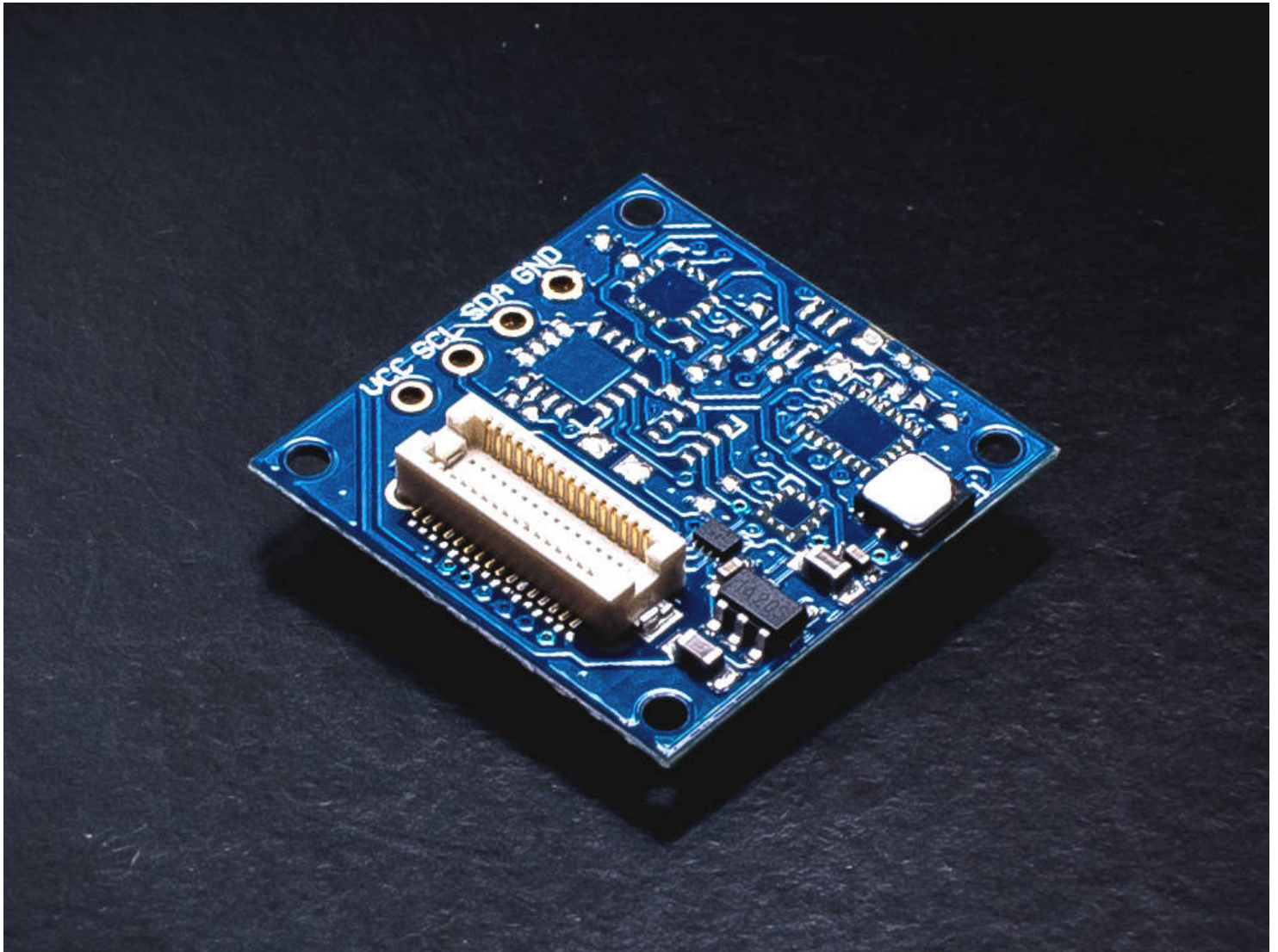


# Temperature / Humidity TinyShield - ASD2511-R-T

[tinycircuits.com/collections/sensors/products/temperature-humidity-tinyshield](http://tinycircuits.com/collections/sensors/products/temperature-humidity-tinyshield)



## DESCRIPTION

This TinyShield lets you measure temperature and humidity from the TinyDuino. Based around the Silicon Labs Si7020-A10 sensor, this allows for accurate temperature measurement ( $\pm 0.4^{\circ}\text{C}$ ) and precision relative humidity readings.

This TinyShield incorporates level shifters and a local power supply to ensure proper and safe operation over the entire TinyDuino operating voltage range up to 5V.

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

## TECHNICAL DETAILS

To see what other TinyShields this will work with or conflict with, check out the [TinyShield Compatibility Matrix](#)

## Si7020-A10 Specs

- Precision Relative Humidity Sensor
  - +-4% RH, 0-80% RH
  - 0 - 100% RH operating range
- High Accuracy Temperature Sensor
  - +-0.4C, -10 to +85C
- Factory Calibrated
- Integrated on-chip heater
- Excellent long term stability

## TinyDuino Power Requirements

- Voltage: 3.0V - 5.5V
- Current:
  - 150uA (Active Mode).
  - 60nA (Standby)
  - 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: 1 gram (.04 ounces)

---

## 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. **Warning:** *Revision 4 boards have a mistake on the silkscreen, the pin marked VCC is actually SCL, the pin marked SCL is actually SDA, and the pin marked SDA is actually VCC. If you connect this up the way it is marked you will not damage the board.*
- This sensor has a hole in the top of it for measuring humidity, care should be taken to not get debris in this opening.