

RF 系列无线射频遥控器 使用说明书

RF Series Wireless Remote Control User Manual

前言 / Foreword

感谢您选购本公司 RF 系列无线射频遥控器产品。

本说明书详细介绍产品型号、技术参数、安装使用、安全注意事项及维护保养说明，请您在使用前仔细阅读并妥善保管，以便正确操作、延长产品使用寿命。

This manual elaborates on product models, technical specifications, installation, operation guidelines, safety precautions and maintenance instructions. Please read it carefully and keep it properly before use to ensure correct operation and extend the service life of the product.

本产品为 433.92MHz 低功耗 ASK 调制无线射频发射设备，适用于遥控开关、安防报警、智能控制、工业遥控、智能家居等无线信号发射场景。

This product is a low-power wireless RF transmitter adopting ASK modulation with a working frequency of 433.92MHz. It is applicable to wireless signal transmission scenarios such as remote control switches, security alarm systems, intelligent control, industrial remote control and smart home applications.

温馨提示：未经授权擅自改装、拆解、更换内部元器件，将导致产品失效并失去保修权益。

Warm Reminder: Unauthorized modification, disassembly or replacement of internal components will cause product malfunction and void the warranty.

一.遥控器系列型号:

RF1408, RF1408A, RF1408B, RF1408C, RF1408D,
RF1208, RF1208A, RF1208B, RF1208C, RF1208D 等

I. Remote Control series models:

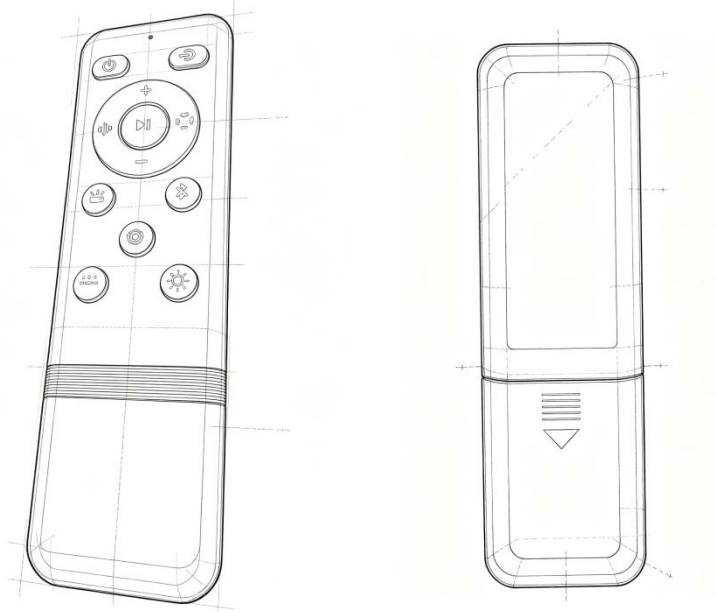
RF1408, RF1408A, RF1408B, RF1408C, RF1408D,
RF1208, RF1208A, RF1208B, RF1208C, RF1208D etc.

二.RF1408x/ RF1208x 系列主要应用于:

- 1.超薄灯箱, 照明指示牌, 广告招牌等
- 2.中高档专卖店、商场等室内商业气氛照明
- 3.娱乐场所、美容院照明、卡拉 OK 等氛围照明、时装照明
- 4.酒吧、KTV、咖啡厅等休闲场所的气氛照明
- 5.工艺品光源、汽车装饰、游艇装饰照明
- 6.用于路径和轮廓标志、发光招牌等
- 7.商场、酒店、展厅、户外装饰等场所
- 8.建筑景观装饰照明 ,家庭装饰、城市亮化

II.The RF1408x/RF1208x series is mainly used for:

1. Ultra thin light-boxes, lighting signs, advertising signs, etc;
2. Indoor commercial atmosphere lighting for high-end specialty stores, shopping malls, etc;
3. Entertainment venues, beauty salons, karaoke and other ambient lighting, fashion lighting;
4. Bar KTV, Atmosphere lighting in cafes and other leisure places;
5. Light sources for handicrafts, car decorations, yacht decorations, and lighting;
6. Used for path and contour signs, illuminated signs, etc;
7. Shopping malls, hotels, exhibition halls, outdoor decorations and other places;
8. Architectural landscape decoration lighting, home decoration, urban lighting;



三.发射器参数

1. 供电电源

- 适配 2 节七号 AAA 电池供电
- 工作电压范围：2.1 伏-3.3 伏
- 低功耗设计，有效延长电池使用寿命

2. 主控单片机

- 芯片型号：LZ969
- 负责按键信号处理与射频信号编码
- 内置休眠模式，降低设备功耗
- 以 433.92 兆赫兹载波频率同步运行

3. 射频发射模块

- 射频芯片：WS4455C
- 调制方式：振幅键控调制（ASK）
- 工作频率：433.92 兆赫兹，偏差 ± 150 千赫兹
- 传输速率：2-10 千比特每秒，可通过单片机配置调节

4. 天线设计

- 采用板载 PCB 走线式天线
- 电路板内置阻抗匹配电路
- 天线走线长度：172 毫米

III. Transmitter parameter:

a. Power Supply

- Operates on AAA*2 battery
- Voltage range: 2.1V-3.3V

- Low-power design for extended battery life

b. Microcontroller Unit (MCU)

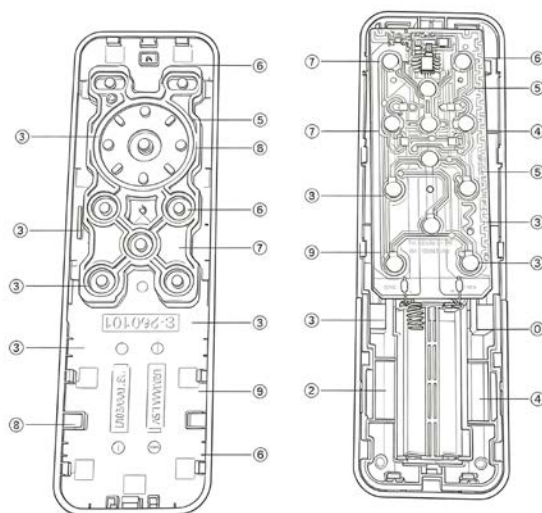
- MCU Model: LZ969
- Manages button input processing and RF signal encoding
- Integrated sleep mode for reduced power consumption
- Operates at 433.92MHz carrier frequency synchronization

c. RF Transmitter Module

- RF IC: WS4455C
- Modulation: ASK (Amplitude Shift Keying)
- Frequency: 433.92MHz +150kHz
- Data Rate: 2-10kbps (configurable via MCU)

d. Antenna Design

- Integrated PCB trace antenna
- Impedance matching network included on-board
- Antenna trace length: Integrated PCB trace antenna 172mm



四.电池的安装:

安装前请检查电池的电量，避免电压不足导致无法开机

IV.Battery installation:

Please check the battery level before installation to avoid insufficient voltage that may cause the machine to fail to start.

五. 安全注意事项

1. 请在国家允许的 ISM 免费开放频段内合规使用，请勿用于违法违规遥控、窃控、干扰他人设备等行为。
2. 请勿在高温、高湿、强粉尘、强腐蚀、易燃易爆环境中使用。
3. 请勿浸水、淋雨、摔落、挤压、强力拆解产品。
4. 儿童须在成人监护下使用，避免电池吞咽、零件误食。
5. 废旧电池请按环保法规分类回收，勿随意丢弃。

V.Safety Cautions

- a. Use the product compliantly within the ISM license-free frequency band permitted by national regulations. Do not use it for illegal remote control, unauthorized signal interception or interference with other devices.
- b. Do not operate the product in environments with high temperature, high humidity, heavy dust, strong corrosion or flammable and explosive substances.
- c. Avoid immersing in water, exposure to rain, dropping, squeezing or forced disassembly of the product.
- d. Keep children under adult supervision during use to prevent accidental swallowing of batteries and small parts.
- e. Dispose of waste batteries in accordance with environmental protection regulations. Do not discard them randomly.

FCC Compliance Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is

connected.

-Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.