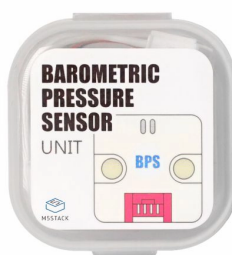
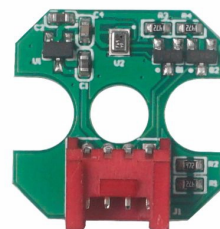
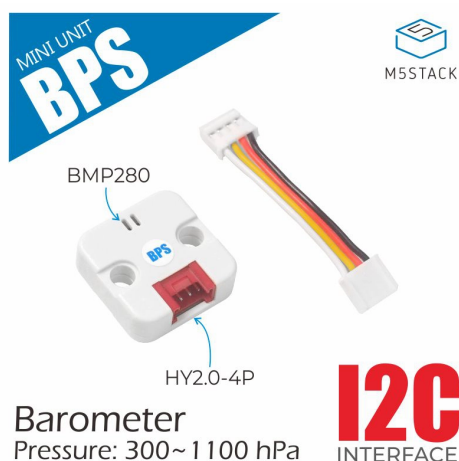


Unit Mini BPS

SKU:U090



Description

Unit Mini BPS is a barometer unit that uses the Bosch BMP280 pressure sensor for measuring atmospheric pressure and altitude estimation. The relative accuracy can reach ± 0.12 hPa, equivalent to a height difference of ± 1 m. Additionally, it has a very low temperature drift coefficient of 1.5 Pa/K, meaning a temperature drift of 12.6 cm/K. Furthermore, a temperature sensor is integrated within the chip.

| Features

- Pressure sensor with on-chip temperature sensor, capable of measuring temperature simultaneously
- Accuracy up to $\pm 0.12\text{hPa}$
- Temperature drift coefficient 1.5Pa/K
- Supports periodic measurement
- Integrated 5-stage filter
- Supports low power consumption
- I2C communication: $0x76$
- Development platforms: Arduino, UIFlow (Blockly, Python)
- 2 x LEGO compatible holes

| Includes

- 1 x Unit Mini BPS
- 1 x HY2.0-4P Grove connection cable (5cm)

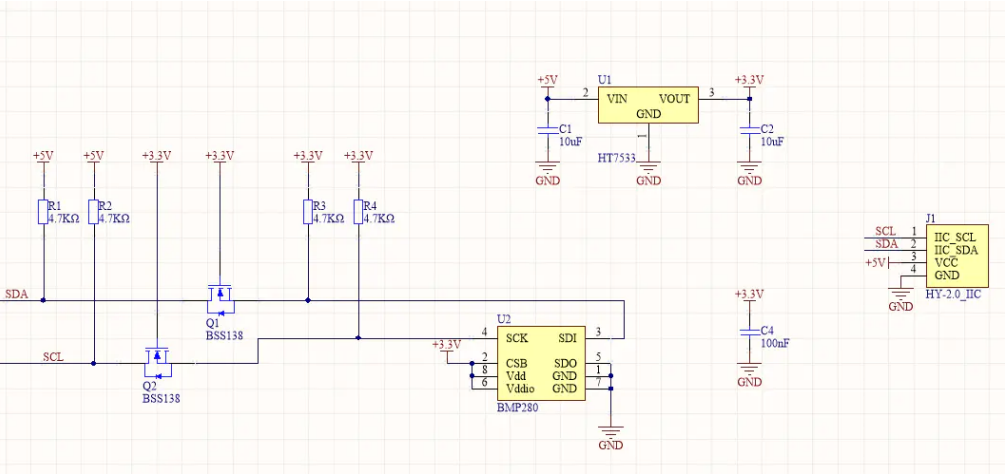
| Applications

- Altitude detection
- Weather stations

| Specifications

Specification	Parameter
Barometric Pressure Measurement Range	300 ~ 1100hPa (+9000m ~ -500m)
Relative Accuracy	0.12hPa
Absolute Accuracy	1hPa
Temperature Measurement Range	-40 ~ +85°C
Temperature Resolution	0.01°C
Barometric Pressure Resolution	0.16Pa
Temperature Drift	1.5Pa/K (12.6cm/K)
Current Consumption	2.7μA@1Hz Sampling Rate
Communication Interface	I2C @0x76
Product Size	24.0 x 24.0 x 13.0mm
Product Weight	4.0g
Package Size	35.0 x 36.0 x 18.0mm
Gross Weight	9.0g

Schematics



PinMap

Unit Mini BPS

HY2.0-4P	Black	Red	Yellow	White
PORT.A	GND	5V	SDA	SCL

Datasheets

- [BMP280 Datasheet](#)

Softwares

Arduino

- [Unit Mini BPS with M5Atom](#)
- [Unit Mini BPS with M5AtomS3](#)
- [Unit Mini BPS with M5AtomS3Lite](#)
- [Unit Mini BPS with M5Core](#)
- [Unit Mini BPS with M5Core2](#)
- [Unit Mini BPS with M5StickC](#)
- [Unit Mini BPS with M5StickCPlus](#)

UiFlow1

- [Unit Mini BPS UiFlow1 Docs](#)

UiFlow2

- [Unit Mini BPS UiFlow2 Docs](#)

EasyLoader

Easyloader	Download Link	Note
Unit Mini BPS example with M5Core	download	/

Video

[BPS.mp4](#)