

# RAK4630 LoRa Bluetooth Module for LoRaWAN User Manual

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**RAK4630 LoRa Bluetooth Module for LoRaWAN** 



# **Product Information**

The RAK4630 is a communication module based on the nRF52840 chip and LoRa transceiver SX1262. It is designed to simplify LoRaWAN and LoRa point-to-point (P2P) communication. Additionally, it features BLE functionality of the nRF52840 chip and can be integrated into projects using an easy-to-use Serial Port communication interface where AT commands can be sent to set the necessary parameters for LoRa P2P and LoRaWAN communication.

The RAK4630 default firmware is based on RUI3 (RAKwireless Unified Interface V3). The AT command can be accessed via USB and BLE by default, but it can also be interfaced via UART1 and UART2. The complete list of commands can be found in RUI3 AT Commands Documentation. To get familiar with the pin distribution of this module, refer to the RAK4630 Datasheet. The bare minimum circuit can be found in the RAK4630 Quick Start Guide. You can configure the settings of each interface via RUI3 Serial Operating Modes.

# **Product Usage Instructions**

- 1. Connect the RAK4630 module to your project.
- 2. Access the AT command via USB and BLE by default or UART1 and UART2.
- 3. Refer to the RUI3 AT Commands Documentation for a complete list of commands.
- 4. Use the AT commands to set the necessary parameters for LoRa P2P and LoRaWAN communication.
- 5. Configure the settings of each interface via RUI3 Serial Operating Modes.

### Overview

RAK4630 is based on the nRF52840 chip and LoRa transceiver SX1262. It is designed to simplify LoRaWAN and LoRa point-to-point (P2P) communication. It also features BLE functionality of the nRF52840 chip. To integrate LoRa technology into your projects, the RAK4630 is implemented with an easy-to-use Serial Port communication interface where you can send AT commands. Through these AT commands, you can set the parameters needed for LoRa P2P and LoRaWAN communication.

## **RUI3 AT Command-List**

- The RAK4630 default firmware is based on RUI3 (RAKwireless Unified Interface V3). You can access the AT command via USB and BLE by default.
- The complete list of commands can be found in RUI3 AT Commands Documentation.

#### **NOTE**

In addition, aside from USB and BLE, AT commands can be interfaced via UART1(Pin9 and Pin10) and UART2(Pin6 and Pin7 – No AT Command functionality by default) as well. To get familiar with the pin distribution of this module, refer to the RAK4630 Datasheet. The bare minimum circuit can be found in the RAK4630 Quick Start Guide. You can configure the settings of each interface via RUI3 Serial Operating Modes.

#### **Documents / Resources**



RAK RAK4630 LoRa Bluetooth Module for LoRaWAN [pdf] User Manual RAK4630 LoRa Bluetooth Module for LoRaWAN, RAK4630, LoRa Bluetooth Module for LoRaWAN, LoRa Bluetooth Module, Bluetooth Module, Module

#### References

- Make Part | Rakwireless Documentation Center | Rakwireless Documentation Center |
- SAK4630 Module Quick Start Guide | RAKwireless Documentation Center
- Makwireless Unified Interface V3 (RUI3) | RAKwireless Documentation Center
- SAK Unified Interface V3 (RUI3) Serial Operating Modes | RAKwireless Documentation Center
- AT Command Manual | RAKwireless Documentation Center

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