



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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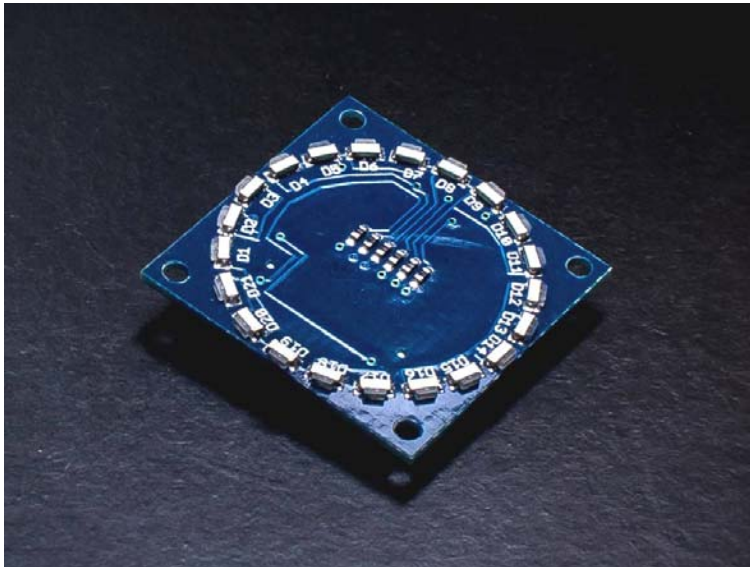
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CIRCLE EDGE LED TINYSHIELD

ASD2412-R-LA



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.

To learn more about the **TinyDuino Platform**, click [here](https://tinycircuits.com/pages/tinyduino-overview)
<https://tinycircuits.com/pages/tinyduino-overview>

TECHNICAL DETAILS

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

LED Specs

- 21 Side Mounted LEDs around the side of the board
- Charlieplexed IO on 6 signals
- Available in Green, Amber or Red

TinyDuino Power Requirements

- Voltage: 3.0V - 5.5V
- Current:
 - 1.5mA per LED (3.0V)
 - 5.0mA per LED (5.0V)
 - 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

- 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)
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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.