

Raspberry Pi CM5 Connect Board

The **Raspberry Pi CM5 Connect Board** is the official development and integration carrier board for the **Raspberry Pi Compute Module 5 (CM5)**. Designed to break out all essential interfaces of the CM5, this board provides developers, engineers, and system integrators with the flexibility they need to **prototype, test, and deploy embedded applications**. Whether you are building next-generation IoT devices, edge computing systems, or custom industrial solutions, the CM5 Connect Board is your go-to platform for unlocking the full power of the Compute Module 5.

🔌 **Seamless Interface Breakout for Prototyping and Integration**

The CM5 Connect Board brings all of the **Compute Module 5 interfaces** into an accessible, development-friendly format. It exposes high-speed I/O, networking, display, and expansion options, enabling rapid prototyping and smooth transition into production hardware. Developers no longer need to design a custom carrier board in the early stages—this official board handles everything needed for experimentation and proof-of-concept projects.



Dual HDMI 2.0 for Powerful Display Support

Equipped with **dual full-size HDMI 2.0 ports**, the Raspberry Pi CM5 Connect Board supports **dual 4K displays** at smooth refresh rates. This makes it ideal for multimedia projects, **digital signage, control dashboards, kiosk systems**, or any application that requires rich visual output. With robust GPU acceleration from the CM5, developers can rely on sharp, responsive visuals for both consumer and industrial use cases.

⚡ High-Speed Connectivity

Connectivity is a critical aspect of modern embedded systems, and the CM5 Connect Board delivers with **USB 3.0 and Gigabit Ethernet**. The **two USB 3.0 ports** allow fast connections to peripherals such as external storage, cameras, and sensors. Meanwhile, the **Gigabit Ethernet port** ensures reliable wired networking, with support for **PoE+ HAT+**, making power and data delivery seamless in industrial and IoT environments.

📦 Expansion and Customization

The CM5 Connect Board is designed with expansion in mind. It includes:

- **M.2 PCIe M-Key slot** – enabling fast NVMe storage or PCIe expansion devices.
- **40-pin GPIO header** – fully compatible with Raspberry Pi's HAT ecosystem for sensors, modules, and custom hardware.

- **microSD card slot** (for CM5 Lite) – providing additional flexibility for storage and boot options.

This combination of interfaces ensures that developers can tailor the CM5 Connect Board to meet a wide range of application requirements, from **AI acceleration** to **high-speed storage solutions**.

🔧 Practical Features for Real-World Deployment

Beyond raw connectivity and performance, the CM5 Connect Board includes practical design features that simplify prototyping and deployment:

- **USB-C 5V power input**, supporting up to 27W PSU for stable operation.
- **Fan connector (4-pin)** for active cooling solutions in demanding workloads.
- **CR2032 RTC battery support**, ensuring reliable timekeeping across reboots.

These small but critical features make the CM5 Connect Board ready for **continuous industrial operation** while providing flexibility for consumer and commercial projects alike.

📄 Official Raspberry Pi Support

As an official product, the Raspberry Pi CM5 Connect Board comes with **full documentation and long-term support** directly from the Raspberry Pi organization. Developers benefit from an established ecosystem of tools, software libraries, and community resources, making integration and troubleshooting straightforward. Official backing ensures that your projects remain future-proof and reliable.



▴ Specifications at a Glance

- **Size:** 160 mm × 90 mm
- **USB:** 2 × USB 3.0 sockets
- **Networking:** Gigabit Ethernet RJ45 with PoE+ HAT+ support
- **Expansion:** 40-pin GPIO, M.2 PCIe M-Key slot
- **Video:** 2 × HDMI 2.0 full-size outputs
- **Storage:** microSD card slot (for CM5 Lite)
- **Power:** USB-C 5V input (27W PSU recommended)
- **Cooling:** 4-pin fan connector
- **RTC:** CR2032 battery support
- **Product Number:** SC1751
- **EAN:** 5056561805276

RPi CM5 IO Board

Official Original



🌐 Applications of Raspberry Pi CM5 Connect Board

The versatility of the Raspberry Pi CM5 Connect Board makes it suitable for a wide range of applications:

- **Embedded Prototyping** – quickly design and test hardware concepts.
- **Industrial IoT** – deploy connected devices with PoE+ and reliable networking.
- **Digital Signage** – power dual 4K displays for advertising, information boards, and kiosks.
- **Robotics & AI** – integrate sensors, cameras, and PCIe accelerators for advanced robotics projects.
- **Edge Computing** – develop compact, high-performance systems for processing data close to the source.
- **Smart Automation** – enable intelligent monitoring and control in factories, buildings, and labs.

✓ Why Choose Raspberry Pi CM5 Connect Board?

The **Raspberry Pi CM5 Connect Board** is the most complete and developer-friendly solution for harnessing the power of the **Compute Module 5**. With high-speed interfaces, official support, dual HDMI, Gigabit Ethernet, PCIe expansion, and a familiar GPIO header, it is the ultimate starting point for both **rapid prototyping** and **long-term product development**.

Whether you're building innovative consumer products, industrial automation systems, or advanced embedded solutions, the CM5 Connect Board delivers the reliability, performance, and flexibility you need.