

DMX 433 MHz Wireless Lighting Control System

10-Zone RF Wireless Controller

Technical Manual

DMX512 Compatible

433 MHz RF Transmission

27W Power Peak Output

Designed for audience lighting control such as LED wristbands and concert light sticks.

Note: Product appearance and interface layout may vary depending on model configuration and production batch.

Manufacturer: Shenzhen Zhongda Plastic Co., Ltd

Website: www.szzdmould.com

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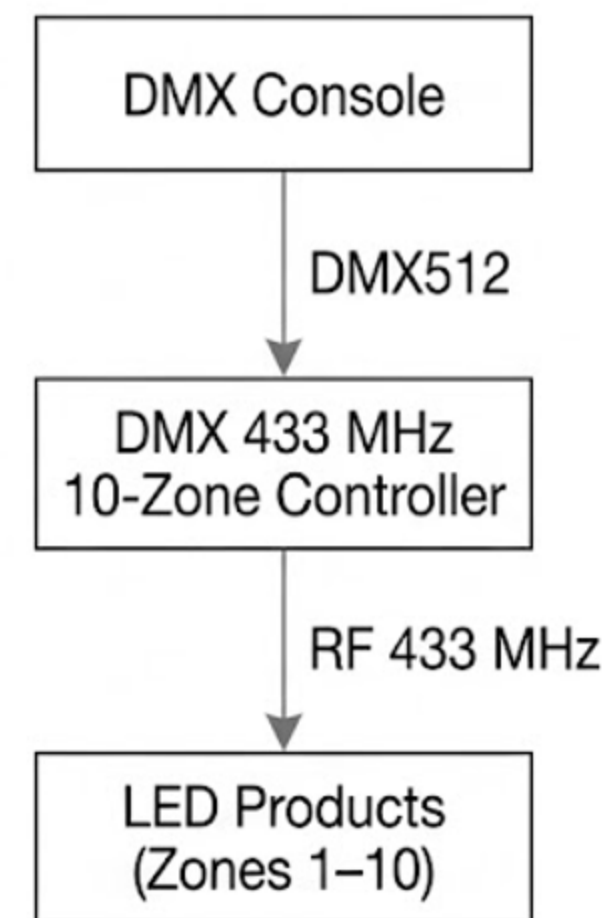
SYSTEM OVERVIEW

The DMX 433 MHz 10-Zone Wireless Controller integrates 433 MHz RF transmission and DMX512 control.

Operating modes:

- Controller Mode
- DMX Mode
- Audio Mode

System Architecture



Controller Mode: Controller → RF → LED Products

Audio Mode: Audio Input → Controller → RF → LED Products

Technical Specifications

Power Supply:	DC 12 V / 7 A
Transmission Frequency:	433 MHz
Peak Transmission Power:	27 W
DMX Protocol:	DMX512 Compatible
DMX Channel Capacity:	512 Channels
Control Zones:	10 zones
Channels per Zone:	4 DMX Channels
Default DMX Address:	001
Address Range:	001- 512

Operating Modes

- 1. Controller Mode**
Manual zone selection, color and effect control via the hardware interface.
- 2. DMX Mode**
External DMX console control via the DMX-IN interface.
- 3. Audio Mode**
Lighting response via external audio input.

Controller Mode Details

Features:

- 15 Static Colors
- 12 Dynamic Effects
- Single or Multi-Zone Selection
- Activate / Sleep Function
- Programmable Spare Button
- Zones can be controlled independently or in grouped configuration.



Figure 2. Controller Front Panel

DMX Channel Allocation

The controller assigns DMX channels sequentially for each control zone.

Each zone occupies 4 DMX channels for wireless lighting control.:

CH1 – Effect / Flash

CH2 – Red

CH3 – Green

CH4 – Blue

Addressing Logic

Zones are automatically assigned sequential DMX addresses.

Default Start Address: 001

Subsequent zones increment automatically based on the 4-channel structure.

DMX start address can be adjusted via the rear panel +1 / -10 interface.

Zone	Channel Range
Zone 1	001–004
Zone 2	005–008
Zone 3	009–012
Zone 4	013–016
...	...
Zone 10	037–040

Zone Control System



Figure 3. Zone Selection Interface

The wireless lighting controller provides 10 selectable RF transmission zones.

Each zone can be controlled independently or combined for synchronized operation.

LED indicators on the control panel display the currently active zone selection.

Installation & Safety Guidelines

- Connect the industrial copper antenna to the ANT port before powering on the controller.
- Maintain a minimum distance of 2 meters between the antenna and high-power audio equipment.
- Keep the antenna isolated from stage audio amplifiers to minimize signal interference.
- Ensure the correct DMX start address is configured before system deployment.



Figure 4. Rear Panel Interface and Antenna Port

STANDARD PACKAGE CONTENTS

- Controller Unit
- Industrial Copper Antenna
- Antenna Mounting Base
- Audio Signal Cable
- DC 12V / 7A Power Adapter
- AC Power Cable
- 1 m DMX XLR Cable



Figure 5. Package Contents Overview

MANUFACTURER INFORMATION

Shenzhen Zhongda Plastic Co., Ltd is a professional manufacturer specializing in audience interaction lighting products for concerts and large-scale events.

Our core products include LED wristbands, concert light sticks, and customized audience lighting solutions.

To support large-scale synchronized lighting effects, we provide integrated RF wireless control systems and DMX-based lighting control solutions.

We provide reliable lighting systems for event organizers, production companies, and global distributors.

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