

# WisNode-SPI EVB Quick Start Guide

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# 1. Product introduction

## 1.1 Overview

WisNode-SPI module is based on the RAK439 module design of an Arduino-compatible development board, which inherited the RAK439 the SPI interface, supporting STM32F4, STM32F1 chip can be the fastest to 8Mb / s throughput speed, used for large data communications Suitable, of course, RAK439 low-power mode will allow the module does not need to transmit data, reduce the overall power consumption, saving electricity.

## 1.2 Evaluation Kit introduction

After purchasing the Arduino WisNode-SPI EVB evaluation kit on Taobao, we will send it with the following RAK official designation.As shown in Figure 1-1.The items in the box are shown in Figure 1-2: WisNode-SPI EVB、2.4GHZ Antenna。



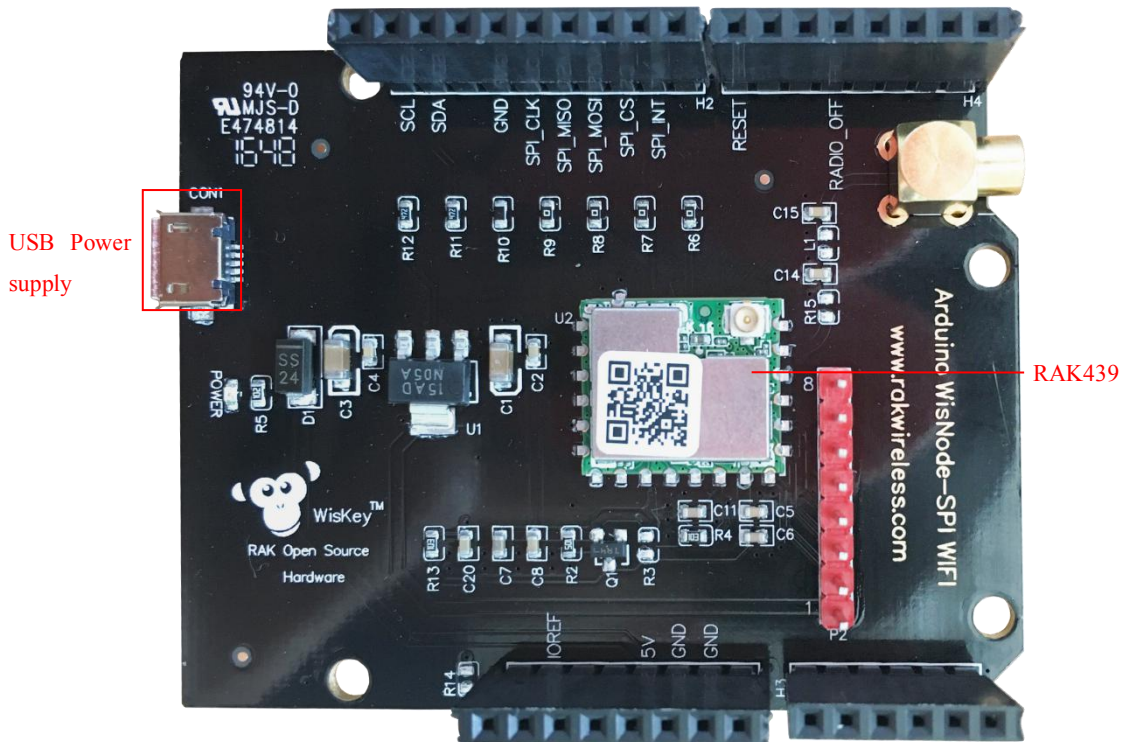
Fig 1-1



Fig 1-2

### 1.3 Hardware introduction

The following figure is the RAK WisNode series SPI development board, compatible Arduino development board, supporting STM32F411 NUCLEO-F411RE development board with the use of. Interface resources are as follows:



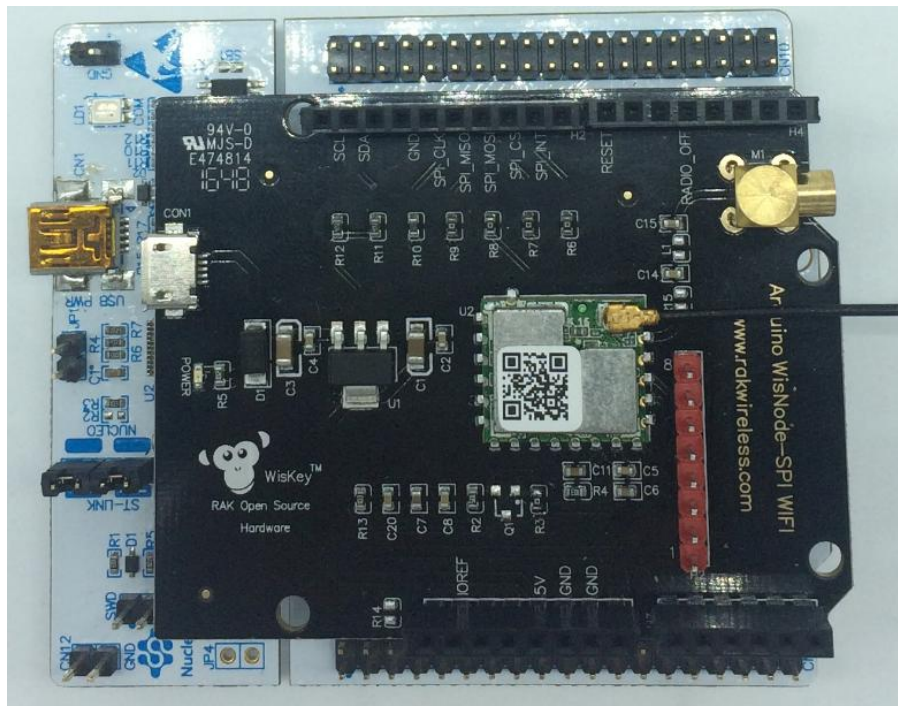
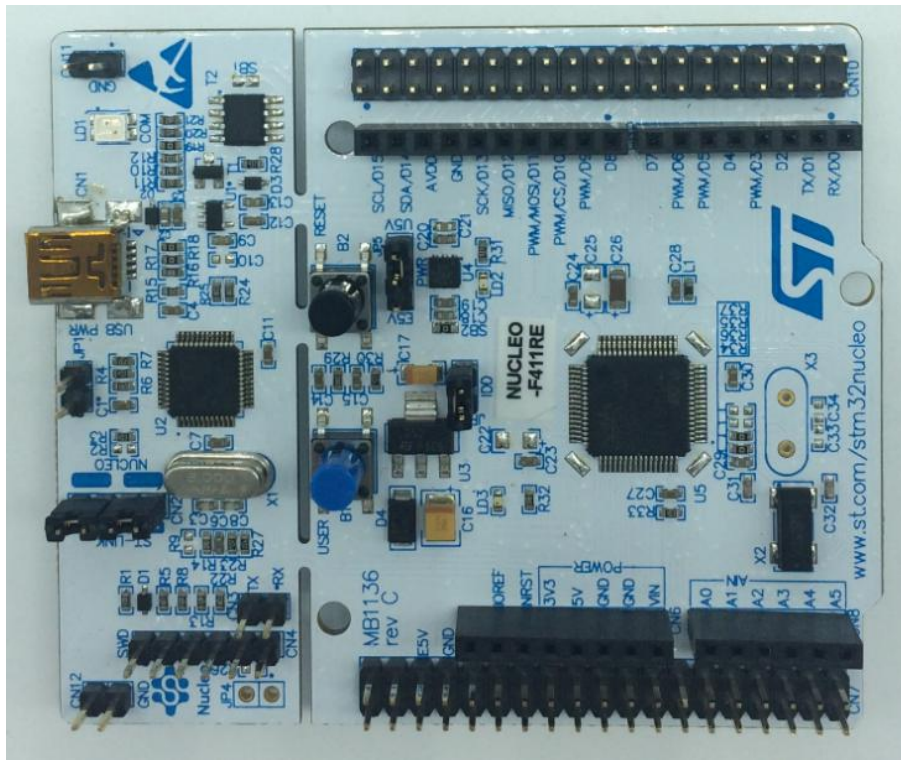
Function	Name	Note
Module	U2	RAK439 Module
External interface	Micro USB	Power Supply DC 5V input
Key	Reset	Reset button for the backplane STM32
Pin out	P2	Function pin
LED Light	POWER	Power Indicator

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## 2. Quick to use

Here WisNode-SPI module and STM32 NUCLEO-F411RE supporting the use of the program can be used in this link to download: [https://github.com/RAKWiskey/RAK439\\_STM32F411](https://github.com/RAKWiskey/RAK439_STM32F411)

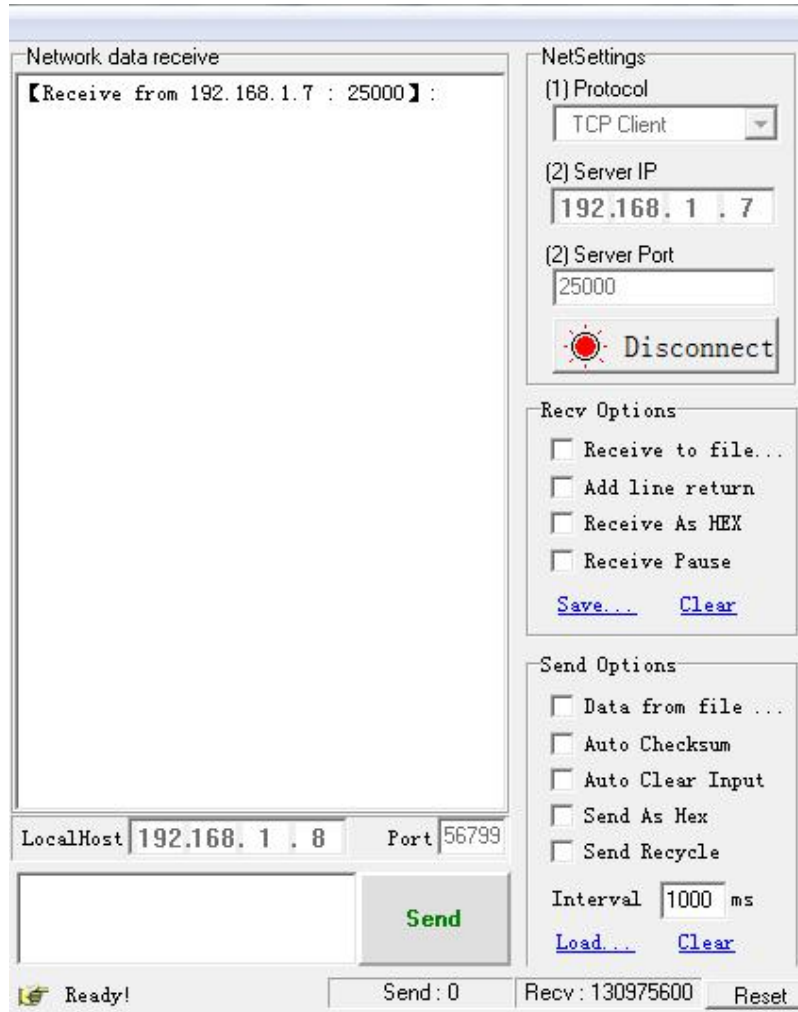
The required STM32 NUCLEO-F411RE backplane can be purchased at this Taobao link : [https://detail.tmall.com/item.htm?spm=a230r.1.14.6.8ZZOVH&id=41147933679&cm\\_id=140105335569ed55e27b&abbucket=9](https://detail.tmall.com/item.htm?spm=a230r.1.14.6.8ZZOVH&id=41147933679&cm_id=140105335569ed55e27b&abbucket=9)



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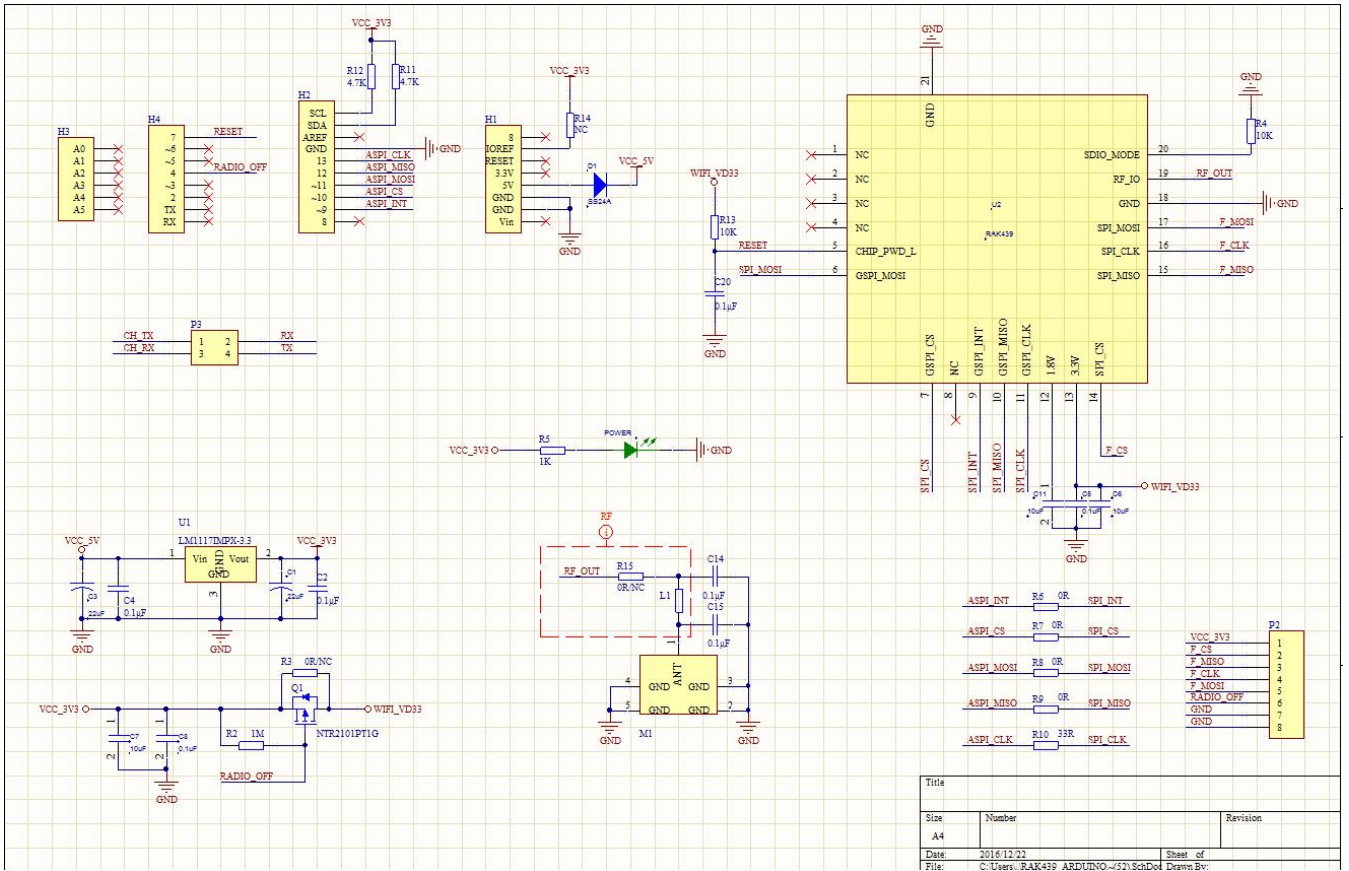
The sample code is the NOS code, mainly to test the module's sending speed, you can modify the module in the code set to AP mode or STA, you can choose to establish the type of SOCKET is TCP or UCP, Sever or Cliect. (Note that it is best to test the STA mode by connecting the module to a separate router, which may affect the real speed of the module)

Here the example code, for example, the module to do STA connection in a separate router, the module to establish TCP server, the computer set up TCP client connected, the test speed as shown below: (speed is variable, the maximum can reach 8Mb / S)



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### 3. Appendix



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## 4. Modify Record

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V1.0	caoxiaocheng	2016/12/28	Create Document