# WDMX TRANSMITTER/RECEIVER

IP65 for Indoor & Outdoor



User manual

This manual contains important information. Please read before operating fixture.  $\epsilon$ 

## 1. INTRODUCTION

Powered by Lumenradio, the WDMX T500IP/WDMX R500IP is the most reliable and affordable wireless DMX too on the market. Utilizing Cognitive Coexistence technology, the wireless system transmits or receives safe and reliable DMX data without any delay and interference. Thanks to its IP65 rating, this system can be used for both indoor and outdoor. Ideal for theme park, buildings, bridges, where running cables is not a perfect solution. Please read this user manual carefully and thoroughly before operation.

### 1.1 Unpacking

The following items are included in the box:

- 1 x Transmitter or Receiver
- 1 x Antenna
- 1 x Power cable
- 1 x Mouting bracket
- 1 x User Manual

Carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Contact your supplier immediately and retain packing material for inspection if any part is missing or damaged.

### 1.2 Safety Instructions



Warning!!! To reduce the risk of fire, electric shock, or injury to persons, follow these important safety instructions:

- This product is intended for indoor use only!
- Please keep this User Guide for future consultation.
- Do not attempt to dismantle and/or modify the transmitter in any way.
- To prevent risk of fire or shock, do not expose fixture to rain or moisture.

• Make sure that the voltage and frequency of power supply match the power requirements of the transmitter/receiver.

• Make sure power cord is never crimped or damaged.

• The transmitter is only intended for installation, operation and maintenance by qualified personnel.

## 1.3 Features

- $\bullet$  Supports CRMX and W-DMX G3 and W-DMX G4S
- Automated Cognitive Coexistence technology
- Worldwide license free 2.4 GHz frequency

2) Press FUNCTION button momentarily to toggle mode, then press and hold the button for at least 3 seconds to store the selection.

**VERY IMPORTANT:** the TX mode of Transmitter must NOT be higher than Receiver. Ohterwises, the system may not work inproperly. For example, the module version in your Receiver is W-DMX G3, then TX mode of Transmitter can not be G4S. If your Receiver is G5 version, then you can set TX mode as G3 or G4S on your Transmitter.

## 4. Specifications

- Frequency band: 2.4 GHz, License Free Worldwide
- Transmission distance: approx. 500m (line-of-sight)
- Antenna: 5dBi
- IP rating: IP65 for indoor and outdoor use
- Power supply: AC 100-240V 50-60Hz
- Power consumption: 10W max.
- Dimension: 135mm x 90mm x 265mm
- Weight: 1.0kg

## 5. FCC 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.

• Changes or modifications not expressly approved by the manufacturer responsible for compliance could avoid the user's authority to operate the equipment.

### 3.2 Linking the devices

Press and quickly release LINK button on the Transmitter. The Transmitter will scan for all unlinked receivers. The LINK indicators on both the Transmitter and Receiver(s) will flash rapidly for 5 seconds and then stay static on once linked up.

NOTE: There is no limited number of receivers that can link up with a transmitter - there can be an infinite number of receivers all paired with a single transmitter.

You can add receivers at any time, even during operation. In an operational system, adding on an additional receiver will make the logged-in units revert to idle mode for 10 seconds; once the new units are linked up they will all start again together with the new unit.

### Unlinking the devices

There are two ways to unlink the devices - individual unlink or group unlink.

Unlink One: press and hold the LINK on the Receiver for 5 seconds and LINK indicator turns off.

Unlink All: press and hold FUNCTION button on a Transmitter for 5 seconds and then release, all paied and powered receivers will be unlinked from this Transmitter.

Note: The Receiver will stay linked/logged on to the Transmitter no matter DMX signal or power is cut off. The log-in information is stored in an EEPROM and will not be erased.

### 3.3 TX mode selection

To use this Transmitter together with Wireless Solution's Received of G3 or G4S, you need to select TX mode on a Transmitter unit.

1) Press LINK button shortly 3 times, then press and hold the button for at least 3 seconds to enter TX mode selection. LED will blink in different patterns to indicate currently selected protocol.

One flash then a pause = W-DMX G3 mode is selected



Three flashes then a pause = CRMX mode is selected

**IMPORTANT NOTE:** The TX mode of Transmitter can't be higher than the Receiver's. Otherwise, there would be malfunction between Transmitter and Receiver.

- Transmit 512 channels (1 universe) of DMX data
- Maximum 16 universes of DMX in one area
- One-button-go for quick setup

• Point-to-point, point-to-multipoint or multipoint-to-multipoint operation

#### 1.4 Product overview



- Antenna
- ② LINK button
- ③ LINK on Transmitter:

On=Normal operation, Fast flashing=Linking, Slow flashing =Unlinking LINK on Receiver:

On=Linked with a Transmitter, Off =Unlinked

- ④ Signal connector : 3pin or 5pin XLR In/Out
- 5 Powercon True1

## 2. SETUP

## 2.1 Placing Transmitter and Receiver

For successful linking, the following conditions should be fulfilled:

a. Distance between Transmitter and Receiver should not exceed 500m.



b. Position of Transmitter and Receiver should be 1m at least above crowds and trees .







Point-to-multipoint

ΤX

## 2.2 Placing Transmitter and Receiver

The Wireless unit can be mounted onto truss with bracket or surface with screws.

### 2.3 System connection

Use DMX cables to connect DMX IN of the Transmitter to DMX source and DMX OUT of Receiver to lighting equipments.

## 2.4 Power Input

The wireless system is designed to work on AC 110V or 230V 50-60Hz. Before applying power to a unit, make sure that the unit's input voltage matches the power source voltage.

## **3. OPERATION INSTRUCTIONS**

## 3.1 3 types of operation





Point-to-point



Multipoint-to-multipoint

Up to 16 universes of DMX can be transmitted simultaneously using multipoint to multipoint operation. All receivers in a multipoint system will listen only to the designated transmitter without any delays or interference from other systems working alongside.

RX

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