

Biscuit™

Programmable Wi-Fi 9-Axis Absolute Orientation Sensor Module



User Programmable

Users can develop and execute their own programs using Arduino IDE, utilizing the 3 dimensional sensor data.

Wi-Fi Connection

The 9-Axis sensor data can be transmitted through Wi-Fi connection to any host.

Cost Effective

Biscuit™ provides highly reliable and accurate sensor data at low cost.

Sensor Data

- 3-Axis Gyroscope
- 3-Axis Accelerometer
- 3-Axis Geomagnetic Sensor
- 3-Axis Orientation: Quaternion, Euler Angle, Rotation Vector
- Linear Acceleration
- Gravity
- Heading
- Temperature

Sensor Performance

- Accelerometer Ranges: $\pm 2g$, $\pm 4g$, $\pm 8g$, $\pm 16g$ selectable
- Accelerometer Resolution: 14 bit
- Gyroscope Ranges: $\pm 125^\circ/s$, $\pm 250^\circ/s$, $\pm 500^\circ/s$, $\pm 1000^\circ/s$, $\pm 2000^\circ/s$ selectable
- Gyroscope Resolution: 16 bit
- Geomagnetic Sensor Ranges: $\pm 1300\mu T$ (x, y axis), $\pm 2500\mu T$ (z axis)
- Geomagnetic Sensor Resolution: 13 / 13 / 15 bits for x / y / z axes

Wi-Fi

- Protocol: 802.11 b/g/n
- Frequency: 2.4 GHz band

MCU

- CPU: 32-bit, 80 MHz
- Flash Memory: 2 MB

IDE

- Arduino IDE

Size

- 25mm x 48mm (PCB)

Power

- Battery Operated
- Consumption: 75 mA (sensors and Wi-Fi turned-off)