PCN

Raspberry Pi 4 Revision 5 PCB

Raspberry Pi (Trading) Ltd

2021-10-12: githash: c6a7fd2-clean

Colophon

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Document version history

Release	Date	Description
1.0	30th June 2021	• Initial release

Product Change Note

Notification date

25th June 2021

Title

Change of Raspberry Pi 4 PCB to Revision 5.

Products Affected

Raspberry Pi 4 Model B devices (1GB, 2GB and 4GB memory densities)

Reason for Change

Raspberry Pi 4 Model B boards using Revision 4 (R4) PCB have a bug with the USB-C power input circuitry which causes some power supplies or e-marked cables to fail to supply power to the board.

The R5 PCB also captures some small DFM (Design for Manufacture) changes, which do not affect the board function.

Change Description

Old PCB revision: R4

Old software model number: 1.1

New PCB revision: R5

New software model number: 1.2

Raspberry Pi have extensively tested and qualified alternatives which closely match the original parts in terms of specification and performance:

Mechanical (Form, Fit, Function) Changes

- Move U4 SD IO voltage switch to top of board (DFM change)
- Q1 transistor moved from edge of board to behind SD socket (DFM change)

Electrical

- Separate resistors for UCB-C power input CC pins (some power supplies and cables do not deliver power to the board on old revision).
- Change on-board USB controller and Ethernet PHY reset to be driven from 2711 RESETOUTb pin (these can now be reset separately from 2711).

Software/Firmware Changes Required

This new product revision is supported in firmware versions from 3rd September 2020 onwards.

The firmware version can be queried by running 'vcgencmd version' from the Raspberry Pi OS command line. It can also be found for an image by running

```
strings /boot/start.elf | grep VC_BUILD
```

(where /boot/ is the boot partition of the filesystem).

Raspberry Pi always recommend using the latest version of firmware and linux kernel, wherever that is practical.

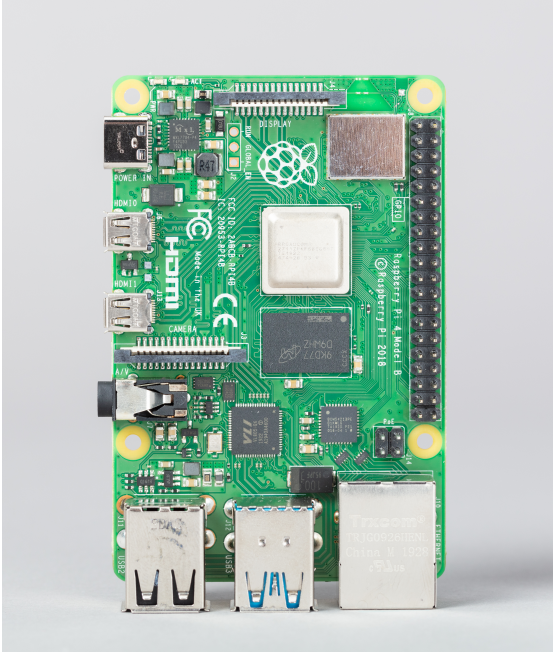
Transition Date(s)

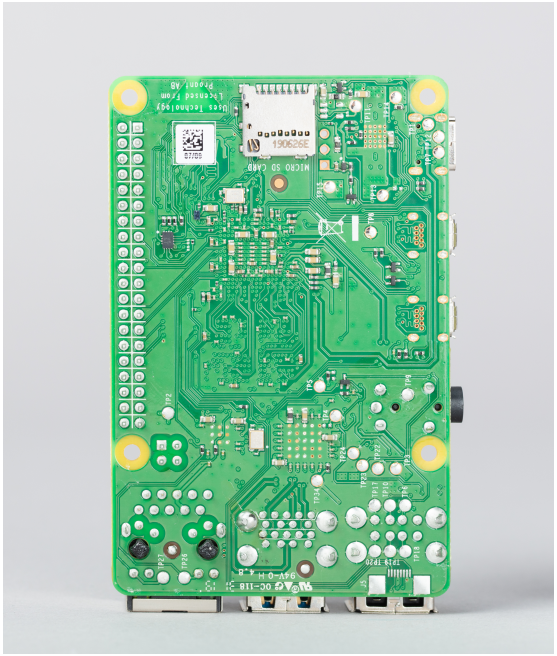
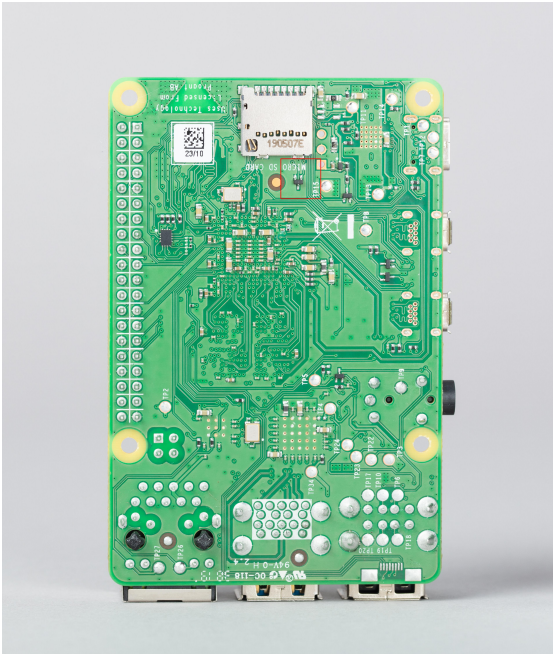
Oct-Dec 2019

There will be a transition period where both old and new units are available in the distribution channel.

Identification Method to Distinguish Change

- `cat /proc/cpuinfo` will report "Model" as "Raspberry Pi 4 Model B Rev 1.2"
- Look for SD IO voltage switch on top and Q1 moved on bottom

Original Part	New Part
	

Original Part	New Part
	

Contact Details for more information

Please contact `applications@raspberrypi.com` if you have any queries about this PCN.

Web: `www.raspberrypi.com`

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