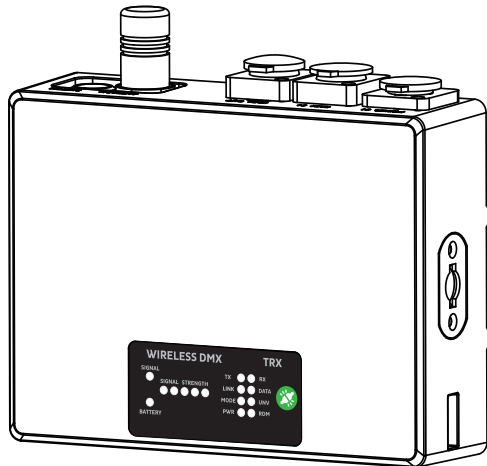# *SHOW*PRO

IP Wireless DMX

SHWWIR100

User Manual

The IP Wireless DMX is a compact yet powerful solution for wireless DMX transmission. This transceiver is suitable for outdoor use, features rechargeable batteries and uses Lumenradio chips, ensuring full compatibility with all CRMX and W-DMX protocols from Wireless Solution and Lumenradio. This allows for the IP Wireless DMX to operate on Lumenradio's CRMX Classic or CRMX² modes, as well as Wireless Solution's W-DMX G3, G4, G4S 2.4 GHz, and G5 2.4 GHz modes. When used as a transmitter, the unit is also compatible with any receiver that supports CRMX Classic, W-DMX G3, G4S, or G5 2.4 GHz standard control data. The built-in rechargeable battery provides up to 80 hours of runtime in transmitter mode and up to 440 hours in receiver mode, with a transmission range reaching up to 700 metres.

SAFETY AND H ANDLING
Before you operate this unit read the manual carefully. Always make sure to include the manual if you pass/rent/sell the unit to another user. Keep in mind that this manual cannot address all possible dangers and environments. Please use your own caution when operating. This product is for professional use only. It is not for household use.

• Do not operate this unit in areas with high ambient temperatures. It will cause abnormal function or damage.
• Always use a suitable safety wire when rigging the device overhead.
• Connect the safety wire to the intended safety mount.
• Always follow local safety requirements.

• Only qualified technicians may repair this product.
• Do not open the product housing.
• Do not supply power if the device is damaged.

• The housing of the device can become hot. It can reach up to 70°C during normal operation.
• Ensure that accidental physical contact cannot occur with the device.
• Only install in well ventilated locations.
• Do not cover the device.

LI-ION Battery: A rechargeable lithium ion battery is built into this unit.
• Only authorised technicians may service the battery
• Do not place near heat or flames.
• Do not use or charge the device if damaged.
• Avoid bumping or dropping. It may cause a fire or an explosion.
• Never store the battery when fully drained.
• Immediately recharge if the battery is drained.
• Make sure to fully charge all units before storing them.
• Partially charged batteries will lose capacity.
• The battery shall only be replaced with an original spare part.

• It is recommended to charge with ambient temperatures between 15°C and 35°C.
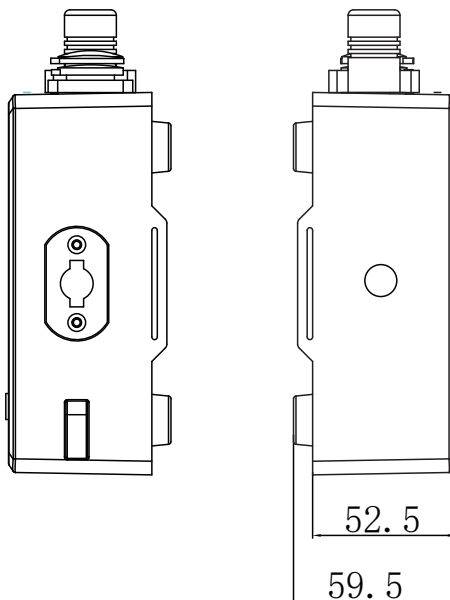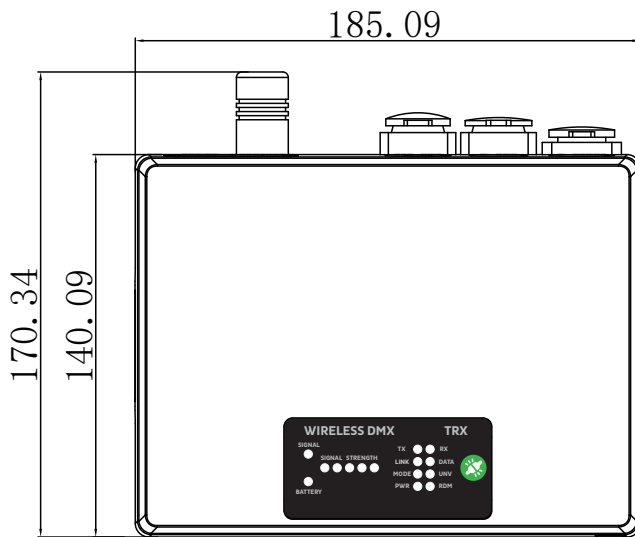
• This device contains a lithium ion battery.
• At end of life, dispose the unit responsibly in accordance to local regulations or procedures.
• The packaging is recyclable.

Safety information

1. Read these instructions and all safety information carefully before using this product.

2. Keep this manual for future reference.

3. Do not connect the product to the mains supply while it is still in its packaging. Do not cover the product during use.

4. Use indoors and in dry environments only, unless otherwise explicitly stated.

5. Check the product for transport damage before use.

6. This product is intended for professional use only.

7. Always place the product on a stable, solid, and level surface, or ensure it is securely mounted.

8. Do not use the product near hot surfaces or objects.

9. Regularly inspect the mains cable, plug, and related parts for damage. If any damage is found, do not use the product until the cable has been replaced. Always disconnect the adapter or mains cable before cleaning.

10. Repairs must only be carried out by qualified personnel.

11. Ensure that the product receives the correct voltage listed in the specifications.

12. Never immerse the product or mains cable in water or any other liquid to avoid electric shock, fire, injury, or other hazards.

13. Do not carry the product by its cables and avoid placing the cord over sharp edges.
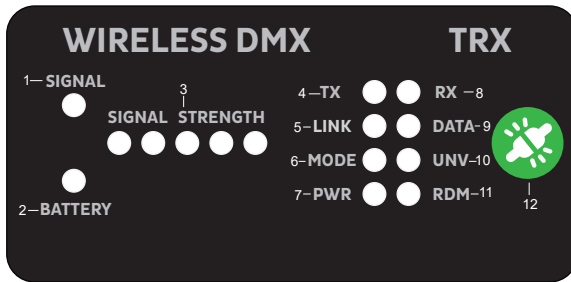
Mechanical Specification

185.09

170.34

140.09

WIRELESS DMX   TRX

SIGNAL

SIGNAL STRENGTH

BATTERY

TX   RX
LINK   DATA
MODE   UNV
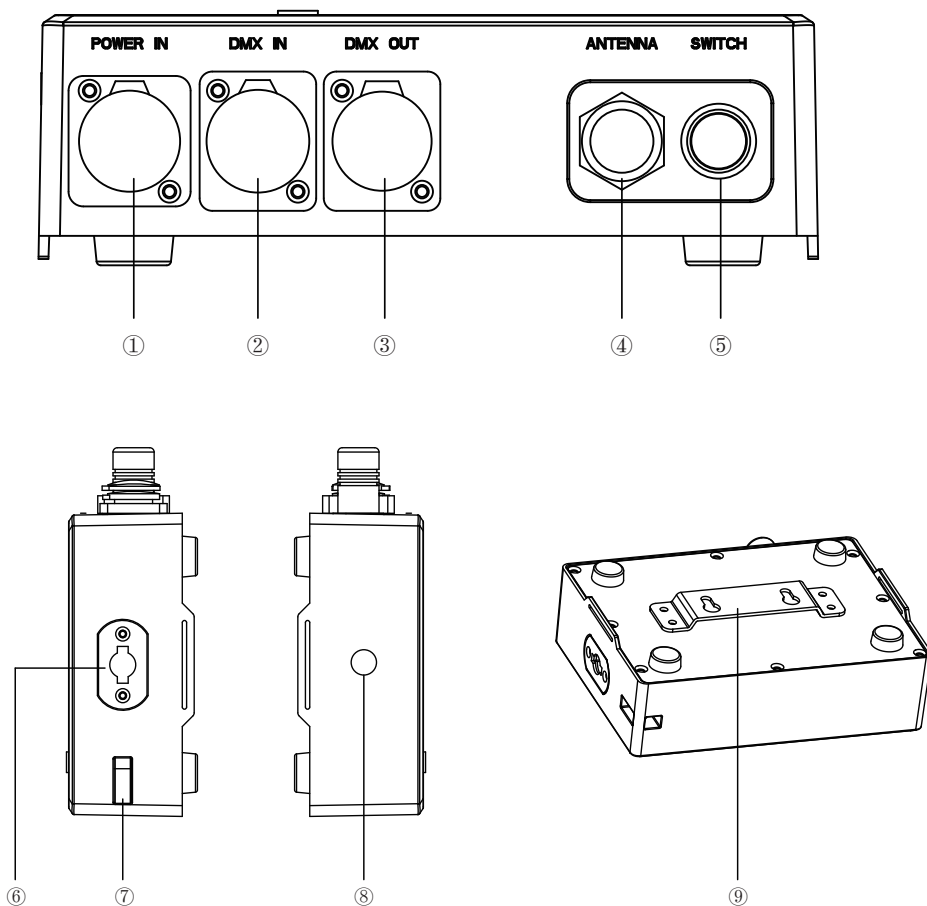PWR   RDM

52.5

59.5

Technical specifications

• Input protocols: DMX 512 and RDM ANSI E1.20 (2)

• Transmission Amount: 1 Universe/512 Channels

• DMX latency: < 5 ms

• Max.Universes in coexistence: 32

• Input/Output opto isolation

• Error correction (Invisi-Wire)

• W-DMX G3 & G4S compatibility: 2.4 GHz,5.2 & 5.8 GHz (1)

• Standard range: Up to 700 meters (line of sight)

• Normal Power Mode 2.4 GHz: 100mW

• Maximum Power Mode 2.4 GHz: Up to 450mW

• DMX Connectors: 5pin input and output

• AC Input: TrueCON 100 - 250VAC & 50/60 Hz
    (0.35A @ 115VAC - 0.2A @ 240VAC)

• DC Input: 2-pole DC 12V 2A power supply

• Charge time: 2.5H

• Dischage time: 88H @TX,440H@RX

• Net Weight: 1.8KG

• Gross Weight: 2.5KG

• Packed Dimensions: W x D x H: 185 x 59.5 x 170 mm

• Mounting: Omega with fast lock, M10 holes.

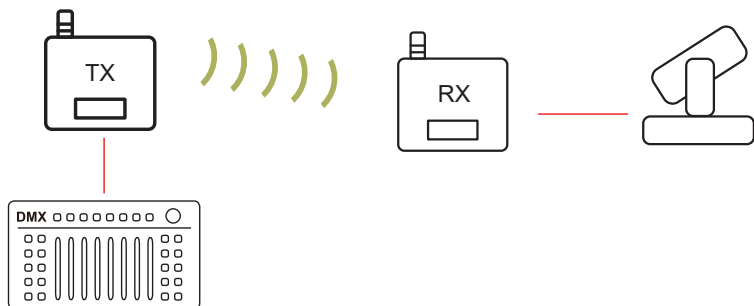• Temperature Range: 0°C to 45°C

• IP Rating: IP65

User Interface

1. SIGNAL Indicates if signal is connected or not.

2. BATTERY • Green: Fully charged

              • Red: Charging

3. SIGNAL STRENGTH On a receiver, this indicates the quality of the received signal.
On a transmitter, it shows the configured output power.

4. TX Device is operating as a transmitter.

5. LINK On a transmitter: Indicates the unit is ready to establish a link.

      On a receiver:

       • Off – Not linked to any transmitter

       • On – Active link with a transmitter

       • Blinking – Previously linked, but the connection has been lost (e.g., transmitter
        is out of range or powered off)

6. MODE Indicates the radio mode.

7. PWR States power condition of the device.

8. RX Device is operating as a receiver.

9. DATA • Off: No data

         • Green: DMX data

         • Red: RDM activity

10. UNV pending function

11. RDM Flashes when there is RDM traffic activity.
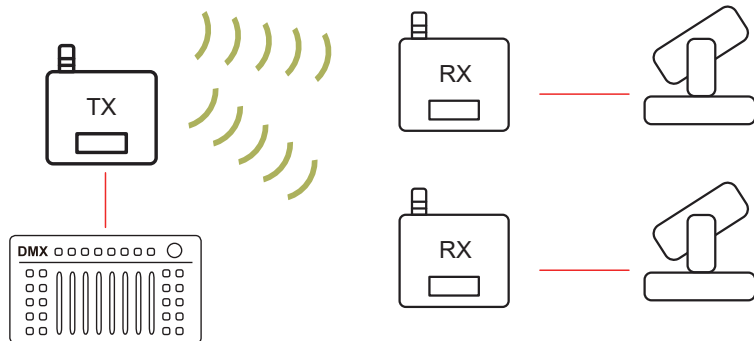
12. Function button

Product Overview

1. POWER IN
2. DMX IN
3. DMX OUT
4. ANTENNA
5. SWITCH

6. Fast lock
7. Holes for safety wire
8. M10 and 3/8" holes
9. Holes for Wall Mounting
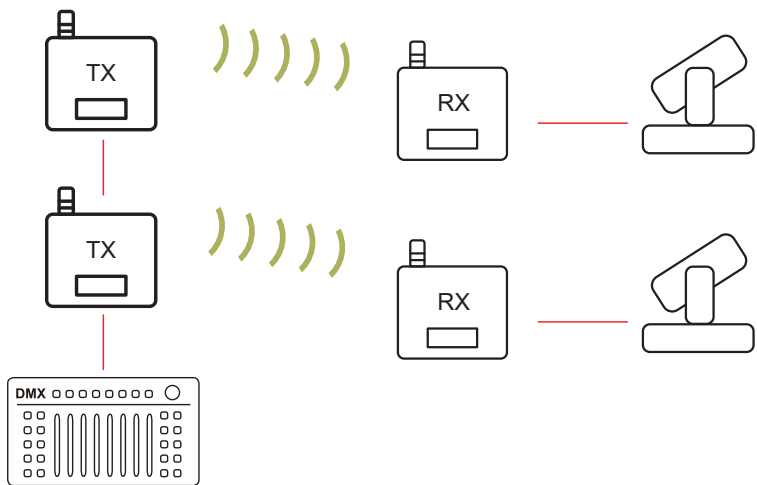
Wireless DMX Operation

Point-to-point operation:
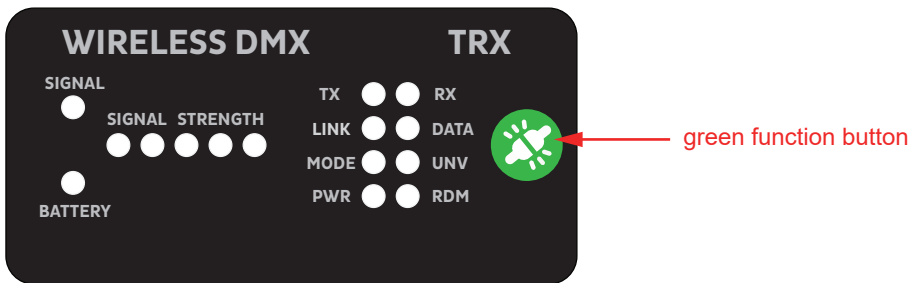

Point-to-multipoint operation:

Multipoint-to-multipoint operation:

Operation

1. Linking Devices:

Momentarily press the green function button on the transmitter and the LINK LED will begin to flash.

green function button

NOTE: All available receivers that are powered on and compatible with the transmitter's radio mode will automatically pair with it. Each receiver's LINK LED will flash for 5 seconds and then remain steadily lit once linked. There is no limit to the number of receivers that can be paired with a single transmitter.

2. Unlinking devices
There are two ways to unlink devices – individual or group unlink:

Individual unlink:
Press and hold the green function button on each receiver you want to unlink for at least 3 seconds. The LINK LED will then turn off.

Group unlink:
Press and hold the green function button on the transmitter for at least 3 seconds to unlink all currently powered receivers connected to it.

3. Linking multiple transmitters with multiple receivers
When linking multiple receivers to different transmitters, repeat the process described previously, but ensure that any receivers you do not want to pair are turned off.

Example:
If you have 2 transmitters and 10 receivers, first pair the first transmitter with 5 receivers while the other 5 are powered off.
Then, turn on the remaining 5 receivers and pair them with the second transmitter.

NOTE: This will not affect any receiver that has already been paired.

4. Switching FLEX mode
FLEX mode determines if the unit is used in transmit mode (TX) or receive mode (RX):

1. Quickly press the green function button five times.
2. Hold the function button for at least 3 seconds.
3. The LINK and DATA LEDs will begin flashing alternately.
4. Each press of the function button will cycle through the available modes, indicated by a flashing RX or TX LED.
5. Press and hold the function button to confirm your selection.

Compatibility

The IP Wireless DMX is capable of transmitting the following protocols:

1. **CRMX**
2. **W-DMX G3**
3. **W-DMX G4S**

For W-DMX receivers, use W-DMX G3 mode for maximum compatibility.
Note: This mode can also be used with CRMX receivers; however, security and DMX signal fidelity may be lower than when using CRMX mode.

Mode	CRMX receivers	Older CRMX receivers	W-DMX receivers
CRMX	Yes	Yes	No
W-DMX G3	Yes	Yes	Yes
W-DMX G4S	Yes	No	Yes

When used as receivers, The IP Wireless DMX will automatically detect and link using the protocol currently active on the transmitter.

Linking key

What is Linking Key
The Linking Key is a user-defined 8-digit code that acts as a password to link the credentials of a CRMX link. It can be used to tell two or more transmitters to use identical links (cloned transmitters).

The linking key can be used to link a receiver to a transmitter that already has an active link using the same linking key. This allows for easy addition of receivers if the transmitter is inaccessible, as it eliminates the ordinary linking process.

Cloning transmitters

Enter the same Linking Key to multiple transmitters to clone the devices. When receivers are moved to different locations, the receivers will automatically link to the transmitters, eliminating the relink process.
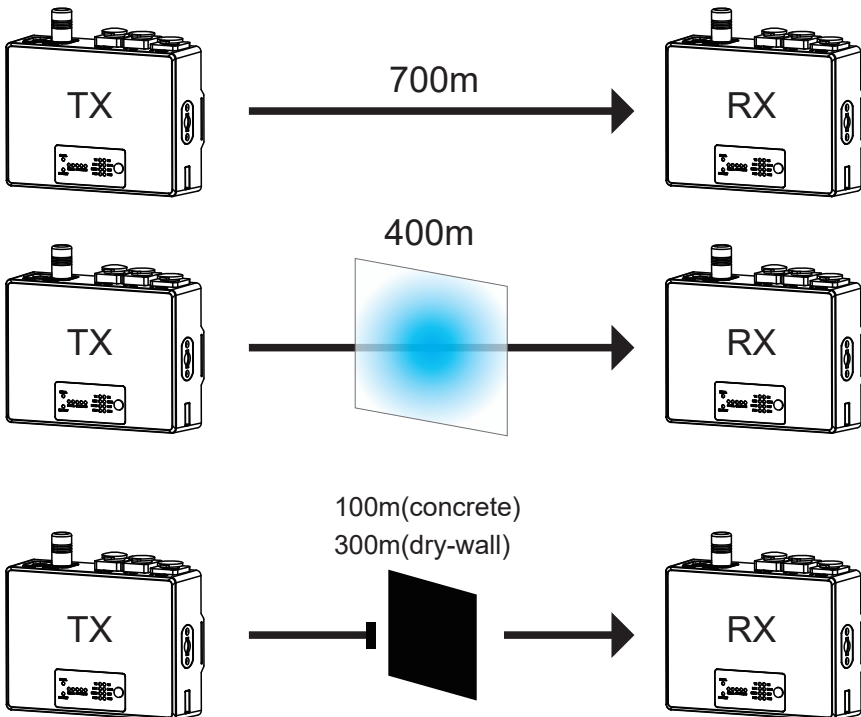
Note: Make sure there is enough separation between transmitters as it may cause undesired behavior.
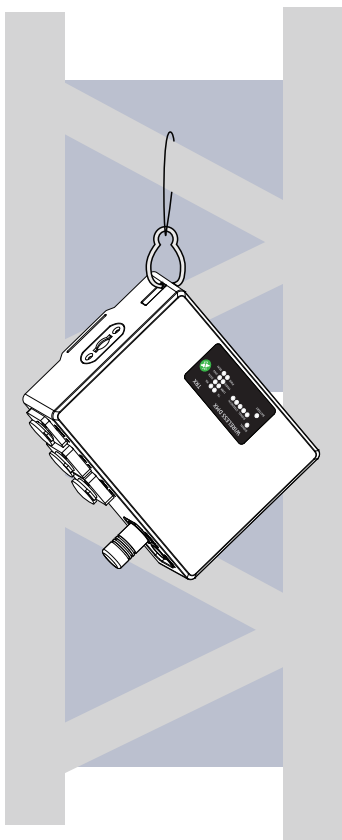
Linking an RX by Linking Key

A receiver can join a transmitter's network by entering the same Linking Key used on the transmitter. This eliminates performing the linking procedure from the transmitter.

Transmission Variables

Wireless signals are affected by physical barriers such as glass, concrete, and walls, which can reduce transmission range. For best performance, always maintain a clear line of sight between transmitters and receivers.
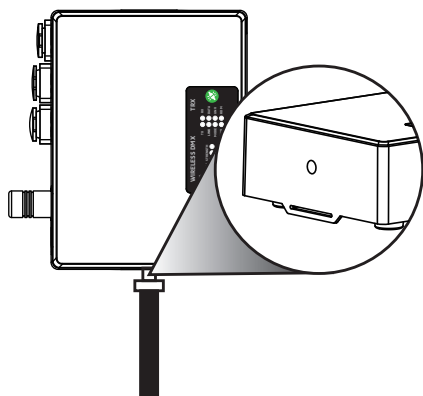
TX → 700m → RX

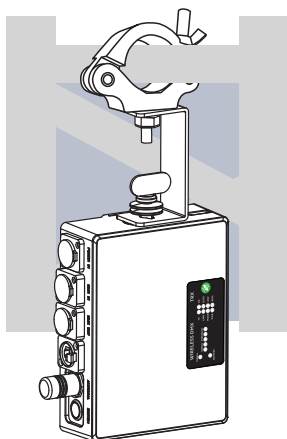TX → 400m → RX

TX → 100m(concrete) / 300m(dry-wall) → RX

01. Safety wire

There is a dedicated point for safety wire attachment.

02. M10 and 3/8" holes

On each side of the wireless unit, there are mounting holes for M10 (1.5 mm pitch) and 3/8" (UNC) hardware. These can be used for clamps or spigots. Do not use screws longer than 27 mm.

03. Omega with fast lock

Safety information

- All modifications to the device will void the warranty.
- Repairs are to carry out by skilled personnel only.
- Only replace fuses with identical types, and swap components only with certified spare parts.
- Protect the unit from rain and humidity to avoid fire and electric shocks.
- Make sure to unplug the power supply before opening the housing.

FOR SAFE AND EFFICIENT OPERATION

Heat and Temperature:
Avoid exposing the unit to direct sunlight or placing it near heating appliances.
Do not use the unit with ambient temperatures below 0°C or above 55°C.

Humidity, Water and Dust:
Keep the unit away from high humidity and dusty environments.
Do not submerge in water or install in wet environments for a long duration.

Environmental:
Avoid placing the unit near transformers, motors, tuners, TVs, or amplifiers.

Stable Placement:
Always place the unit on a level, stable surface to prevent vibration or accidental falls.

Cleaning:
Do not use chemicals or volatile liquids.
Wipe dust with a clean, dry cloth, or use a soft damp cloth for stubborn dirt.

Malfunctions:
If the unit malfunctions, immediately disconnect the power.
Do not open the device yourself, as this may result in electric shock.

Power Cable:
Always disconnect by holding the plug, not by pulling the cable.
If the unit will not be used for an extended period, unplug it from the power source.

Important:
Damage caused by ignoring this manual is not covered under warranty.
The dealer will not accept liability for defects or problems resulting from misuse.
All electrical and mechanical connections have to be carried out according to the European safety standards.