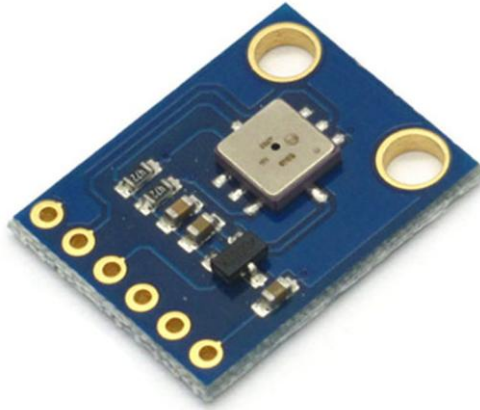


BMP085

Overview



BMP085 is a high-precision and ultra-low-energy power sensor. Its absolute accuracy can reach 0.03hPa and power consumption is extremely low with current of only 1 μ A when operating in standard mode. BMP085 adopts ultra-thin 8-pin ceramic leadless chip carrier (LCC) package, which can be connected directly with a variety of microprocessors through I2C bus.

In addition to applications in meteorology, pressure sensor is basically used to test altitude. For example, to accurately determine whether someone is going upstairs or downstairs in the course of gait, the horizontal height changes can be indirectly figured out by calculating the air pressure variations between the upstairs and downstairs.

For details about operation modes, please refer to the chip datasheet and DEMO CODE.

Specifications

Pressure range: 300 - 1100hPa (altitude 9000 m to -500 m)

Power supply voltage: 1.8V - 3.6V (VDDA); 1.62V - 3.6V (VDDD)

LCC8 Packaging: ceramic leadless chip carrier package (LCC)

Dimension: 5.0mmx5.0x1.2mm

Low power consumption: 5 μ A in standard mode

High precision: in low-power mode, the resolution is 0.06hPa (0.5 m)

in high linearity mode, the resolution is 0.03hPa (0.25 m)

With temperature output

I2C Interface

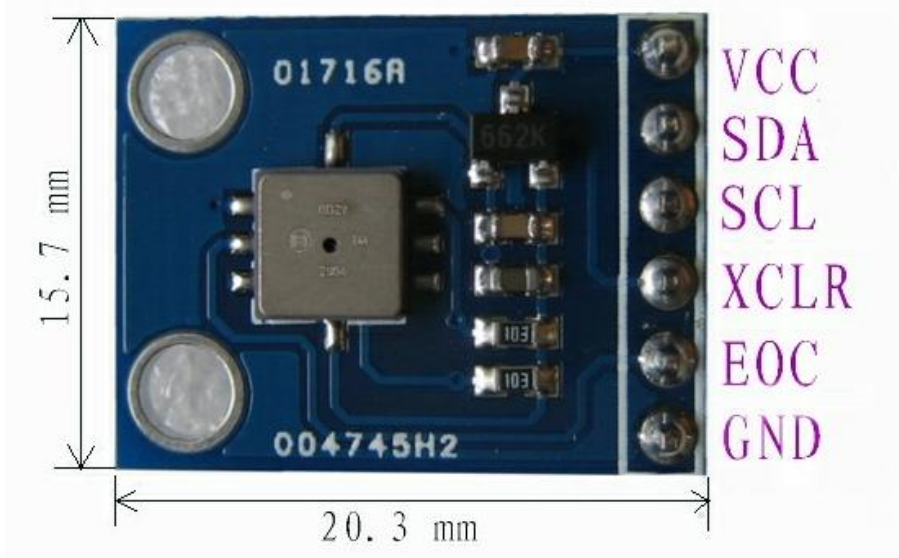
Temperature Compensation

Response time: 7.5ms

Standby current: 0.1 μ A

No external clock circuit

Lead-free, RoHS compliant



Applications

- ❖ GPS precise navigation (dead reckoning, detection of on the bridge or below the bridge, etc.)
- ❖ Indoor and outdoor navigation
- ❖ Monitoring of leisure, sports and medical health
- ❖ Weather forecast
- ❖ Vertical speed indicator (rising / sinking speed)
- ❖ Fan power control