

DMX RGBW Series 5050-5RGBWN-326X Datasheet

| Customer Name | | Project Name | | Part Number |
|---------------|---|--------------|---|-------------|
| | • | | • | |

Flexible DMX RGBW LED Strip



Description

SIRS-E® DMX RGBWN LED strip lights let you create billions of colors by just mixing red, green, and blue colors with a 4th White diode. With the ability to control each individual pixel and each individual channel, the color mix and color effects possibilities are endless.

Product Specifications

| Input Voltage | 5V DC | Cut/Readdress | Cuttable every pixel ¹ |
|-----------------------|---|---------------------------|--|
| Control Method | DMX512 Control - Pixel by Pixel | Reel Length | 13.1 ft / 4 m |
| Power Consumption | 3.50 W/ft | Max Run Length | 13.1 ft / 4 m, powered from both sides |
| LED Chip Type | High Quality SMD 4-Diode RGBW | Segment Width | 0.56 in (14 mm) |
| LED Density | 9 LEDs/ft / 32 LEDs/m | Luminous Flux Maintenance | 75,000 hrs ² |
| Channels/Pixels | 4 Channels per Pixel (512 Channels Total) | Dimming | DMX512 Control - Pixel by Pixel |
| Board Type/Color | 2 oz Density Copper, Black PCB | Environmental | IP 67/68 - Dry and Damp Locations |
| Operating Temperature | -20°F to 120°F | Warranty | 5 Years Limited |
| Mounting | Non-Porous: 3M Adhesive Tape | | |

Product Photometrics - Red, Green and Blue Diodes³

| Color Diode | Peak Wavelength (nm) | Dominant Wavelength (nm) | CIE (x,y) | Luminous Flux (lm/ft) | Luminous Efficacy (lm/W) | |
|-------------|----------------------|-----------------------------|------------------|--------------------------|-----------------------------|--|
| Red | 632.0 | 621.6 | (0.6938, 0.3054) | 34 | 16.9 | |
| Green | 516.6 | 522.0 | (0.1417, 0.7269) | 91 | 49.5 | |
| Blue | 462.4 | 466.5 | (0.1370, 0.0511) | 20 | 9.8 | |

Product Photometrics - White Diode Only³

| Nominal CCT | Luminous Flux | Luminous | CIE | Duv | CRI | тм-3 | 80-15 |
|-------------|---------------|-----------------|------------------|---------|------|---------------|------------|
| (K) | (lm/ft) | Efficacy (Im/W) | (x,y) | | | Fidelity (Rf) | Gamut (Rg) |
| 5500 K | 111 | 58.8 | (0.3318, 0.3460) | +0.0027 | 82.5 | 81.1 | 96.2 |

Product Photometrics - All Four Colors at Full Intensity

| Nominal CCT (K) | Luminous Flux (lm/ft) | Luminous Efficacy (Im/W) | CIE (x,y) | Duv | CRI | TM-: Fidelity (Rf) | 30-15 Gamut (Rg) |
|--------------------|--------------------------|-----------------------------|------------------|---------|------|-----------------------|---------------------|
| 14350 K | 240 | 30.6 | (0.2630, 0.2717) | +0.0027 | 73.0 | NA | NA |

^{1 -} The RGBW DMX strips are cuttable in any pixel, and it will continue with the sequential DMX address that was last used. If you want to change the starting address back to 001, you will need a DMX Address Writer available on our website.
2 - After 75,000 hrs: 30% Luminous Flux loss, 10% Chromaticity change, as per LM-80-15
3 - Photometric values estimated from our Acultius C RGBW series of LED strips.

032119



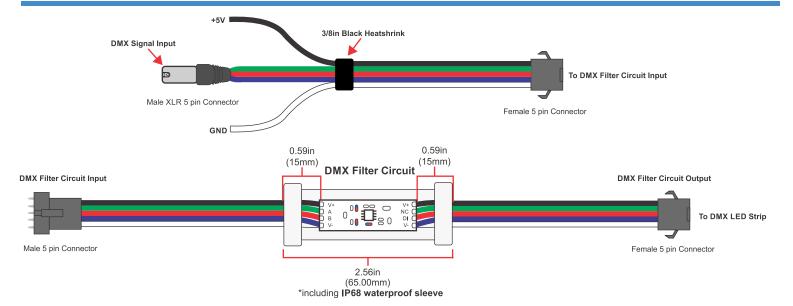
Ordering Guide

*IP 68 Version consists of the same Physical Dimensions as IP67

Product Country of Origin

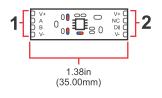
| Product Engi | USA | |
|---------------|----------------------------|----------------|
| Assembled | China Preassembled / USA I | Final Assembly |
| QC Quality Co | ontrol | USA |
| Product Custo | USA | |
| Technical Sup | USA | |

Wiring Diagram

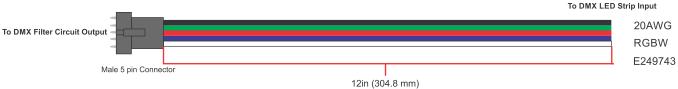


DMX Filter Circuit

- 1 DMX Filter Input (from XLR)
- 2 DMX Filter Output (to LED strip)



The 32 LEDs/m DMX strips requires a filter whether is 5m long or just 0.5m.



Color Code Male XLR 5 pin



XLR Male Cable

Color Code XLR

Pin 1 - V- / Ground
Pin 2 - B / DMXPin 3 - A / DMX+
Pin 4 - NC
Pin 5 - NC

Color Code LED Strip



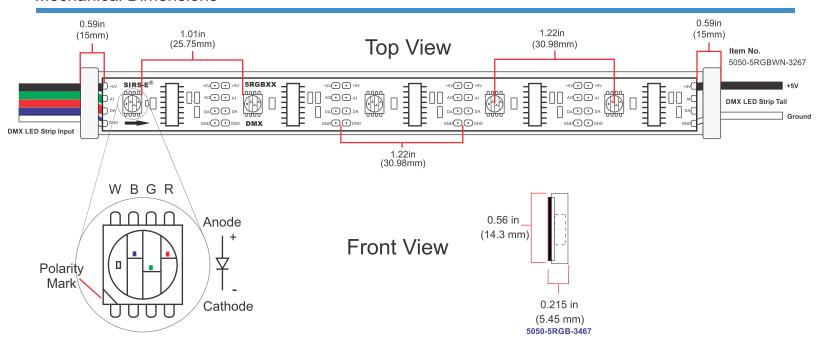
Color Code Filter Circuit



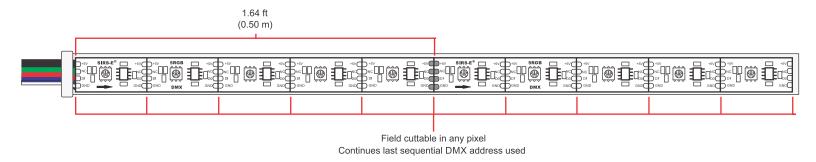
032119 2-5



Mechanical Dimensions



Cutting & Re-Addressing Instructions



Important:

- The RGBW DMX strips are cuttable in any pixel, and it will continue with the sequential DMX address that was last used.
- If you want to change the starting address back to 001, you will need a **DMX Address Writer** (PN# SIRS-E-DMX-PROG), available on our website.

Weight

Product Weight: 10.8 oz,16.4 ft Reel (IP67), Without Packaging.

032119 3-5



Compatible Accessories

This list shows some of our most sellable accessories compatible for this product. For a complete list, please visit our website.



ArtNet to DMX Interface Pro 6 Universes (AD-PRO-6)



MADRIX Neo
DMX512 Interface
& Software Licenses



Meanwell 5V PSU (LED-PS05V-30W-UL)





MADRIX Luna
ArtNet Interface



Baxter Controls DMX Basic Pocket Console (As a Testing Tool)



SIRS-E® DMX
Address Writer
(SIRS-E-DMX-PROG)



SIRS-E RGBW Wire Connectors





SIRS-E RGBW Wire Leads



032119 4-5





Notes

- A good technique to minimize brightness loss and increase lumen output on CV LED Strips is to power the strip on both sides.
- LED electrical and photometric characteristics change with the manufacturing batch/bin date. Approximately 3-Step MacAdam Ellipses between batches.
- We reserve the right to change any data without prior notice.

About Us



SIRS-E /semiconductor • illumination • research • solutions /

In 2004, SIRS-E began research into the use of high powered LED components to be applied in direct lighting fixtures and LED strips.

In 2005, SIRS-E developed the RGB HPL01 – 12 watt (60 lumens per watt efficiency) RGB lighting fixture controlled via DMX using LumiLEDS, one of the first high powered LEDs eventually acquired by Phillips.

Included in early research solutions, was the development and testing of many different LED strips intended to be used for direct RGB lighting and effects applications.

This was the beginning of what we now know as SIRS – Electronics.

032119 5-5