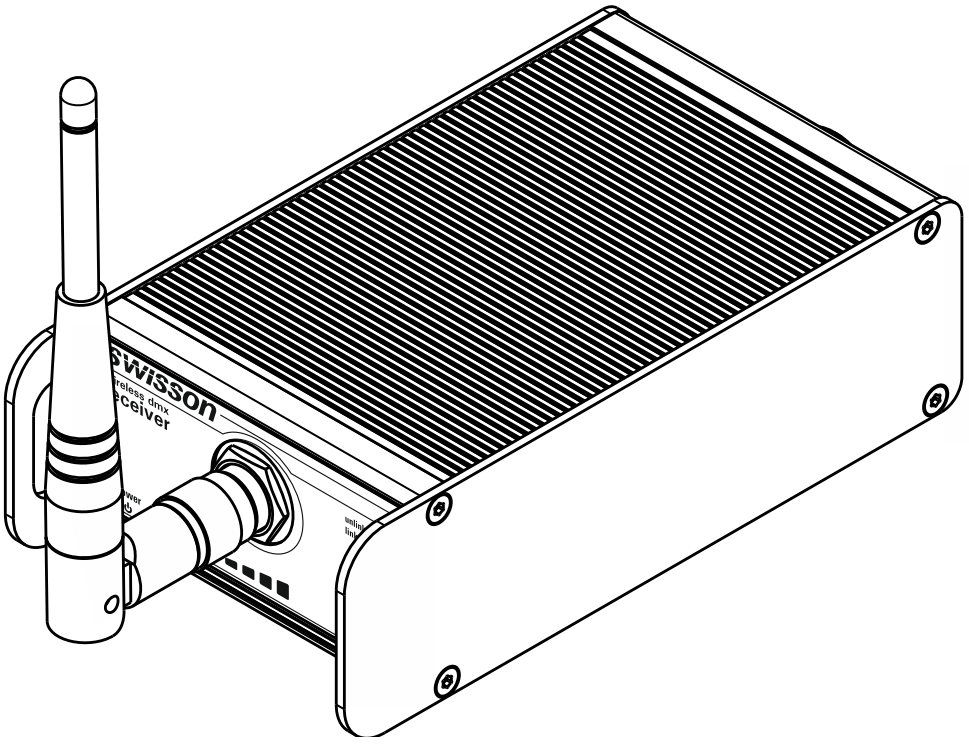
XWL-T Wireless DMX Transmitter
XWL-R Wireless DMX Receiver
User Manual



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Introduction

The XWL series encompasses 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 CRMX (by LumenRadio), which is one of the leading DMX transmission solutions; Thus, each XWL is compatible with a large number of wireless DMX receivers or wireless DMX transmitters that use that same protocol family.

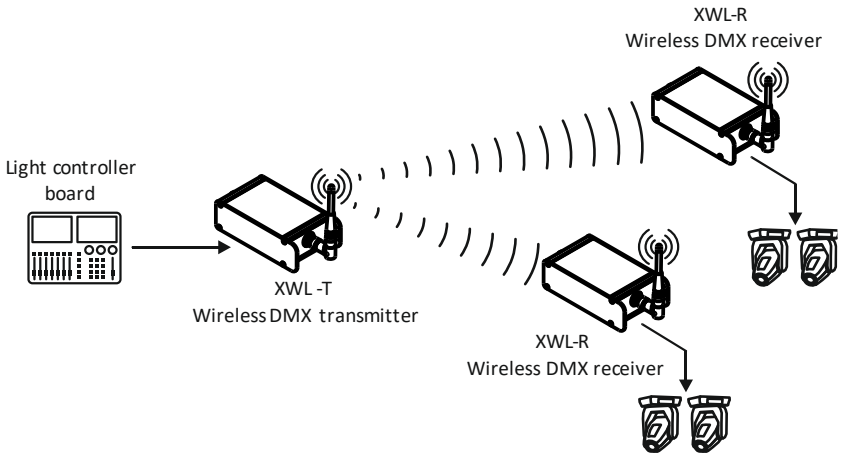
The built-in power supply allows for a reliable operation at a wide voltage range and the powerCON inlet from Neutrik makes it easy to connect your XWL to the mains.

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

Carefully, read this user manual and seek out the advice of qualified person in case of any doubt.

Take all safety precautions, and follow the operation instructions and warning notes listed in this user manual prior to connecting, setting up, or using the device.

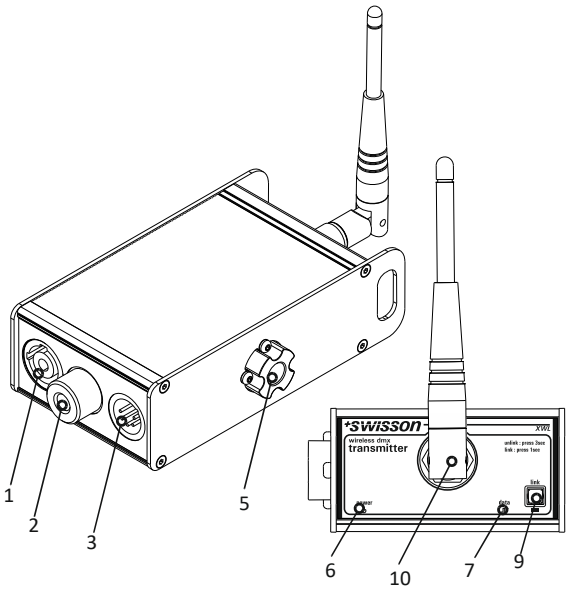
This product is not a household appliance and it should be used in accordance with local laws and regulations.

Safety Precautions

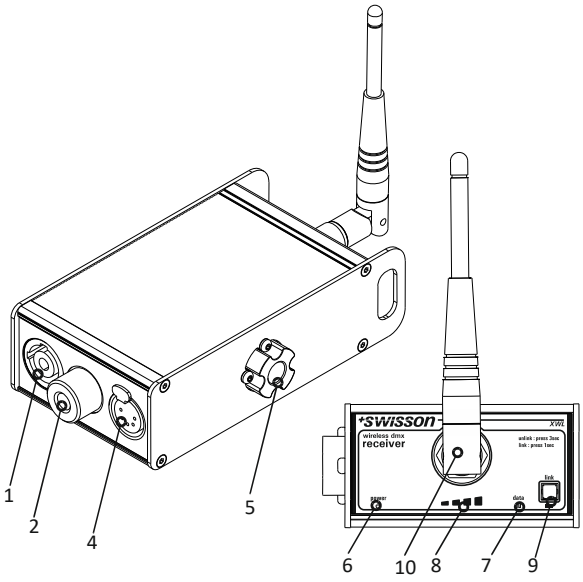
- **Disconnect the device from AC power when not in use and before removing any cover or replacing a part, including safety fuse.**
- **Ensure that the device is electrically connected to ground (earth) and that all grounding leads and cables are stable and intact**
- **Only use a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth fault) protection.**
- **Before using the device, check if the device itself, the power distribution equipment and cables are in perfect condition and has the correct current ratings.**
- **Disconnect the device from power immediately if the power cable or the power plug are damaged, defective, wet, or if it shows signs of overheating.**
- **Do not attempt to bypass any fuse. Replace a defective fuse with one of the same specified type and rating only.**
- **Do not expose the device to rain or moisture.**
- **Do not operate the device if the housing or any other component is damaged or deformed.**
- **Provide unrestricted airflow around the device.**
- **Do not operate the device if the ambient temperature is above 55°C (131°F).**
- **In case of any questions related to operations not described in this manual, please refer to SWISSON.**
- **Do not modify the device in any way not described in this manual or install other than genuine parts provided by SWISSON.**
- **When suspending the device, ensure that the setup supporting structure and all hardware used can support at least 10 times the weight of all devices suspended from them.**
- **When suspending the device, implement a second safety mechanism. For instance, a safety cable that is approved by an official body such as TÜV.**

- **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 all external covers and rigging hardware are securely fastened.**
- **Block access below the work area whenever installing, servicing or moving an overhead device.**

Device Overview



XWL-T wireless DMX transmitter



XWL-R wireless DMX receiver

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 use a suitable blue *Neutrik powerCON NAC3FCA* power cable to supply the XWL, then either hard-wire it 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, and follows manufacturer’s instructions for the power plug.

Consult a qualified electrician, if you have any doubts about proper installation.

Warning! For protection from hazardous situations and 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 with the following transmission type:

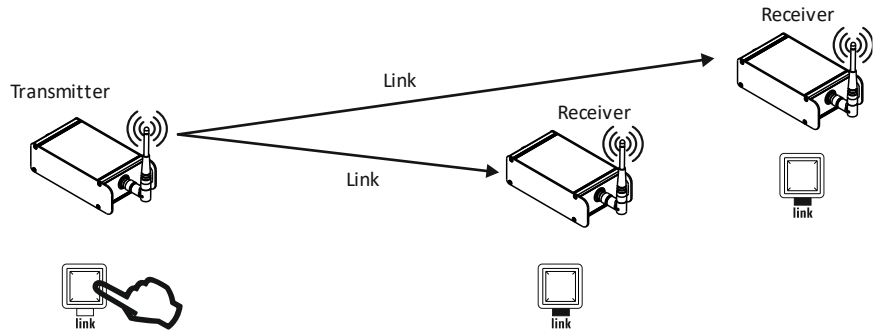
CRMX™ (**C**ognitive **R**adio **M**ultiple**X**er) by LumenRadio, which is very reliable and widely used in the professional lighting industry.

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 in the desired setup 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.

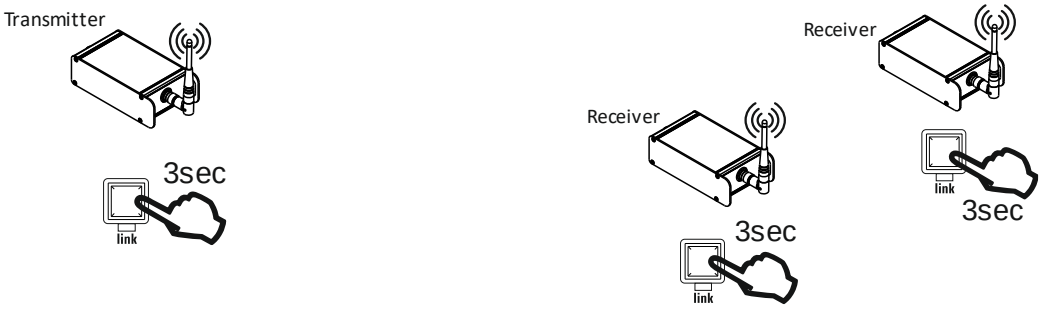
On receivers:

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 previousely linked to the transmitter.

On receivers:

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

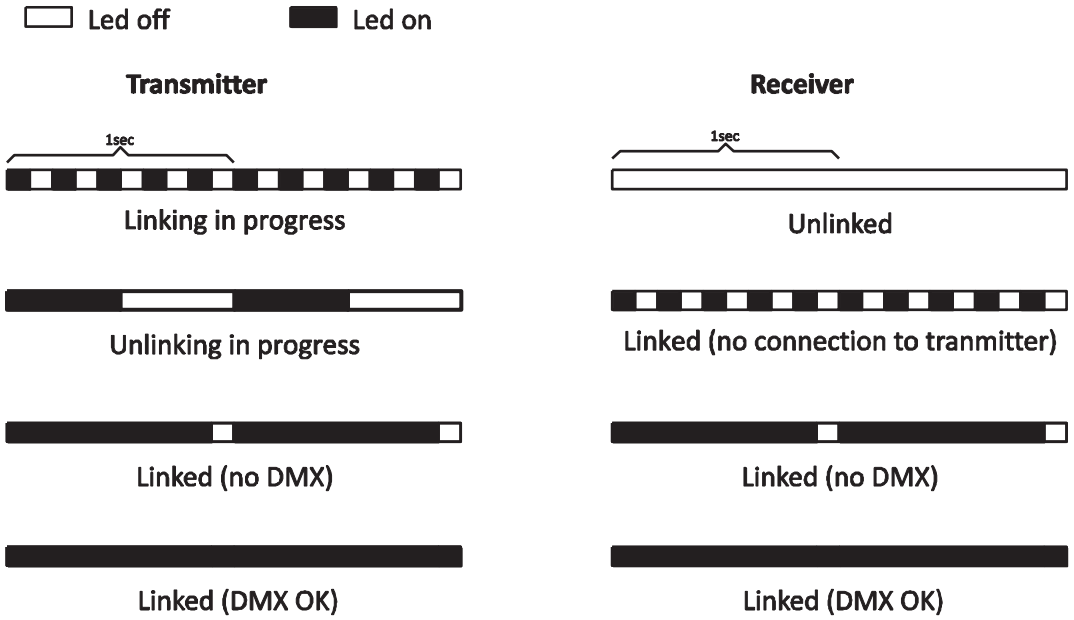
When the receiver has been successfully unlinked, its Link LED is turend off.

Link LED

The Link LED shows different information depending on the model.

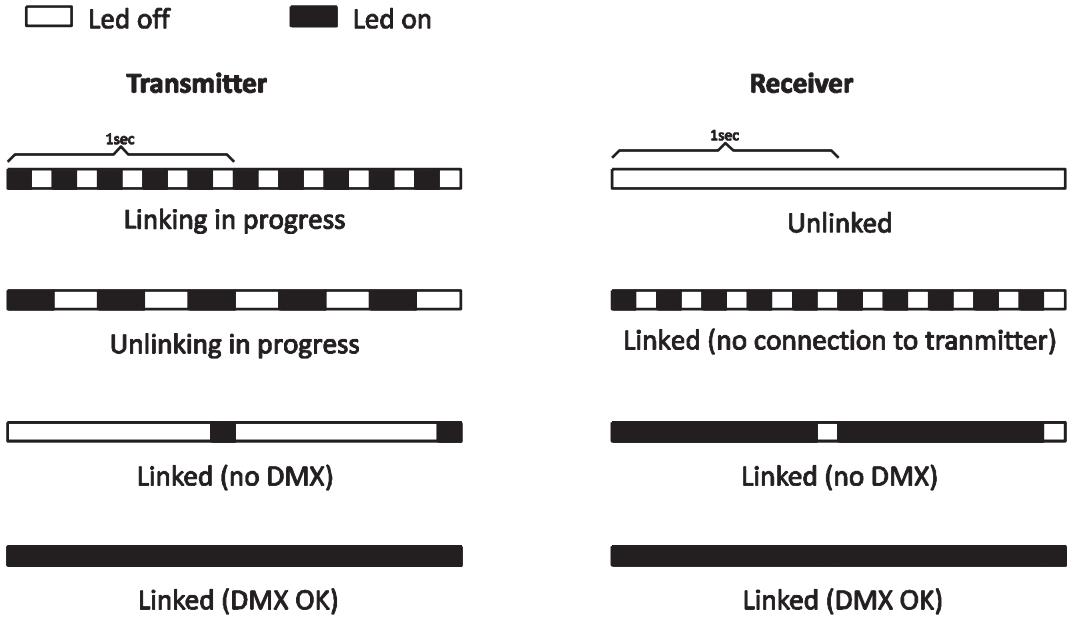
XWL-T-WDMX and XWL-R-WDMX models

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



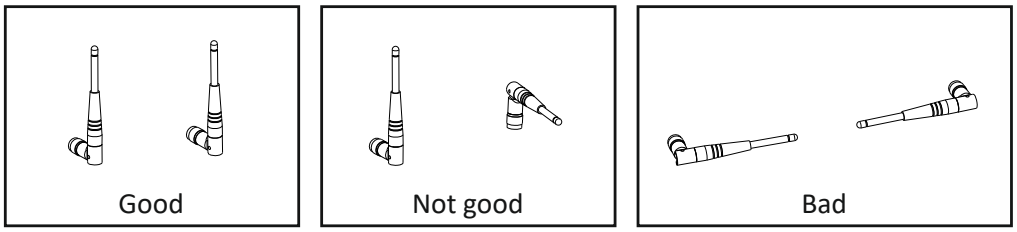
XWL-T-CRMX and XWL-R-CRMX models

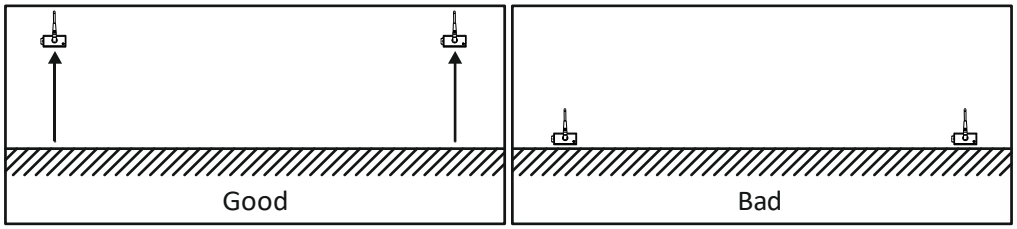
The Link LED provides the following information on XWL-T-CRMX transmitters or XWL-R-CRMX receivers, respectively.



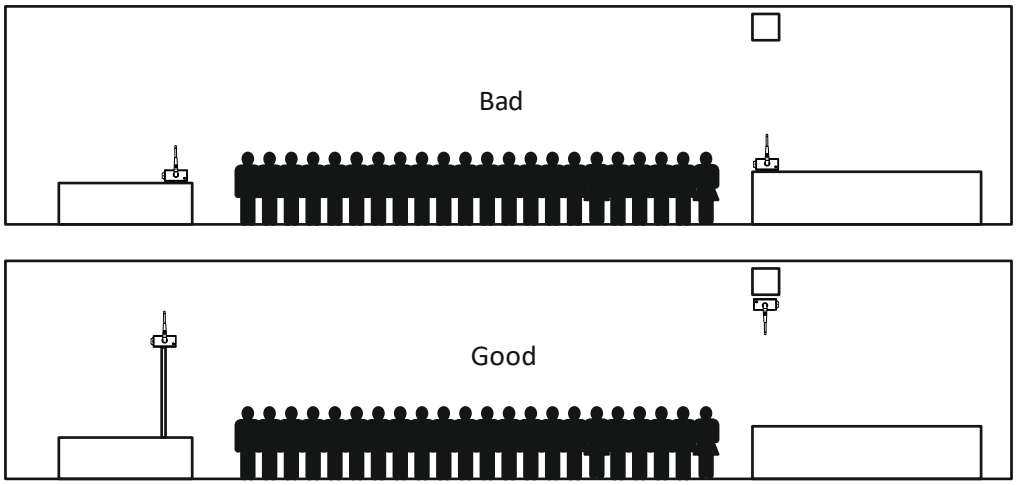
Position of the Antenna

Try to position the antennas in parallel.

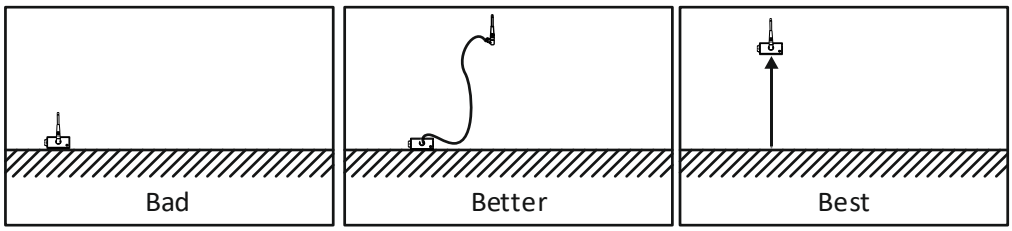




Try to position the antennas as highly as possible. Avoid operating the XWL near ground.

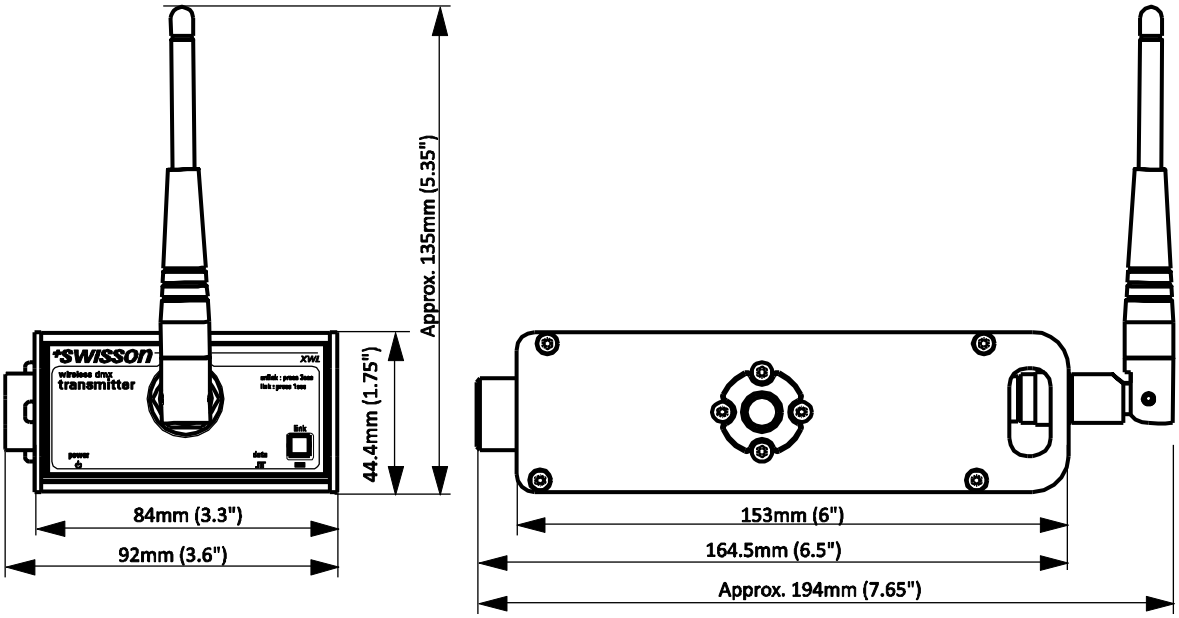


A crowd will absorb the signal.



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)
Operating 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 standard	ANSI E1.11
Electrical standard of 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.

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.