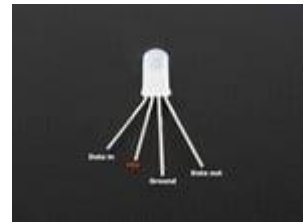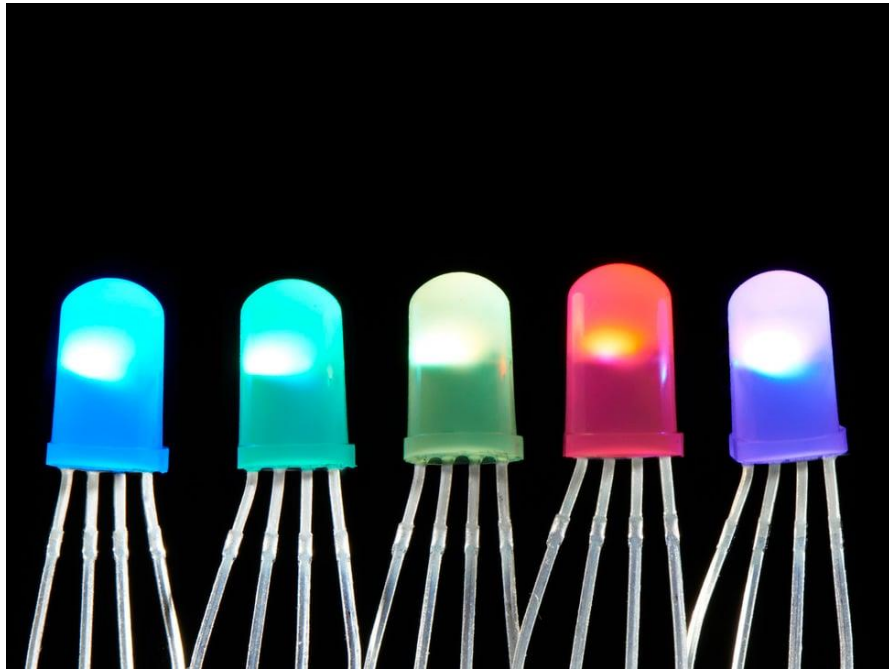# adafruit

NeoPixel Diffused 5mm Through-Hole LED - 5 Pack

Product ID: 1938

Description

LOLwut? NeoPixels in 5mm through-hole variety? Oh yes, we have them! If you like NeoPixel strips you'll luv these 5mm diffused through-hole NeoPixels. All the single-pin-controlling-hundreds-of-LEDs goodness in a breadboard friendly format. Each LED looks just like a shorter version of the classic through-hole 5mm RGB LED with 4 legs, but instead of just red/green/blue there's a little chip inside that can control the LED with high speed PWM for 24-bit color.

These are the diffused type instead of the Neopixel Clear 5mm LEDs. They look a lot like the 8mm variety but are smaller.

Power them with 5V and chain them together, tying the Data-Out pin of one to the Data-in of the previous one in the chain. If you're using an Arduino, you can control these LEDs with our wonderfully-written [Neopixel library for Arduino](). They also work great with our Trinkets. Note that these are "RGB" instead of "GRB" format used in the 5050-sized LEDs you are so used to. Check in the NeoPixel example code for how to swap the colors automagically.

These great looking LEDs are also fast and responsive with a milky-diffusing lens for a soft look.

Technical Details

Revision History:

- As of Feb 14, 2021 – we are shipping a slightly different, but physically compatible version. The new version does not have a 'blue flicker' on startup like before, it stays off until data is received. Current per LED is 12mA max instead of 18mA. The shape, pins, and pin-out are identical, however the color and brightness may be slightly different and noticeable if the two versions are next to each other.

 Specs:

- Weight: 0.3g
- [WS2812 Datasheet]()
- [SK6812 Datasheet]()
- May ship with either WS2812B or SK6812-based LEDs. They are the same brightness, color and protocol

We don't have a datasheet for the LEDs themselves yet, see the photos above for the pinouts.

The leads are flexible. The spacing starts at 1.1mm (0.04") but we were able to bend them as needed.

5.0±0.2

5.8±0.2

8.7±0.2

1.0±0.2

13 ± 0.5

15 ± 0.5

1.0±0.5

1.25±0.02

https://www.adafruit.com/product/1938   10-2-23