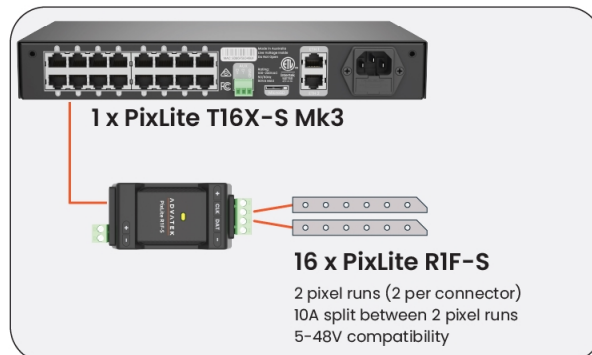# PixLite Mk3 Long Range Quick Start Guide

# 1 - Transmitters and Receivers

PixLite Mk3 long range systems are built by pairing a transmitter with a receiver type. Each pairing has unique purposes and advantages, particularly in how many pixel runs can be connected, and what pixel types can be used. These are shown below. Each transmitter has a maximum number of receivers it can connect to. In situations where more receivers are required, multiple transmitters can be used alongside each other in the same system.

**Expanded Mode Disabled**
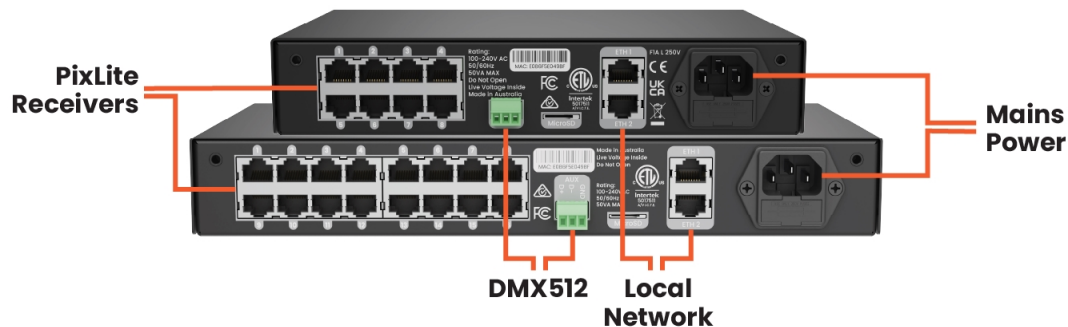Any pixel type
1020 RGB / 768 RGBW pixels per run



**1 x PixLite T8-S Mk3**

**8 x PixLite R2F-S**

2 pixel runs (1 per connector)
7.5A per pixel run
5-24V compatibility



**1 x PixLite T16X-S Mk3**

**16 x PixLite R1F-S**

1 pixel run
10A per pixel run
5-48V compatibility

**Expanded Mode Enabled**
Data-only pixel types
510 RGB / 384 RGBW pixels per run



**1 x PixLite T8-S Mk3**

**8 x PixLite R4D-S**

4 pixel runs (1 per connector)
7.5A per pixel run
5-24V compatibility



**1 x PixLite T16X-S Mk3**

**16 x PixLite R1F-S**

2 pixel runs (2 per connector)
10A split between 2 pixel runs
5-48V compatibility



**1 x PixLite T16X-S Mk3**

**16 x PixLite R2F-S**

2 pixel runs (1 per connector)
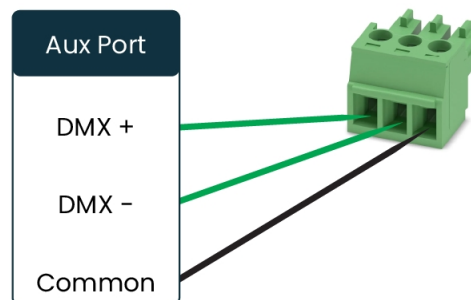7.5A per pixel run
5-24V compatibility

# 2 - Wiring a Transmitter

The transmitter can be connected to mains power (100-240V AC, 50/60Hz) with the IEC power input. An Ethernet cable should also be connected to either of the Ethernet Ports, allowing connection to a local network, or directly to a PC. The numbered RJ45 ports are for connection to the receivers, using twisted pair cable with nominal 100 Ohm characteristic impedance (e.g. Cat 5 or Cat 6 cable), and can be up to 300 meters in length. The Aux Port is used for connecting DMX512 (configurable as input or output). These connections for the different transmitter options are all shown below.



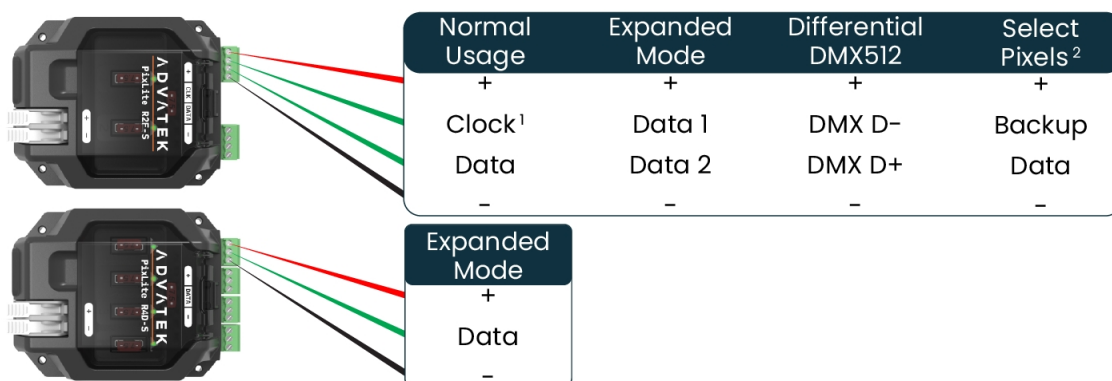The Aux Port pinout is shown below.

# 3 - Wiring a Receiver

Receivers and their connected pixels are powered by connecting a DC power source to the receiver's input power terminal. Voltage range, output current capacity, and suitable wire is found in the receiver's user manual and printed on the enclosure.
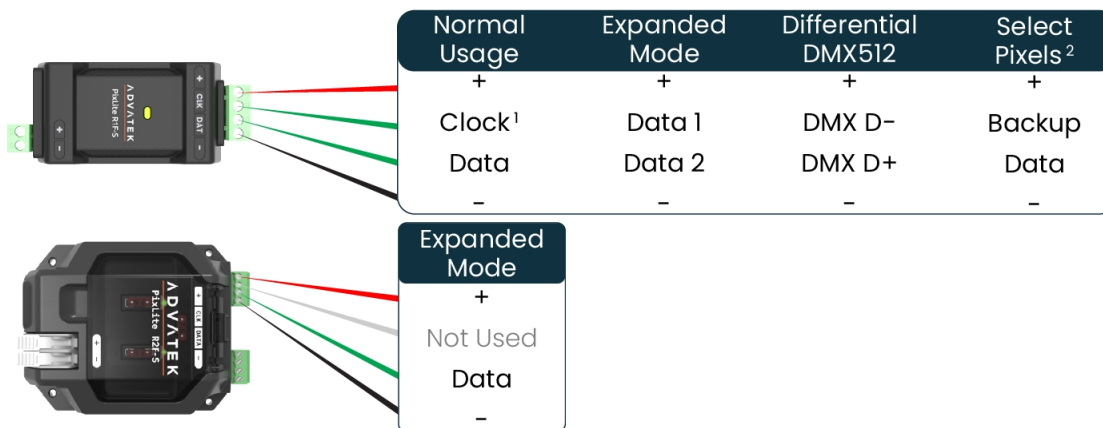
Connections to the PixLite transmitter, pixel LEDs, and DC power supply are as follows:



When connecting to a **PixLite T8-S Mk3**, pixels are connected as follows:



| Normal Usage | Expanded Mode | Differential DMX512 | Select Pixels[2] |
|---|---|---|---|
| + | + | + | + |
| Clock[1] | Data 1 | DMX D- | Backup |
| Data | Data 2 | DMX D+ | Data |
| − | − | − | − |

| Expanded Mode |
|---|
| + |
| Data |
| − |

When connecting to a **PixLite T16X-S Mk3**, pixels are connected as follows::



| Normal Usage | Expanded Mode | Differential DMX512 | Select Pixels[2] |
|---|---|---|---|
| + | + | + | + |
| Clock[1] | Data 1 | DMX D- | Backup |
| Data | Data 2 | DMX D+ | Data |
| − | − | − | − |

| Expanded Mode |
|---|
| + |
| Not Used |
| Data |
| − |

*1 For pixels that do not have a clock input, this pin is not connected.*

*2 Many pixels with a backup data input do not require it to be connected to the PixLite as shown. See pixel glossary on the Advatek website to confirm pixels which require a backup connection to the PixLite.*

# 4 - Startup & Network Connection

## 4.1 - Startup

Upon startup for the first time, the PixLite will be using DHCP/AutoIP and the status LED will flash green, indicating normal operation. If you have a router, then DHCP will automatically assign an IP address to both the PixLite and your computer.
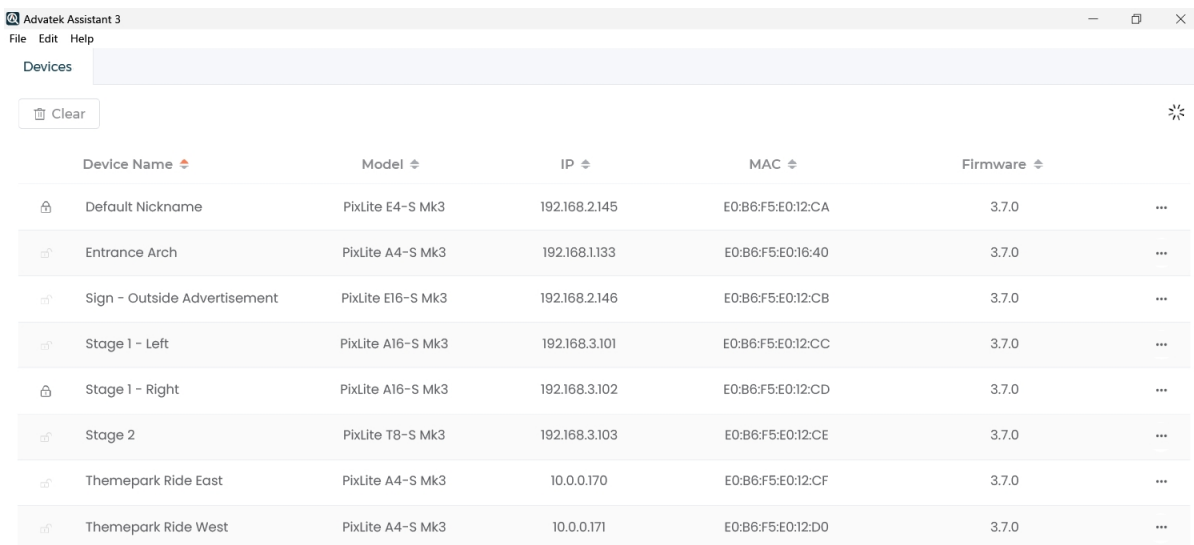
No Router? No Problem. Simply connect the PixLite directly to your computer, and open Advatek Assistant 3.

## 4.2 - Advatek Assistant 3

The easiest method for connecting to the device is by discovering through Advatek Assistant 3. Advatek Assistant 3 can be downloaded and installed, using the URL below:

www.advateklighting.com/advatek-assistant-3

Any active PixLite devices on the network will automatically be discovered and displayed. Double click to open its Management Interface, and begin configuring your new PixLite.

| | Device Name ⇕ | Model ⇕ | IP ⇕ | MAC ⇕ | Firmware ⇕ | |
|---|---|---|---|---|---|---|
| 🔒 | Default Nickname | PixLite E4-S Mk3 | 192.168.2.145 | E0:B6:F5:E0:12:CA | 3.7.0 | ··· |
| | Entrance Arch | PixLite A4-S Mk3 | 192.168.1.133 | E0:B6:F5:E0:16:40 | 3.7.0 | ··· |
| | Sign - Outside Advertisement | PixLite E16-S Mk3 | 192.168.2.146 | E0:B6:F5:E0:12:CB | 3.7.0 | ··· |
| | Stage 1 - Left | PixLite A16-S Mk3 | 192.168.3.101 | E0:B6:F5:E0:12:CC | 3.7.0 | ··· |
| 🔒 | Stage 1 - Right | PixLite A16-S Mk3 | 192.168.3.102 | E0:B6:F5:E0:12:CD | 3.7.0 | ··· |
| | Stage 2 | PixLite T8-S Mk3 | 192.168.3.103 | E0:B6:F5:E0:12:CE | 3.7.0 | ··· |
| | Themepark Ride East | PixLite A4-S Mk3 | 10.0.0.170 | E0:B6:F5:E0:12:CF | 3.7.0 | ··· |
| | Themepark Ride West | PixLite A4-S Mk3 | 10.0.0.171 | E0:B6:F5:E0:12:D0 | 3.7.0 | ··· |

# 5 - Further Information

For a more in-depth understanding of the device, including physical installation, electrical connections, network connections, operation, and specifications, you should consult the User Manual:

www.advateklighting.com/downloads/user-manuals/pixlite-t8-s-mk3
www.advateklighting.com/downloads/user-manuals/pixlite-t16x-s-mk3
www.advateklighting.com/downloads/user-manuals/pixlite-r1f-s
www.advateklighting.com/downloads/user-manuals/pixlite-r2f-s
www.advateklighting.com/downloads/user-manuals/pixlite-r4d-s

You'll find information on management and configuration of the device, including its internal SHOWTime feature set in the PixLite Mk3 Management Guide:

www.advateklighting.com/downloads/user-manuals/pixlite-mk3-management-guide

For any other questions, you can reach out to our support team at the link below:
www.advateklighting.com/contact

# 6 - Warranty Registration

For your complete peace of mind, this device comes with an industry leading extended warranty period of 5 years, subject to registration.

Please register your Advatek PixLite® Mk3 product using the link below.
www.advateklighting.com/warranty-registration

All products need to be used and installed as outlined in the user manual. See our terms and conditions of sale at the link below for information on returns, faults and warranty claims.
www.advateklighting.com/terms/sale-terms-and-conditions