

# ECG Module13.2 (AD8232)

SKU:M034



## Description

ECG is a heart rate monitor (electrocardiogram) unit, it can detect the heart rate and output a cardiogram signal. Electrocardiogram (ECG) is a technology that uses an electrocardiograph to record the changes in the electrical activity of the heart during each cardiac cycle.

At the signal acquisition end, this ECG module integrates the AD8232 single-lead heart rate monitoring at the front end, the collected ECG signal is processed by the AD8603 low-pass filter, and the 10bit-ADC (AD7476) performs analog/digital signal input to STM32 (built-in heart rate statistics) Algorithm) for signal analysis.

Finally, the processing results are output in the form of serial communication to facilitate the acquisition and display of the main control device. In terms of signal output, it adopts front-end/digital full isolation design to enhance equipment stability and safety.

**Caution:** This product only allows the use of 5V power input. Please strictly abide by the power input standard when using this product to avoid damage to the equipment or injury.



## Product Features

- ADI front end integration (high signal gain G=100, with DC blocking capability)
- Serial Data input
- Heart Rate Statistics monitoring
- Front end/digital fully isolated design
- Ultra Precision Op Amp

## Include

- 1x ECG Module
- 3x ECG electrodes
- 6x Adhesive Pads

## Applications

## Specification

Resources	Parameter
Commuincation Method	UART 115200bps
AD8232	High signal gain $G=100$   With DC blocking capability   Common mode rejection ratio: 80 dB (DC to 60 Hz)
AD7476	10bit-ADC   SPI Interface   Fast throughput rate: 1 MSPS   vref 2.8v
Net weight	18g
Gross weight	101g
Product Dimension	54*54*13.2mm
Package Dimension	105*65*40mm

## 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

[AD8232](#)

[AD8603](#)

[AD7476](#)

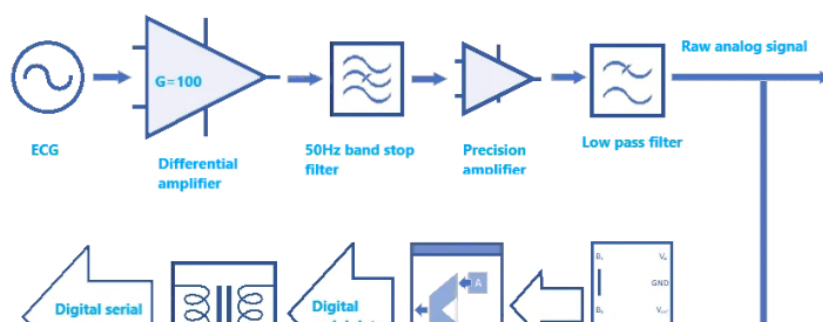
### Tool

[RawDisplay-PC](#)

[UART Pass Through Firmware](#)

When using the PC-side heart rate reading tool, the device needs to burn the serial port transparent transmission firmware(Before uploading, please change the serial port initialization pin to the actually connected pin) and forward the data to the PC.

## Schematic





## Example

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### 1. Arduino

[Download Arduino Code](#)

## Pin Map

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M5Stack	TX/G13	RX/G5	5V	GND
ECG	RX	TX	VIN	GND

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Last updated: 2020-12-24

## PURCHASE

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