

# **Ultra low power LoRaWAN Module**

### **DESCRIPTION**

RHF76-052 LoRaWAN Module is a low power , low cost and small size module embedded with LoRa chip SX1276 of Semtech, and ultra-low power MCU STM32L051/052xx of ST.

The application of LoraWAN module is targeted at wireless sensor network, AMR and others IOT devices powered by battery which need low power consumption to extend the battery life.



### **APPLICATIONS**

- LoRaWAN End Node
- AMR
- Industrial control

- Internet of Things
- Security and alarm system

### **FEATURES**

- Low power consumption: 1.45uA sleep current in WOR mode
- Small size: 23mm X 28mm
- 33 pins SMT package
- Dual band design
  - ➤ Low frequency band: 434MHz/470MHz
  - High frequency band: 868MHz/915MHz
- High performance:
- RHF76-052A or RHF76-052D
  - 868MHz/915MHz: 14dBm with 45mA, -137dBm sensitivity for SF12 with 125KHz BW
  - 434MHz/470MHz: 20dBm with 120mA, -139dBm sensitivity for SF12 with 125KHz BW
- RHF76-052C (Single Band only):
  - > 868MHz/915MHz: 20dBm with 120mA, -137dBm sensitivity for SF12 with 125KHz BW
  - > 434MHz/470MHz: NOT available
- RHF78-052A or RHF78-052D
  - > 434MHz/470MHz: 20dBm with 120mA, -139dBm sensitivity for SF12 with 125KHz BW
- User-friendly interface:
  - SPI/USART/I2C/USB; 2×ADC; 10 ×GPIOs
- Support LoRaWAN protocol



## **ORDERING INFORMATION**

### RHF76-052x

Part Number	МСИ	434/470MHz TX Power (dBm)	868/915MHz TX Power (dBm)	AT Modem
RHF76-052A	ROM 64KB / RAM 8KB	20	14	No
RHF76-052C	ROM 64KB / RAM 8KB	NA	20	No
RHF76-052D	ROM 128KB / RAM 20KB	20	14	No
RHF76-052AM	ROM 64KB / RAM 8KB	20	14	Yes
RHF76-052CM	ROM 64KB / RAM 8KB	NA	20	Yes
RHF76-052DM	ROM 128KB / RAM 20KB	20	14	Yes

#### RHF78-052x

Part Number	мси	434/470MHz TX Power (dBm)	868/915MHz TX Power (dBm)	AT Modem
RHF78-052A	ROM 64KB / RAM 8KB	20	NA	No
RHF78-052D	ROM 128KB / RAM 20KB	20	NA	No
RHF78-052AM	ROM 64KB / RAM 8KB	20	NA	Yes
RHF78-052DM	ROM 128KB / RAM 20KB	20	NA	Yes

### **CONTACT**

E-mail <a href="mailto:salesww@risinghf.com">salesww@risinghf.com</a> for ordering information.