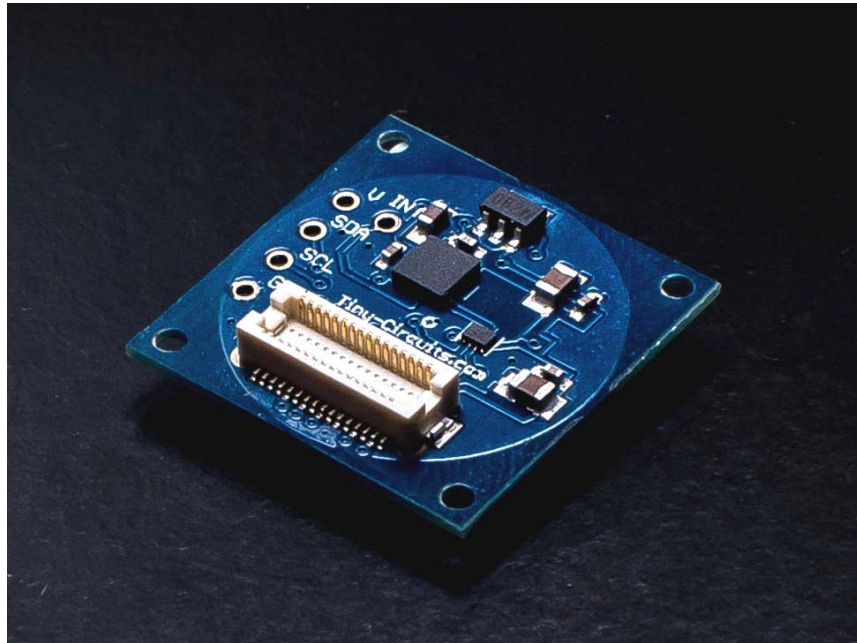


## COMPASS TINYSHIELD

ASD2613-R



## DESCRIPTION

This TinyShield features the high performance and low power Honeywell HMC5883L 3-axis compass. The HMC5883L includes state-of-the-art, high-resolution HMC118X series magneto-resistive sensors plus an ASIC containing amplification, automatic degaussing strap drivers, offset cancellation, and a 12-bit ADC that enables 1° to 2° compass heading accuracy.

The Compass 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.

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## TECHNICAL DETAILS

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

### Honeywell HMC5883L Compass Specs

- 3-axis (X, Y & Z)
- Digital resolution: 12bit (2 milli-gauss Field Resolution in  $\pm 8$  Gauss Fields)
- 1° to 2° Degree Compass Heading Accuracy
- Wide Magnetic Field Range (+/-8 Oe)
- Low Power: 100uA

### TinyDuino Power Requirements

- Voltage: 3.0V - 5.5V
- Current: 100uA 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 grams (.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.
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