



IMU MODULE HARDWARE SPECIFICATION

Model No. FLT-A100

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Full revision history and latest data sheets are available at
<https://github.com/diracs-delta/fruition-specs/tree/master/FLT-A100-EN> .

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1 Product Overview

1.1 General Description

The FLT-A100 is Fruition's latest inertial measurement unit (IMU) module, an economical solution to any hardware application in need of gyroscopic or accelerometric measurements.

The FLT-A100 IMU module is a tri-axis accelerometer and gyroscope, integrated with an energy-efficient microprocessor suitable for low power applications. The module firmware also contains an advanced signal processing algorithm aimed at noise reduction. It also contains a sensor fusion algorithm that outputs its three principal axes, i.e. its roll, pitch, and yaw. The module also supports UART communication through its stamp half-hole patch interface.

Our module is especially suitable towards robotics industries necessitating modules that are space-efficient. The FLT-A100 IMU module is only 15.2×17.8 mm in size, making it perfect for such applications.

1.2 Features

- Small size that is competitive with existing MEMS sensors.
- Integrated high-precision six-axis gyroscope.
- UART interface with high baud rate and I/O frequency.
- Accurate sensor fusion algorithm that calculates the roll, pitch, and yaw.
- High stability against thermal and vibrational fluctuation.
- Low power consumption.



2 Legal

2.1 Safety Information

This device is sensitive to electrostatic discharge (ESD). Though the module comes with standard ESD circuit protection, the components may still malfunction if ESD occurs. Standard ESD precautions should be taken when handling this device.

2.2 Liability

SHENZHEN FRUITION CO., LTD. shall not be liable, under any circumstances, for any special, indirect, incidental, consequential, or contingent damages for any reason, whether or not the buyer has been advised of the possibility of such damage.