
WS2812B-2020 64 LED Matrix

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This board contains 64 WS2812B-2020 RGB LED in 2x2 mm SMD package at an 120 x 120 mil grid. Color and brightness are controlled by a single wire. The boards can be chained together with other boards. Only one control pins is necessary to control the LED matrix.

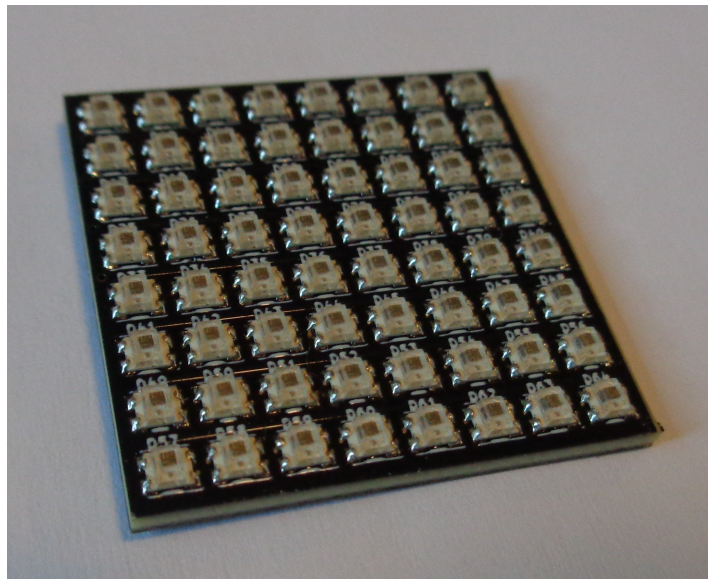


Figure 1: *Photo of the 64 RGB LED matrix board*

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The License is attached at the end of this document as well as a Guide to the CERN OHL v.1.2.

Please feel free to give your highly appreciated feedback, comments and suggestions. Or ask any questions about the board. We'll be glad to answer or help you.

Specification

- Dimension: 1 x 1 Inch (25.4 x 25.4 mm)
- LED grid 120 x 120 mil (3.048 x 3.048 mm)
- Boards can be daisy chained and tiled together maintaining the same LED grid
- digital control RGB color and brightness of each LED
- Supply Voltage 3.7V to 5.3V
- 4-Layer design
- Open source

For more details and description about the LED itself, please see the data sheet.

Connection

The board have solder pads on the back side of the PCB. Solder the required wires directly to the pads. The picture below shows the location of the solder pads.

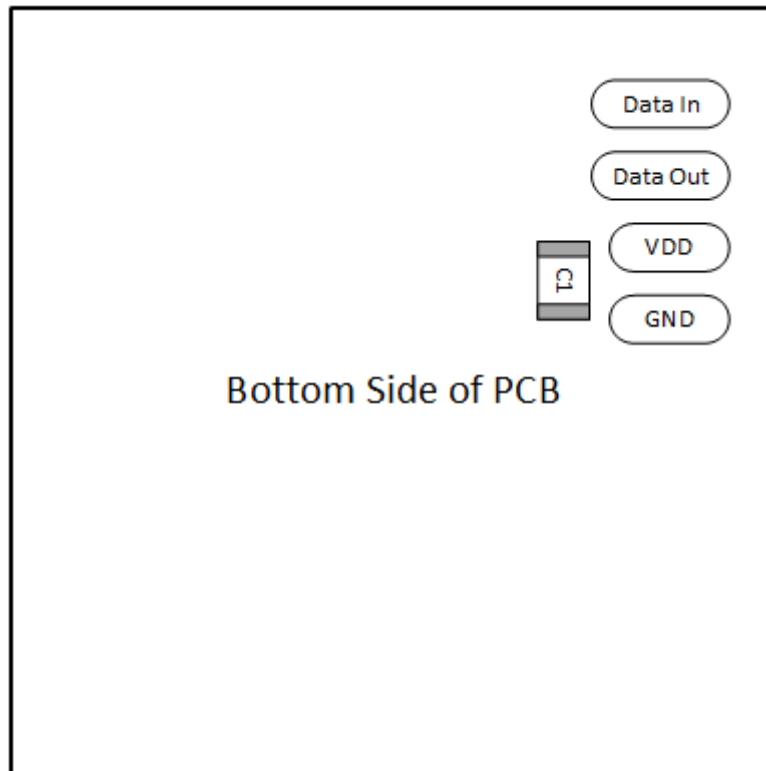


Figure 2: *Position of solder pads*

WS2812B-2020 series connection

The following graphic should help during software programming and controlling the LED matrix.

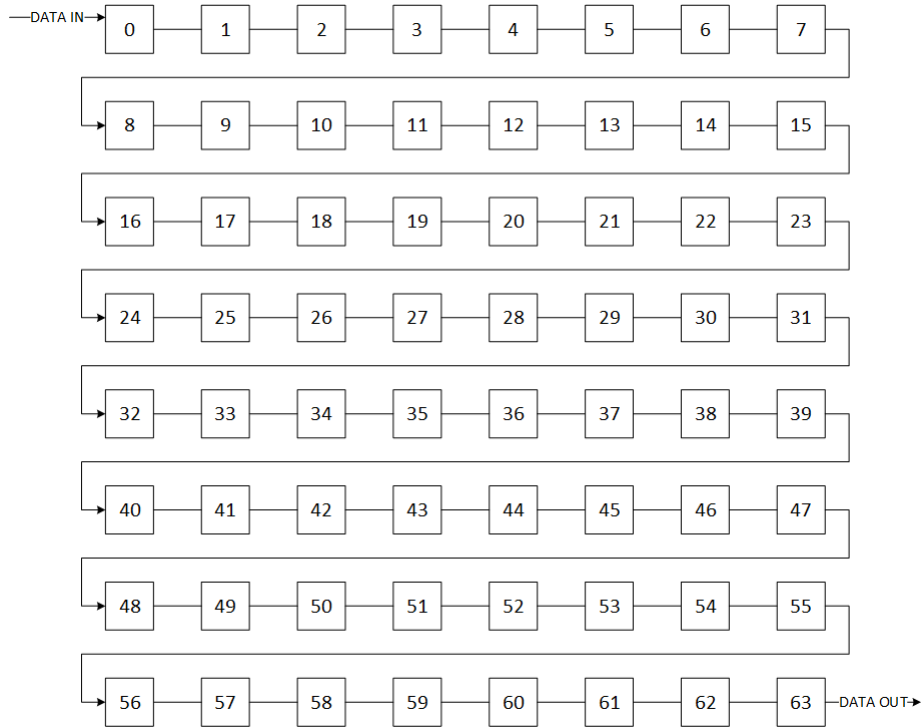
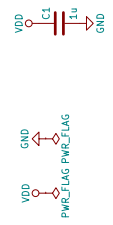
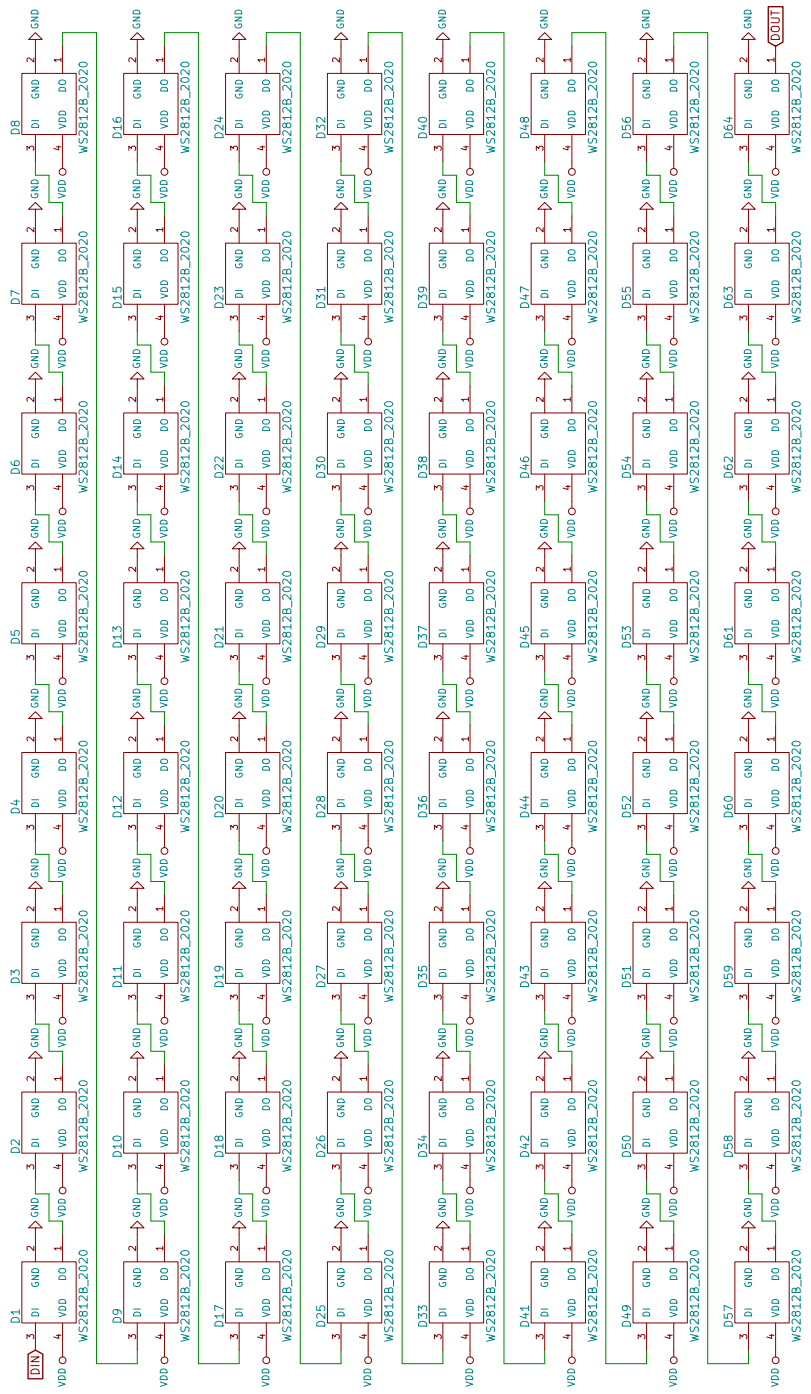


Figure 3: *LED arrangement*

Attachments

1. Board Schematics
2. CERN OHL v1.2
3. CERN OHL v1.2 How-to-Guide



Sheet: /
 File: WS2812B_2020_64.sch

Title:

Size: A3

Date:

KiCad E.D.A. - kicad 4.0.6

Rev:

Id: 1/1

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