TEL0125 868MHz FireBeetle LoRa Module

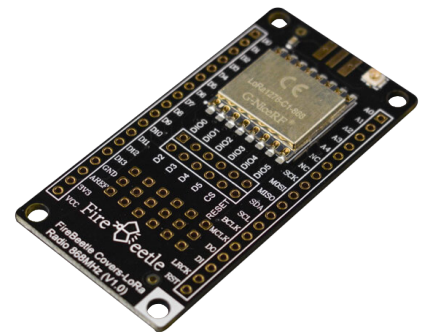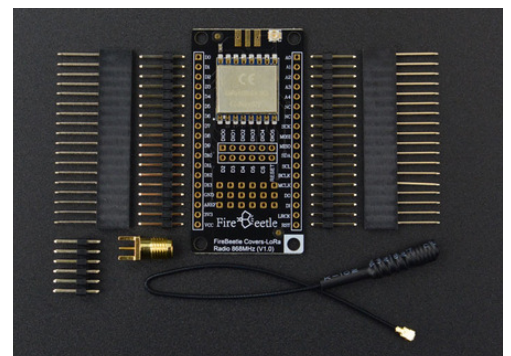## TEL0125

Description

DFRobot TEL0125 868MHz FireBeetle LoRa Module is a low power consumption microcontroller specially designed for Internet of Things (IoT). This module mainly communicates via SPI interface and focuses on fast and convenient low-power building. The FireBeetle LoRa 868MHz is a wireless transmission module that adopts a high-performance SX1276 LoRa 868MHz chip, with built-in Power Amplifier (PA) gain and is compatible with Arduino.

This module provides a maximum transmission rate of up to 300Kbps. The TEL0125 module supports long-range monitor, FSK modulation, and provides a maximum transmission of 37.5Kbps. This module is widely used in remote home automation detection, wearable device, and health monitoring.

Features

- Low power consumption microcontroller
- Focuses on fast and convenient low-power building
- Wireless transmission module that adopts a high-performance SX1276 LoRa 868MHz chip
- SPI interface
- Transmission mode:
- First-In-First-Out (FIFO)
  - Direct Memory Access (DMA)
  - 5 General Purpose Input Output (GPIO) Interface
- Support Cyclic Redundancy Code (CRC) frequency-hopping
- Modulation:
  - LoRaTM
  - Frequency-Shift Keying (FSK)
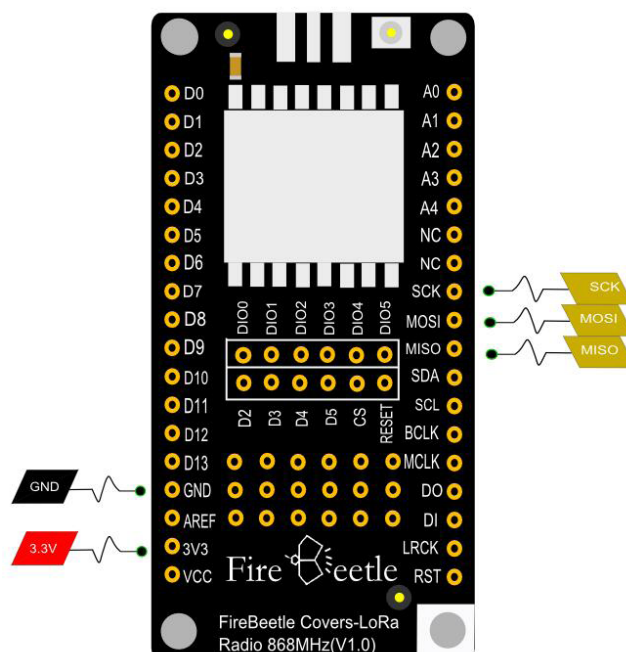 - Gaussian Frequency-Shift Keying (GFSK)
  - On-Off Keying (OOK)

Specifications

- 3.3V operating voltage
- 868MHz operating frequency
- ≤20dBm output power
- -139dBm @LoRa receiving sensitivity
- ≤120mA emission current
- ≤15mA receiving current
- ≤0.2μA sleep current
- -1dBm to 20dBm (maximum) transmission power range
- 800MHz to 900MHz (typical value 868MHz) operating frequency range
- Data transmission rate @FSK, 1.2Kbps to 300Kbps @LoRaTM, and 0.018Kbps to 37.5Kbps
- 127dB (maximum) RSSI
- 256 bytes FIFO volume
- -20°C to 70°C operating temperature range
- 58mm x 29mm/2.28" x 1.14" product dimension
- 3.1mm (inner diameter) mounting hole dimension
- 5Km transmission distance
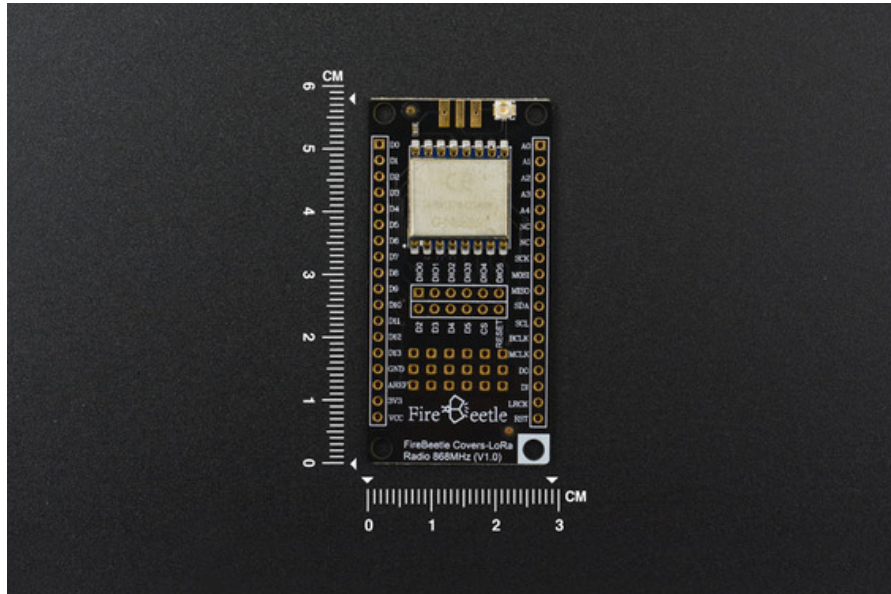- Compatible with Arduino

Applications

- Automation detection
- Health monitoring
- Wearable device

Pin-Out Diagram

Broad Dimension

Mouser Part Number

[View Part](#)

To learn more, visit https://www.mouser.com/new/dfrobot/dfrobot-firebeetle-lora-module/