Compute Module Development Kit

The Compute Module Development Kit for developing industrial applications

GETTING STARTED

Quick-start guide

Please read this quick-start guide carefully before unpacking the boards from their anti-static bags or using the kit: it contains important information on how to avoid damage to the Compute Module and/or the CMIO Board.

Static sensitivity warning

Both the Compute Module and the CMIO board can be damaged by static electricity (electrostatic discharge or ESD). Please take adequate precautions against static discharge during handling.

For a complete list of the contents of the development kit, please see the SPECIFICATIONS tab.

Initial setup and checks

Inserting the Compute Module (CM) into the IO board
First insert the CM at a 45-degree angle, then gently press down on both top corners of the CM (where the holes are) until it clicks into place.

Checking IO bank voltage jumpers
Please make sure that the two jumpers that power the GPIO bank 0 and 1 voltages are present on J3, and set to the voltage you wish to use. **Do not power up the board if these jumpers are not attached (and hence the GPIO bank(s) are unpowered), as this may damage the Module.**

Powering up
Make sure the CM is inserted correctly into the socket (J1). Make sure the GPIO banks are powered (make sure J3 has jumpers present and set correctly). Attach a micro USB power supply to J2 (POWER IN) to power up the board.

Note that at this point the red power LED and green ACT LED should light up. Nothing further should happen (because the Compute Module Flash (eMMC) is blank).

Loading an OS image and further documentation
The next step is to write an operating system image to the onboard eMMC Flash. Once this is done, the board should boot into the OS of your choice when you power up.

Further documentation, including a step by step guide to flashing the eMMC, is available.

SPECIFICATIONS

The Compute Module Development Kit is made for developing industrial applications with CM3+, CM3+/Lite, CM3, CM3 Lite, and CM1.

The Development Kit contains the critical hardware that allows you to design the Compute Module into a custom system, and gives you the freedom to add extra components and place parts exactly where your product needs them.

The kit includes the Compute Module IO (CMIO) board, which is a simple, open-source breakout board into which you can plug a Compute Module. The board hosts 120 GPIO pins, an HDMI port, a USB port, two camera ports, and two display ports.

The Development Kit contains the following:

- 1 × CMIO v3 breakout board
- 1 × CM3+/32GB Compute Module
- 1 × CM3+/Lite Compute Module
- 1 × CMCDA board (breaks in half to 1 × camera and 1 × display adapter)
- 2 × 22W, 0.5mm pitch, 50mm length small FFCs for the adapters
- 1 × USB B to USB A cable (for programming)
- 4 × pin header female-to-female jumper leads (20cm), to allow connecting display and camera I2C

Note: a separate power supply, such as the official Raspberry Pi Universal Power Supply, is required to power the product (not included in the kit).

The CM3+, CM3+/Lite, CM3, CM3 Lite, and CM1 are available for purchase in single units, or in batches of hundreds or thousands.

COMPIANCE

The Compute Module Development Kit has undergone extensive compliance testing, and meets the following European standards:

- Electromagnetic Compatibility Directive (EMC) 2014/30/EU
- Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU

View and download global compliance certificates for Raspberry Pi products.