

LED LIGHT STRIP MODULE TM

SPECIFICATION INFORMATION



LED LIGHT STRIP MODULE TM

SPECIFICATION INFORMATION

DESCRIPTION

Emeralight's LED Light Strip Module™ bring white or colored lighting to cramped, contoured, and shallow places bright LEDs are surface mounted on printed circuit board (PCB) in groups of nine, three, two, or one in rigid low profile strips that are less than a 1/4 inch tall and connected by flexible wiring. Strips mount to most any surface with a supplied peel-off adhesive 3M VHB. Ideal for illuminating bar tops, coves, under steps, and other tight or contoured areas, edge lighting acrylic signage and backdrops, and back or halo lighting logos, shapes, and commercial lighting elements. Use controllers with different colored strips to add color changing effects to projects.



LED Light Strip Modules™
Bright LED lighting
for tight and contoured areas

- White and colored light
- Controllable
- Wide viewing angle
- Extremely low profile
- Flexible, bendable
- Choose from 1, 2, 3, or 9 LEDs per strip
- 3M VHB Transfer Tape

GENERAL SPECIFICATIONS

- **Color Range:** White, amber, red, blue, and green
- **Source:** Single-colored LEDs
- **Beam Angle:** 120 degree viewing angle
- **Throw:** Approximately 18 inches with no lens. Ideal distance is 5 inches from backlight frosted acrylic or other colored lens.
- **Listings:** UL listed

ENVIRONMENTAL SPECIFICATIONS

- **Temperature Range:** -10 to 120 F (-23 to 49 C)
- **Moisture Exposure:** Not submersible. Should not be exposed to direct wet weather elements. Conformal coating protects componentry from most high humidity levels.

COMMUNICATION SPECIFICATIONS

- **Data Interface:** None required for on/off installations. For control of multiple strips of different colors in an installation, Contact factory for controller specification.
- **Control:** None required in standard on/off installations. For control of multiple strips of different colors in an installation, Contact Emeralight for specification.

ELECTRICAL SPECIFICATIONS

- **Power Requirement:** 12VDC power supply (On/off installations)

• Power Consumption:

LED colors	Modules with 1, 2, and 3 LEDs per strip	Module with 9 LEDs per strip
White, Blue, Green	.36 W	1.08 W
Amber, Red	.84 W	2.52 W

- **Power/Data:** 12V power supply (on/off installations)
12V power/data supply (contact factory)

- **Life of Bulbs:** Under ideal environmental and electrical conditions operating normal effects, Emeralight's LEDs are expected to last approximately 50,000 to 100,000 hours according to LED manufacturers as with most light sources, users can expect a depreciation in brightness during the course of this estimated hour lifetime. A depreciation in brightness can be expedited by a change in environmental conditions, electrical uses, or the types of effects that are used on the LEDs.

CONDITIONS (DRY LOCATIONS)

As manufactured, LED Light Strip Modules can be used in dry conditions indoors and outdoors

CONDITIONS (WET OR DAMP LOCATIONS)

LED Light Strip Modules are conformal coated, which protects them from high humidity levels. Light Strips should be protected from direct exposure to wet weather elements. Light strips are NOT approved for underwater or Submerged locations.

FAQS WHEN SPECIFYING LED LIGHT STRIP MODULES

↳ **What other components are required to install Light Strips in a project? How many Light Strip modules can be connected to a power supply?**

On/Off Installations: You only need to use a 12VDC power supply.

	Number of Light Strips That Can Be Connected To A Power Supply(12Vdc / 60W)					
	9 LED MODULE (GLORYII)		3 LED MODULE (TRINITY)		2 LED MODULE (SIDEWINDER)	
	In A Continuous Run	Overall	In A Continuous Run	Overall	In A Continuous Run	Overall
Green	55	55	166	166	166	166
Blue	55	55	166	166	166	166
White	55	55	166	166	166	166
Amber	23	23	71	71	71	71
Red	23	23	71	71	71	71

Note: Depending on the construction features of your project, it might make more sense to add an additional power supply rather than connect increasingly Long runs of Light Strips. Consult Emeralights project team for advice.

Emeralight
(816) 421-6290
(816) 559-4499 fax
www.emeralight.com

continued on next page ↳

FREQUENTLY ASKED QUESTIONS (CONT.)

↳ **What's the maximum distance a Light Strip can be located from its power supply (on/off installation Emeralight LED driver board (multiple color controlled installations)?**

Approximately 15 feet. Although longer distances are possible, you should consult Emeralight for a final recommendation as it might be more cost effective to add an additional power supply or LED driver board to a project than use long cable runs to individual Light Strips.

↳ **How do I install Light Strips in a project?**

Light Strips include a 3M VHB Transfer Tape on the back of each unit that sticks to most surfaces. Alternatively, Light Strips can be attached to surfaces with insulated staples provided the staple is wider than the light strip (about 3/8 of an inch) and does not damage it when attached to the surface. Presently, there are no provided screw mount options or other approved installations where a fastener can pass directly through a Light Strip.



∞ 3M VHB Transfer Tape

↳ **How can Light Strips be arranged in a project?**

Virtually any way you need them to be depending on the structural elements of your project.



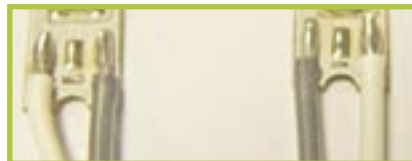
∞^ Approximately 3.5 to 4 inches of flexible wiring connects the Light Strips.

The wiring between each strip can be extended in certain cases where the total line distance does not exceed the load bus, it can be coiled or curved if you need to place the strips closer together.



↳ **What are the connector options for Light Strips?**

In these photos, you can see Light Strips have a positive connection (white wire) and a negative connection (black wire). In on/off installations, these connections are typically soldered onto the power jack.



∞ Positive and negative connections

↳ **If I have a project that needs edge-lit acrylic for a sign or backdrop, what other accessories are Available?**

Emeralight manufactures a channel that holds the Light Strip and acrylic in place. Two base options, countertop and wall mountable.



∞ These photos show an aluminum channel that can be used to hold Light Strips and acrylic backdrops or engraved signage (example at right). The power supply simply plugs into the end.

↳ **In controlled installations, what effects are possible with Light Strips**

Emeralight's basic controller can generate a number of effects on each strand (not each light) of Light Strips connected to a driver board including fading, ramping, pops, and other effects. Probably the most common use in controlled installations is to slowly change colors (in a wash or backlighting situation) where one strand is slowly dimmed while another is slowly ramped. Emeralight has manufacturing partners who offer intelligent lighting controls for specialized projects.



**LED Light Strip Modules™
Bright LED lighting
for tight and contoured areas**

- White and colored light
- Controllable
- Wide viewing angle
- Extremely low profile
- Flexible, bendable
- Choose from 1, 2, 3, or 9 LEDs per strip
- 3M VHB Transfer Tape

continued on next page ↳

Emeralight
(816) 421-6290
(816) 559-4499 fax
www.emeralight.com

FREQUENTLY ASKED QUESTIONS (CONT.)

⇒ **How high do the tips of the LED extend above the LED Light Strip board?**
Less than a 1/4 inch



⚡ Low profile LEDs

⇒ **What are some suggested situations where Light Strips should be used**

The biggest advantage of LED Strip is their low profile construction and flexible wiring that allows them to be used in tight, shallow, or contoured areas. 1) Think of situations like under bar tops, under steps, around coves, and other areas that are difficult to fit traditional lighting fixtures. 2) Backlighting or halo lighting are also great places to use Light Strips. In these installations, typically letters, logos, or other shapes are manufactured and hung on a wall with about 3-5 inches of clearance. Light Strips can then be adhered to the back of the object and project their light on the wall in a halo effect around the shape. 3) Light Strips are also highly effective in edge lighting acrylic surfaces. In these installations, Light Strips are placed on the edge of an acrylic sign or backdrop to give the surface a glow. For additional impact for your customer, ask Emeralight about manufacturers who can deliver an acrylic surface with a custom logo, lettering, or shape.



⚡ This box is approximately 3 inches deep and shows how Light Strips can be used to illuminate a frosted lens in a shallow compartment, like a [Channel Letter](#)



LED Light Strip Modules™
Bright LED lighting
for tight and contoured areas

- White and colored light
- Controllable
- Wide viewing angle
- Extremely low profile
- Flexible, bendable
- Choose from 1, 2, 3, or 9 LEDs per strip
- 3M VHB Transfer Tape

⇒ **Can I see photos of the 1, 2, 3, and 9 LED Light Strips**

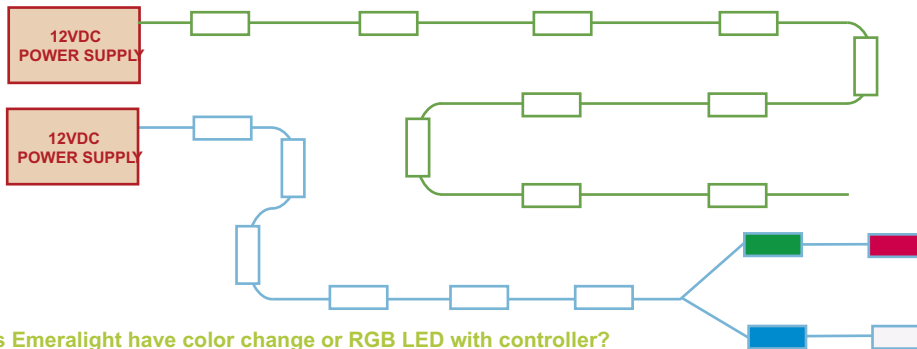


⚡ One LED Light Strip ⚡ Two LED Light Strips ⚡ Three LED Light Strips



⚡ Nine LED Light Strips

⇒ **Can I see a system diagram that shows how Light Strips fit into an on/off project?**



⇒ **Does Emeralight have color change or RGB LED with controller?**

Yes, we are currently offering an RGB EdgeKit system and RGB LED Light Strip modules with Easy Controller.

⇒ **Does Emeralight have a high powered LED for lighting projects?**

Yes, 1st qtr 06 we will offer a 1watt white and red LED module. We will have 2 styles to choose from . A 3 LED strip module with high intensity LEDs producing 72 Lumens, **T9**. And 1 LED module producing 30 Lumens, **TRITON**.

⇒ **How do I submit a Light Strips project to Emeralight for bidding?**

Submit drawings, photos, written specifications, and other relevant data to:

Sales
Sales@emeralight.com
816-813-4115

Shawn Brune
Engineering
sbrune@emeralight.com
816-559-4411

Emeralight
(816) 421-6290
(816) 559-4499 fax
www.emeralight.com

Based on your initial information and answers to any follow-up questions, A sales rep will return budgetary pricing within a few business days.