

Raspberry Pi



MODEL B+

The Model B+ is the higher-spec variant of the Raspberry Pi. It replaced the original [Model B](#) in July 2014. Compared to the Model B it has:

- **More GPIO.** The GPIO header has grown to 40 pins, while retaining the same pinout for the first 26 pins as the Model B.
- **More USB.** We now have 4 USB 2.0 ports, compared to 2 on the Model B, and better hotplug and overcurrent behaviour.
- **Micro SD.** The old friction-fit SD card socket has been replaced with a much nicer push-push micro SD version.
- **Lower power consumption.** By replacing linear regulators with switching ones we've reduced power consumption by between 0.5W and 1W.
- **Better audio.** The audio circuit incorporates a dedicated low-noise power supply.
- **Neater form factor.** We've aligned the USB connectors with the board edge, moved composite video onto the 3.5mm jack, and added four squarely-placed mounting holes.

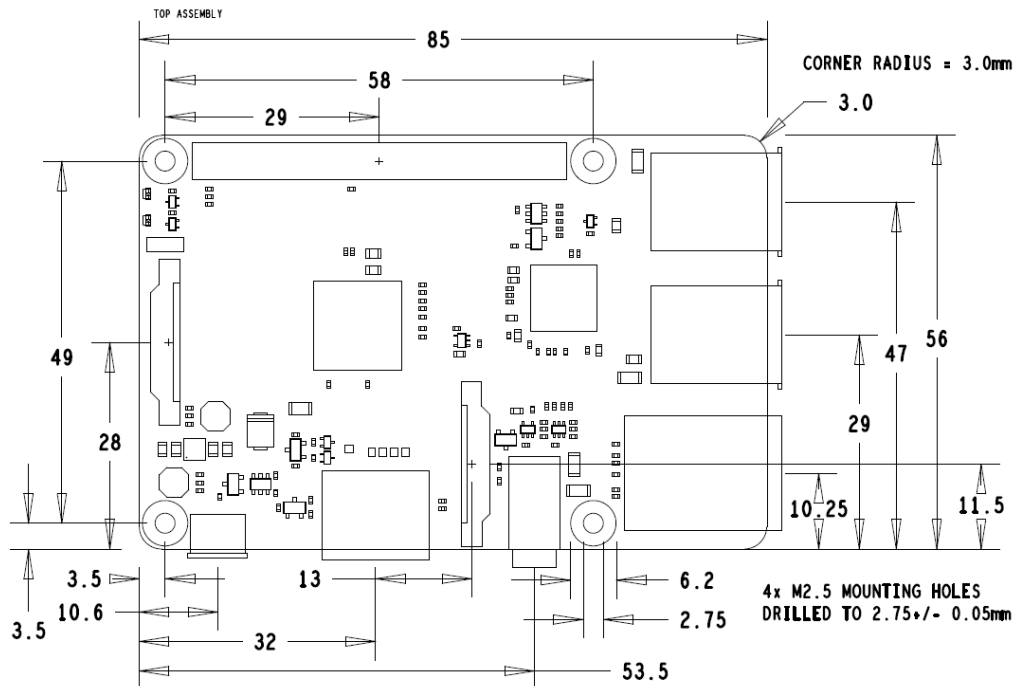
We recommend the Model B+ for use in schools: it offers more flexibility for learners than the leaner Model A, which is more useful for embedded projects and projects which require very low power, and has more USB ports than the Model B.


Specifications

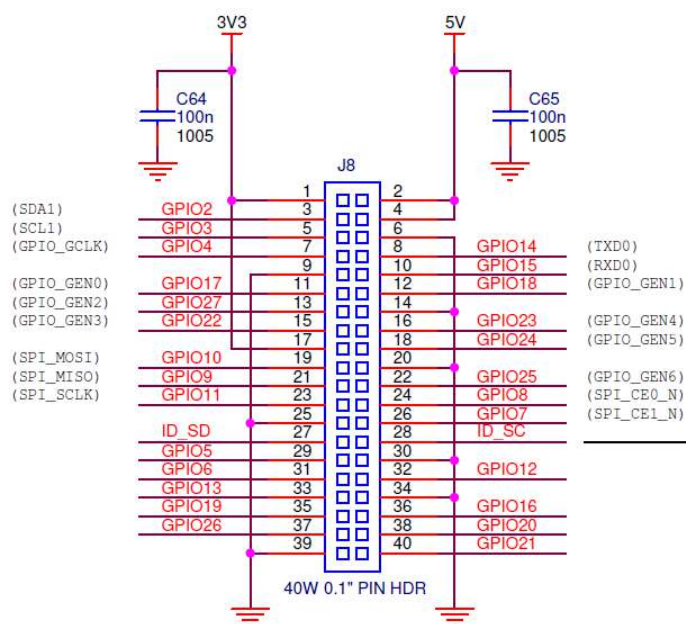
Chip	Broadcom BCM2835 SoC
Core architecture	ARM11
CPU	700 MHz Low Power ARM1176JZFS Applications Processor
GPU	Dual Core VideoCore IV® Multimedia Co-Processor, provides Open GL ES 2.0, hardware-accelerated OpenVG, and 1080p30 H.264 high-profile decode Capable of 1Gpixel/s, 1.5Gtexel/s or 24GFLOPs with texture filtering and DMA infrastructure
Memory	512MB SDRAM
Operating System	Boots from Micro SD card, running a version of the Linux operating system
Dimensions	85x56x17 mm
Power	Micro USB socket 5V, 2A

Connectors

Ethernet	10/100 BaseT Ethernet socket
Video Output	HDMI (rev 1.3 & 1.4), Composite RCA (PAL and NTSC)
Audio Output	3.5mm jack, HDMI
USB	4 x USB 2.0 Connector
GPIO Connector	40-pin 2.54 mm (100 mil) expansion header: 2x20 strip, providing 27 GPIO pins as well as +3.3 V, +5 V and GND supply lines
Camera Connector	15-pin MIPI Camera Serial Interface (CSI-2)
JTAG	Not populated
Display Connector	Display Serial Interface (DSI) 15 way flat flex cable connector with two data lanes and a clock lane
Memory Card	Slot SDIO



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DRAWN	James Adams	APVD	James Adams



ID_SD and ID_SC PINS:

These pins are reserved for ID EEPROM.

At boot time this I2C interface will be interrogated to look for an EEPROM that identifies the attached board and allows automatic setup of the GPIOs (and optionally, Linux drivers).

DO NOT USE these pins for anything other than attaching an I2C ID EEPROM. Leave unconnected if ID EEPROM not required.

GPIO EXPANSION