

Darby Linux — PowerPC Mac Hardware Compatibility List






Complete list of supported PowerPC Macs (1999–2006) and their Linux hardware compatibility status.

All models listed are **New World ROM** Macs that can boot Linux via Yaboot/Open Firmware. Older **Old World ROM** Macs (pre-1999) are not supported by this project.

Table of Contents

1. [Compatibility Rating Legend](#)
2. [iBook Series](#)
3. [PowerBook Series](#)
4. [iMac Series](#)
5. [Power Mac Series](#)
6. [Mac mini](#)
7. [eMac](#)
8. [Xserve](#)
9. [Driver Availability Matrix](#)
10. [Known Issues by Model](#)
11. [Recommended Configurations](#)

Compatibility Rating Legend

| Rating | Meaning |
|--|---|
|  Excellent | All hardware works out of the box or with minimal configuration |
|  Good | Most hardware works; minor issues with 1–2 components |
|  Fair | Core functionality works but some hardware requires workarounds |
|  Limited | Significant hardware issues; experienced users only |
|  Unsupported | Known to not work or not tested |

iBook Series

iBook G3 (Clamshell) — 1999-2001

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|----------------------------|------------|-----------|------------------------------|------------------|--------|
| iBook G3/300 (Tangerine) | G3 300 MHz | 576 MB | ATI Rage Mobility 128 (4 MB) | Optional AirPort | ● Good |
| iBook G3/366 (Blueberry) | G3 366 MHz | 576 MB | ATI Rage Mobility 128 (4 MB) | Optional AirPort | ● Good |
| iBook G3/366 SE (Graphite) | G3 366 MHz | 576 MB | ATI Rage Mobility 128 (8 MB) | Optional AirPort | ● Good |
| iBook G3/466 SE (Key Lime) | G3 466 MHz | 576 MB | ATI Rage Mobility 128 (8 MB) | Optional AirPort | ● Good |

Notes: Low RAM limits desktop options to LXDE/Openbox. Clamshell hinges are fragile. ATI Rage driver (`aty128fb`) works well.

iBook G3 (Dual USB / Snow) — 2001-2003

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|-------------------------|------------|-----------|------------------------------|------------------|-------------|
| iBook G3/500 (Dual USB) | G3 500 MHz | 640 MB | ATI Rage Mobility 128 (8 MB) | Optional AirPort | ● Excellent |
| iBook G3/600 | G3 600 MHz | 640 MB | ATI Radeon 7500 (16 MB) | AirPort | ● Excellent |
| iBook G3/700 | G3 700 MHz | 640 MB | ATI Radeon 7500 (16 MB) | AirPort | ● Excellent |
| iBook G3/800 | G3 800 MHz | 640 MB | ATI Radeon 7500 (32 MB) | AirPort | ● Excellent |
| iBook G3/900 | G3 900 MHz | 640 MB | ATI Radeon 7500 (32 MB) | AirPort | ● Excellent |

Notes: Excellent Linux support. The Dual USB iBook is one of the best-supported PPC laptops. Use `radeon` driver for GPU.

iBook G4 — 2003-2006

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|--------------------|-------------|-----------|-------------------------|-----------------|-------------|
| iBook G4/800 (12") | G4 800 MHz | 1.12 GB | ATI Radeon 9200 (32 MB) | AirPort Extreme | ● Excellent |
| iBook G4/933 (12") | G4 933 MHz | 1.12 GB | ATI Radeon 9200 (32 MB) | AirPort Extreme | ● Excellent |
| iBook G4/1.0 (14") | G4 1.0 GHz | 1.12 GB | ATI Radeon 9200 (32 MB) | AirPort Extreme | ● Excellent |
| iBook G4/1.2 | G4 1.2 GHz | 1.5 GB | ATI Radeon 9200 (32 MB) | AirPort Extreme | ● Excellent |
| iBook G4/1.33 | G4 1.33 GHz | 1.5 GB | ATI Radeon 9200 (64 MB) | AirPort Extreme | ● Excellent |
| iBook G4/1.42 | G4 1.42 GHz | 1.5 GB | ATI Radeon 9200 (64 MB) | AirPort Extreme | ● Excellent |

Notes: Best PPC laptop for Linux. Good RAM, solid GPU, AltiVec support. AirPort Extreme uses `b43` driver with firmware.



PowerBook Series

PowerBook G3 (Lombard & Pismo) — 1999-2001

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|------------------------|----------------|-----------|------------------------------|------------------|-------------|
| PowerBook G3 (Lombard) | G3 333/400 MHz | 512 MB | ATI Rage LT Pro (4 MB) | Optional AirPort | ● Good |
| PowerBook G3 (Pismo) | G3 400/500 MHz | 1 GB | ATI Rage Mobility 128 (8 MB) | Optional AirPort | ● Excellent |

Notes: Pismo is a classic — up to 1 GB RAM via aftermarket upgrade. Lombard has limited VRAM.

PowerBook G4 (Titanium) — 2001-2003

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|-----------------------|------------|-----------|----------------------------------|------------------|-------------|
| PowerBook G4/400 (Ti) | G4 400 MHz | 1 GB | ATI Rage Mobility 128 (8 MB) | Optional AirPort | ● Good |
| PowerBook G4/500 (Ti) | G4 500 MHz | 1 GB | ATI Rage Mobility 128 (8 MB) | Optional AirPort | ● Good |
| PowerBook G4/550 (Ti) | G4 550 MHz | 1 GB | ATI Radeon Mobility 7500 (16 MB) | AirPort | ● Excellent |
| PowerBook G4/667 (Ti) | G4 667 MHz | 1 GB | ATI Radeon Mobility 7500 (16 MB) | AirPort | ● Excellent |
| PowerBook G4/800 (Ti) | G4 800 MHz | 1 GB | ATI Radeon Mobility 9000 (32 MB) | AirPort | ● Excellent |
| PowerBook G4/867 (Ti) | G4 867 MHz | 1 GB | ATI Radeon Mobility 9000 (32 MB) | AirPort | ● Excellent |
| PowerBook G4/1.0 (Ti) | G4 1.0 GHz | 1 GB | ATI Radeon Mobility 9000 (64 MB) | AirPort | ● Excellent |

Notes: Titanium hinges are fragile. Display cable issues common. Linux runs great on these.

PowerBook G4 (Aluminum) — 2003-2006

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|------------------------------------|-------------|-----------|----------------------------------|-----------------|-------------|
| PowerBook G4/1.0 (12" Al) | G4 1.0 GHz | 1.25 GB | NVIDIA GeForce FX Go5200 (32 MB) | AirPort Extreme | ● Excellent |
| PowerBook G4/1.25 (15" Al) | G4 1.25 GHz | 2 GB | ATI Radeon 9600 (64 MB) | AirPort Extreme | ● Excellent |
| PowerBook G4/1.33 (12"/15") | G4 1.33 GHz | 1.25/2 GB | NVIDIA FX Go5200 / ATI 9700 | AirPort Extreme | ● Excellent |
| PowerBook G4/1.5 (12"/15"/17") | G4 1.5 GHz | 1.25/2 GB | NVIDIA FX Go5200 / ATI 9700 | AirPort Extreme | ● Excellent |
| PowerBook G4/1.67 (15"/17") | G4 1.67 GHz | 2 GB | ATI Radeon 9700 (128 MB) | AirPort Extreme | ● Excellent |
| PowerBook G4/1.67 Hi-Res (15"/17") | G4 1.67 GHz | 2 GB | ATI Radeon 9700 (128 MB) | AirPort Extreme | ● Excellent |

Notes: Peak PPC laptop performance. 12" uses NVIDIA (nouveau driver); 15"/17" use ATI (radeon driver). All have excellent Linux support. 2 GB RAM models can run XFCE comfortably.

iMac Series

iMac G3 — 1999-2003

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|--------------------------------|----------------|-----------|----------------------------------|------------------|--------|
| iMac G3/266-333 (Rev A-D) | G3 266-333 MHz | 512 MB | ATI Rage IIc / Rage Pro (2-6 MB) | None (add-on) | ● Fair |
| iMac G3/350-500 (Slot-loading) | G3 350-500 MHz | 1 GB | ATI Rage 128 VR/Pro (8 MB) | Optional AirPort | ● Good |
| iMac G3/500-700 (2001) | G3 500-700 MHz | 1 GB | ATI Rage 128 Ultra (16 MB) | AirPort | ● Good |

Notes: Early tray-loading models have limited VRAM and low RAM ceiling. Slot-loading models are much better. Use LXDE/Openbox for best experience.

iMac G4 (Flat Panel) — 2002-2004

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|------------------------|-------------|-----------|--------------------------------------|-----------------|-------------|
| iMac G4/700 (15") | G4 700 MHz | 1 GB | NVIDIA GeForce2 MX (32 MB) | AirPort | ● Excellent |
| iMac G4/800 (15") | G4 800 MHz | 1 GB | NVIDIA GeForce2 MX (32 MB) | AirPort | ● Excellent |
| iMac G4/1.0 (15"/17") | G4 1.0 GHz | 1 GB | NVIDIA GeForce4 MX (32-64 MB) | AirPort Extreme | ● Excellent |
| iMac G4/1.25 (17"/20") | G4 1.25 GHz | 2 GB | NVIDIA GeForce FX 5200 Ultra (64 MB) | AirPort Extreme | ● Excellent |

Notes: Beautiful design. NVIDIA GPUs work well with `nouveau` driver. The 20" model has excellent screen for its era. Up to 2 GB RAM.

iMac G5 — 2004-2006

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|--------------------------|------------|-----------|--------------------------------------|-----------------|-------------|
| iMac G5/1.6 (17") | G5 1.6 GHz | 2 GB | NVIDIA GeForce FX 5200 Ultra (64 MB) | AirPort Extreme | ● Excellent |
| iMac G5/1.8 (17"/20") | G5 1.8 GHz | 2 GB | NVIDIA GeForce FX 5200 Ultra (64 MB) | AirPort Extreme | ● Excellent |
| iMac G5/2.0 (17"/20") | G5 2.0 GHz | 2.5 GB | ATI Radeon 9600 (128 MB) | AirPort Extreme | ● Excellent |
| iMac G5/2.1 (20") iSight | G5 2.1 GHz | 2.5 GB | ATI Radeon X600 (128 MB) | AirPort Extreme | ● Good |

Notes: G5 iMacs run warm — thermal management (`windfarm` module) is critical. The iSight model has an integrated camera that does not work under Linux. Use 64-bit Debian (`ppc64`).

Power Mac Series

Power Mac G3 (Blue & White) — 1999

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|----------------------|------------|-----------|----------------------|-----------------|--------|
| Power Mac G3 B&W/300 | G3 300 MHz | 1 GB | ATI Rage 128 (16 MB) | None (PCI card) | ● Good |
| Power Mac G3 B&W/350 | G3 350 MHz | 1 GB | ATI Rage 128 (16 MB) | None (PCI card) | ● Good |
| Power Mac G3 B&W/400 | G3 400 MHz | 1 GB | ATI Rage 128 (16 MB) | None (PCI card) | ● Good |
| Power Mac G3 B&W/450 | G3 450 MHz | 1 GB | ATI Rage 128 (16 MB) | None (PCI card) | ● Good |

Notes: First “New World” tower. PCI slots allow GPU/WiFi upgrades. IDE bus is the performance bottleneck.

Power Mac G4 — 1999–2004

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|---------------------------------|----------------------------|-----------|---|-------------------|-------------|
| Power Mac G4 (PCI Graphics) | G4 350–500 MHz | 2 GB | ATI Rage 128 Pro (16 MB) | Optional Air-Port | ● Good |
| Power Mac G4 (AGP/ Sawtooth) | G4 350–500 MHz | 2 GB | ATI Rage 128 Pro (16 MB) | Optional Air-Port | ● Excellent |
| Power Mac G4 (Gigabit Ethernet) | G4 400–500 MHz (Dual) | 2 GB | ATI Rage 128 Pro (16 MB) | Optional Air-Port | ● Excellent |
| Power Mac G4 (Digital Audio) | G4 466–733 MHz | 2 GB | ATI Rage 128 Pro / NVIDIA GeForce2 MX (32 MB) | Optional Air-Port | ● Excellent |
| Power Mac G4 (Quicksilver) | G4 733 MHz–1 GHz (Dual) | 2 GB | NVIDIA GeForce2 MX (64 MB) | Optional Air-Port | ● Excellent |
| Power Mac G4 (MDD) | G4 867 MHz–1.42 GHz (Dual) | 2 GB | NVIDIA GeForce4 MX / ATI Radeon 9000 | AirPort Extreme | ● Excellent |
| Power Mac G4 (FW800) | G4 1.0–1.42 GHz (Dual) | 2 GB | ATI Radeon 9000 Pro (64 MB) | AirPort Extreme | ● Excellent |

Notes: Dual-processor models work great with SMP-enabled kernels. AGP slot allows GPU upgrades (Radeon 9200 recommended). MDD models are infamously loud (fan mod recommended).

Power Mac G5 — 2003–2006

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|-------------------------|---------------|-----------|--------------------------------------|--------------------------|-------------|
| Power Mac G5/1.6 | G5 1.6 GHz | 4 GB | NVIDIA GeForce FX 5200 Ultra (64 MB) | Optional AirPort Extreme | ● Excellent |
| Power Mac G5/1.8 | G5 1.8 GHz | 8 GB | NVIDIA GeForce FX 5200 Ultra (64 MB) | Optional AirPort Extreme | ● Excellent |
| Power Mac G5/2.0 (Dual) | G5 2.0 GHz ×2 | 8 GB | NVIDIA GeForce FX 5200 Ultra (64 MB) | Optional AirPort Extreme | ● Excellent |
| Power Mac G5/2.5 (Dual) | G5 2.5 GHz ×2 | 8 GB | ATI Radeon 9600 XT (128 MB) | AirPort Extreme | ● Excellent |
| Power Mac G5/2.7 (Dual) | G5 2.7 GHz ×2 | 8 GB | ATI Radeon 9600 XT (128 MB) | AirPort Extreme | ● Good |
| Power Mac G5 Quad | G5 2.5 GHz ×4 | 16 GB | NVIDIA GeForce 6600 LE (256 MB) | AirPort Extreme | ● Good |

Notes: Most powerful PPC Macs. Liquid-cooled 2.5/2.7 GHz models are prone to coolant leaks — check before buying! Use Debian `ppc64` for 64-bit support. Quad requires `windfarm` thermal management. 8–16 GB RAM makes these viable desktop machines.

Mac mini

Mac mini G4 — 2005-2006

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|------------------|-------------|-----------|-------------------------|-----------------------------|-------------|
| Mac mini G4/1.25 | G4 1.25 GHz | 1 GB | ATI Radeon 9200 (32 MB) | AirPort Extreme + Bluetooth | ● Excellent |
| Mac mini G4/1.42 | G4 1.42 GHz | 1 GB | ATI Radeon 9200 (32 MB) | AirPort Extreme + Bluetooth | ● Excellent |
| Mac mini G4/1.5 | G4 1.5 GHz | 1 GB | ATI Radeon 9200 (64 MB) | AirPort Extreme + Bluetooth | ● Excellent |

Notes: Excellent low-power PPC Linux machine. Quiet, small form factor. 1 GB RAM is limiting — use XFCE or LXDE. Great as a home server.

eMac

eMac — 2002-2006

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|--------------|-------------|-----------|----------------------------|------------------|-------------|
| eMac G4/700 | G4 700 MHz | 1 GB | NVIDIA GeForce2 MX (32 MB) | Optional AirPort | ● Excellent |
| eMac G4/800 | G4 800 MHz | 1 GB | ATI Radeon 7500 (32 MB) | Optional AirPort | ● Excellent |
| eMac G4/1.0 | G4 1.0 GHz | 1 GB | ATI Radeon 7500 (32 MB) | AirPort Extreme | ● Excellent |
| eMac G4/1.25 | G4 1.25 GHz | 2 GB | ATI Radeon 9200 (32 MB) | AirPort Extreme | ● Excellent |
| eMac G4/1.42 | G4 1.42 GHz | 2 GB | ATI Radeon 9600 (64 MB) | AirPort Extreme | ● Excellent |

Notes: CRT display — heavy but reliable. Excellent Linux support across the board. Later models with 2 GB RAM run XFCE well.

Xserve

Xserve G4 / G5 — 2002-2006

| Model | CPU | RAM (Max) | GPU | WiFi | Rating |
|-----------------------------|-------------|-----------|-------------------------|------|--------|
| Xserve G4/1.0 (Single/Dual) | G4 1.0 GHz | 2 GB | ATI Rage 128 (headless) | None | ● Good |
| Xserve G4/1.33 (Dual) | G4 1.33 GHz | 2 GB | ATI Radeon 9200 | None | ● Good |
| Xserve G5/2.0 (Single/Dual) | G5 2.0 GHz | 8 GB | NVIDIA GeForce FX 5200 | None | ● Good |
| Xserve G5/2.3 (Dual) | G5 2.3 GHz | 8 GB | ATI Radeon 9200 | None | ● Good |

Notes: Server hardware — designed for headless operation. No WiFi. Serial console recommended for installation. Fibre Channel cards may not work under Linux.



Driver Availability Matrix

| Component | Driver | G3 | G4 | G5 | Notes |
|----------------------------------|--------------------|----|----|----|---|
| CPU | Kernel PPC support | ✓ | ✓ | ✓ | CON-FIG_PPC_PMAC=y |
| AltiVec / VMX | Kernel | ✗ | ✓ | ✓ | G3 lacks AltiVec |
| SMP (Dual CPU) | Kernel | ✗ | ✓ | ✓ | CONFIG_SMP=y needed |
| ATI Rage 128 | aty128fb / r128 | ✓ | ✓ | — | 2D only; no 3D accel |
| ATI Radeon (7x00-9x00) | radeon / radeonfb | ✓ | ✓ | ✓ | 3D acceleration works |
| ATI Radeon X-series | radeon | — | — | ✓ | DRM/KMS supported |
| NVIDIA GeForce2/4/FX | nouveau / nvidiafb | — | ✓ | ✓ | nouveau for 3D; nvidiafb for 2D only |
| NVIDIA GeForce 6xxx | nouveau | — | — | ✓ | G5 Quad only |
| AirPort (Original) | b43legacy | ✓ | ✓ | — | BCM4301/4306; needs firmware |
| AirPort Extreme | b43 | — | ✓ | ✓ | BCM4306 rev3+/4318/4311; needs firmware |
| Ethernet (Wired) | sungem / gem | ✓ | ✓ | ✓ | Works out of the box |
| Sound (Screamer/Burgundy) | snd-powermac | ✓ | ✓ | — | Older Macs |
| Sound (TAS/Toonie) | snd-aoa | — | ✓ | ✓ | Newer G4/G5 Macs |

| Component | Driver | G3 | G4 | G5 | Notes |
|------------------------|--------------------------|----|----|----|------------------------------|
| USB | ohci-hcd / ehci-hcd | ✓ | ✓ | ✓ | USB 1.1 (G3) / USB 2.0 (G4+) |
| FireWire | ohci1394 / firewire-ohci | ✓ | ✓ | ✓ | Works; some devices flaky |
| IDE/ATA | pata_macio / ide-pmac | ✓ | ✓ | ✓ | Standard for PPC Macs |
| SATA | sata_svw | — | — | ✓ | G5 only (Broadcom K2) |
| Thermal (G4 laptops) | therm_adt746x | — | ✓ | — | iBook G4, PowerBook G4 |
| Thermal (G5 desktop) | therm_pm72 / windfarm_* | — | — | ✓ | Critical for G5 |
| PMU (Power Management) | via-pmu | ✓ | ✓ | — | Sleep/lid close on laptops |
| Bluetooth | btusb | — | ✓ | ✓ | BT 1.1/2.0 EDR |
| iSight Camera | ✗ | — | — | ✗ | Not supported on PPC |

⚠ Known Issues by Model

iBook G3 Clamshell

- **RAM ceiling** (576 MB) severely limits usable desktop environments
- **ATI Rage Mobility** has no 3D acceleration — use `fbdev` if `aty128fb` causes issues
- **Sleep** may not resume reliably — disable via power manager

iMac G3 (Tray-loading)

- **Very low VRAM** (2–6 MB) — may struggle with compositing
- **No USB boot** on earliest models — must use CD
- CRT geometry may need manual adjustment via `xrandr` or `xvidtune`

Power Mac G4 (MDD / Mirror Drive Doors)

- **Extremely loud fans** — community fan-mod guides available
- Dual-CPU models may have power supply issues after many years

Power Mac G5 (Liquid-cooled)

- **Coolant leak risk** on 2.5/2.7 GHz Dual models — check before use!
- `windfarm` kernel module **MUST** be loaded or the system will throttle/shut down
- High power consumption (300–600W under load)

iMac G5 (iSight)

- **iSight camera** does not work under Linux
- Known capacitor failure issues on logic boards (all iMac G5 models)

PowerBook G4 (Titanium)

- **Fragile display hinge** — handle with care
- Display cable failure common on 667/800/867/1.0 GHz models
- AirPort antenna reception is poor due to titanium case



Recommended Configurations

Best for Beginners

| Use Case | Recommended Model | Why |
|-----------------------|------------------------------|---|
| PPC Linux laptop | iBook G4/1.33 | Reliable, good RAM, great driver support |
| PPC Linux desktop | Mac mini G4/1.42 | Quiet, low power, compact |
| PPC Linux workstation | Power Mac G5/2.0 Dual | 8 GB RAM, dual CPU, air-cooled (no leak risk) |

Best Performance

| Use Case | Recommended Model | Why |
|-------------------------|-----------------------------------|--------------------------------------|
| Maximum PPC performance | Power Mac G5 Quad | 4 cores, up to 16 GB RAM |
| Best PPC laptop | PowerBook G4/1.67 (15" AI) | 2 GB RAM, 128 MB GPU, Hi-Res display |
| Best all-in-one | iMac G5/2.0 (20") | Large display, good specs |

Best for Lightweight / Server Use

| Use Case | Recommended Model | Why |
|----------------------------|---------------------|--|
| Home server | Mac mini G4 | Low power, small, quiet, headless-friendly |
| Retro browsing / light use | iBook G3/900 | Portable, good enough for web with Dillo/NetSurf |
| File / print server | Xserve G4/G5 | Rack-mountable, built for server duty |



Testing Your Hardware

Run the Darby Linux PPC hardware detection script to get a full compatibility report for your specific Mac:

```
sudo ./scripts/hardware/ppc_detect.sh --save
```

This generates a detailed report including:

- Exact model identification
- CPU generation and features
- RAM and storage details
- GPU and display capabilities
- WiFi and sound chip identification
- Overall compatibility rating
- Recommended distribution and desktop environment