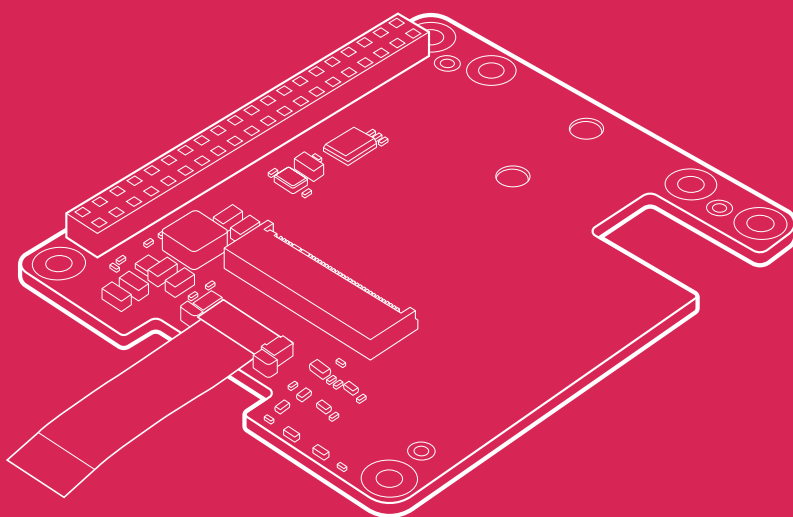


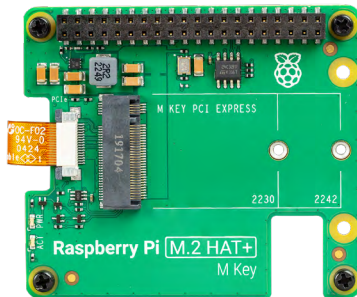


Raspberry Pi M.2 HAT+

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Overview



The Raspberry Pi M.2 HAT+ enables you to connect M.2 peripherals such as NVMe drives and AI accelerators to Raspberry Pi 5's PCIe 2.0 interface, supporting fast (up to 500 MB/s) data transfer to and from NVMe drives and other PCIe accessories.

Raspberry Pi 5's single-lane PCI Express 2.0 interface is exposed on a 16-pin, 0.5mm-pitch FPC connector; the M.2 HAT+ M Key is a mechanical adapter board that converts between this connector and a subset of the M.2 standard. It supports devices that have the M.2 M key edge connector, in the 2230 and 2242 form factors. It is capable of supplying up to 3A to connected M.2 devices.

The Raspberry Pi M.2 HAT+ conforms to the Raspberry Pi HAT+ specification and is autodetected by the latest Raspberry Pi software/firmware. It is supplied with a 16mm stacking header and threaded spacers, so it can be fitted to a Raspberry Pi 5 with the Raspberry Pi Active Cooler in place.

Specification

Features:

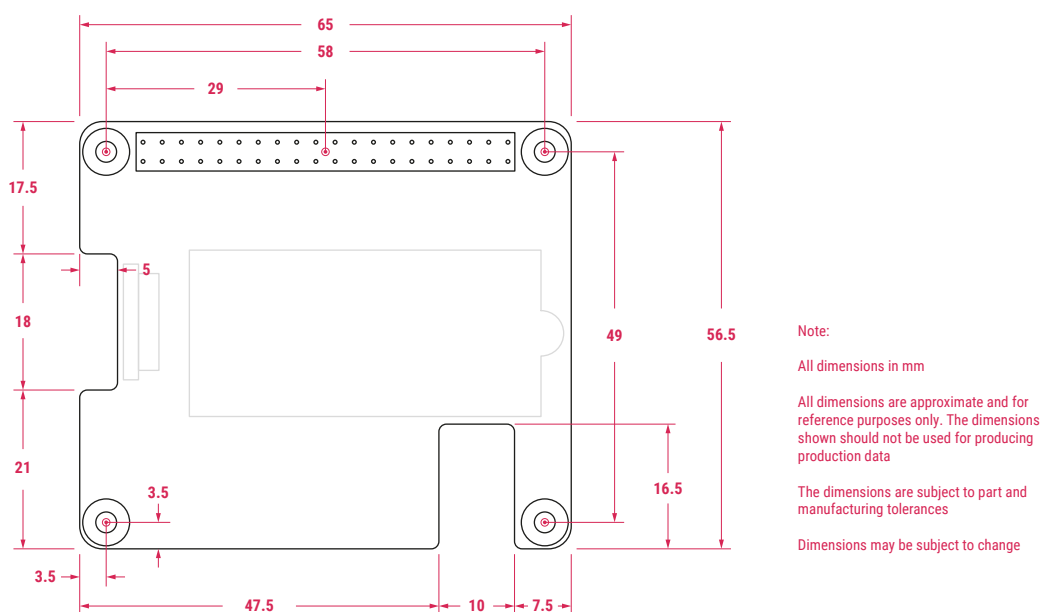
- Supports single-lane PCIe 2.0 interface (500 MB/s peak transfer rate)
- Supports devices that use the M.2 M key edge connector
- Supports devices with the 2230 or 2242 form factor
- Capable of supplying up to 3A to connected M.2 devices
- Includes power and activity LEDs
- Conforms to the [Raspberry Pi HAT+ specification](#)
- Supplied with ribbon cable, 16mm stacking header, threaded spacers and screws, and knurled double-flanged screw to secure and support the M.2 peripheral

Operating temperature: 0°C to 50°C (ambient)

Production lifetime: The Raspberry Pi M.2 HAT+ will remain in production until at least January 2032

Compliance: For a full list of local and regional product approvals, please visit pip.raspberrypi.com

Physical specification



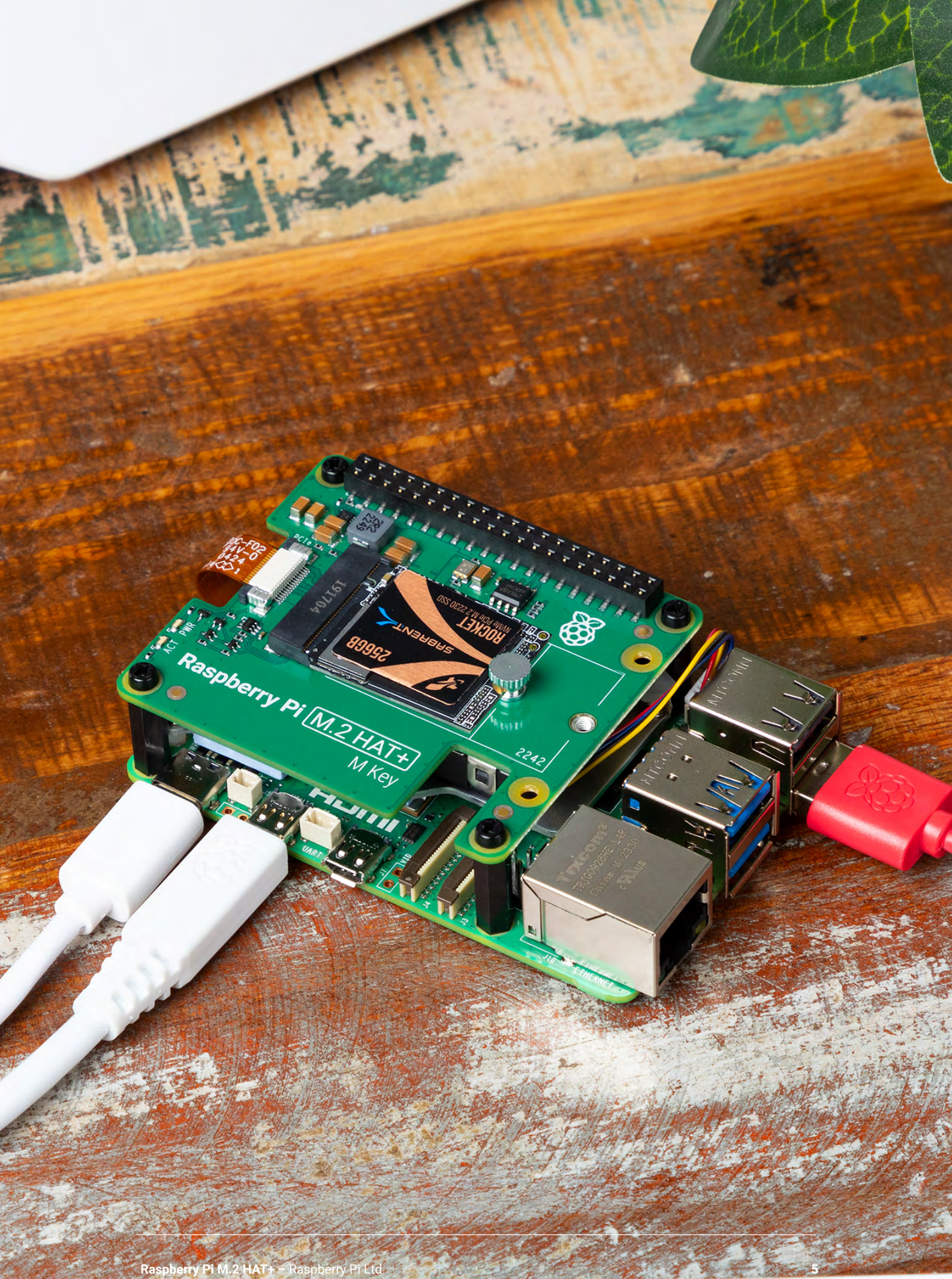
WARNINGS

- This product shall only be connected to a Raspberry Pi via the PCIe interface.
- Any external power supply used with the Raspberry Pi M.2 HAT+ shall comply with relevant regulations and standards applicable in the country of intended use.
- This product should be operated in a well-ventilated environment, and if used inside a case, the case should not be covered.
- Whilst in use, this product should be firmly secured, and should not be contacted by conductive items.
- The connection of incompatible devices to the Raspberry Pi M.2 HAT+ may affect compliance, result in damage to the unit, and invalidate the warranty.
- The connection of incompatible devices to the PCIe interface of a Raspberry Pi computer may affect compliance and result in damage to the unit and invalidate the warranty.
- All peripherals used with this product should comply with relevant standards for the country of use and be marked accordingly to ensure that safety and performance requirements are met.
- The cables and connectors of all peripherals used with this product must have adequate insulation so that relevant safety requirements are met.
- Operation of this device requires adult supervision.

SAFETY INSTRUCTIONS

To avoid malfunction or damage to this product, please observe the following:

- Do not expose to water or moisture, or place on a conductive surface whilst in operation.
- Do not expose to heat from any source; Raspberry Pi computers and the Raspberry Pi M.2 HAT+ are designed for reliable operation at normal ambient temperatures.
- Take care whilst handling to avoid mechanical or electrical damage to the printed circuit board and connectors.
- Whilst it is powered, avoid handling the printed circuit board, or only handle it by the corners to minimise the risk of electrostatic discharge damage.





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