Customer Name	Project Name	Part Number

Flexible DMX RGB LED Strip

Description

SIRS-E® DMX RGB LED strip lights let you create millions of colors by just mixing red, green, and blue colors. 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 / Readressable at 1.64 ft (0.5m)[1]
Control Method	DMX512 Control - Pixel by Pixel	**Reel Length**	16.4 ft / 5 m
Power Consumption	2.00 W/ft	**Max Run Length**	16.4 ft / 5 m, powered from both sides
LED Chip Type	High Quality SMD 3-Diode RGB	**Segment Width**	0.56 in (14 mm)
LED Density	10 LEDs/ft / 34 LEDs/m	**Luminous Flux Maintenance**	75,000 hrs[2]
Channels/Pixels	3 Channels per Pixel (510 Channels Total)	**Dimming**	DMX512 Control - Pixel by Pixel
Board Type/Color	3 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 Diodes[3]

Color Diode	Peak Wavelength (nm)	Dominant Wavelength (nm)	CIE (x,y)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)
Red	628.6	621.6	(0.6940, 0.3052)	25	16.91
Green	517.3	523.6	(0.1528, 0.7224)	90	54.66
Blue	464.7	469.0	(0.1327, 0.0609)	20	13.05

Product Photometrics - All Three Colors at Full Intensity[3]

Nominal CCT (K)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)	CIE (x,y)	Duv	CRI	TM-30-15 Fidelity (Rf)	Gamut (Rg)
22000 K	129	27.7	(0.2196, 0.2549)	+0.0250	64.0	NA	NA

1 - The RGB DMX strips are cuttable in any pixel, but in order to start at DMX address channel 001, you need to cut at 0.5m (1.64 ft), usually represented were there is solder joints. If you want to change the starting address, you will need a DMX Address Module, available on our website.
2 - After 75,000 hrs: 30% Luminous Flux loss, 10% Chromaticity change, as per LM-80-15
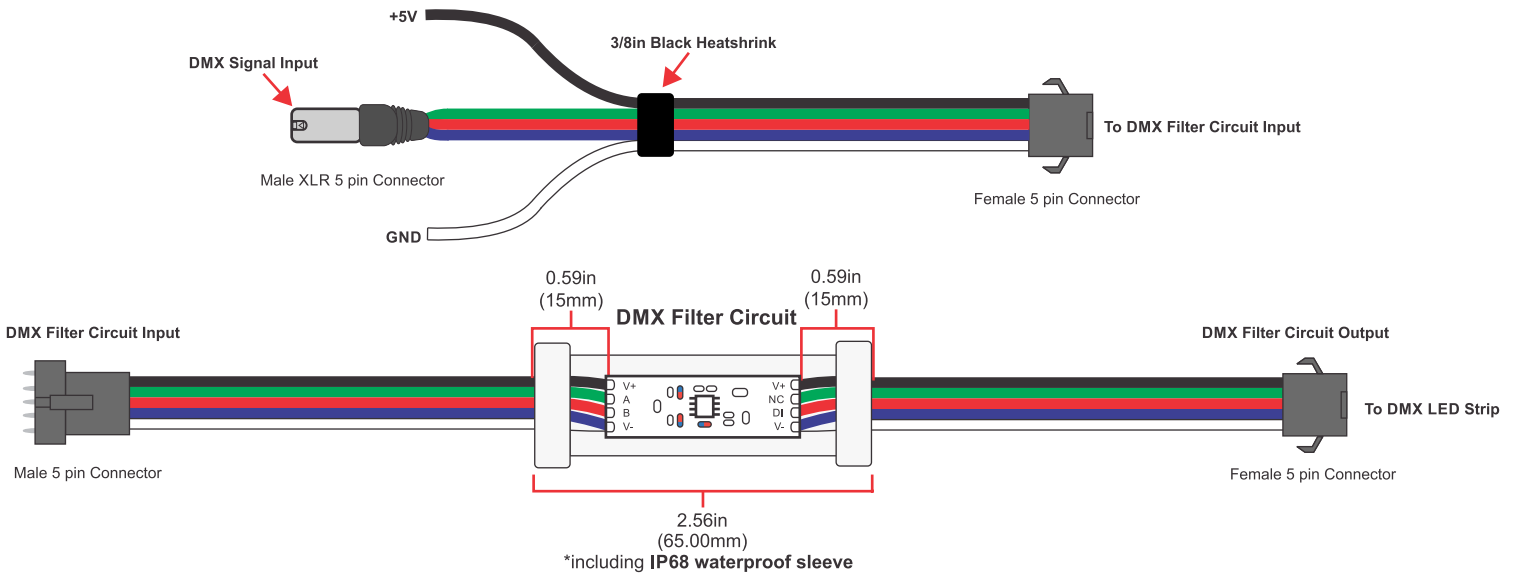3 - Photometric values estimated from our AcuVibrant™ RGB series of LED strips.

SIRS-E ®

Ordering Guide

LED Size	Voltage	Color	Density	IP
5050	5	RGBXX	X X	XX
	5	RGB	34	67
				68*

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

Product Country of Origin

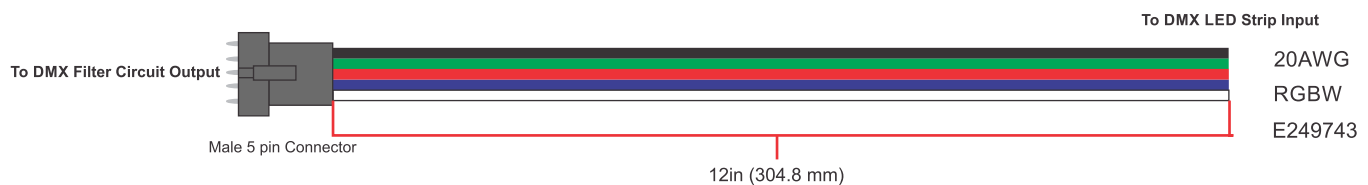| Product Engineering & Design	USA
Assembled	China Preassembled / USA Final Assembly
QC Quality Control	USA
Product Customization	USA
Technical Support	USA

Wiring Diagram

+5V

DMX Signal Input

3/8in Black Heatshrink

Male XLR 5 pin Connector

GND

To DMX Filter Circuit Input

Female 5 pin Connector

0.59in (15mm)

DMX Filter Circuit

0.59in (15mm)

DMX Filter Circuit Input

V+ A B V-

V+ NC DI V-

DMX Filter Circuit Output

Male 5 pin Connector

To DMX LED Strip

Female 5 pin Connector

2.56in (65.00mm)
*including **IP68 waterproof sleeve**

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

1 V+ A B V-   V+ NC DI V- 2

1.38in (35.00mm)
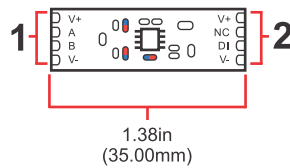
The 34 LEDs/m DMX strips requires a filter whether is 5m long or just 0.5m. The 24 LEDs/m DMX strips already have a DMX filter included so there's no need of an additional external filter like in the 34 LEDs/m strips.

To DMX LED Strip Input

To DMX Filter Circuit Output

Male 5 pin Connector

12in (304.8 mm)

20AWG

RGBW

E249743

Color Code Male XLR 5 pin

1 5
2 4
3

Color Code XLR
Pin 1 - V- / Ground
Pin 2 - B / DMX-
Pin 3 - A / DMX+
Pin 4 - NC
Pin 5 - NC
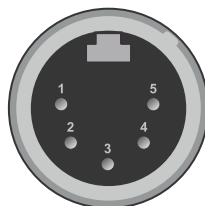
(Front View)
XLR Male Cable
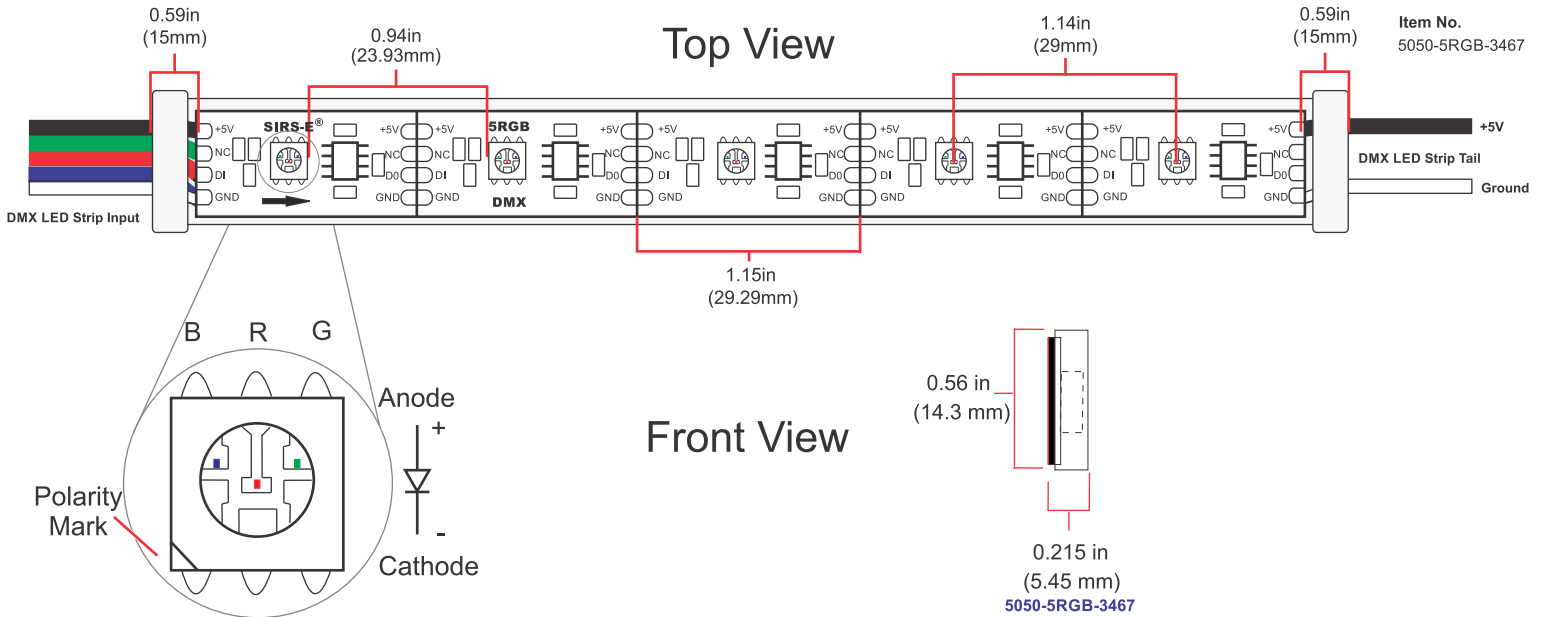
Color Code LED Strip
+5V
NC
DI/D0
Ground
Ground

Color Code Filter Circuit
+V
A
B
V-
V-

Mechanical Dimensions

Top View

Front View

Item No.
5050-5RGB-3467

0.59in (15mm)
0.94in (23.93mm)
1.14in (29mm)
0.59in (15mm)
1.15in (29.29mm)

0.56 in (14.3 mm)
0.215 in (5.45 mm)
5050-5RGB-3467

DMX LED Strip Input
DMX LED Strip Tail
+5V
Ground

B R G
Anode +
Cathode -
Polarity Mark

Cutting & Re-Addressing Instructions

1.64 ft (0.50 m)

Cut Mark 0.5m - Solder Joints
Resets back to DMX address 001

Field cuttable in any pixel
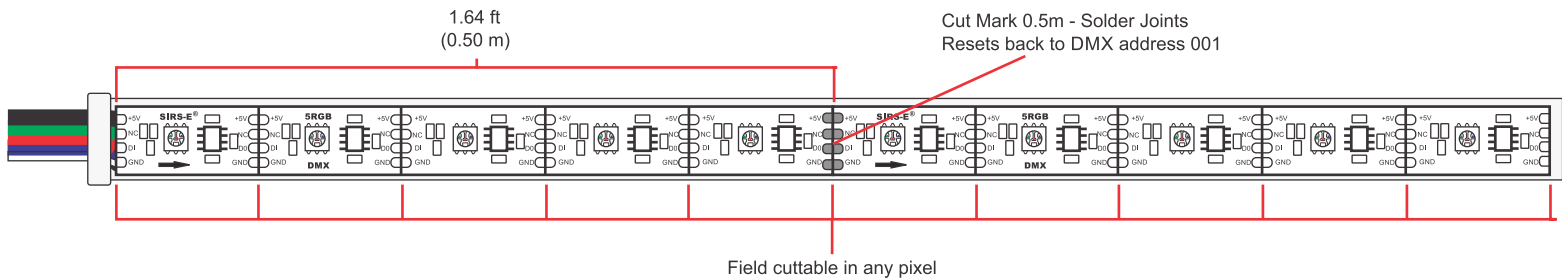
Important:

- The RGB DMX strips are cuttable in any pixel, but in order to start at DMX address channel 001, you need to cut at 0.5m (1.64 ft), usually represented were there is solder joints.
- If you want to change the starting address, you will need a **DMX Address Module** (PN# dmx-address-module), available on our website.
- If you cut a segment, make sure the cable leads connect to a DMX filter.

Weight

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

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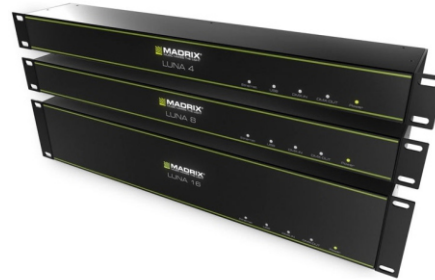
Compatible Accessories

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
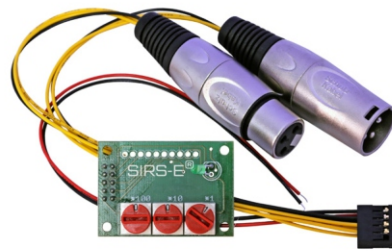(AD-PRO-6)

MADRIX Neo
DMX512 Interface
& Software Licenses

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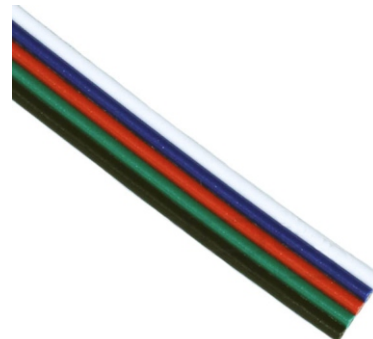

MADRIX Luna
ArtNet Interface

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

SIRS-E® DMX
Address Module
(dmx-address-module)

SIRS-E RGBW
Wire Connectors

SIRS-E RGBW
Wire Leads

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

LED LIGHTING AND DMX CONTROL

SIRS-E /semiconductor • **i**llumination • **r**esearch • **s**olutions /

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.

sirs-e.com