

Customer Name

Project Name

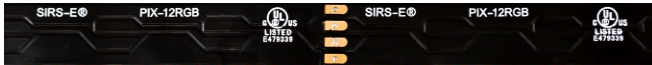
Part Number

### DIGITAL RGB LED Strip

#### Front Side



#### Back Side (UL Listing)



### Description

SIRS-E® DIGITAL PIX Series RGB LED strip, allows you to create billions of colors by simply mixing the Red, Green, and Blue colors and by having the ability to control each individual pixel and diode. Allowing the user to achieve an endless desire of design possibilities. Compliant with all safety requirements as defined by UL standards.

Optional Black PCB Board or White PCB Board

### Product Specifications

<b>Input Voltage</b>	12 V DC	<b>Cuttable Segment</b>	Cuttable every pixel: 16.5mm / 0.65in
<b>Control Method</b>	Pixel by Pixel	<b>Reel Length</b>	16.4 ft / 5 m
<b>Power Consumption</b>	12 W/m / 3.6 W/ft	<b>Max Run Length</b>	16.4 ft / 5 m, powered from both sides
<b>LED Chip Type</b>	High Quality SMD 3-Diode RGB	<b>Board Width</b>	0.39 in (10 mm)
<b>LED Density</b>	18 LEDs/ft / 60 LEDs/m	<b>Luminous Flux Maintenance</b>	75,000 hrs <sup>1</sup>
<b>Channels/Pixels</b>	3 Channels per Pixel (180 Channels/m)	<b>IC</b>	WS2815B - Pixel by Pixel
<b>Board Type/Color</b>	3 oz Density Copper, Black or White PCB	<b>Environmental</b>	IP 40 - Dry Locations / IP 68 - Damp, Wet
<b>Operating Temperature</b>	-10°F to 110°F	<b>Warranty</b>	5 Years Limited
<b>Mounting</b>	Non-Porous: 3M VHB Adhesive Tape	<b>Certifications</b>	 UL Listed, E479339

### Product Photometrics - Red, Green and Blue Diodes<sup>2</sup>

Color Diode	Peak Wavelength (nm)	Dominant Wavelength (nm)	CIE (x,y)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)
Red	631	619.5	(0.6866, 0.3096)	N/A	16.91
Green	517	524.7	(0.1750, 0.6860)	N/A	54.66
Blue	467	472.2	(0.1309, 0.0805)	N/A	13.05

### Product Photometrics - All Three Colors at Full Intensity<sup>2</sup>

Nominal CCT (K)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)	CIE (x,y)	Duv <sup>3</sup>	CRI	TM-30-15	
						Fidelity (Rf)	Gamut (Rg)
18000 K	129	27.7	(0.2144, 0.2442)	0.01	70	N/A	N/A

1 - After 75,000 hrs: 30% Luminous Flux loss, 10% Chromaticity change, as per LM-80-15

2 - Photometric values estimated from our Digital Pix Series of LED strips

3 - Duv Chromaticity Consistency is throughout the run length. Typically below 1-step MacAdam Ellipse

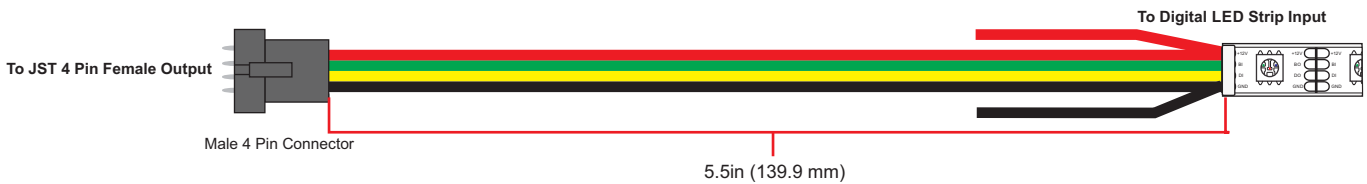
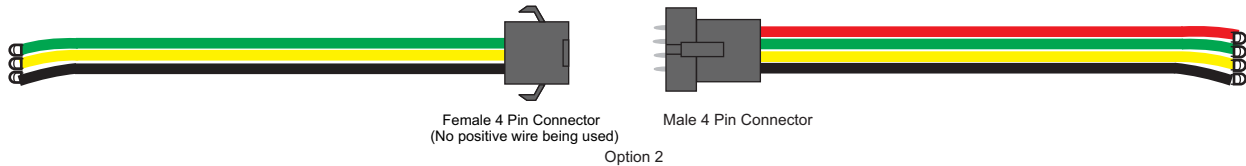
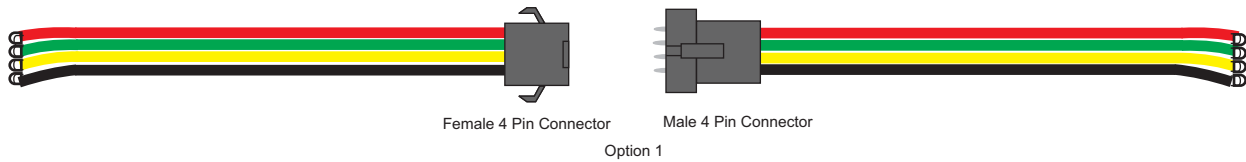
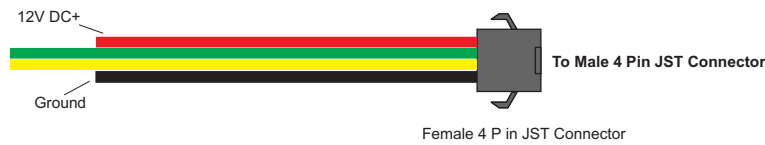
### Ordering Guide

Series	Voltage	Color	Density	IP	PCB Board Color
PIX	12	RGB	XX XX		X
			60 40		B
			68		W

### Product Country of Origin

Product Engineering & Design	USA
Assembled	China Pre-assembled / USA Final Assembly
QC Quality Control	USA
Product Customization	USA
Technical Support	USA

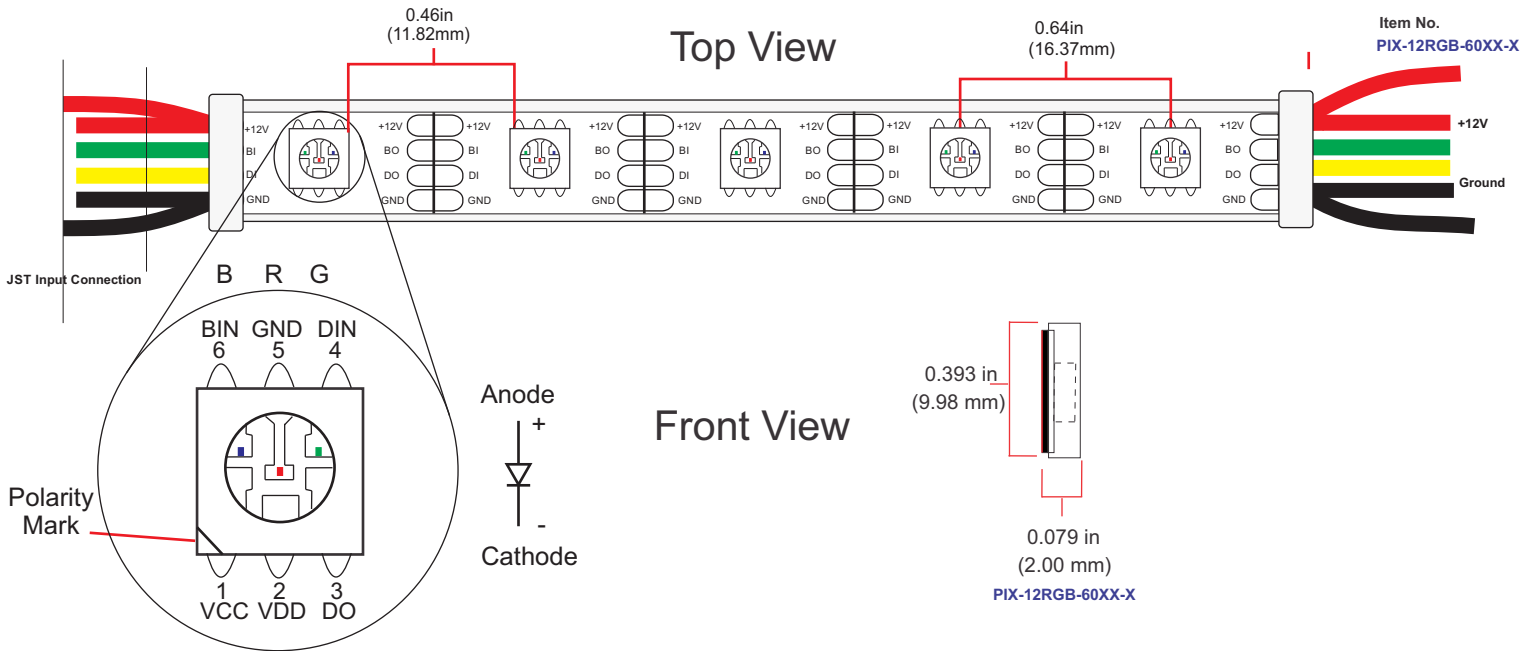
### Wiring Diagram



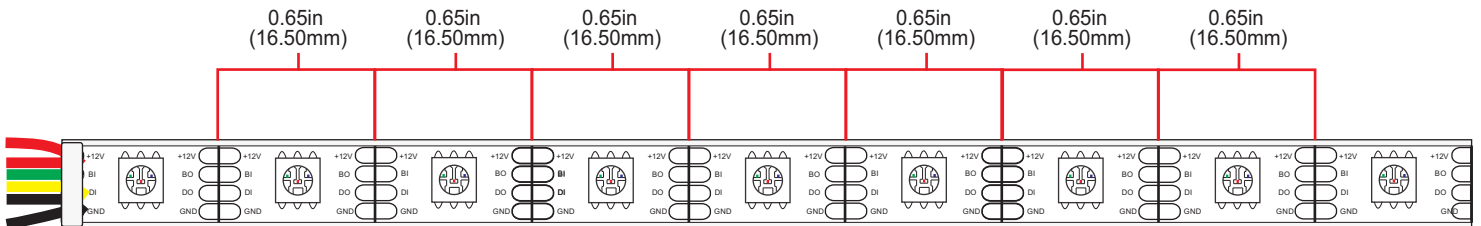
**Color Code LED Strip**

Red	+12V
Green	CLOCK (BI)
Yellow	DI
Black	GROUND

### Mechanical Dimensions



### Cutable Segments



#### Note:

- Any pixel failure won't affect signal transfer and total emitting effect
- Cutable at every pixel segment

### Weight

Product Weight: 2.7 oz, 16.4 ft Reel (IP 40), Without Packaging.

### Accessories Compatible

This list depicts some of our trusted accessories that are compatible for this product. For a complete list, please visit our website.



MADRIX Nebula  
Controller



MADRIX Compatible  
Software



DMX to SPI decoder



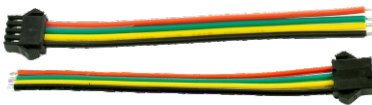
Meanwell 12V PSU  
(LED-PS12V-120W65-ULA)



Meanwell 12V PSU  
(LED-PS12V-260W-UL)



SE Aluminum Extrusion



SIRS-E JST  
Connectors



SIRS-E JST  
Wire Leads



## Notes

A good technique to minimize brightness loss and increase lumen output on 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.