

# LC-512U

## *Wireless DMX512 Transceiver*

- FHSS with 79 Channels, interference-free operation.
- 32-bit ARM Processor, DMA transfer without delay
- Chauvet Di Fi USB compatible, Transceiver
- One-touch operation with a Tri-color status indicator
- Built-in Wireless Solution Compatibility Mode
- Automatically learning of various parameters of controller, just like DMX transfer via cable
- Group Mode, easy plug-and-play operation; Pairing Mode, supports more transmitter universes



## Overview

WIDMX LC-512U is unique in its use of advance radio technologies that are also used in military communication and mobile phones. That is 2.4GHz ISM Band (license-free worldwide) and GFSK Modulation (more efficient transitions).Its user-friendly operation that simplifies all the complex communication protocols makes it possible for the users to just plug and play.

## Multiple Communication Protocol, There are no upgrading troubles

WIDMX LC-512U is now compatible with the world's leading wireless communication protocols like the Sweden's protocol or the GZ protocols. There are no upgrading troubles.

### Application

- Stage lighting applies to the Grand Variety Show, Gymnasium, Temporary Set-up Stage, TV Station, Centers Conference, Theaters, Opera, Theme Parks, Dance Halls, and Bars, or any lighting equipment with standard DMX512 XLR etc.

## Description of Status Indicator

1) In the Set-up mode, different colors mean different communication protocols:

1. Red ----- WIDMX Protocol
2. Green ----- W-DMX Receive Protocol
3. Blue ----- W-DMX G3 Transmit Protocol
4. Yellow ----- Guangzhou(GZ) Protocol

2) In the User mode, Description of Status Indicator:

| Protocol               | Action   | Status Description              |
|------------------------|--|---------------------------------|
| WIDMX or GZ Protocol   | Red, Green, Blue, Yellow, Cyan, Purple (, White) | 6 / 7 Different Wireless Groups |
|                        | Flashing Red                                     | Transmitting DMX Signal         |
|                        | Flashing Green                                   | Receiving DMX Signal            |
| W-DMX Receive Protocol | White  | Connection is not Established   |
|                        | Red  | Deleting Connection             |
|                        | Red(Fast-Flash)                                  | Connection is Lost              |
|                        | Green(Fast-Flash)                                | Connecting to Transmitter       |
|                        | Green(Slow-Flash)                                | Connected, Without DMX Signal   |

|                         |                  |                                    |
|-------------------------|------------------|------------------------------------|
|                         | Green            | Connected, Receiving DMX Signal    |
| W-DMX Transmit Protocol | Red              | Deleting all Receivers' Connection |
|                         | Blue(Fast-Flash) | Connecting with the Receiver(s)    |
|                         | Blue(Slow-Flash) | No DMX Signal Input                |
|                         | Blue             | Transmitting DMX                   |

## Operation Guide

### 1. Set-up mode:

Press and hold the button before you power up. When you see status indicator turns into the white light, release the button to enter the Set-up mode. In this mode you can select different transmission protocols. Each time you press the button, you would see the status indicator changes in follow order: red, green, blue and yellow. Choose one of the protocols, then press and hold the button (> 1S), when you see the white light, release it to enter the use mode.

### 2. Use mode:

- 1) Powered up and enter the Use mode;
- 2) If it is in Set-up mode, press and hold the button (> 1S) until you see the white light, then release it to enter the Use mode.

#### 2.1. In WIDMX protocol or GZ protocol, you could select different DMX Group:

- 1) The first time when you press the button, it will not change the color but show you the group that you are in.
- 2) If you press it again it will switch to other group.

#### 2.2. In W-DMX Transmit protocol:

- 1) By pressing the button, the transmitter can be connected to all powered but not connected receivers within the coverage area;
- 2) Press and hold (> 3S) the transmitter's button until the indicator turns red. The device will delete all the receivers' connection within the coverage range.

### 2.3. In W-DMX Receive protocol:

Press and hold (> 3S) the receiver's button until the indicator turns white. The device would disconnect with the transmitter.

## Specifications

### Form Factor

Type: stand-alone installation

Size: 40 x 20 x 10 mm

Weight: 60 g

### System Information

CPU: 32-bit ARM Core

### Radio Parameters

Range: 600 meters (line-of-sight)

Frequency: 2.402 - 2.480GHz, ISM, 79 channels

Spread Spectrum: FHSS, 1100 hops / sec

Modulation: GFSK

Maximum Transmit Power: 23dBm

Receiver Sensitivity: -94dBm

### DMX Signal Interface

Chauvet Di Fi USB compatible

### Environmental Limits

Operating Temperature: -40 ~ 85 °C

Storage Temperature: -65 ~ 150 °C

Ambient Relative Humidity: 5 to 95% (non-condensing)

### Power Requirements

Power Input: DC 5V, ±5%

Power Consumption: 350 mA@5V DC max.

### Reliability

Automatic Reboot Trigger: Built-in WDT (watchdog timer)

### Warranty

Warranty: Five-Year Limited Warranty