

INDUSTRIAL PRODUCT DATASHEET

Seeed Studio XIAO ESP32-C3

Seeed Studio XIAO ESP 32-C 3 adopts new RISC-V architecture, supporting both Wi-Fi and BLE wireless connectivities. For Internet of Things applications, you will find it is flexible and suitable for all kinds of IoT scenarios.

SKU

113991054

UPDATED

2026-05-14 02:35:25

PRICE

\$4.90(Excl. VAT)



Overview



Figure 1. 113991054 Seeed Studio Xiao Esp32C3 45Font 1

Seed Studio XIAO ESP 32-C 3 adopts new RISC-V architecture, supporting both Wi-Fi and BLE wireless connectivities. For Internet of Things applications, you will find it is flexible and suitable for all kinds of IoT scenarios.

Key Features

01

Flexible MCU Board

Incorporate the ESP32-C3 32-bit RISC-V chip, operating up to 160 MHz, mounted multiple development ports, supported by Arduino / CircuitPython

02

Outstanding RF performance

Implement complete Wi-Fi functions and Bluetooth Low Energy, while supporting communication over 100m with a U.FL antenna

03

Elaborate Power Design

Provide 4 working modes as low as 44 μ A in deep sleep mode, while supporting lithium battery charge management

04

Thumb-sized Design

21 x 17.8mm, Seeed Studio XIAO series classic form factor and elegant productization of single-sided components mounting, suitable for wearable devices

05

Perfect for Production

Breadboard-friendly & SMD design, no components on the back

06

Production-Ready Design with Fusion PCBA Support

07

We already have 15 XIAO products based on different solutions in the XIAO family, to help you better understand the differences and choose the most suitable part for your projects, please refer to the Seed Studio XIAO Series Page.

Product Gallery



Figure 1. Seed Studio XIAO Esp32C3



Figure 2. 113991054 Seed Studio XIAO Esp32C3 Front 1

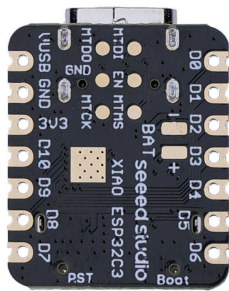


Figure 3. 113991054 Seed Studio XIAO Esp32C3 Back 1

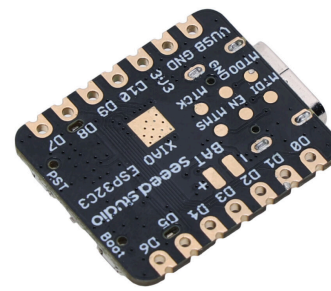


Figure 4. 113991054 Seed Studio XIAO Esp32C3 45Back 1

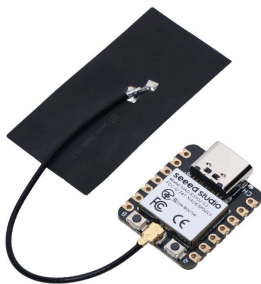


Figure 5. 113991054 Seed Studio XIAO Esp32C3 Feature 1

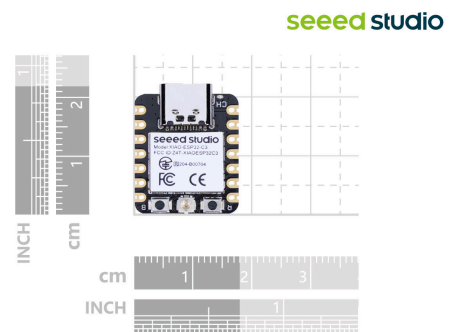


Figure 6. 113991054 Seed Studio XIAO Esp32C3 Size 1

Specification

Parameter: Description

Parameter	Description
Processor	ESP32-C3 SoC
RISC-V single-core 32-bit chip processor with a four-stage pipeline that operates at up to 160 MHz	
Wireless	Complete 2.4GHz Wi-Fi subsystem
Bluetooth Low Energy 5.0/ Bluetooth Mesh	
On-chip Memory	400KB SRAM & 4MB Flash
Interface	1x UART1x IIC1x SPI1x GPIO(PWM)4x ADC
1x Reset button1x Boot button	
Dimensions	21 x 17.8mm
Power(Typ.)	Max 3.3V Output Current: 500mA Test Condition: BAT Pin Input @ 3.8V Source Capability: 3A
Charging current	380mA(Fast) / 40mA(Trickle):
Input voltage (VIN)	5Vnput voltage (BAT): 3.7V:

Visual Reference



Figure 1. XIAO 1



Figure 2. Seeed Studio XIAO ESP32-C3

Hardware Overview

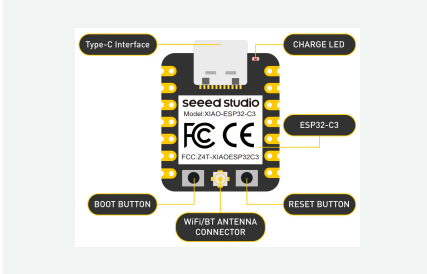


Figure 1. Image 19

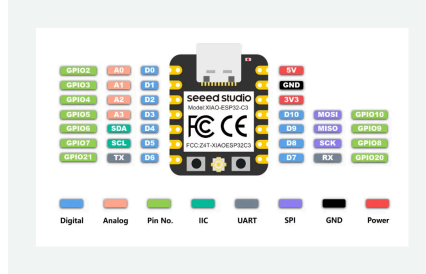


Figure 2. Image 2 3

Applications

Internet of Things

Wearable devices

Health monitoring

Education

Low-Power(LP) networking

Rapid prototyping

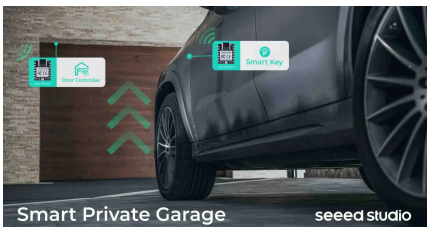


Figure 7. Image 3 3

Application 1: Smart Private Garage

Improvement:

It is nice to add an ultrasonic distance sensor to measure the car-to-door distance and an OLED screen to check the status of the garage. If you want an onboard voice sensor to command the door to open with vocal instruction, try our XIAO BLE Sense.

Materials: XIAO ESP32-C3 *2, Grove - Button *1, Grove - Relay*1

Description:

This is a peer-to-peer WiFi communication application, since two XIAOs detect each other via Wifi, the garage door will open or keep opening, and vice versa.

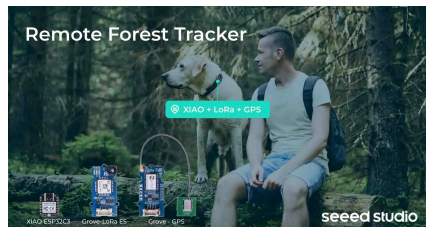


Figure 11. Image 4 3

Application 2: Remote Forest Tracker

Materials: XIAO ESP32-C3 *1, Grove - Wio - E5 *1, Grove - GPS *1

Part List

Seeed Studio XIAO ESP32-C3	x1
Antenna	x1
7 Pin Header	x2

We are putting the spotlight on Seeed's self-developed Home Assistant-compatible products, offering affiliates 10% commission on referred sales. Sign up to earn more today!

Compliance & Logistics

HSCODE	8517180050
USHSCODE	8517180050
UPC	
EUHSCODE	8543709099
COO	CHINA

CertificationInfo	links
CCATS	CCATS_link
CE	CE_link
EUDOC	EUDOC_link
FCC	FCC_link
REACH	REACH_link
ROHS	ROHS_link
TELEC	TELEC_link
UKDOC	UKDOC_link

Logistics	Value
ECCN	5A992
HSCODE	8517180050
USHSCODE	8517180050
EUHSCODE	8543709099
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/Seeed-XIAO-ESP32C3-p-5431.html>
- [3D Printing "Case" Studies](#)
- [PCN-XIAO Series Packaging Upgrade.pdf](#)
- [Wiki-XIAO ESP32-C3 Resources](#)
- [Report of XIAO ESP32-C3 Low Power Consumption](#)
- [Seeed Studio XIAO Use Case](#)

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