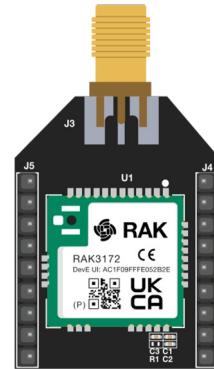


# RAK3272-SiP Breakout Board

Thank you for choosing RAK3272-SiP Breakout Board in your awesome IoT project! 🙌 To help you get started, we have provided you with all the necessary documentation for your product.



## Product Description

The RAK3272-SiP and RAK3272LP-SiP Breakout Boards were designed to allow easy access to the RAK3172-SiP/RAK3172LP-SiP [🔗](#) module pins to simplify development and testing. The two SiP module variants use different RF output paths to optimize current consumption depending on the application. RAK3172-SiP uses RFO\_HP while RAK3172LP-SiP uses the RFO\_LP on the STM32WL SoC transceiver.

The microcontroller's GPIO pins are accessible through 2.54 mm headers. The breakout board is powered by either the RAK3172-SiP or the RAK3172LP-SiP, both of which are based on the STM32WLE5JC. The STM32WLE5JC belongs to the STM32WLE5x [🔗](#) family. It features an Arm® Cortex®-M4 core operating at 48 MHz and includes a sub-GHz radio based on the Semtech SX126x.

The board complies with Class A, B, & C of LoRaWAN 1.0.3 specifications and also features LoRa Point-to-Point (P2P) communication mode, which helps you in implementing your own customized long-range LoRa network quickly. It is also RUI3 compatible which allows you to create custom firmware using RUI3 APIs.

## Product Features

- 32-bit Arm® Cortex®-M4 48 MHz MCU and sub-GHz Semtech SX126x radio
- Chipset STM32WLE5JC (single-core)
- Two variants available
  - RAK3272-SiP (uses RFO\_HP)
  - RAK3272LP-SiP (uses RFO\_LP)
- I/O ports: UART/I2C/GPIO/SPI
- 32 MHz TCXO and 32 kHz xtal
- RUI3 API compatible
- Custom firmware using Arduino via RUI3 API
- Easy to use AT Command set via UART interface
- Serial Wire Debug (SWD) interface
- LoRaWAN 1.0.3 specification compliant
- **Supported bands:** IN865, EU868, AU915, US915, KR920, RU864, and AS923
- Supply voltage: 1.8 V ~ 3.6 V
- Temperature range: -40° C ~ 85° C
- Size: 25.4 mm x 41.8 mm



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