



## Digital RGB LED Weatherproof Strip - LPD8806 x 48 LED - LPD8806

PRODUCT ID: 1948

### Select Length

[Learn about the benefits of ordering full reels](#)






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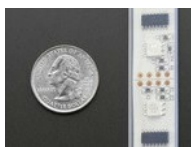
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## DESCRIPTION

These LED strips are fun and glowy. There are 48 RGB LEDs per meter, and you can control each LED individually! Yes, that's right, this is the digitally-addressable type of LED strip. You can

set the color of each LED's red, green and blue component with 7-bit PWM precision (so 21-bit color per pixel). The LEDs are controlled by shift-registers that are chained up down the strip so you can shorten or lengthen the strip. Only 2 digital output pins are required to send data down. The PWM is built into each chip so once you set the color you can stop talking to the strip and it will continue to PWM all the LEDs for you.

The LPD8806 chip has **built in 1.2 MHz high speed 7-bit PWM for each channel** - that means it can do 21-bit color per LED (way more than the eye can easily discern). Once you set the brightness level for the LEDs, your microcontroller can go off and do other things, no need to continuously update it, or clock it.

The strip is made of flexible PCB material, and comes with a weatherproof sheathing. You can cut this stuff pretty easily with wire cutters, there are cut-lines every 1.6"/ 41mm (2 LEDs each). Solder to the 0.1" copper pads and you're good to go. Of course, you can also connect strips together to make them longer, just watch how much current you need! [We have a 5V/2A supply that should be able to drive 1 or more meters](#) (depending on use), a [5V 4A](#) for a couple meters, and a [5V/10A supply that can drive 5+ meters](#) (or more, if you are not lighting up all the LEDs at once) **You must use a 5V DC power supply to power these strips, do not use higher than 6V or you will destroy the entire strip**

They come in 5 meter reels with a [4-pin JST SM connector](#) on each end. These strips are **sold by the meter!** If you buy 5m at a time, you'll get full reels with two connectors. If you buy less than 5m, you'll get a single strip, but it will be a cut piece from a reel which may or may not have a connector on it. If the piece comes from the end of the reel, the connector may be on the output end of the strip!

To wire up these strips we suggest picking up some JST SM [plug and receptacle](#) cables. If you want to connect to the **input** of a 5 meter cable (to wire it to power and a microcontroller) please use the [plug](#) connector. If you want to connect to the **output**, use the [receptacle](#) cable. If you are getting a less-than-5 meter strip, you'll probably want one plug and receptacle set to make it easy to connect and disconnect.

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## TECHNICAL DETAILS

Technical specs (newer LPD8806 type):

- [LPD8803 - LPD8806 Datasheet](#)
- **16mm (0.6") wide**, 4mm (0.16") thick
- 48 LEDs per meter
- Removable IP65 weatherproof casing
- Maximum 5V @ 120mA draw per 2.5" strip segment (all LEDs on full brightness)
- 5VDC power requirement (do not exceed 6VDC) - no polarity protection
- 2 common-anode RGB LEDs per segment, individually controllable
- LED wavelengths: 630nm/530nm/475nm
- Connector: [4-pin JST SM](#)
- [1m Datasheet](#)
- [5m Datasheet](#)

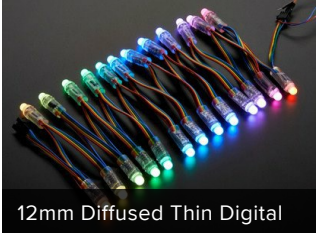
[We have a detailed tutorial showing wiring, power usage calculations, example code for usage, etc. Please check it out!](#)

[Arduino library for the LPD8806-based strip](#)



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