

# Fermion ICG 20660L Accel+Gyro 6-Axis IMU Module

SEN0443

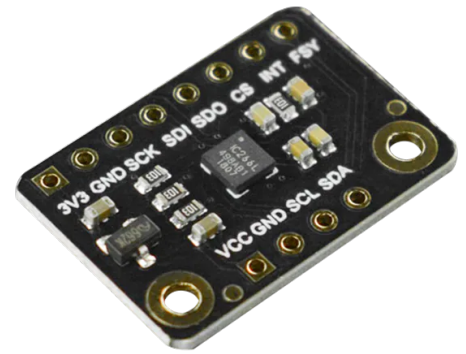
## Product Overview

03-03-2023

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

The DFRobot Fermion ICG 20660L Accel+Gyro 6-Axis IMU Module is a high-precision 6-axis IMU module. This module integrates a 3-axis accelerometer ( $\pm 2/4/8/16g$ ), a 3-axis gyroscope ( $\pm 125/250/500dps$ ), and on-chip 16-bit ADCs. With up to  $\pm 1\%$  initial sensitivity and low noise ( $6.5mdps/\sqrt{Hz}$ ), it is very suitable for anti-shaking applications.



The 6-axis motion sensor includes 512-byte FIFO to reduce traffic on the serial bus interface. Features function like programmable interrupts and FSYNC (frame synchronization), that can be used with another image/video capture devices to build up Optical Image Stabilization (OIS) / Electric Image Stabilization (EIS) projects.

## Features

- 6-axis IMU (3-axis accelerometer and 3-axis gyroscope)
- High performance: high initial sensitivity (Both accelerometer and gyro are 1%), high accuracy (16bit ADC) and lower noise ( $6.5MDPs / \sqrt{Hz}$ )
- 512-byte FIFO
- Rich functions: external programmable interrupt, frame synchronization, sleep to wake-up, motion detection

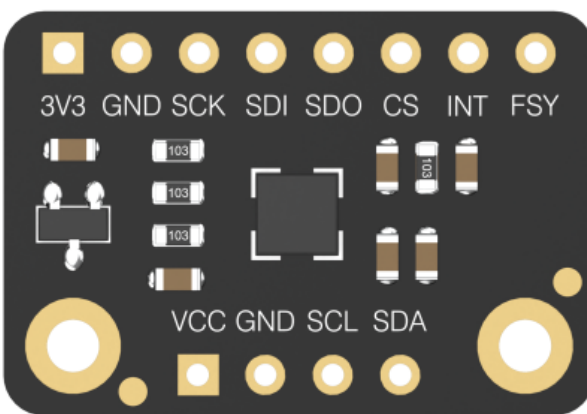
## Specifications

- 3.3V operating voltage
- Current consumption:
  - $140\mu A$  (sleep mode)/  $520\mu A$  (Accelerometer mode only)/  $4.27mA$  (Gyro mode only)/  $4.9mA$  (accelerometer and gyro mode)
- Accelerometer  $\pm 1\%$ ; gyro  $\pm 1\%$  initial sensitivity
- Accelerometer  $\pm 0.5\%$ , gyro  $\pm 0.1\%$  non-linear sensitivity
- I<sup>2</sup>C/SPI (7MHz) interface
- $\pm 2g/\pm 4g/\pm 8g/\pm 16g$  selectable scale
- $\pm 125/\pm 250/\pm 500dps$  gyroscope range
- $-40\sim 85^{\circ}C$  operating temperature range
- Dimensions: 22mm x 15mm/ 0.87" x 0.59"

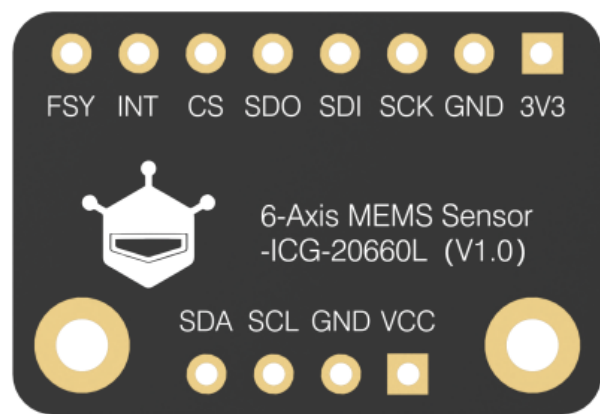
## Applications

- Digital/phone camera module
- Image stabilization in digital SLR camera
- Sport watches
- Anti-shaking application

## Board Overview



TOP



BOTTOM

## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-fermion-imu-module/>