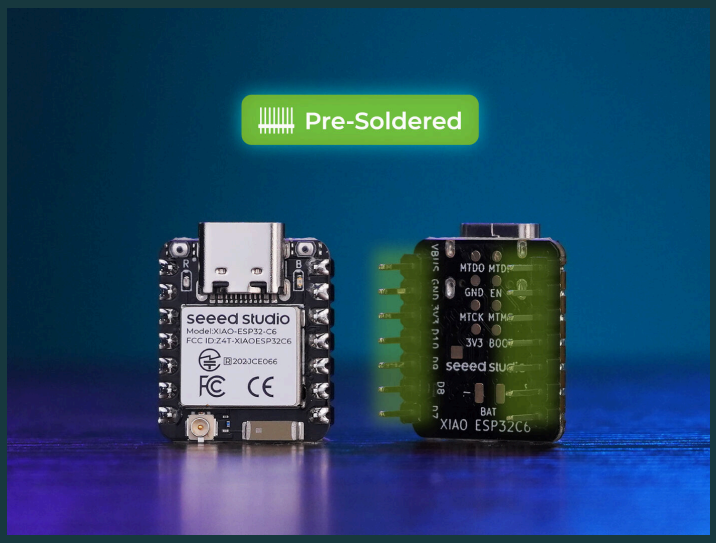
seeed studio

INDUSTRIAL PRODUCT DATASHEET

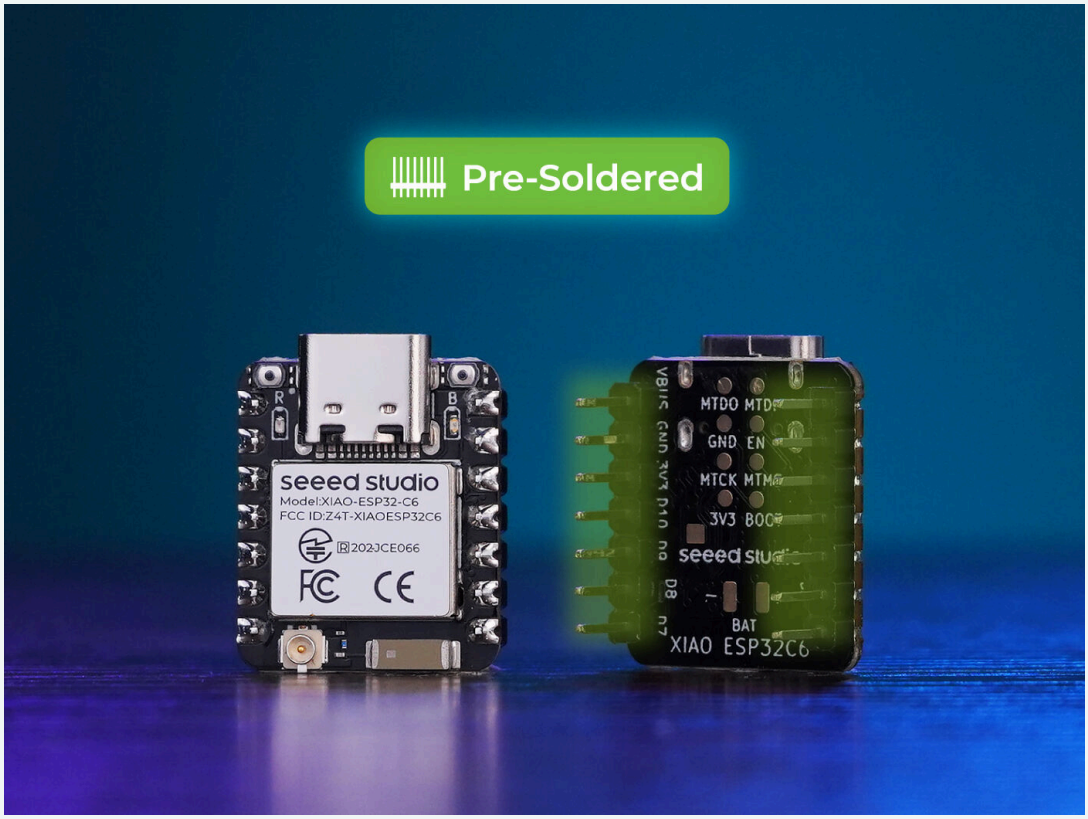
Seeed Studio XIAO ESP32-C6 (Pre-Soldered)

This is the pre-soldered version of XIAO ESP32-C6， which is a cost-effective MCU based on Espressif's ESP32-C6.

SKU	UPDATED	PRICE
102010636	2026-11-11 09:05:52	$6.20(Excl. VAT)



Overview



This is the pre-soldered version of XIAO ESP32-C6， which is a cost-effective MCU based on Espressif's ESP32-C6. This compact MCU excels in Matter-compliant smart home applications with its support for various wireless connectivity (2.4GHz Wi-Fi 6, BLE 5.0, Zigbee, and Thread). Designed with the thumb-size footprint and a single-sided mount of the XIAO Series, it's perfect for space-limited projects. Encrypted on the chip, the XIAO ESP32-C6 ensures a desired level of security streamlined development experience, and swift market entry by integrating easily with major IoT Cloud platforms.

Key Features

01 **Enhanced Connectivity**

Combines 2.4GHz Wi-Fi 6 (802.11ax), Bluetooth 5(LE), and IEEE 802.15.4 radio connectivity, allowing you to apply the Thread and Zigbee protocols.

02 **Matter Native**

Supports building Matter-compliant smart home projects thanks to its enhanced connectivity, achieving interoperability

03 **Security Encrypted on Chip**

Powered by ESP32-C6, it brings enhanced encrypted-on-chip security to your smart home projects via secure boot, encryption, and Trusted Execution Environment (TEE)

04 **Outstanding RF performance**

Has an on-board antenna with up to 80m BLE/Wi-Fi range, while reserving an interface for external UFL antenna

05 **Leveraging Power Consumption**

Comes with four working modes, with the lowest being 15 μA in deep sleep mode, while also supporting lithium battery charge management.

06 **Dual RISC-V Processors**

Incorporates two 32-bit RISC-V processors, with the high-performance processor running up to 160 MHz, and the low-power processor clocking up to 20 MHz

07 **Classic XIAO Designs**

Remains the classic XIAO designs of the thumb-size form factor of 21 x 17.8mm, and single-sided mount, making it perfect for space-limited projects such as wearables

08 **Seamless integration with mainstream Cloud Platforms**

ESP Rain Maker, AWS IoT, Microsoft Azure, and Google Cloud

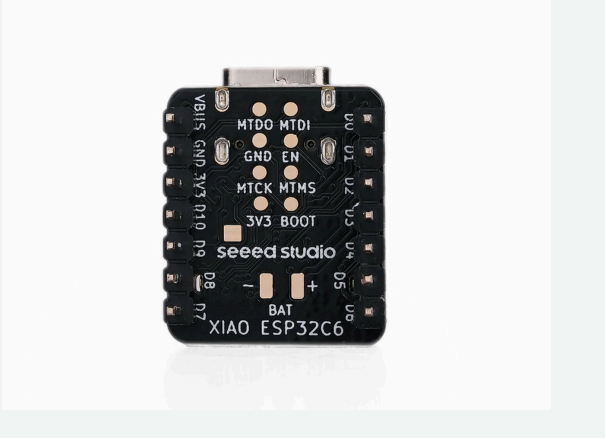
09 **We already have 10 XIAO products based on different solutions in the XIAO family, to help you better understand the differences and choose the most suitable part for your projects, please refer to the Seeed Studio XIAO Series Page.**

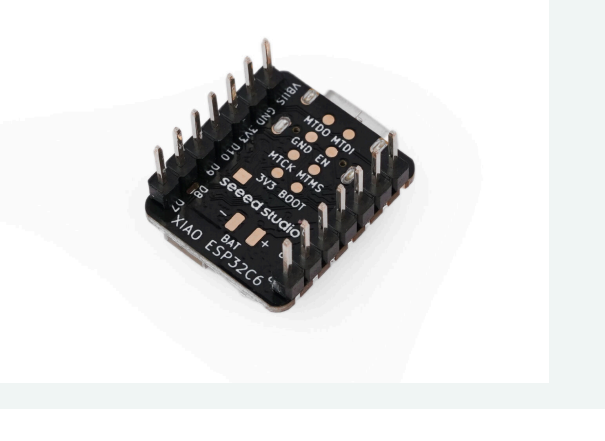
Product Gallery



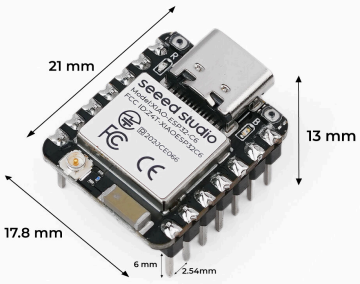




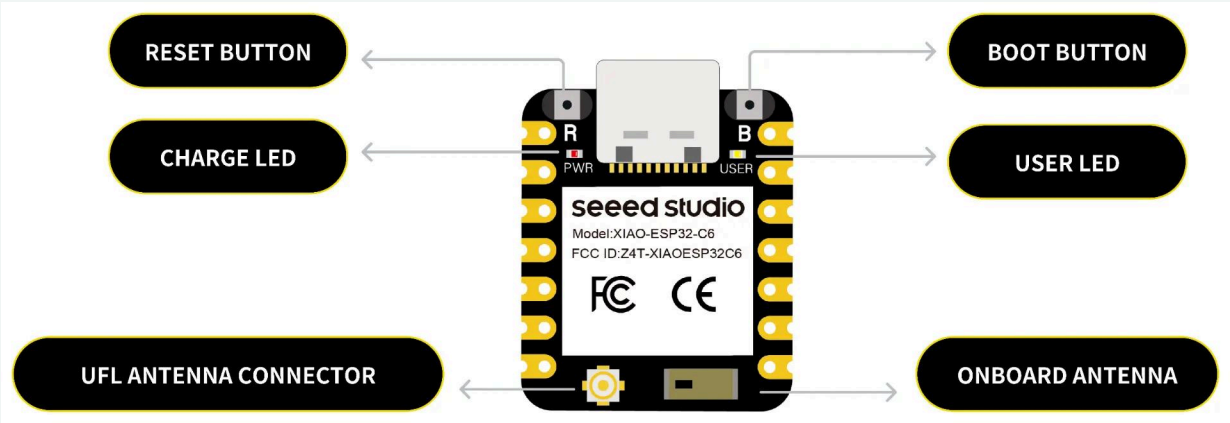


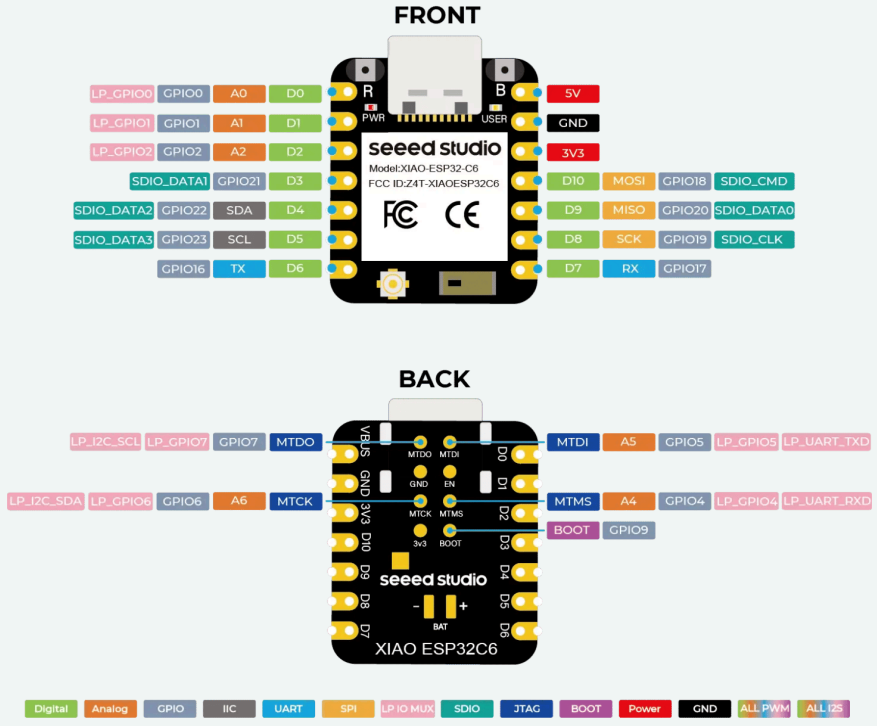





21 mm
13 mm
17.8 mm
6 mm
2.54mm

Hardware Overview





Applications

- **Secure and Connected Smart Home, enhancing everyday life through automation, remote control, and more**
- **Space-limited and Battery-Powered Wearables, thanks to their thumb-size and low-power consumption**
- **Wireless IoT Scenarios, enabling rapid, reliable data transmission**

Resource Links

- https://www.seeedstudio.com/Seeed-Studio-XIAO-ESP32C6-Pre-Soldered-p-6328.html
- PCN-XIAO Series Packaging Upgrade.pdf
- Wiki-XIAO ESP32-C6 Resources
- Seeed Studio XIAO Use Case

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