

DEV-17829 Raspberry Pi Pico

Low-cost and high-performance microcontroller board with flexible digital interfaces

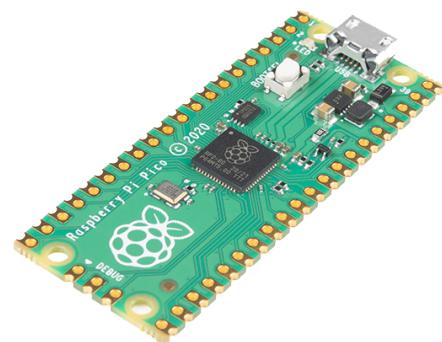
Product Overview

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For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

SparkFun DEV-17829 Raspberry Pi Pico is a low-cost and high-performance microcontroller board with flexible digital interfaces. This board provides minimal external circuitry to support the RP2040 chip (flash, crystal, power supplies, decoupling, and USB connector). The Pico features an on-board buck-boost SMPS that generates -1.8V TO 5.5V input voltage range and 3.3V to power RP2040 and external circuitry. This buck-boost SMPS allows significant flexibility in powering the unit from various sources such as a single lithium-ion cell and 3 AA cells in series.



The Pico board also features a dual-core Arm® Cortex M0+ processor, a flexible clock running up to 133MHz, an accurate clock and timer on-chip, and a temperature sensor. This microcontroller board offers 264kB of SRAM, 2MB of onboard flash memory, and includes 26 multi-function GPIO pins. The Pico board comes with a flash memory that can be reprogrammed using a USB or via the Serial Wire Debug (SWD) port. This board has been designed to be used either as soldered 0.1-inch pin-headers or can be used as a surface-mountable module.

Features

- Dual-core Arm® Cortex M0+ processor and the flexible clock running up to 133MHz
- 264kB of SRAM and 2MB of onboard flash memory
- Castellated module allows soldering directly to carrier boards
- USB 1.1 host and device support
- Low-power sleep and dormant modes
- Drag and drop programming using mass storage over USB
- 26 multi-function GPIO pins
- 2×SPI, 2×I²C, 2×UART, 3×12-bit ADC, and 16×controllable PWM channels
- Accurate clock and timer on-chip
- Temperature sensor
- Accelerated floating-point libraries on-chip
- 8×Programmable Input/Output (PIO) state machines for custom peripheral support

Additional Resources

- [RP2040 Datasheet](#)
- [Hardware Design with RP2040](#)
- [Raspberry Pi Pico C/C++ SDK](#)
- [Raspberry Pi Pico Python SDK](#)

Mouser Part Number

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