

AMBIENT LIGHT TINYSHIELD

ASD2811-R



DESCRIPTION

Measure light with your TinyDuino - this TinyShield features a TAOS TSL2572 Ambient Light Sensor, that approximates human eye response to light intensity under a variety of lighting conditions and through a variety of attenuation materials. Accurate ALS measurements are the result of TAOS' patented dual-diode technology and the UV rejection filter incorporated in the package. In addition, the operating range is extended to 60,000 lux in sunlight when the low-gain mode is used.

The Ambient Light Sensor TinyShield incorporates level shifters and a local power supply to ensure proper and safe operation over the entire TinyDuino operating voltage range between 3 – 5V.

To learn more about the **TinyDuino Platform**, click [here](#)

<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**

TAOS TSL2572 Ambient Light Sensor Specs

- Approximates Human Eye Response
- 45,000,000:1 Dynamic Range
- Operation to 60,000 lux in Sunlight
- Package UV Rejection Filter
- Wide Magnetic Field Range (+/-8 Oe)
- Low Power – Active: 200uA, Wait: 90uA, Sleep: 2.2u

TinyDuino Power Requirements

- Voltage: 3.0V - 5.5V
- Current: 200uA (Active). Due to the low current, this board can be run using the TinyDuino coin cell option

Pins Used

- A5/SCL - I2C Serial Clock line
- A4/SDA - I2C Serial Data line

Dimensions

- 20mm x 20mm (.787 inches x .787 inches)
 - Max Height (from lower bottom TinyShield Connector to upper top TinyShield Connector): 5.11mm (0.201 inches)
 - Weight: .96 gram (.03 ounces)
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NOTES

- You can also use this shield without the TinyDuino – there are 0.1" spaced connections for power, ground, and the two I2C signals along the side of the TinyShield to allow you to connect a different system.