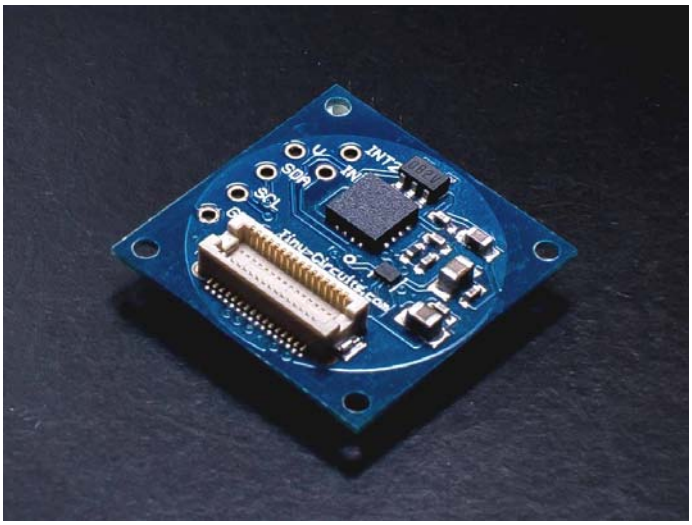
GYROSCOPE TINYSHIELD

ASD2614-R



DESCRIPTION

This TinyShield features the high performance and lower power ST L3G4200D 3-axis gyroscope. The L3G4200D allows measurement of angular rates in three axes. There is also an integrated temperature sensor built in.

The Gyroscope 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.

TECHNICAL DETAILS

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

ST L3G4200D Gyroscope Specs

- 3-axix (X, Y & Z)
- Three selectable full scales (250/500/2000 dps)
- 16 bit-rate value data output
- 8-bit temperature data output
- Integrated low- and high-pass filters with user-selectable bandwidth
- Ultra-stable over temperature and time
- Embedded power-down and sleep mode
- Embedded temperature sensor
- Embedded FIFO

TinyDuino Power Requirements

- Voltage: 3.0V - 5.5V
- Current
  - 6.1mA (normal operation)
  - 5uA (power down mode)
  - This board can be used with the TinyDuino coin cell option, however the user should power down the gyro between readings to minimize the current draw or else battery life will be very short

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: 1.00 grams (.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.