

# RAK3172 WisDuo LoRaWAN Module

Thank you for choosing RAK3172 WisDuo LoRaWAN Module in your awesome IoT project!

👉 To help you get started, we have provided you all the necessary documentation for your product.



## 💡 NOTE

There are two certification variants available for the RAK3172 Module: (1) with the CE & UKCA Certification Mark and (2) with FCC, IC & RCM Certification Mark.

If you need LoRa module with BLE 5.0 capability, you can check [RAK11720](#) <sup>↗</sup> which is pin-to-pin compatible to RAK3172 with extra pins for additional ground and BLE RF antenna port.

## ⚠️ WARNING

Temperature ratings:

RAK3172 is -20° C to 85° C

RAK3172-T is -40° C to 85° C

## Product Description

The RAK3172 is a low-power, long-range transceiver module based on the STM32WLE5CCU6 chip. It provides an easy-to-use, small-sized, low-power solution for long-range wireless data applications. This module complies with Classes A, B, and C of the LoRaWAN 1.0.3 specifications. It can easily connect to different LoRaWAN server platforms like The Things Network (TTN), Chirpstack, Actilit, etc. It also supports LoRa Point-to-Point (P2P) communication mode, which helps you implement your own customized long-range LoRa network quickly.

You can configure the module's mode and operation using AT commands via a UART interface. The RAK3172 also offers low-power features that are well-suited for battery-powered applications.

## Product Features

- Based on STM32WLE5CCU6
- LoRaWAN 1.0.3 specification compliant
- **Supported bands:** EU433, CN470, IN865, EU868, AU915, US915, KR920, RU864, and AS923-1/2/3/4
- LoRaWAN Activation by OTAA/ABP
- LoRa Point-to-Point (P2P) communication
- Custom firmware using Arduino via RUI3 API
- Easy to use AT Command Set via UART interface
- Long-range - greater than 15 km with optimized antenna
- ARM Cortex-M4 32-bit
- 256 kbytes flash memory with ECC
- 64 kbytes RAM
- Ultra-Low Power Consumption of 1.69  $\mu$ A in sleep mode
- **Supply Voltage:** 2.0 V ~ 3.6 V
- **Temperature Range:**
  - RAK3172: -20° C ~ 85° C
  - RAK3172-T: -40° C ~ 85° C



LoRa® is a registered trademark or service mark of Semtech Corporation or its affiliates. LoRaWAN® is a licensed mark.



Copyright © 2014-2024 RAKwireless Technology Limited.  
All rights reserved.

