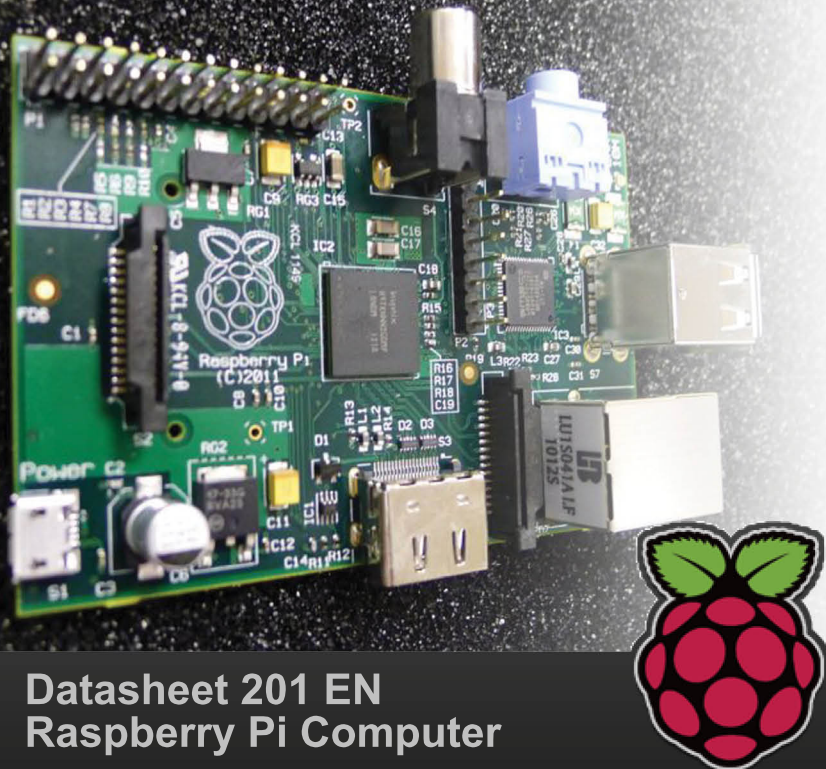




Raspberry Pi

An ARM GNU/Linux box for \$25. Take a byte!

The Raspberry Pi Foundation produces an ultra-low-cost credit-card sized GNU/Linux computer for teaching computer programming to children.

Datasheet 201 EN
Raspberry Pi Computer

Raspberry Pi Foundation
Computing Devices

The Raspberry Pi Foundation

The idea behind a tiny and cheap computer for kids came in 2006, when Eben Upton was lecturing and working in admissions at Cambridge University.

Eben had noticed a distinct drop in the skills levels of the A Level students applying to read Computer Science in each academic year when he came to interview them.

From a situation in the 1990s where most of the kids applying were coming to interview as hobbyist programmers, the landscape in the 2000s was very different; a typical applicant now had experience only with web design, and sometimes not even with that.

Fewer people were applying to the course every year. Something had changed the way kids were interacting with computers.

The Raspberry Pi Computer

The Raspberry Pi (or RasPi) is an ultra-low-cost credit-card sized Linux computer for teaching computer programming to children. It was developed by the Raspberry Pi Foundation, which is a UK registered charity.

The foundation exists to promote the study of computer science and related topics, especially at school level, and to put the fun back into learning computing.

We expect this computer to have many other applications both in the developed and the developing world.

Buying a Raspberry Pi

The Model A will cost \$25 and the Model B \$35, plus local taxes. We will accept most major cards, PayPal, and offline payments at the online store: www.raspberrypi.com.

Each Raspberry Pi device is sold as a pre-assembled board in two variations (The model A and the model B). The device will not be available in kit form.

The first batch (February 2012) will be the Model B version and will not be supplied with a case.

Extras such as leads, a power supply or SD cards are not included but can be purchased at the same time from the store. You will be able to buy preloaded SD cards too.

What's the difference between Model A and B?

Model A has 256Mb of RAM (up from 128Mb), one USB port and no Ethernet port.

Model B has 256Mb RAM, 2 USB port and an Ethernet port.

What are the dimensions of the Raspberry Pi?

The Raspberry Pi measures 85.60mm x 53.98mm x 17mm.

MICRO USB
POWER

A 128MB B 256MB RAM

What SoC are you using?

The SoC is a Broadcom BCM2835.

This contains an ARM1176JZFS, with floating point, running at 700Mhz, and a Videocore 4 GPU.

The GPU is capable of BluRay quality playback, using H.264 at 40MBits/s.

It has a fast 3D core accessed using the supplied OpenGL ES2.0 and OpenVG libraries.

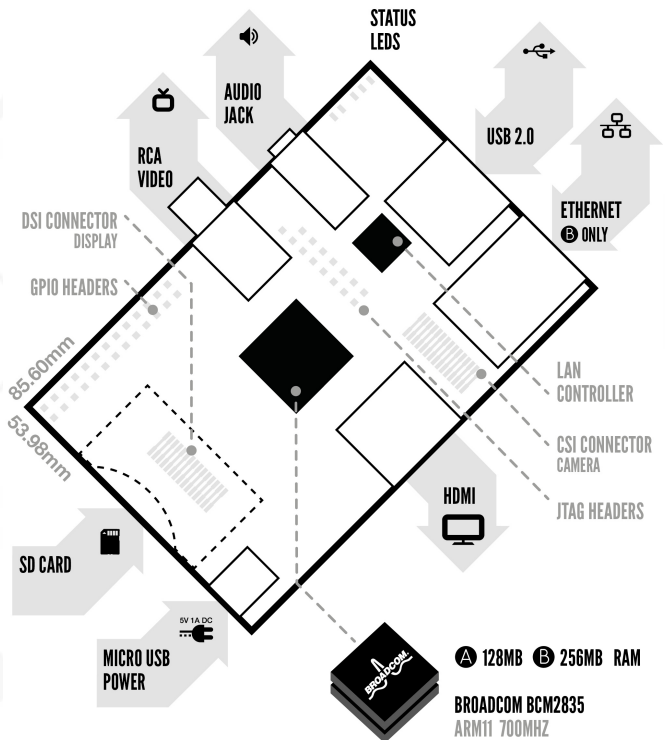
Why did you select ARM11?

Cost and performance. The GPU provides Open GL ES 2.0, hardware-accelerated OpenVG, and 1080p30 H.264 high-profile decode.

The GPU is capable of 1Gpixel/s, 1.5Gtexel/s or 24 GFLOPs of general purpose compute and features a bunch of texture filtering and DMA infrastructure. That is, graphics capabilities are roughly equivalent to Xbox 1 level of performance.

Overall real world performance is something like a 300MHz Pentium 2, only with much, much swankier graphics.

Raspberry Pi
Model A B



How does it boot?

You have to boot from SD but a USB HD can "take over" after the initial boot. You cannot boot without an SD card.

Can I add extra memory?

No. The RAM is a POP package on top of the SoC, so it's not removable or swappable. (Package on Package & System on a Chip)

Where's the on / off switch?

To switch on: just plug it in!
To switch off: remove power.
Power is supplied by a micro USB B connector.

USB 2.0 Ports?

Model A has one USB port and Model B has 2. Mice, keyboards, network adapters and external storage will all connect via a USB hub.

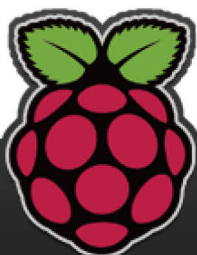
Will it have a case?

Not for the first batch. We'll be making and selling cases by the summer; you'll be able to buy a unit with or without a case, or a case on its own.

When can I buy one?

Please see the FAQ on the www.raspberrypi.org website for more information

The education release later in 2012 will have a case by default. There are lots of homebrew case discussions on the forum.



Official Website: www.raspberrypi.org
Official Forums: www.raspberrypi.org/forum
Official Store: www.raspberrypi.com

Community Website: www.frambozenbier.org
Community Forums: www.edugeek.net/raspi
Community Wiki: www.elinux.org/R-Pi_Hub

Could you write an article, datasheet or mini-guide? Please send your ideas or content to articles@Frambozenbier.org

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