6-Axis IMU Unit

Accel & Gyro
3-axis gyroscope
3-axis accelerometer

I2C INTERFACE

Description

6-Axis IMU Unit is a 6-axis attitude sensor with 3-axis gravity accelerometer and 3-axis gyroscope, which can calculate tilt angle and acceleration in real time. The chip adopts mpu6886, has 16 bit ADC, built-in programmable digital filter and on-chip temperature sensor, adopts I2C interface (addr:0x68) to communicate with host computer, and supports low-power mode.

Product Features

3-axis gravity accelerometer and 3-axis gyroscope
On chip temperature sensor
1KB FIFO
Support low power consumption
Development platform: Arduino, uiflow (blocky, python)
2X LEGO compatible holes

Include

1x 6-Axis IMU Unit
1x Grove Cable (5cm)

Application

Wearable devices
Motion tracking
UAV attitude determination

Specification

-

Resources	Parameter
Communication protocol	I2C: 0x68
Accelerometer range	±2g, ±4g, ±8g, or ±16g
Accelerometer noise	100 μg/√Hz
Gyroscope range	±250, ±500, ±1000, or ±2000 degrees per second
Gyroscope sensitivity error	1%
Gyroscope noise	±4 mdps/√Hz
working voltage	1.71V - 3.45V
Net Weight	4g

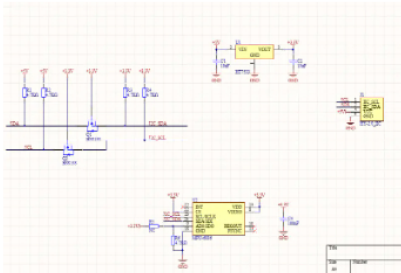|	
Gross Weight	9g
Produce Size	24*24*13mm
Package Size	35*36*18mm

EasyLoader

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification. Please install the corresponding driver according to the device type. M5Core host Please click here to view the CP210X driver installation tutorial, M5StickC/V/T/ATOM series can be used without driver)

Related Link

Datasheet
MPU 6886

Schematic

Pin Map

M5Core(GROVE A)	SCL	SDA	5V	GND
IMU Unit	GPIO22	GPIO21	5V	GND

Example

1. Arduino

Click here to download the Arduino example

Last updated: 2020-12-11

PURCHASE