Introduction

WSExtend is a simple wired transmitter and receive module pair that will enable you to extend the Data wire of your WS2811/WS2812 (and similar NRZ-type variants) Pixel LEDs. The transmitter module will isolate the power supply ground, and convert the data from single-ended to differential data. This gives the advantage of being able to use very long 'intermediate' cables between transmitter and receiver pairs. The WSExtend uses an off-the-shelf RJ12 to RJ12 connection, similar to well known ADSL cables

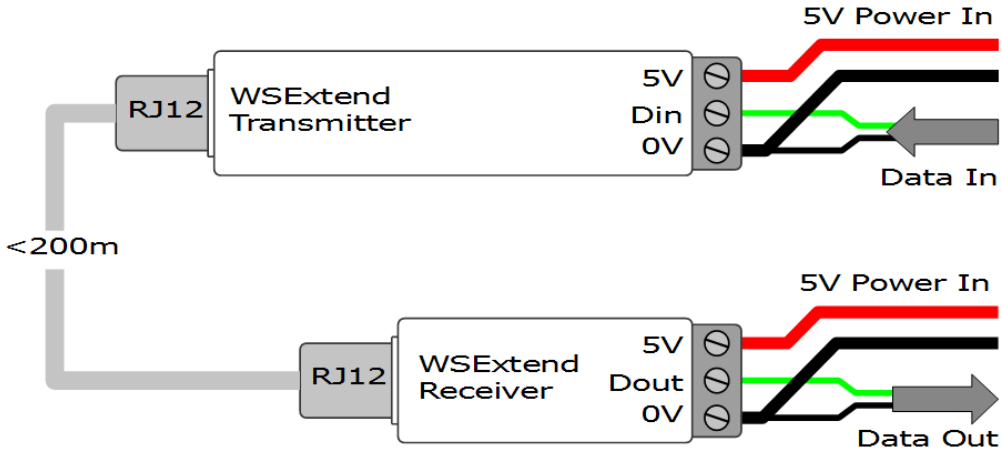
Specifications

Transmitter input (Screw connection) : 5V input only, any TTL data (including NRZ) up to a bitrate of 1Mbps
Transmitter output (RJ12) : Differential and isolated, data +, data – and ground connections
Receiver input (RJ12) : Differential
Receiver output (Screw connection) : Data at up to 1Mbps, receiver must be power by 5V at the screw terminals

Parts Supplied

WSExtend transmitter + 3 pin WS Female WSExtend Receiver + 3 pin WS Male

Connections



Dimensions

Transmitter Length : 80mm – Width : 18mm – Height : 18mm
Receiver Length : 40mm – Width : 18mm – Height : 18mm

TroubleShooting Guide

I can't see any output from the receiver:
Check data in and out connections
Ensure that both the receiver has 5V connected to 5V screw connection, and 0V connected to 0V
Is the RJ12 cable broken ? Test with an alternative

The data output signal is intermittent:
Have you extended over 200m ?
Is the RJ12 cable passing over high voltage cables that could impose noise ?

Technical Support

email : bob.lynas@btinternet.com or sales@smartshow.lighting