

BlueX Microelectronics Co., Ltd.

Bluetooth 5.0 LE | MESH SoC
LED Strip Lights Solution
of RF04

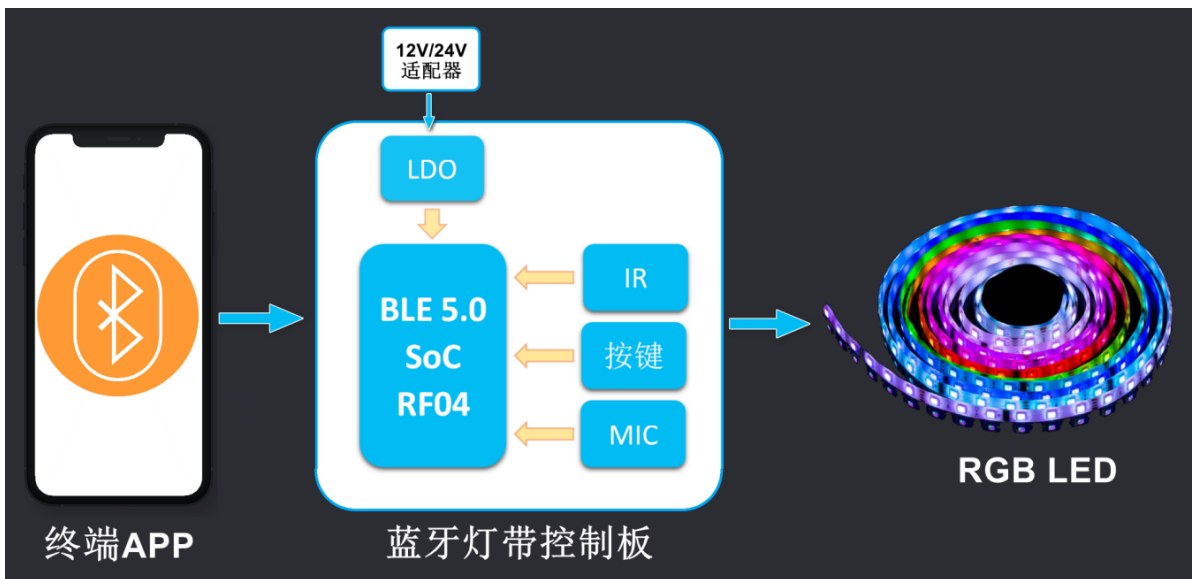
Version 1.2

Jul. 12th, 2021 released



<http://www.bluemicro.com>

1. Features



(1) Overall

- A. Wide supply voltage ranges from 2.3V to 5.0V
- B. Compatible with Bluetooth LE 4.2/ 5.0
- C. Available for secondary development
- D. Supports Bluetooth SIG Mesh networking
- E. Supports Over-The-Air (OTA) technology
- F. Operating temperature: -25°C to 85°C, can be customized to -40°C the lowest
- G. Package type QFN40, package size 5mm*5mm

(2) MCU

- A. Integrated 32-bit MCU
- B. Memory: 512kB(4Mb) Flash, 208kB SRAM, 128kB ROM
- C. Clock frequency: 32MHz, up to 96MHz
- D. Flexible and configurable 14 pins GPIO
- E. Cryptographic engine: AES128, ECC
- F. ADC:
 - (A) 1 channel for internal
 - (B) 2 channels for external

(3) RF

- A. Programmable output power +2dBm to +8dBm
- B. Sensitivity of -93dbm

2. General Description

Bluetooth is a short-range wireless technology standard used for exchanging data between fixed and mobile devices over short distances. As a standard of Bluetooth, Bluetooth Low Energy (BLE) is for those who expect wireless communication solution with higher performance in competitive cost and power consumption. Strip lights are designed for both indoor and outdoor use depending on whether they are water resistant. Since the strip is flexible, it's versatile and can be used in a number of installations. With the improvement of quality of life, the demand for lighting has enhanced to the level of atmosphere creating. By using Apps, Bluetooth strip lights with RGB also give users several options in colors.

3. Application

- (1) Decorative lighting in vehicles, boats, home interiors, or building facades.
- (2) Atmosphere creating to draw attention in bars, malls, theaters, or exhibitions.

4. Function Introduction

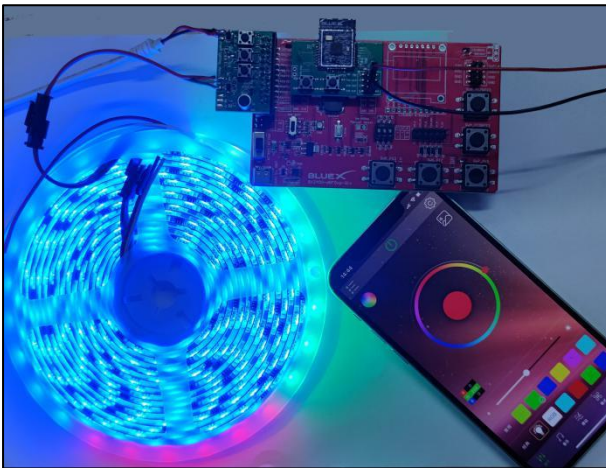
- (1) Various of colors, color temperature, luminance, and flow types.
- (2) Lighting modes remained the last when power reset.
- (3) Available for voice control to different modes.
- (4) Lighting flow along with music.

5. Demo Reference

(1) Demo board



(2) Function reference



6. Product Reference

(1) Vehicles



(2) Home interiors



(3) Atmosphere creating

