

INTRODUCTION

BME680 is a 4-in-1 multi-functional MEMS environmental sensor which integrates VOC (Volatile Organic Compounds) sensor, [temperature sensor](#), [humidity sensor](#) and barometer. It is designed for air quality monitor, and due to the MEMS technology, BME680 has a small size and low power consumption. It can be widely used in environmental monitoring, home automation and control, Internet of Things (IoT) wearable device, GPS enhancement, etc.

This BME680 Sensor adopts more simplified breakout design and leads out pitch 2.54 pin/female and SPI connectors. And it has onboard voltage regulator IC and I2C level translator circuit, which makes this sensor more convenient to be integrated into various applications.

With the development of industrialization, air pollution is getting worse and worse. Toxic chemical odors are even common with new furniture. These invisible killers are destroying your health day by day. You do need to concern about your health as soon as possible and this DFRobot Breakout BME680 environmental sensor can help you make an air quality monitor so as to take good care of your health!

FEATURES

- MEMS sensor, small size, low power consumption, high reliability
- Wide voltage input, compatible with 3.3V and 5V controller
- Highly integrated environmental sensor: temperature, humidity, barometer and VOC, four-in-one environmental parameter monitoring
- I2C connector, plug and play
- Small size and easy to install

SPECIFICATION

- Input Voltage: 3.3V~5.5V
- Operating Current: 5mA (25mA in VOC Measurement)
- Communication Interface: I2C(Support 3.3V/5V) or SPI(other non-I2C ports only support 3.3V)
- Default I2C Address: 0x76
- Temperature Measurement Range: -40℃~+85℃
- Temperature Measurement Precision: ±1.0℃(0~65℃)
- Humidity Measurement Range: 0-100%r.H.
- Humidity Measurement Precision: ±3%r.H.(20-80% r.H.,25℃)

- Atmospheric Pressure Measurement Range: 300-1100hPa
- Atmospheric Pressure Measurement Precision: ± 0.6 hPa(300-1100hPa, 0~65 °C)
- IAQ (Indoor Air Quality) Range: 0~500 (the larger, the worse)
- Dimension: 18×15.6(mm) /0.71×0.61(inches)

DOCUMENTS

- [Product wiki](#)

SHIPPING LIST

- BME680 Environmental Sensor Module x1
- 2.54 Single Row 4PIN Connector x1
- 2.54 Single Row 6PIN Connector x1