RAK3172 WisDuo LPWAN Module

Thank you for choosing **RAK3172 WisDuo LPWAN Module** in your awesome IoT project! 🎉 To help you get started, we have provided you all the necessary documentation for your product.

- Quick Start Guide
- AT Command Manual
- Low Level Development
- Datasheet
- AT Command Migration Guide of RAK3172 to RUI3 ⧉
- RAK3172 3D Model ⧉
- Reference Design ⧉

> 📝 **NOTE:**
>
> There are two 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 ⧉ which is pin-to-pin compatible to RAK3172 with extra pins for additional ground and BLE RF antenna port.

Product Description

RAK3172 is a low-power long-range transceiver module based on the STM32WLE5CC chip. It provides an easy-to-use, small-size, low-power solution for long-range wireless data applications. This module complies with Class A, B, & C of LoRaWAN 1.0.3 specifications. It can easily connect to different LoRaWAN server platforms like TheThingsNetwork (TTN), Chirpstack, Actility, etc. It also supports LoRa Point-to-Point (P2P) communication mode which helps you in implementing your own customized long-range LoRa network quickly.

You can configure the mode and operation of the module using AT commands via a UART interface. RAK3172 also offers low-power features that are very suitable 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 µA in sleep mode
- **Supply Voltage**: 2.0 V ~ 3.6 V
- **Temperature Range**: -40° C ~ 85° C