradeable).

## Jumpers

### CMOS Clear Jumper (JBAT1)

Jumper	Pins	Description
JBAT1	1-2	Normal/Save CMOS settings
	2-3	Clear CMOS settings

**Caution** : When clearing the CMOS settings, the power cord must be unplugged (since the standby power for the PIIX4E chipset comes from the power supply) and let the system rest for five seconds for the power to clear before returning the jumper to the Normal position.

### Onboard VGA Jumper (JVGA1)

Jumper	Pins	Description
JVGA1	1-2	Enable onboard VGA
	2-3	Disable onboard VGA

## Power-On Mode Jumper (JP1)

Jumper	Pins	Description
JP1	1-2	Boot up when power button is pressed.
	None	Immediate boot up when power cable is connected.

## CPU Bus Frequency Selection Jumper (JK1/J6)

Jumper	Pins	Description
JK1/J6	Closed	Automatically detect 66MHz and 100MHz CPU Bus Frequency.
	Open	Virtually set 66MHz CPU Bus Frequency into 100MHz.

## AGP Bus Frequency Selection Jumper (JK2/J7)

Jumper	Pins	Description
JK2/J7	Closed	66MHz AGP Bus Frequency
	Open	AGP Bus Frequency same as CPU Bus Frequency

## Upgrades

- **Cache** : Non-Upgradeable.
- **CPU** : Supports the following processors:
  - 66MHz Front-side Bus:
    - Celeron 300A/128K cache
    - Celeron 333A/128K cache
    - Celeron 366/128K cache
  - 100MHz Front-side Bus:
    - Pentium II 350/512K cache
    - Pentium II 400/512K cache
    - Pentium II 450/512K cache
    - Pentium III 450/512K cache
    - Pentium III 500/512K cache
  - Single Edge Contact (SEC) cartridge. Uses the SLOT1 CPU socket. Not keyboard switchable. Disable cache to slow down the system.
- **RAM** : Maximum on Motherboard: 256MB. Uses 8/16/32/64/128/256 MB DIMMs, 60ns or faster EDO SDRAM DIMMs. Supports only non-parity DIMM modules.
  - The 168-pin DIMM sockets will support PC66/PC100 unbuffered 3.3V 1MBx64 (8MB), 2MBx64 (16MB), 4MBx64 (32MB), and 8MBx64 (64MB) and 16MBx64 (128MB) SDRAM DIMMs.
  - Bank 1 will be populated as the default from the factory.
  - No configuration jumpers: BIOS detects memory size, and memory type.
  - This motherboard will not accept 36-bit DIMM modules (parity).
- **Video RAM**: Non-Upgradeable.

