

CIRCLE EDGE LED TINYSHIELD

ASD2412-R-LG



DESCRIPTION

The Circle Edge LED TinyShield uses only six I/O signals to create a wide variety of LED indications. This board includes 21 LEDs that are mounted around the outside of the board to form a full circle. It's designed to be placed on the top of your TinyShield stack. The LEDs are arranged using Charlieplexing, a technique that allows for control of multiple LEDs using fewer I/O signals. Available with Red, Green and Amber LED color options.

TECHNICAL DETAILS

To see what other TinyShields this will work with or conflict with, check out the **TinyShield Compatibility Matrix**.

LED Specs

- $_{\odot}$ $\,$ 21 Side Mounted LEDs around the side of the board $\,$
- Charlieplexed IO on 6 signals
- o Available in Green, Amber or Red

TinyDuino Power Requirements

- o Voltage: 3.0V 5.5V
- Current:
 - o 1.5mA per LED (3.0V)
 - o 5.0mA per LED (5.0V)
 - o Due to the low current, this board can be run using the TinyDuino coin cell option

Pins Used

• Pins 4, 5, 6, 7, 8, and 9 are used, see schematic or sample code for connections

Dimensions

- o 20mm x 20mm (.787 inches x .787 inches)
- Max Height (from lower bottom TinyShield Connector to upper top LEDS): 3.31mm (0.130 inches)
- Weight: .73 grams (.026 ounces)

NOTES

• This board has no top TinyShield connector, so no additional TinyShields can be stack on top of this. This board is meant to be on the top of a TinyDuino stack.

- If a top connector is needed to stack additional TinyShields, there is also the 16 Edge LED TinyShield which has 16 LEDs and a top connector.
- The LEDs are hooked up using **Charlieplexing**, a technique for driving many LEDs with only a few IO signals. See the tutorial to learn more about this and use our free library to control these easily.



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