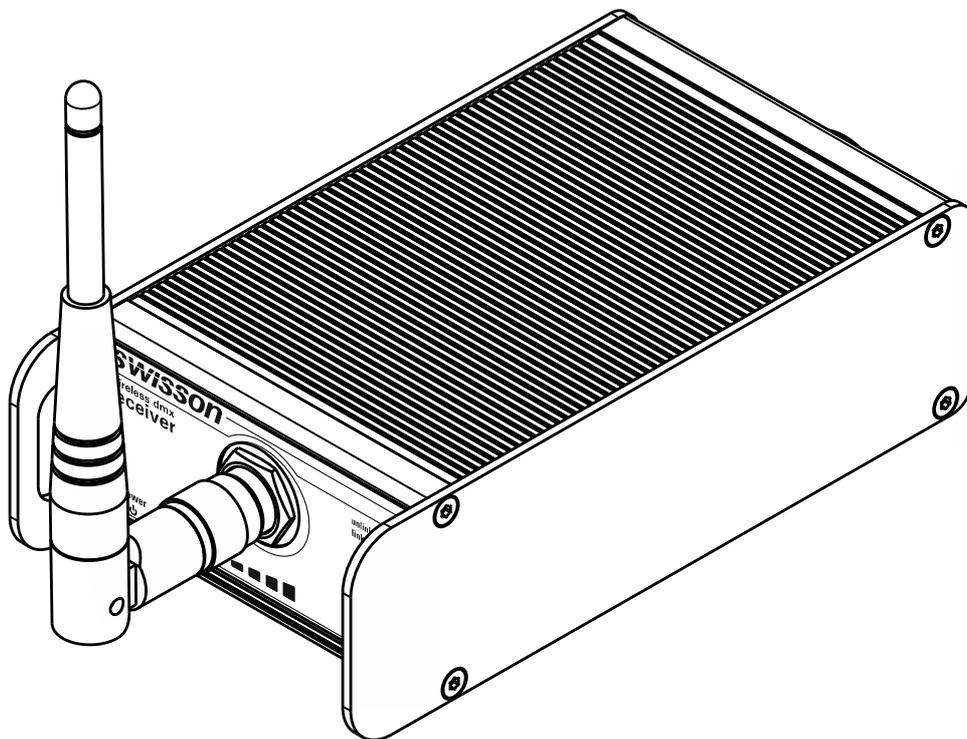


# **XWL-T Wireless DMX Transmitter**

## **XWL-R Wireless DMX Receiver**

### **User Manual**





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## Introduction

The XWL series encompasses both, W-DMX as well as CRMX compatible and compact wireless DMX transmitters and receivers.

Multiple **XWL-R receivers** can be linked to a single **XWL-T transmitter**. Each model supports one of the leading DMX transmission solutions; W-DMX (by Wireless Solution) or CRMX (by LumenRadio). Thus, each XWL is compatible with a large number of wireless DMX receivers or transmitters that use the same protocol family (W-DMX or CRMX).

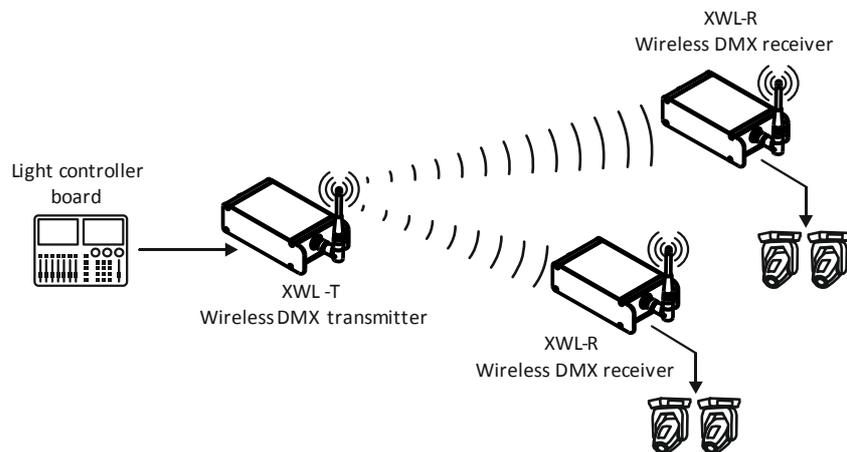
The built-in power supply allows for a reliable operation at a wide voltage range and the powerCON inlet from Neutrik makes it easy to connect your XWL to the mains.

Its mechanical design allows for installing the XWL flexibly, such that the user is able to put the antenna in a convenient position within any setup. The built-in 3/8" thread allows the use of a microphone stand. Further, a clamp for truss-mounting can be fixed to the M10/M12 thread of the XWL's rugged aluminum housing.

## Fields of Application

- Architectural lighting
- TV sets
- Theme parks
- Theater
- Multimedia shows
- Concert lighting

## Typical Application



## Unpacking

The XWL is packaged in a cardboard box. The following items are included:

- The device
- 1 antenna
- This user manual

## Safety Information

Consider the following notes absolutely when you set up, connect and use the XWL.

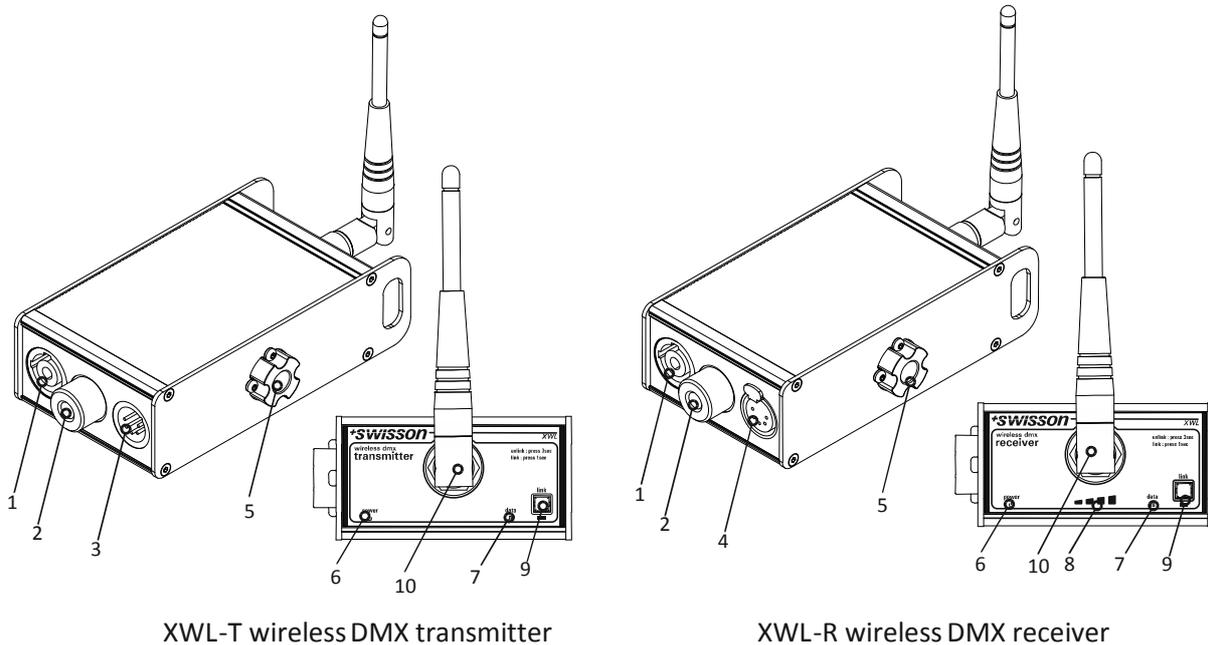
This product is not for household use. Read this manual before operating the device, follow the safety precautions and observe all warnings in this manual.

Use this device only in accordance with local laws and regulations.

## Safety Precautions

- **Disconnect the device from AC power before removing any cover or part, including any fuse and when not in use.**
- **Ensure that the device is electrically connected to ground (earth).**
- **Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth fault) protection.**
- **Before using the device, check that the power distribution equipment and cables are in perfect condition and rated for the current required of all connected devices.**
- **Isolate the device from power immediately if the power cable or the power plug is in any way damaged, defective or wet, or if they show signs of overheating.**
- **Do not expose the device to rain or moisture.**
- **Do not operate the device if any cover or component is missing, damaged or deformed.**
- **Refer any service operation not described in this manual to SWISSON.**
- **Provide unrestricted airflow around the device.**
- **Do not operate the device if the ambient temperature exceeds 55°C (131°F).**
- **Do not modify the device in any way not described in this manual or install other than genuine SWISSON parts.**
- **Do not attempt to bypass any fuse. Replace any defective fuse with one of the specified type and rating only.**
- **When suspending the device, ensure that the supporting structure and all hardware used can hold at least 10 times the weight of all devices suspended from them.**
- **When suspending the device, install a secondary attachment such as a safety cable that is approved by an official body such as TÜV as a safety attachment for the total weight it secures. The safety cable must comply with EN 60598-2-17 Section 17.6.6 and be capable of bearing a static suspended load 10 times the weight of the device.**
- **Make sure that any external cover and rigging hardware is securely fastened.**
- **Block access below the work area whenever installing, servicing or moving an overhead device.**
- **Do not use the device in areas where it is exposed to direct sunlight.**

## Device Overview



1. Power input
2. 3/8" thread
3. DMX input port (on transmitter only)
4. DMX output port (on receiver only)
5. M10 and M12 thread for clamp
6. Power indicator
7. DMX signal indicator
8. Signal strength indicator (on receiver only)
9. Link button and Link LED
10. Antenna connector and antenna

## Mains Connection

The user must supply a suitable power cable. The user must then either hard-wire the power cable to the building's electrical installation, providing an easily accessible power on/off switch close to the device, or install on the power cable a grounding-type (earthed) mains plug that is suitable for the local power outlets, following the power plug manufacturer's instructions. Consult a qualified electrician, if you have any doubts about proper installation.

A blue *Neutrik powerCON NAC3FCA* cable mount connector must be used to supply power to the XWL.

**Warning! For protection from dangerous electric shocks, the device must be grounded (earthed). The local AC power source must have both overload and ground-fault (earth fault) protection.**

**Important! The powerCON is a connector without breaking capacity, i.e. the powerCON should not be connected or disconnected under load or live!**

## DMX Connections

The DMX input of the XWL-T and the DMX output of the XWL-R are isolated.

Models of the XWL are available with 3-pin or 5-pin XLR connectors.

5 Pin XLR connector	
Pin	Connection
1	Ground
2	Data -
3	Data +
4	Not connected
5	Not connected

3 Pin XLR connector	
Pin	Connection
1	Ground
2	Data -
3	Data +

## Line Termination

The DMX input of the XWL-T has a built-in line termination.

A missing termination at the end of a DMX chain may lead to significant reflection issues. Additional termination resistors in the middle of a chain may cause an unwanted drop of the signal level. Line termination is also known to reduce the susceptibility to environmental noise.

## Transmission Standards

The XWL is available in different versions with varying transmission types.

- 1) CRMX™ (**C**ognitive **R**adio **M**ultiple**X**er) by LumenRadio.
- 2) W-DMX™ by Wireless Solution.

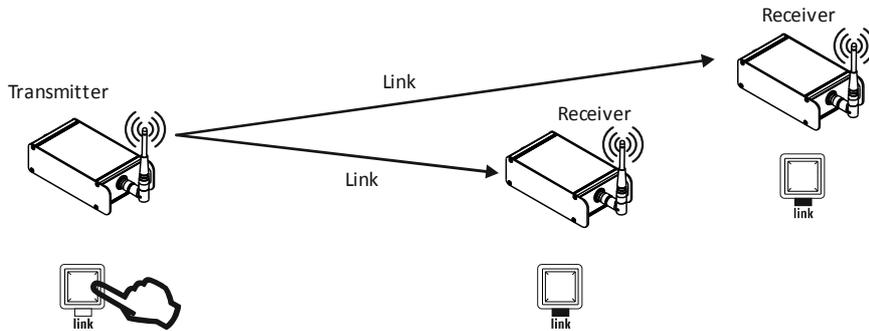
Both types are very reliable and widely spread in the professional lighting industry. Refer to Ordering Information on page 12 for a list of all available variants.

## Establishing a Wireless Link

To transmit DMX data wirelessly, a transmitter and one or more receivers are used. The receivers have to be linked to the transmitter as shown below.

### Linking

Ensure that all receivers which are supposed to become linked to the transmitter are unlinked (the Link LED of the receivers is turned off) before linking. If required, follow the procedure described below under Unlinking.



#### On transmitter:

Press the Link button to link all unlinked receivers in the range of the transmitter.

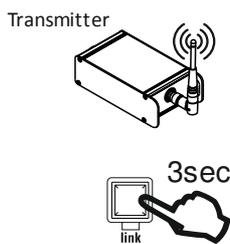
#### On receivers:

During the link process, the Link LED blinks.

The Link LED turns permanently on when the link is established and DMX is received from the transmitter.

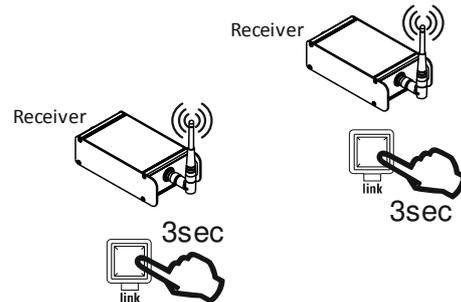
When a link is established, but no DMX data is received, the Link LED is lit most of the time but turns dark very briefly about once a second.

### Unlinking



#### On transmitter:

Press and hold the Link button for 3 seconds to unlink all devices previously linked to the transmitter.



#### On receivers:

Press and hold the Link button for 3 seconds to unlink the device.

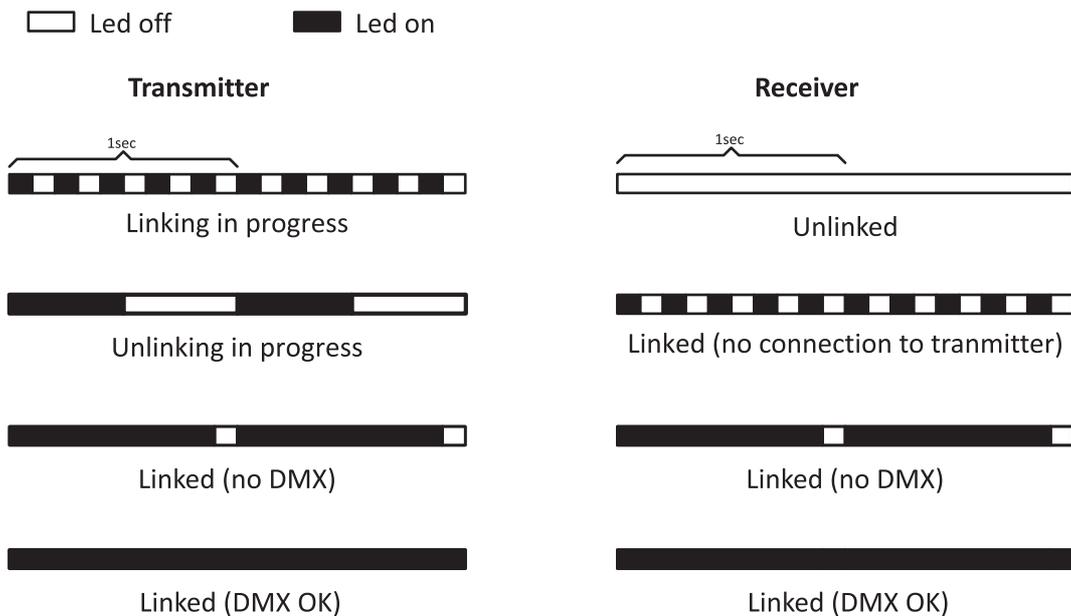
When the receiver has been successfully unlinked, its Link LED is turned off.

## Link LED

The Link LED shows different information depending on the model.

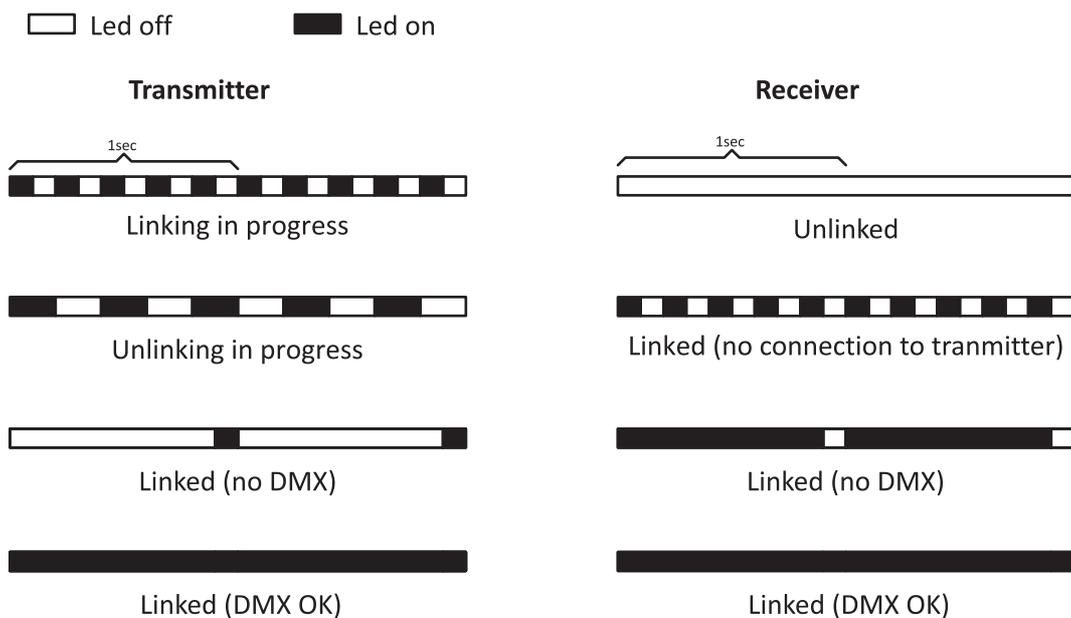
### XWL-T-WDMX and XWL-R-WDMX models

The Link LED provides the following information on XWL-T-WDMX transmitters or XWL-R-WDMX receivers, respectively.



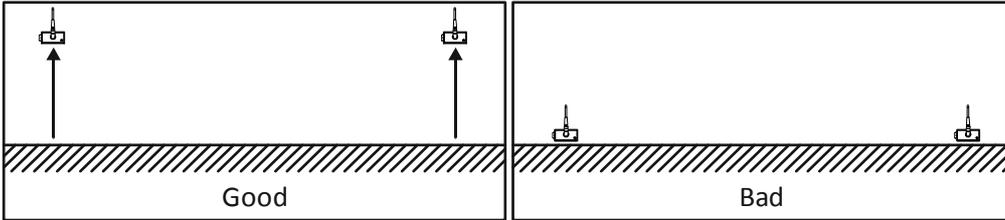
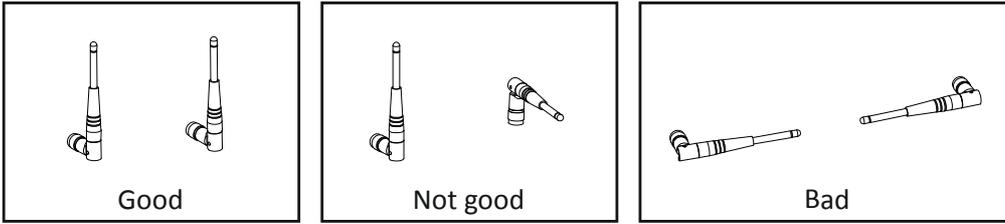
### XWL-T-CRMX and XWL-R-CRMX models

The Link LED provides the following information on XWL-T-CRMX transmitters or XWL-R-CRMX receivers, respectively.

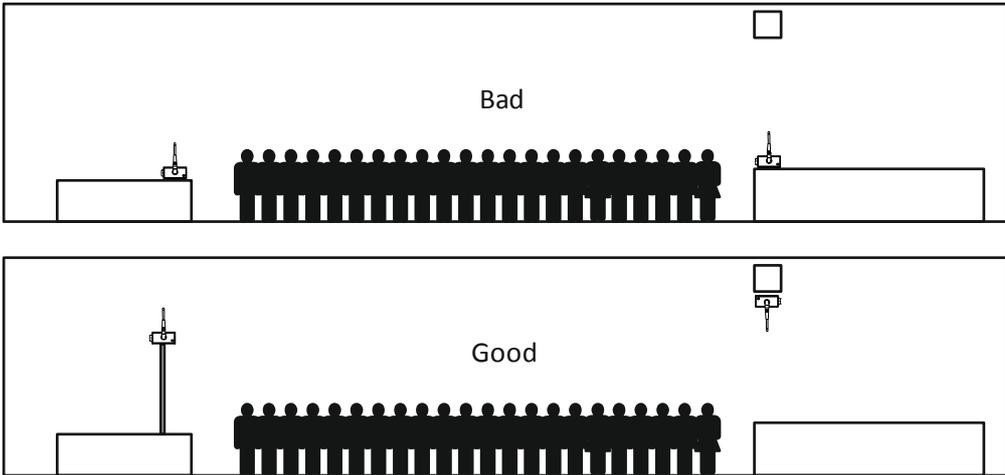


## Position of the Antenna

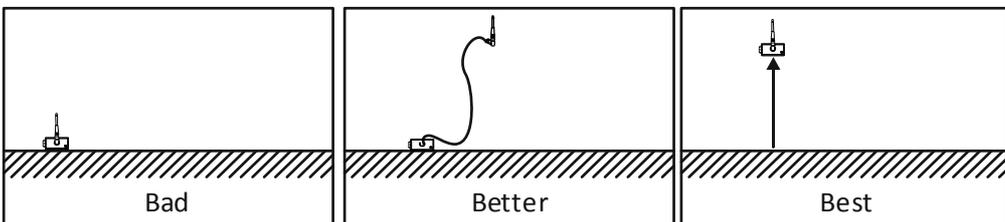
Try to position the antennas in parallel.



Try to position the antennas as high as possible. Avoid operating the XWL near ground.

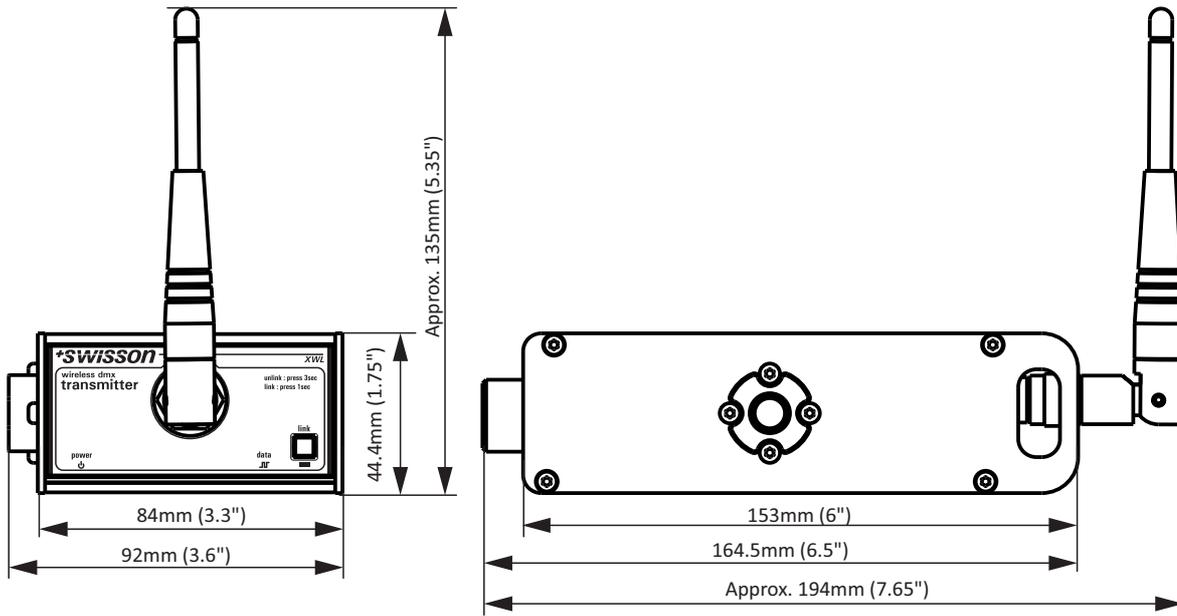


A crowd will absorb the signal.



It is better to place the device itself at an elevated location rather than to use an antenna cable.

## Technical Data



Depth .....	164.5 mm (6.5 ")
Width .....	92 mm (3.6 ")
Height.....	44.4 mm (1.75 ")
Weight.....	0.58 kg (1.18 lbs)
Ambient temperature .....	-30°C – 55°C (-22°F – 131°F)
System latency .....	5 ms
Broadcast power (transmitter) .....	100 mW (20 dBm)
Radio frequency band.....	2.4 GHz
Mains supply .....	100-240 VAC 50/60 Hz
Power consumption .....	2 W
DMX.....	ANSI E1.11
Electrical standard signal ports .....	EIA-485

## Ordering Information

### Transmitters

10 19 30	XWL-T-CRMX-3	Wireless DMX transmitter, CRMX type, 3-pin XLR.
10 19 31	XWL-T-CRMX-5	Wireless DMX transmitter, CRMX type, 5-pin XLR.
10 19 45	XWL-T-WDMX-3	Wireless DMX transmitter, W-DMX type, 3-pin XLR.
10 19 46	XWL-T-WDMX-5	Wireless DMX transmitter, W-DMX type, 5-pin XLR.

### Receivers

10 19 50	XWL-R-CRMX-3	Wireless DMX receiver, CRMX type, 3-pin XLR.
10 19 51	XWL-R-CRMX-5	Wireless DMX receiver, CRMX type, 5-pin XLR.
10 19 65	XWL-R-WDMX-3	Wireless DMX receiver, W-DMX type, 3-pin XLR.
10 19 66	XWL-R-WDMX-5	Wireless DMX receiver, W-DMX type, 5-pin XLR.