Barometric Pressure Unit

SKU:U090

Description

Barometric Pressure Unit is a barometer unit, which integrates the Bosch BMP280 pressure sensor to measure atmospheric pressure and estimate the altitude. The relative accuracy can reach ± 0.12hpa, equivalent to ± 1m height difference. At the same time, the temperature drift coefficient is very low, which can reach 1.5 PA / K, that is, the temperature drift is 12.6 cm / K. in addition, there is an integrated temperature sensor in the chip.

Product Features

- Air pressure sensor, with temperature sensor on chip, can be measure simultaneously
- The accuracy is ± 0.12hpa
- Temperature drift coefficiency 1.5pa/k
- Supports periodic measurement
- Integrated 5-segment filter
- Support low power consumption
- Development platform: Arduino, UIFlow (Blockly, Python)
- 2x LEGO™ compatible holes

Include

- 1x Barometric Pressure Unit
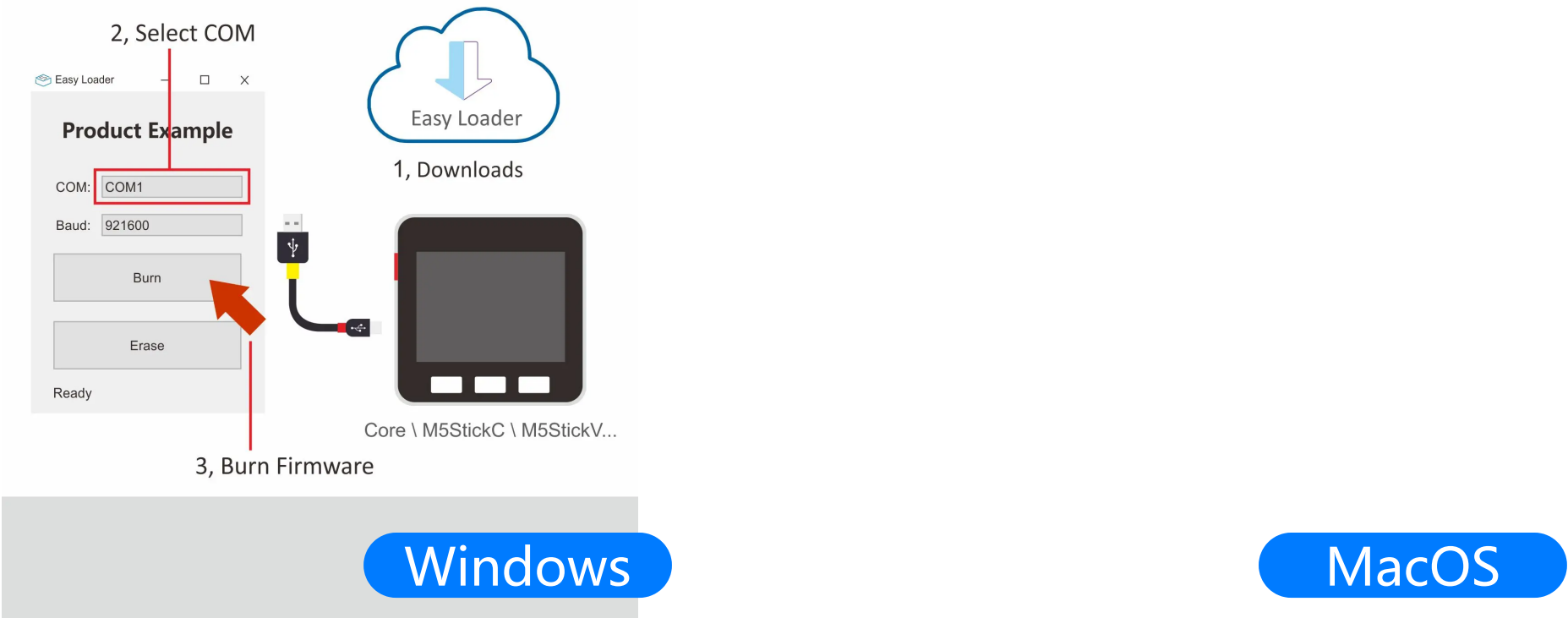- 1x Grove Cable (5cm)

Application

- height detector
- Weather station

Specification

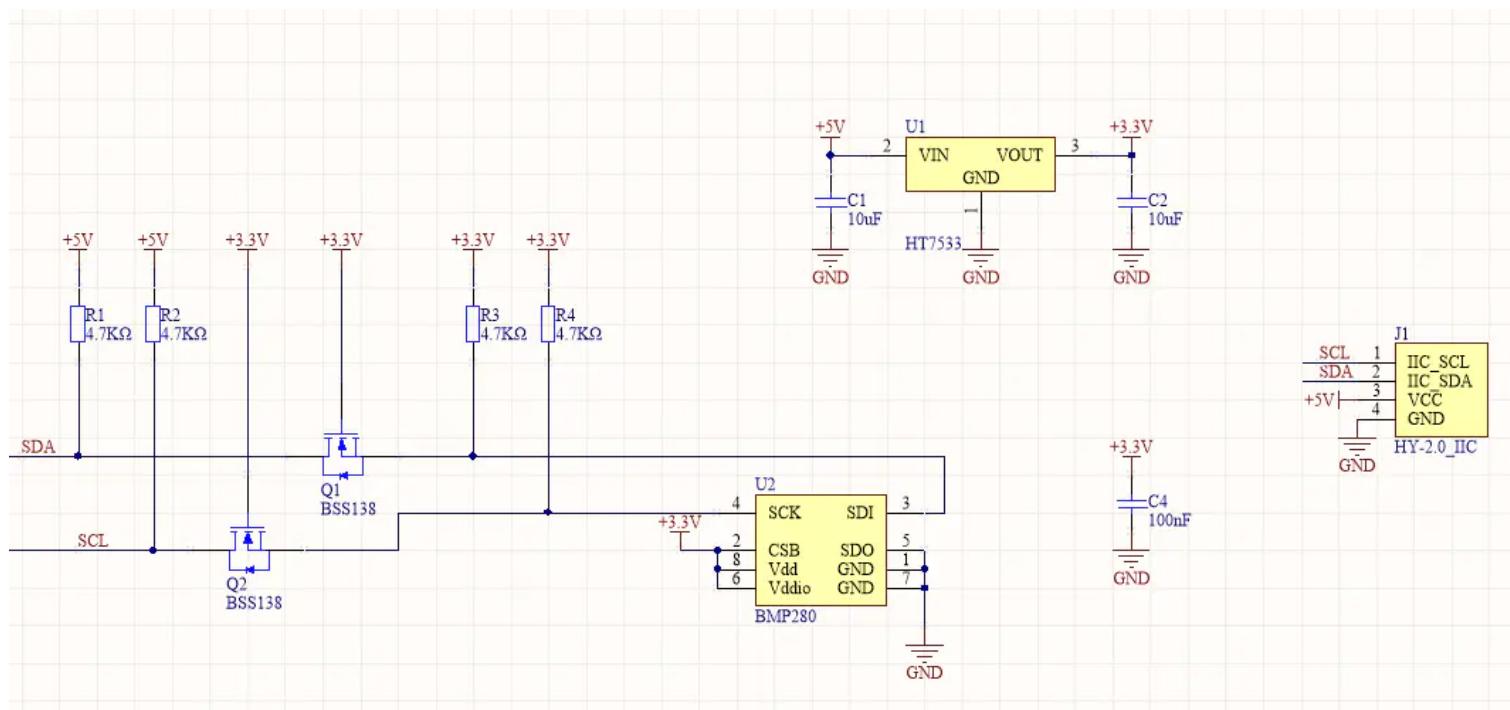| Resources	Parameter
Air pressure measurement range	300 - 1100 hPa(+9000m ~ -500m)
Relative accuracy	0.12hPa
Absolute accuracy	1hPa
Temperature measurement range	-40 ~ +85°C
Temperature resolution	0.01°C
Pressure resolution	0.16Pa
Temperature coefficient offset	1.5 Pa/K(12.6 cm/K)
Current consumption	2.7μA @ 1 Hz sampling rate
Voltage	1.71V - 3.6V
Communication protocol	I2C：0x76
Net Weight	8g
Gross Weight	21g
Produce Size	24*24*13mm
Package Size	35*36*18mm

EasyLoader

EasyLoader is a precise 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)

Windows   MacOS

Related Links

○ **Datasheet**
  ○ BMP 280

Schematic

Pin Map

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

Example

1. Arduino

- Click here to download the Arduino example

2. UIFlow

- Click here to download the UIFlow example

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