

INDUSTRIAL PRODUCT DATASHEET

Seeed Studio XIAO RP2040 - Supports Arduino, MicroPython and CircuitPython

XIAO RP 2040 is a compact, Arduino-compatible dev board based on Raspberry Pi RP 2040. As the smallest Raspberry Pi Pico board, it features a thumb-sized and surface-mount design. Thanks to its compatibility with multiple programming languages (C, Python, Go, Rust) and a wide range of available libraries, it's a cost-effective and user-friendly microcontroller for learning coding

SKU

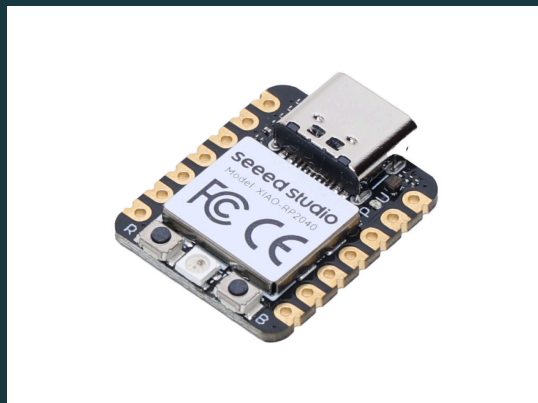
102010428

UPDATED

2026-04-09 12:39:26

PRICE

\$3.90(Excl. VAT)



Overview

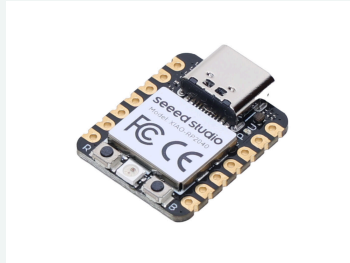


Figure 1. 102010428 Seeed Studio XIAO Rp2040 45Font 1

XIAO RP 2040 is a compact, Arduino-compatible dev board based on Raspberry Pi RP 2040. As the smallest Raspberry Pi Pico board, it features a thumb-sized and surface-mount design. Thanks to its compatibility with multiple programming languages (C, Python, Go, Rust) and a wide range of available libraries, it's a cost-effective and user-friendly microcontroller for learning coding and electronics basics.

Key Features

01

Perfect Toolset for Learning Coding and Electronics

02

Classic Form Factor and Extensive Seeed Studio XIAO Ecosystem

03

Production-Ready Design with FREE PCBA Support

Product Gallery



Figure 1. Seed Studio XIAO Rp2040



Figure 2. 102010428 Seed Studio XIAO Rp2040 Font 1

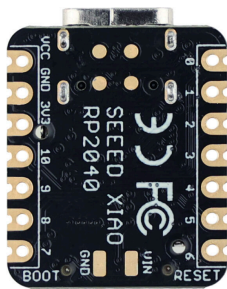


Figure 3. 102010428 Seed Studio XIAO Rp2040 Back 1

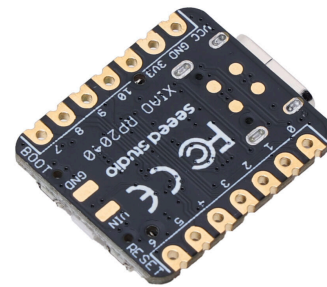


Figure 4. 102010428 Seed Studio XIAO Rp2040 45Back 1

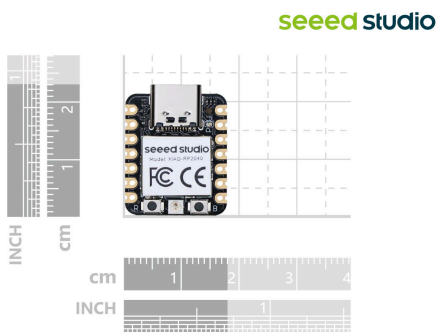


Figure 5. 102010428 Seed Studio XIAO Rp2040 Size 1

Specification

Seed Studio XIAO RP2350

Product Name	Seed Studio XIAO RP2040	Seed Studio XIAO RP2350
Chipset		
Processor	Dual Cortex M0+ processor running at up to 133 MHz	Dual Cortex-M33 processor running at up to 150MHz with FPU
RAM	264KB SRAM	520KB SRAM
Flash	2MB Onboard Flash	2MB Onboard Flash
Interface	GPIO Pin x14Digital Pin x11Analog Pin x4I2C x1 UART x1SPI x1PWM x1I	GPIO Pinx22Digital Pin x19Analog Pin x3I2C x2UART x2SPI x2PWM x19
Onboard	User LED (3 Colors) x1Power LED x1RGB LED x1Reset Button x1Boot Button x1	User LED x1Charge LED (Battery Charging Indicator) x1RGB LED x1Reset Button x1Boot Button x1
Wireless Connectivity	/	/
Power	Input Voltage (Type-C): 5VInput Voltage (BAT): 5V	Input Voltage (Type-C): 5VInput Voltage (BAT): 5V
Low Power Mode(Typ.)	/	3.7V/27.9 mA
Software Compatibility	Arduino, PlatformIO, MicroPython, CircuitPython, tinyGo, Rust, Zephyr,	Arduino, PlatformIO, MicroPython, CircuitPython,
Working Temperature	-20°C-70°C	-20°C-70°C
Dimensions	21x17.8mm	21x17.8mm
Varients		

Visual Reference

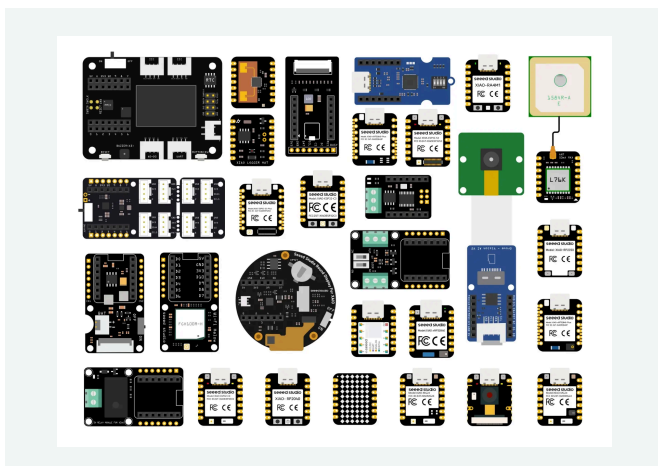


Figure 1. Image 3



Figure 2. XIAO 1

Hardware Overview

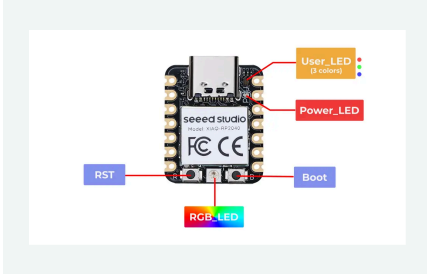


Figure 1. Rp2040 Top

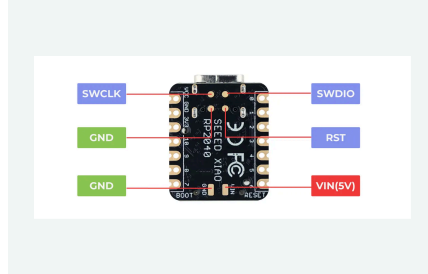


Figure 2. Image 102010470 2 1

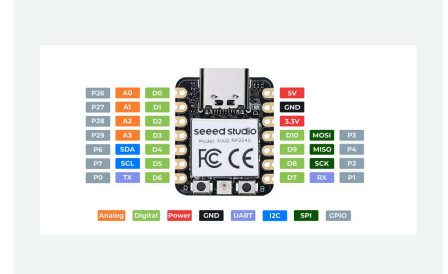


Figure 3. Rp2040 Pinout

Applications

Learning & Education - Arduino, MicroPython, CircuitPython, TinyGo, Rust, embedded systems basics

USB HID Devices - Custom keyboards, stream decks, arcade controllers, MIDI interfaces

Wearable Projects - Smart accessories, LED clothing, wrist devices, sensor wearables

IoT & Sensors - Environmental monitoring, smart home panels, weather stations, MQTT

Display Projects - LED matrices, POV displays, rotating LED spheres

Development - Rapid prototyping, hardware testing, PCB validation

Robotics - Basic motor control, sensor integration, automation

Audio/Video - Sound processing, media controls, visualizations

Part List

Seed Studio XIAO RP2040	X1
7-Pin Header (2.54mm)	X2

Compliance & Logistics

HSCODE	8517180050
USHSCODE	8517180050
UPC	841454123521
EUHSCODE	8543709099
COO	CHINA

CertificationInfo	links
CE	CE_link
EUDOC	EUDOC_link
FCC	FCC_link
ROHS	ROHS_link
UKDOC	UKDOC_link

Logistics	Value
ECCN	3A991.a
HSCODE	8517180050
USHSCODE	8517180050
UPC	841454123521
EUHSCODE	8543709099
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/XIAO-RP2040-v1-0-p-5026.html>
- [Wiki-XIAO RP2040 Resources](#)
- [Seeed Studio XIAO Use Case](#)
- [3D Printing "Case" Studies](#)
- [PCN-XIAO Series Packaging Upgrade.pdf](#)

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