**EN:** This Datasheet is presented by the manufacturer.
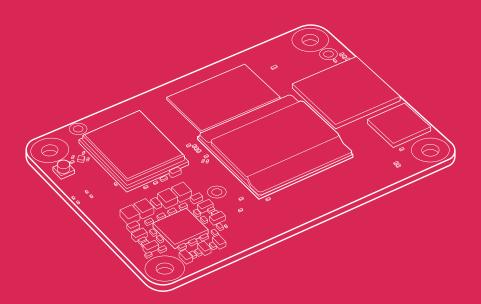
Please visit our website for pricing and availability at www.hestore.hu.

# Raspberry Pi Compute Module 5
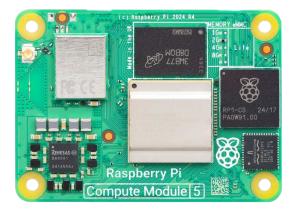
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**Raspberry Pi Ltd**

# Overview



Raspberry Pi Compute Module 5 is a system on module that delivers the power of Raspberry Pi 5 in a form factor ideal for embedded applications. Priced from $45 and featuring a quad-core Arm Cortex-A76 processor, dual 4Kp60 HDMI output, Gigabit Ethernet, optional fully-certified wireless module providing Wi-Fi® and Bluetooth connectivity, and a variety of RAM and eMMC flash options, Compute Module 5 enables you to leverage Raspberry Pi 5's powerful hardware and optimised software stack in your own custom systems and form factors.

In comparison with its predecessor, Compute Module 5 features additional I/O interfaces, allowing even more flexibility and providing a greater breadth of options for product and application design. For cost-sensitive applications, Compute Module 5 is also available without eMMC flash.

Also available to assist product designers is the Raspberry Pi Development Kit for Compute Module 5, offering an ideal environment for prototyping embedded solutions. This comprehensive kit includes a Compute Module 5 and Compute Module 5 IO Board, together with all the essential accessories to kick-start your product design.

# Specification

**Form factor:**  
55 mm × 40 mm × 4.7 mm module  
4 × M2.5 mounting holes

**Processor:**  
Broadcom BCM2712 quad-core 64-bit Arm Cortex-A76 (Armv8) SoC @ 2.4GHz

**Memory:**  
Options for 2GB, 4GB, 8GB, 16GB LPDDR4-4267 SDRAM with ECC

Options for 0GB (Lite), 16GB, 32GB or 64GB eMMC flash memory

See table below for full list of variant options

**Connectivity:**  
Options for certified radio module containing:
- 2.4 GHz / 5.0 GHz IEEE 802.11 b/g/n/ac wireless
- Bluetooth 5.0, BLE
- On-board electronic switch to select between PCB trace or external antenna

Gigabit Ethernet PHY supporting IEEE 1588

1 × PCIe x1 root complex, Gen 2 (5Gbps)

1 × USB 2.0 port (high speed)

2 × USB 3.0 ports, supporting simultaneous 5Gbps operation

Up to 30 × GPIO supporting either 1.8V or 3.3V signalling and peripheral options:
- Up to 5 × UART
- Up to 5 × I2C
- Up to 5 × SPI
- 1 × SDIO interface
- 1 × DPI (parallel RGB display)
- 1 × I2S
- Up to 4 × PWM channels
- Up to 3 × GPCLK outputs

**Video:**  
2 × HDMI 2.0 ports  
(supports up to 4Kp60 on both ports simultaneously)

2 × 4-lane MIPI ports  
supporting both DSI (display port) and CSI-2 (camera port)

**Multimedia:**  
4Kp60 HEVC decoder

OpenGL ES 3.1 graphics, Vulkan 1.2

1 × SDIO 2.0 (CM5 Lite)

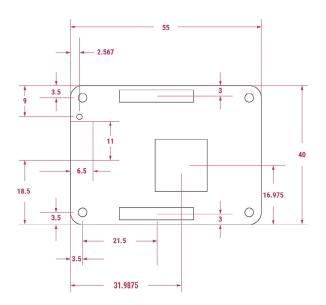| **Input power:** | Single +5V PSU input supports USB PD for up to 5A @ 5V |
| **Operating temperature:** | -20°C to +85°C |
| **MTBF[1] Ground Benign:** | 143 000 hours (168 000 hours CM5 Lite) |
| **Production lifetime:** | Raspberry Pi Compute Module 5 will remain in production until at least January 2036 |
| **Compliance:** | For a full list of local and regional product approvals, please visit pip.raspberrypi.com |
| **List price:** | **See table below** |

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[1] Mean Time Between Failure

# Pricing

| Part Number | Wireless | RAM | eMMC | Price* |
|---|---|---|---|---|
| **CM5**002000 | No | 2GB | 0GB (Lite) | $45 |
| **CM5**002016 | | | 16GB | $50 |
| **CM5**002032 | | | 32GB | $55 |
| **CM5**002064 | | | 64GB | $60 |
| **CM5**004000 | | 4GB | 0GB (Lite) | $55 |
| **CM5**004016 | | | 16GB | $60 |
| **CM5**004032 | | | 32GB | $65 |
| **CM5**004064 | | | 64GB | $70 |
| **CM5**008000 | | 8GB | 0GB (Lite) | $75 |
| **CM5**008016 | | | 16GB | $80 |
| **CM5**008032 | | | 32GB | $85 |
| **CM5**008064 | | | 64GB | $90 |
| **CM5**016000 | | 16GB | 0GB (Lite) | $115 |
| **CM5**016016 | | | 16GB | $120 |
| **CM5**016032 | | | 32GB | $125 |
| **CM5**016064 | | | 64GB | $130 |
| **CM5**102000 | Yes | 2GB | 0GB (Lite) | $50 |
| **CM5**102016 | | | 16GB | $55 |
| **CM5**102032 | | | 32GB | $60 |
| **CM5**102064 | | | 64GB | $65 |
| **CM5**104000 | | 4GB | 0GB (Lite) | $60 |
| **CM5**104016 | | | 16GB | $65 |
| **CM5**104032 | | | 32GB | $70 |
| **CM5**104064 | | | 64GB | $75 |
| **CM5**108000 | | 8GB | 0GB (Lite) | $80 |
| **CM5**108016 | | | 16GB | $85 |
| **CM5**108032 | | | 32GB | $90 |
| **CM5**108064 | | | 64GB | $95 |
| **CM5**116000 | | 16GB | 0GB (Lite) | $120 |
| **CM5**116016 | | | 16GB | $125 |
| **CM5**116032 | | | 32GB | $130 |
| **CM5**116064 | | | 64GB | $135 |

* pricing excludes sales tax and any applicable import duties

# Physical specification



Note:

All dimensions in mm

All dimensions are approximate and for reference purposes only. The dimensions shown should not be used for producing production data

The dimensions are subject to part and manufacturing tolerances

Dimensions may be subject to change

## 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 Compute Module 5 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; Raspberry Pi Compute Module 5 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.