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INDUSTRIAL PRODUCT DATASHEET

XIAO ESP32S3 & Wio-SX1262 Kit with 3D case for Meshtastic & LoRa

Ready for Meshtastic with dual LoRa (862–930 MHz), Wi-Fi, and BLE 5.0 connectivity in a thumb-sized ESP32-S3 design, suitable for Meshtastic, LoRaWAN gateway, and sensor applications.

SKU	UPDATED	PRICE
113110064	2026-11-10 12:26:58	$17.90(Excl. VAT)



Overview



The XIAO ESP32S3 & Wio-SX1262 Kit with 3D case for Meshtastic & LoRa is a thumb-sized, ready-for-Meshtastic solution powered by the ESP32-S3 dual-core Xtensa processor running up to 240 MHz. It supports long-range LoRa communication (862–930 MHz) along with 2.4 GHz Wi-Fi and BLE 5.0, and can be used as a Meshtastic node or router, a single-channel LoRaWAN gateway, or a LoRa/LoRaWAN sensor platform.

Key Features

01 **Ready for Meshtastic：the kit works out of the box and can quickly join or create a Meshtastic mesh network.**

02 **Dual Wireless Connectivity：Supports long-range LoRa communication (862–930 MHz) along with 2.4 GHz Wi-Fi and BLE 5.0. When used with a U.FL antenna, it can achieve 2–5 km LoRa communication and 100 m+ Wi-Fi/BLE range.**

03 **Thumb-Sized Compact Design：With a compact size of just 21 × 18 mm and the classic XIAO form factor, it is ideal for space-constrained projects such as wearables and embedded devices.**

04 **Powerful ESP32-S3 MCU：Powered by the ESP32-S3 dual-core Xtensa processor running up to 240 MHz. The board includes multiple expansion interfaces and supports Arduino and MicroPython development.**

05 **Integrated Power Management：Equipped with a USB Type-C interface and built-in lithium battery charging management for flexible power options.**

06 **Flexible for Multiple Applications：The same hardware can be used as a Meshtastic node or router, a single-channel LoRaWAN gateway, or a LoRa/LoRaWAN sensor platform.**

Product Gallery







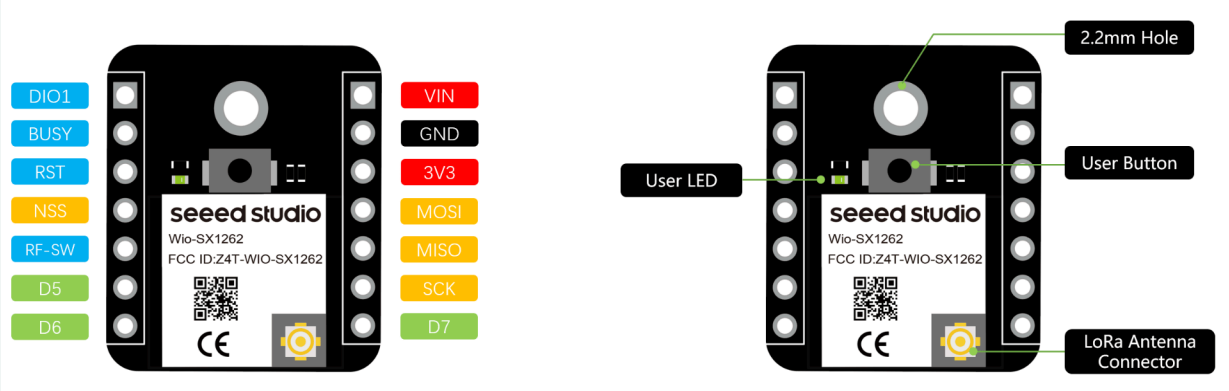


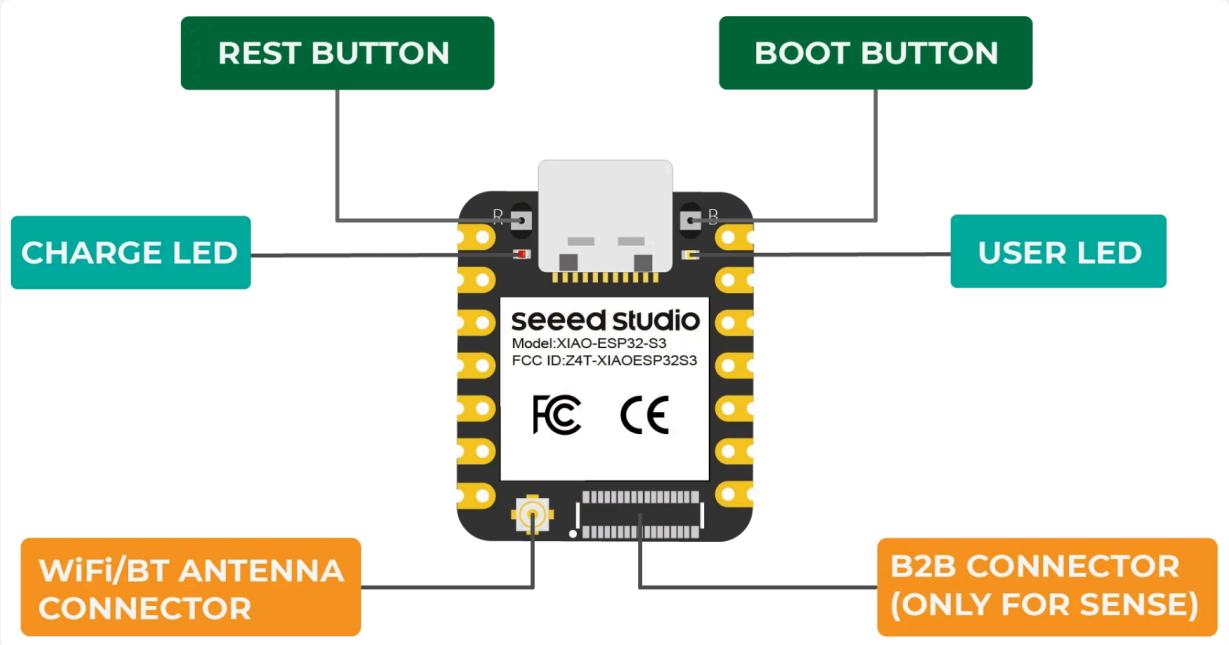


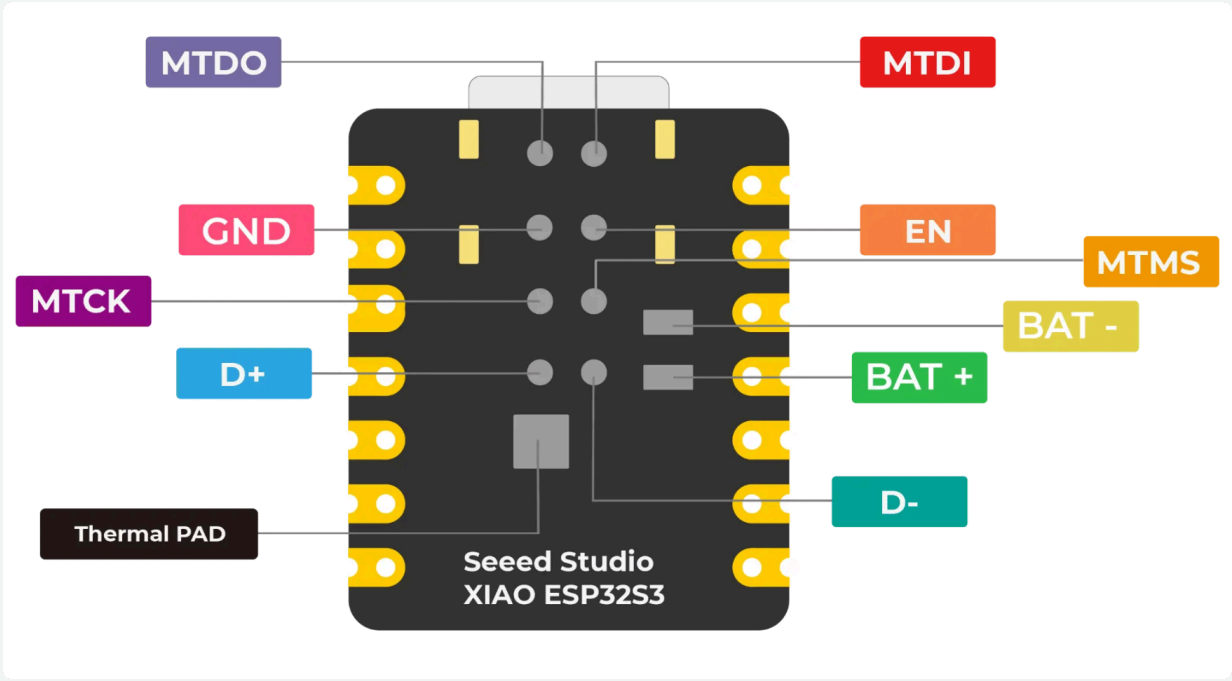


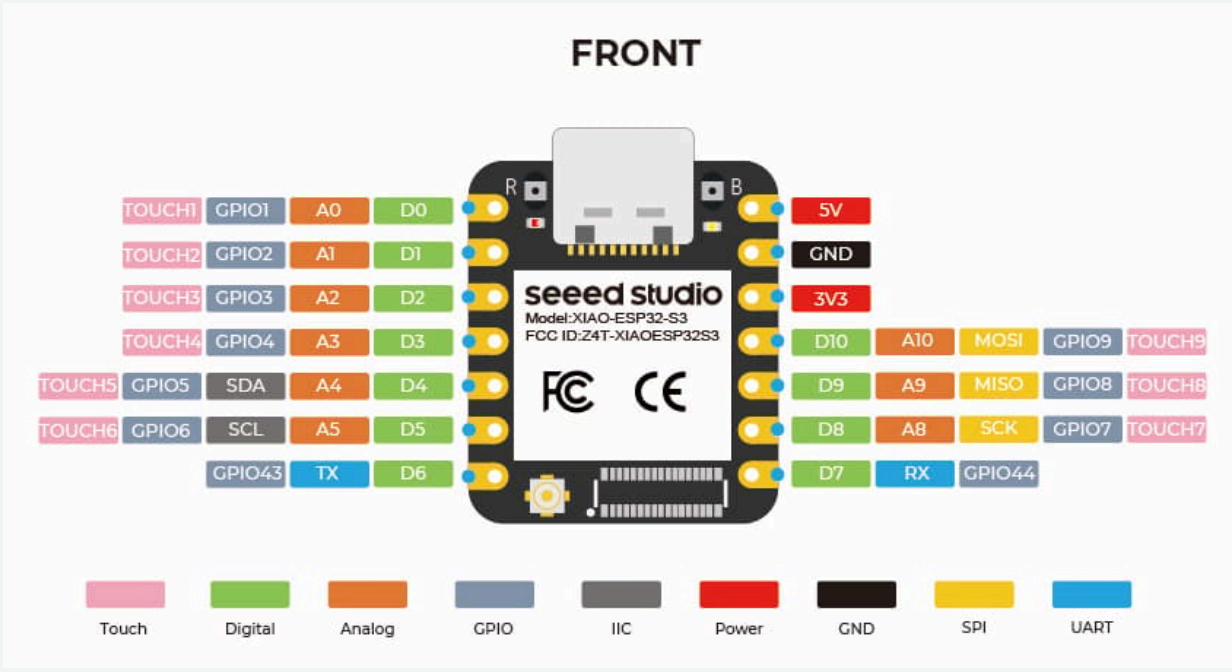

22 mm
60 mm
22 mm

Hardware Overview






MTDO
MTDI
GND
EN
MTMS
MTCK
BAT -
D+
BAT +
D-
Thermal PAD
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XIAO ESP32S3


FRONT
TOUCH1 GPIO1 A0 D0
TOUCH2 GPIO2 A1 D1
TOUCH3 GPIO3 A2 D2
TOUCH4 GPIO4 A3 D3
TOUCH5 GPIO5 SDA A4 D4
TOUCH6 GPIO6 SCL A5 D5
GPIO43 TX D6
5V
GND
3V3
D10 A10 MOSI GPIO9 TOUCH9
D9 A9 MISO GPIO8 TOUCH8
D8 A8 SCK GPIO7 TOUCH7
D7 RX GPIO44
R
B
seeed studio
Model:XIAO-ESP32-S3
FCC ID:Z4T-XIAOESP32S3
Touch
Digital
Analog
GPIO
IIC
Power
GND
SPI
UART

Applications

- **LoRaWAN Single Channel Gateway:** The most cost-effective single-channel LoRaWAN gateway for connecting multiple LoRaWAN sensors and transmitting data to LoRaWAN Network Servers such as The Things Network and Chirpstack.
- **LoRa/LoRaWAN Sensor:** A mini LoRaWAN sensor, ideal for beginners exploring LoRa/LoRaWAN. It can be used with the XIAO extension board and Grove sensors for rapid prototyping.
- **Meshtastic Node&Router:** What is Meshtastic? Meshtastic is an open-source wireless communication project designed to create a mesh network system using low-power LoRa devices. This allows devices to communicate flexibly and cost-effectively without relying on traditional mobile networks or Wi-Fi. It's suitable for use in various extreme environments and outdoor activities. If you're interested in Meshtastic, you can explore it by following the firmware flashing tutorial.

Resource Links

- https://www.seeedstudio.com/XIAO-ESP32S3-for-Meshtastic-LoRa-with-3D-Printed-Enclosure-p-6314.html
- Wio-SX1262 for XIAO 3D file
- Schematic Diagram Wio-SX1262 for XIAO
- Wio-SX1262 Module Datasheet
- Github One-Channel Hub project
- Casing 3D file

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