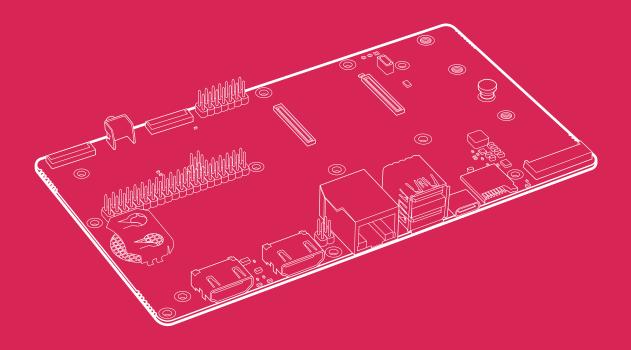


# Raspberry Pi Compute Module 5 IO Board

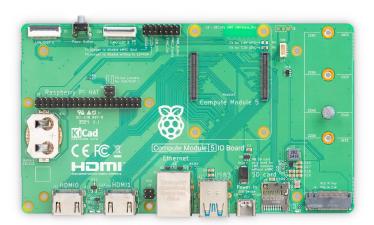
**Published November 2024** 





The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

## **Overview**



The Raspberry Pi Compute Module 5 IO Board provides a starting point for those wishing to integrate Raspberry Pi Compute Module 5 into products, while also serving as an alternative Raspberry Pi form factor for industrial applications.

It breaks out the full set of peripheral interfaces provided by Compute Module 5 to the standard connectors used by Raspberry Pi 5 (with full-size HDMI in place of micro HDMI), enabling design engineers to take full advantage of the processing and interfacing capabilities of our flagship modular product.

The IO Board accepts the complete range of Compute Module 5 parts and is available as a reference design in KiCad format.

# **Specification**

Form factor: 160 mm × 90 mm

Connectivity: Standard 40-pin GPIO header

Gigabit Ethernet RJ45 with PoE+ HAT+ support<sup>1</sup>

2 × USB 3 sockets

microSD card socket for Compute Module 5 Lite modules

M.2 M key PCle socket 4-pin fan connector

2 × MIPI DSI/CSI-2 FPC connectors (22-pin 0.5 mm pitch cable)

Raspberry Pi HAT+ connector

RTC battery socket

Video: 2 × full-size HDMI 2.0 connectors

Input power: External +5V USB-C PSU

Power button to wake and shut down Compute Module 5

MTBF<sup>2</sup> Ground Benign: 131 000 hours

Production lifetime: The Raspberry Pi Compute Module 5 IO Board will remain in

production until at least January 2028

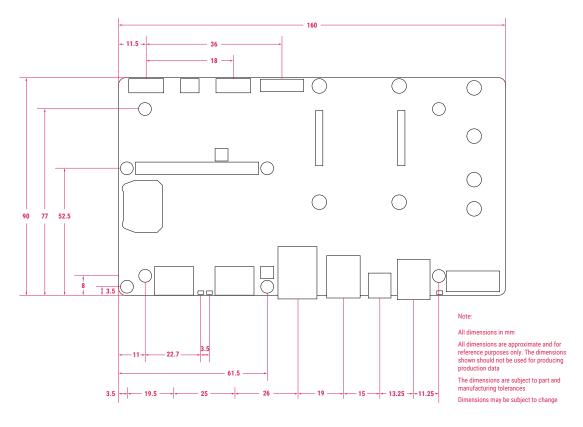
**Compliance:** For a full list of local and regional product approvals, please

visit pip.raspberrypi.com

<sup>&</sup>lt;sup>1</sup> requires separate Raspberry Pi PoE+ HAT+

<sup>&</sup>lt;sup>2</sup> Mean Time Between Failure

## **Physical specification**



#### **WARNINGS**

- Any external power supply used with Raspberry Pi Compute Module 5 shall comply with relevant regulations and standards applicable in the country of intended use and be a limited power source or PS2 power source per IEC 62368-1
- 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 not be contacted by conductive items.
- The connection of incompatible devices to the Compute Module 5 IO Board may affect compliance, 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. These articles include but are not limited to
  keyboards, monitors, and mice when used in conjunction with the Compute Module.
- The cables and connectors of all peripherals used with this product must have adequate insulation so that relevant safety requirements are met.

### 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; the Raspberry Pi Compute Module 5 IO Board is 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 edges to minimise the risk of electrostatic discharge damage.



