

seed studio

INDUSTRIAL PRODUCT DATASHEET

# Wio-E5 Dev Kit - STM32WLE5JC, ARM Cortex- M4 and SX126x embedded, supports LoRaWAN on EU868 & US915

The Wio-E5 Dev Kit integrates STM32WLE5JC and SX126x for long-range LoRaWAN IoT applications, such as air quality monitoring, snow depth sensing, and GPS tracking.

SKU

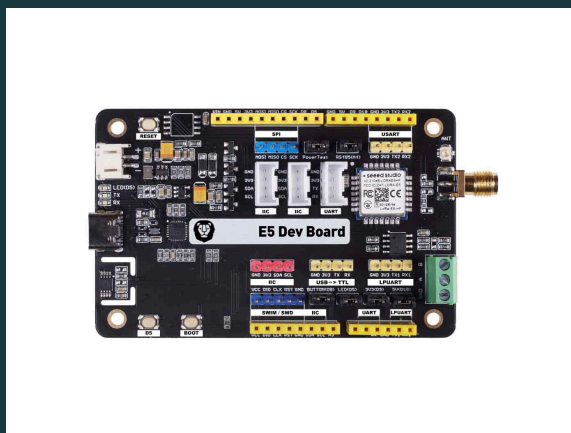
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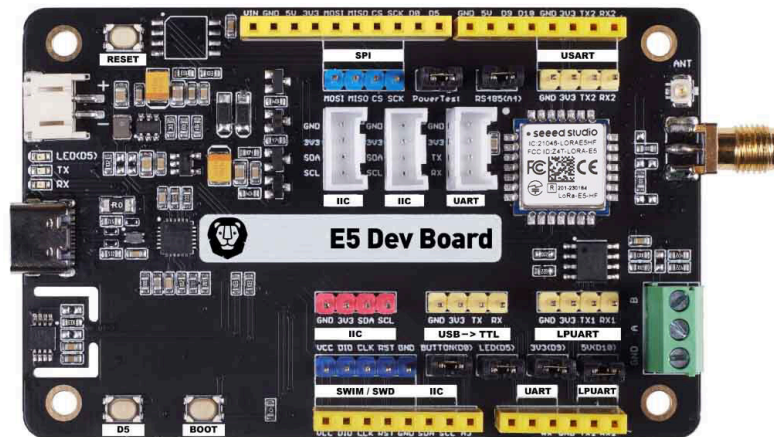
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PRICE

\$26.90(Excl. VAT)



# Overview

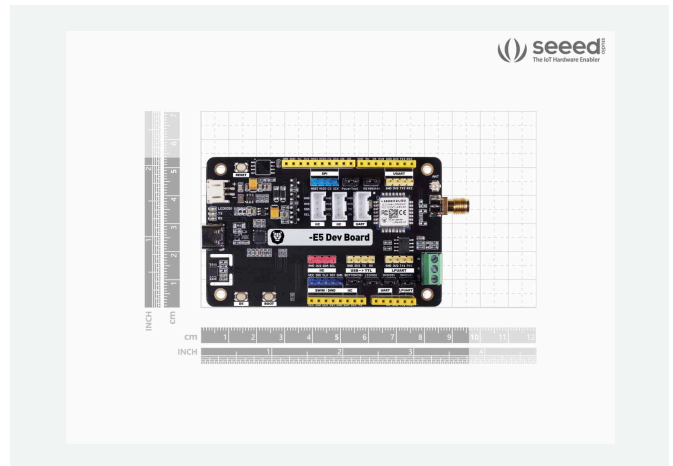
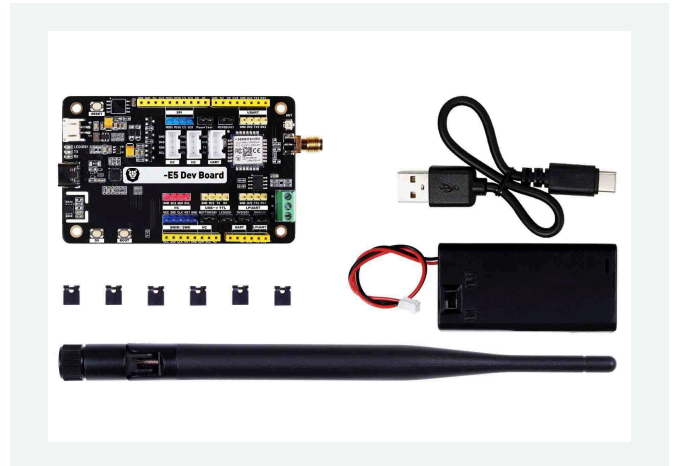
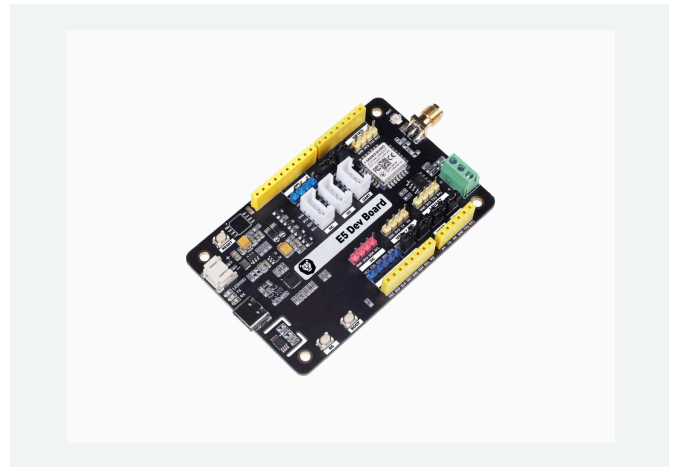


The Wio-E5 Dev Kit features the STM32WLE5JC SoC with ARM Cortex-M4 and SX126x, achieving up to 22dBm transmit power, -136.5dBm sensitivity, and 158dB link budget for robust LoRaWAN communication on EU868 and US915. It includes fully lead-out GPIOs, RS-485 and Grove interfaces, and convenient RESET/BOOT buttons, with FCC, CE, IC and Telec certifications.

## Key Features

- **High Performance:** The transmit power up to 22dBm @868/915MHz; -136.5dBm sensitivity for SF12 with 125KHz BW.
- **Long Distance Use:** 158dB link budget
- **Wireless Connectivity:** Embedded Long Range protocol, AT command, support global Long Range frequency plan
- **Use-friendly:** It features fully lead out GPIOs, rich interfaces including RS-485, Grove, and etc, as well as convenient RESET and BOOT buttons on board.
- **FCC, CE, IC and Telec Certified**

# Product Gallery



## Specification

Parameters	Specifications
Size	LoRa-E5 Dev Board: 85.6*54mm Package: 200*130*50mm
Voltage - supply	3-5V (Battery) / 5V(USB Type C)
Voltage - output	EN 3V3 / 5V
Power - output	Up to +20.8dBm at 3.3V
Frequency	EU868 / US915 / AU915 / AS923 / KR920 / IN865
Protocol	LoRaWAN
Sensitivity	-116.5dBm ~ -136dBm
interfaces	USB Type C / JST2.0 / Grove*3(IIC*2/UART*1) / RS485 / SMA-K / IPEX
modulation	LoRa, (G)FSK, (G)MSK, BPSK
working temperature	-40°C ~ 85°C
current	LoRa-E5 module sleep current as low as 2.1uA (WOR mode)

## Applications

- **Solar-Powered Outdoor LoRaWAN Air Quality Monitor**
- **Low-Power Snow Depth Sensor Monitoring for IoT Smart City Based On Wio-E5 Applied in Norway**
- **Developed Stream Runoff Monitoring Sensors Using Wio-E5 to Measure The Temperature, Quality and Flow**
- **Smart City: Wio-E5-based Indoor Air Pollutant Detection Project**
- **Wio-E5 & ESP32 Powered WiLoBlino**
- **Loko: The Tiniest GPS Tracker with Built-In Wio-E5 Module Can Track Any Wild Animals and Drones**

## Part List

Part List:
LoRa-E5 Dev Board *1
Antenna(EU868/US915) *1
USB TypeC (20cm) *1
2*AA 3V Battery Holder *1

## Compliance & Logistics



HSCODE	8517709000
USHSCODE	8517180050
UPC	
EUHSCODE	8517180000
COO	CHINA

## Resource Links

- <https://www.seeedstudio.com/LoRa-E5-Dev-Kit-p-4868.html>
- [Wio-E5 Development Board v1.0.brd](#)
- [Wio-E5 Development Board v1.0.pdf](#)
- [Wio-E5 Development Board v1.0.sch](#)
- [Wio-E5 datasheet and specifications](#)
- [Wio-E5 AT Command Specification](#)
- [STM32WLE5JC Datasheet](#)
- [Wio-E5-HF Certification CE-VOC-RED](#)
- [Wio-E5-HF FCC Certification -DSS](#)
- [Wio-E5-HF FCC Certification -DTS](#)
- [Wio-E5-HF TELEC Certification](#)
- [Wio-E5-HF IC Certification](#)
- [STM32Cube MCU Package for STM32WL series](#)

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