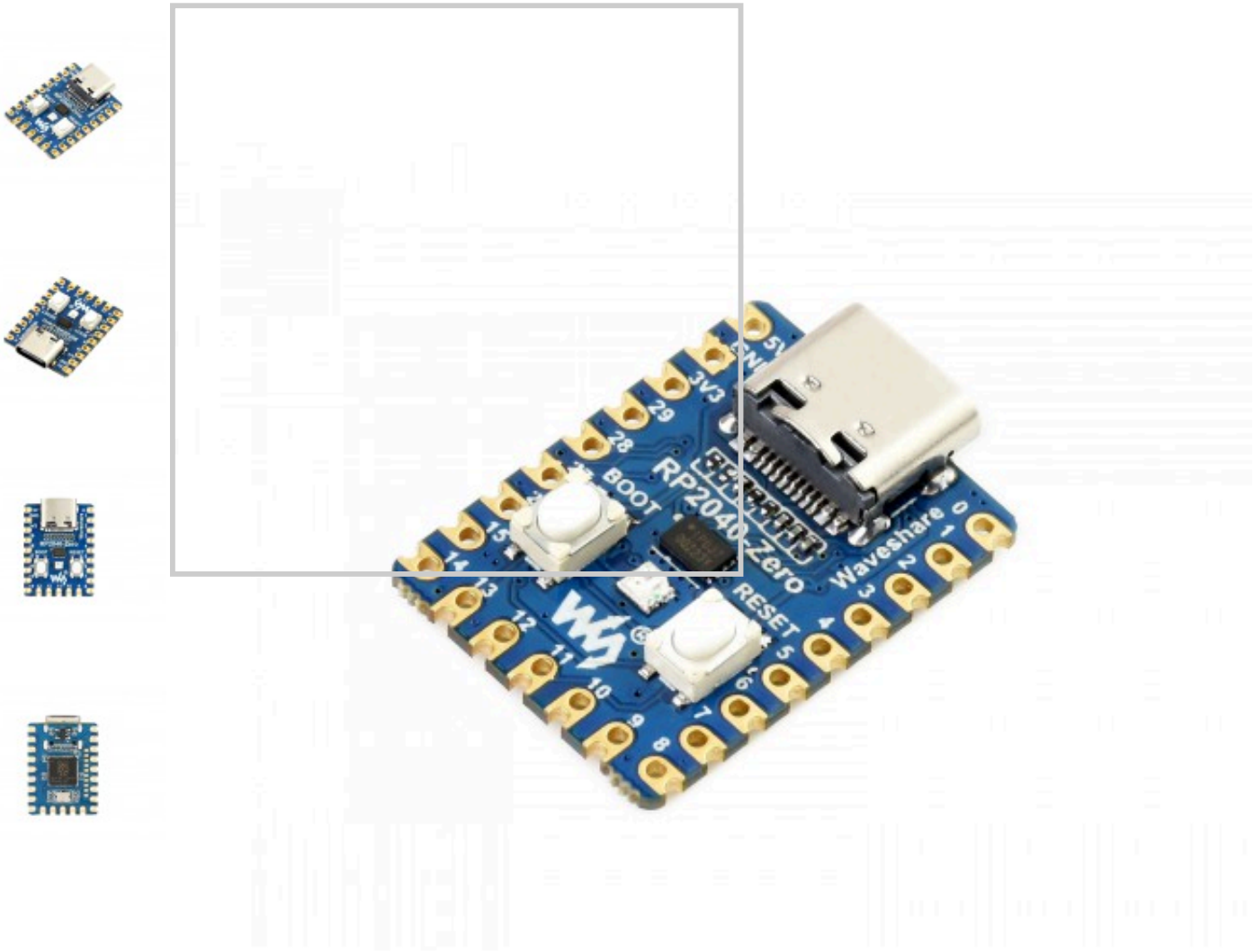


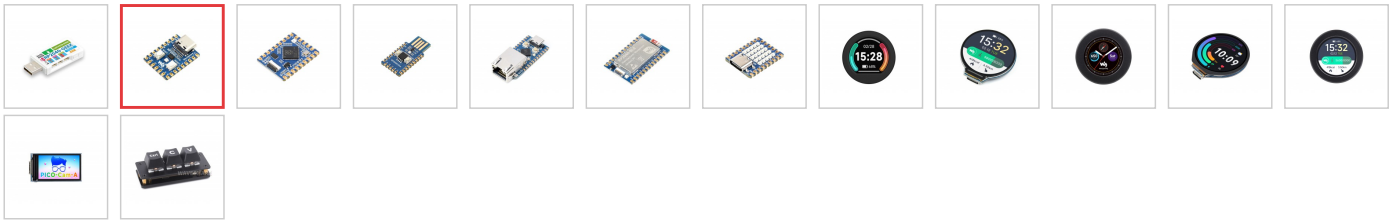
RP2040-Zero, a Pico-like MCU Board Based on Raspberry Pi MCU RP2040, Mini ver.

$3.99 - $4.99

Pinheader option

without header | with pre-soldered header

Related Products:



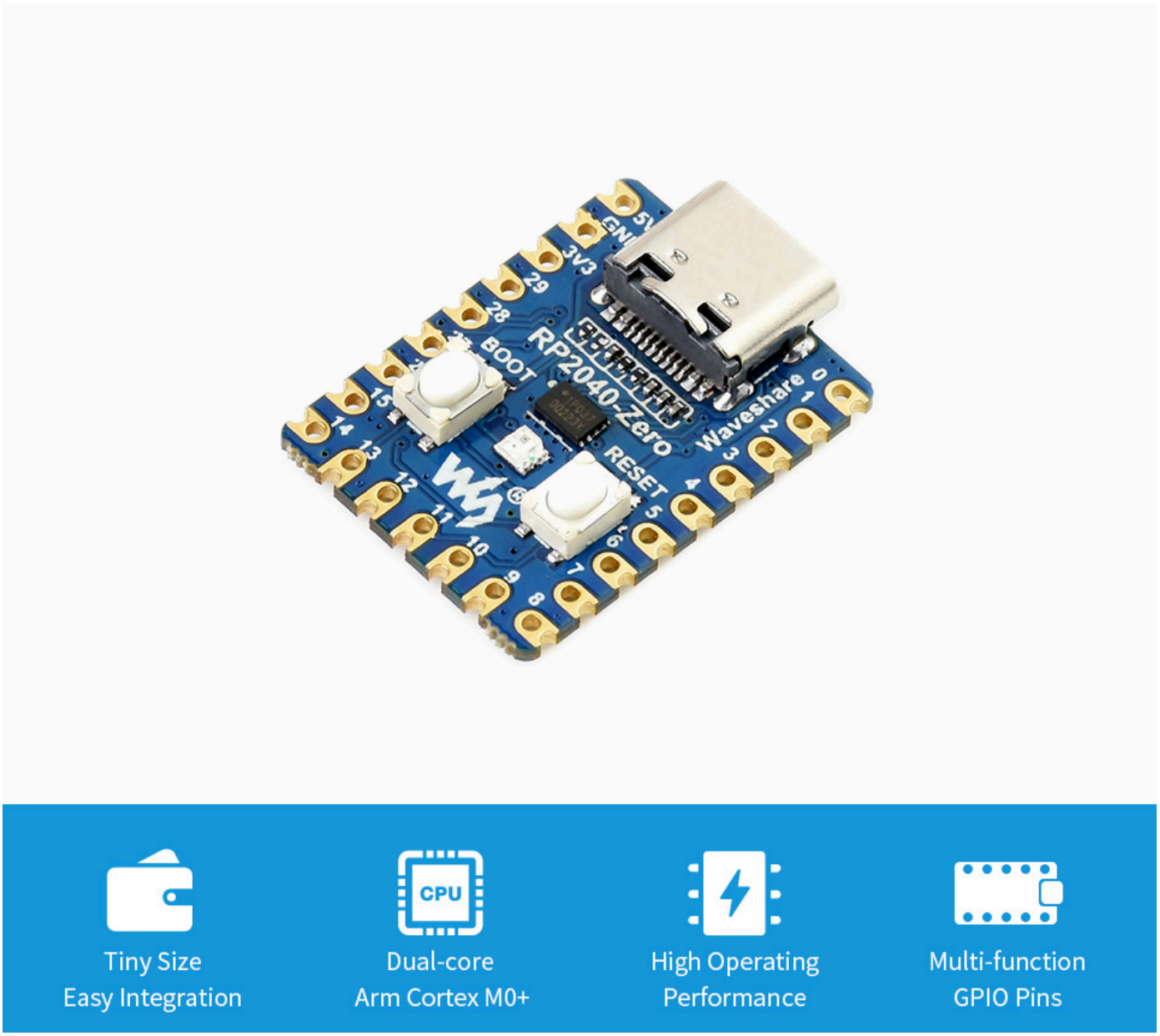
Contact

RP2040-Zero, A Low-Cost, High-Performance Pico-Like MCU Board Based On Raspberry Pi Microcontroller RP2040

RP2040 MCU Board Zero

a Pico-like MCU board based on Raspberry Pi RP2040

Castellated Module, Suitable For SMD Applications

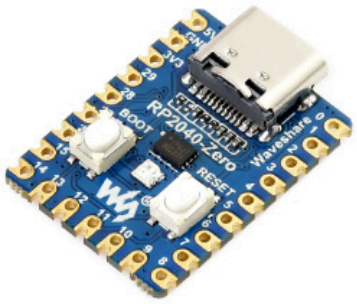


Board Specifications

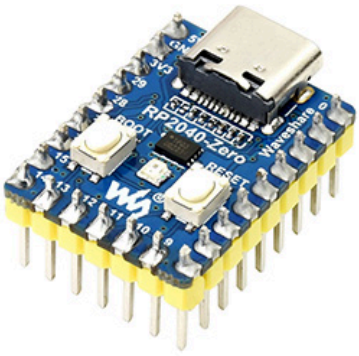
- RP2040 microcontroller chip designed by Raspberry Pi in the United Kingdom
- Dual-core Arm Cortex M0+ processor, flexible clock running up to 133 MHz
- 264KB of SRAM, and 2MB of on-board Flash memory
- USB-C connector, keeps it up to date, easier to use
- Castellated module allows soldering direct to carrier boards
- USB 1.1 with device and host support
- Low-power sleep and dormant modes
- Drag-and-drop programming using mass storage over USB
- 29 × multi-function GPIO pins (20× via edge pinout, others via solder points)
- 2 × SPI, 2 × I2C, 2 × UART, 4 × 12-bit ADC, 16 × controllable PWM channels

- Accurate clock and timer on-chip
- Temperature sensor
- Accelerated floating-point libraries on-chip
- 8 × Programmable I/O (PIO) state machines for custom peripheral support

Pinheader Options



without pinheader



with pre-soldered pinheader

C/C++, MicroPython Support

Comprehensive SDK, Dev Resources, Tutorials To Help You Easily Get Started

Pico C/C++ SDK

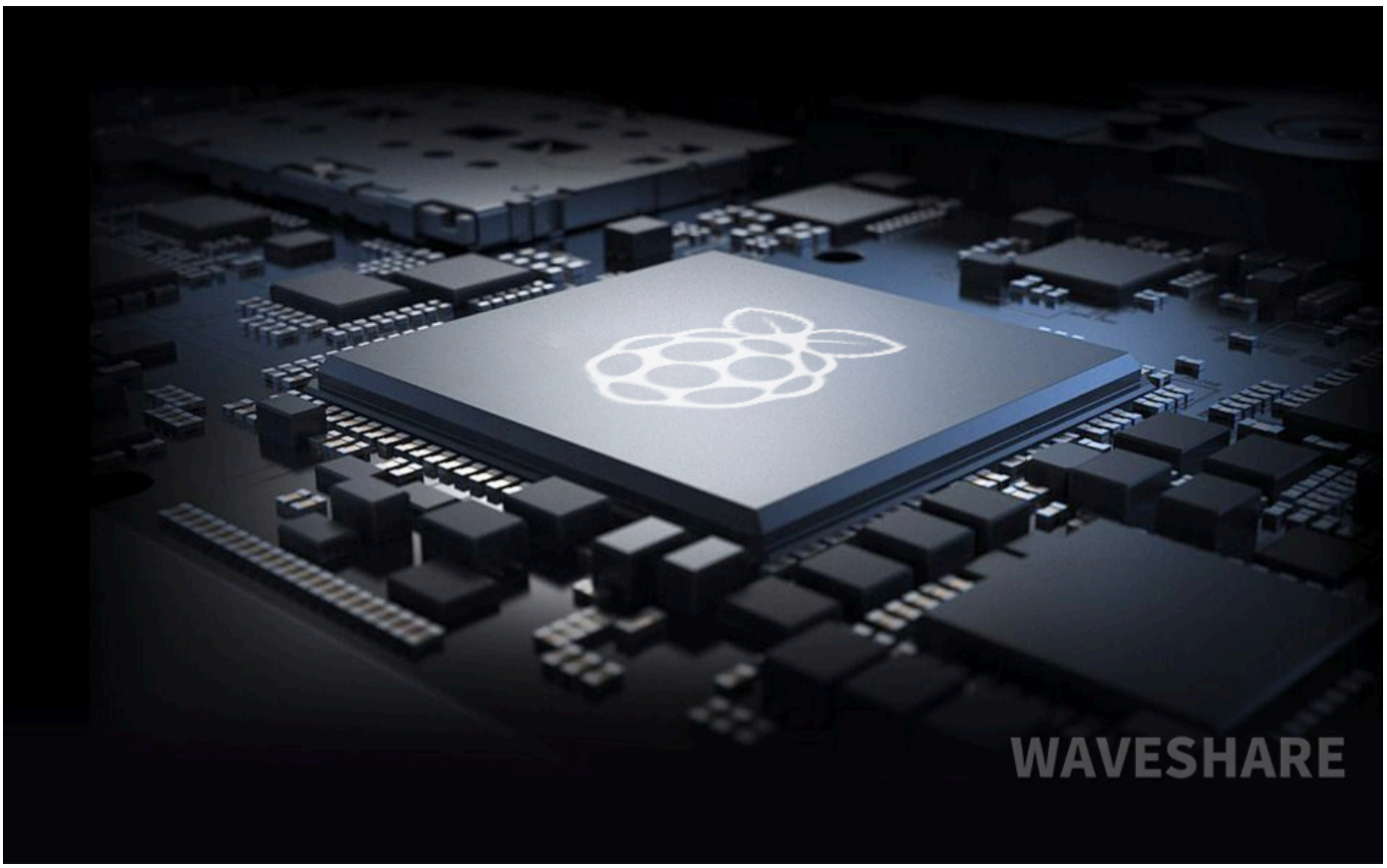
The Raspberry Pi official C SDK can be used from the command line, or from popular integrated development environments like Visual Studio Code and Eclipse.

MicroPython

MicroPython is a full implementation of the Python 3 programming language that runs directly on embedded hardware like Raspberry Pi Pico.

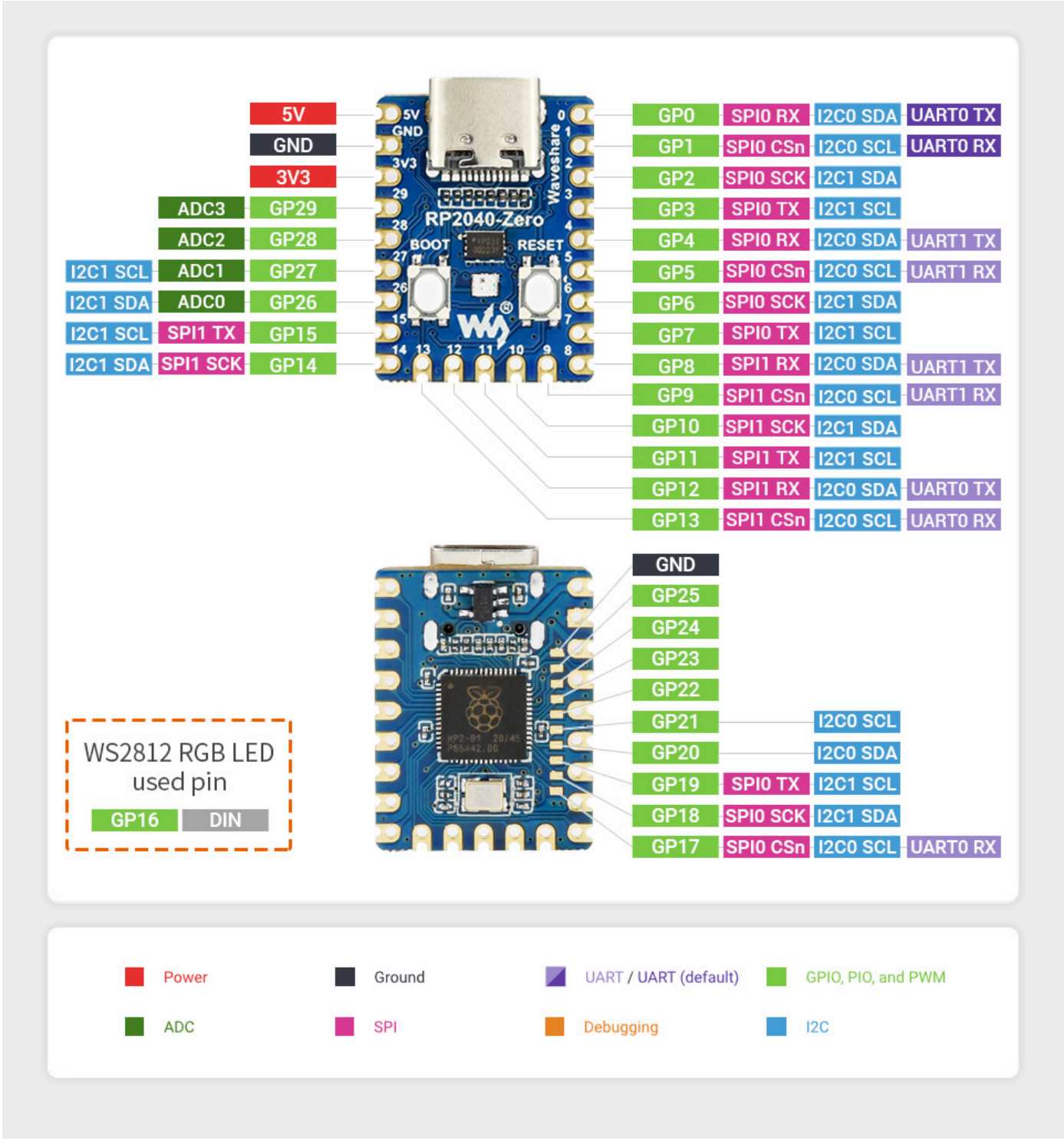
Dual-Core Arm Processor

Dual-Core Arm Cortex M0+ Processor, Flexible Clock Running Up To 133 MHz

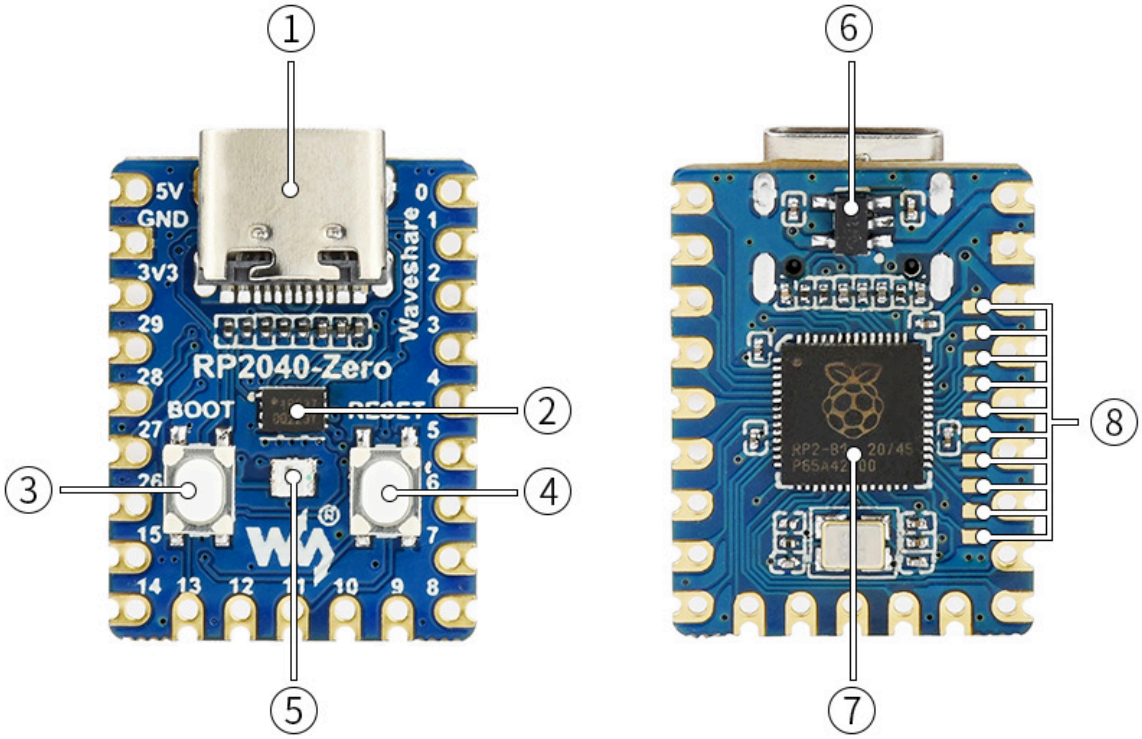


29 × Multi-Function GPIO Pins

Configurable Pin Function, Allows Flexible Development And Integration



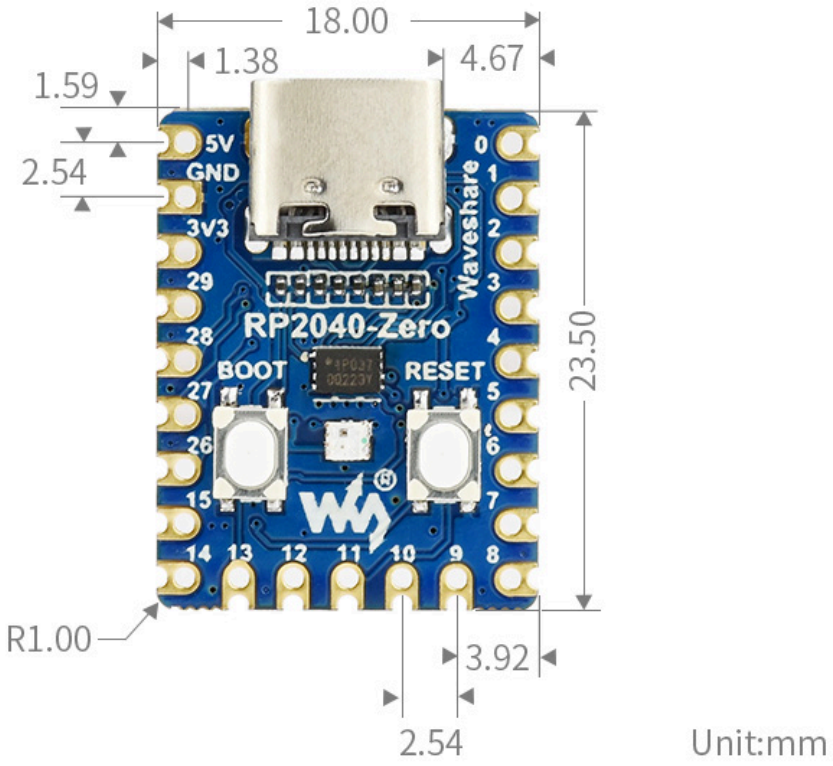
What's On Board



1. **USB Type-C connector**
2. **W25Q16JVUXIQ**
   2MB NOR-Flash
3. **BOOT button**
   press it when resetting to enter download mode
4. **RESET button**
5. **WS2812**
   cool RGB LED

6. **ME621**
   low dropout LDO, max current 800MA
7. **RP2040**
   dual-core processor, up to 133MHz operating frequency
8. **RP2040 pins**
   10x solder points, 9 of which are for GPIO

Outline Dimensions



Resources & Services

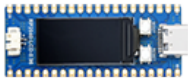
WAVESHARE ORIGINAL

PROFESSIONAL TECH SUPPORT

RICH RESOURCES MANUAL & DEMO

Wiki: RP2040-Zero

Selection Guide

BRAND	Raspberry Pi	Waveshare		
PRODUCT	 Original	 Mini ver.	 LCD ver.	 Plus ver.

PROCESSOR	Raspberry Pi official RP2040 microcontroller			
REGULATOR	RT6150 (DC-DC, 800mA)	ME6217 (LDO, 800mA)	TPS63000 (DC-DC, 1800mA)	
USB	Micro USB	Type-C		
FLASH	2MB			4MB
BATTERY HEADER	N/A		Yes（concurrent recharging and powering）	
INTEGRATED LCD	N/A		0.96inch IPS LCD	N/A