PRODUCT DATASHEET



Environmental Sensor BME280 Breakout

333036

The BME280 Breakout is a compact sensor that measures temperature, pressure, and humidity, perfect for meteorological projects.

Full product documentation, files and tutorials: **solde.red/333036**

CORE ATTRIBUTES

SKU	333036
WEIGHT	5 g
DIMENSIONS	22.0 × 38.0 × — mm
BARCODE	732388672806

DESCRIPTION

BME280 is an atmospheric sensor which measures 3 values: temperature, pressure, and humidity. Additionally, it is possible to calculate elevation. It is simple to use since it communicates via I2C and it is extra small sized so it can be put anywhere. Everything you need to know about the atmospheric condition - this sensor can measure for you; just ideal for meteorological station projects! This board comes with two Qwiic connectors, providing easy connections.

TECHNICAL DETAILS

- **Voltage:** 3.3V
- **Pressure range:** 30kPa - 110kPa
- **Pressure error:** +-12Pa
- **Temperature range:** -40C - 80C
- **Temperature error:** +-1C
- **Humidity range:** 0% - 100%
- **Humidity error:** +-2%
- **Current while measuring:** 1mA
- **Current while idle:** 5uA
- **Communication:** I2C
- **Dimensions:** 22 × 38 mm / 0.9 × 1.5 inch

SPECIFICATIONS

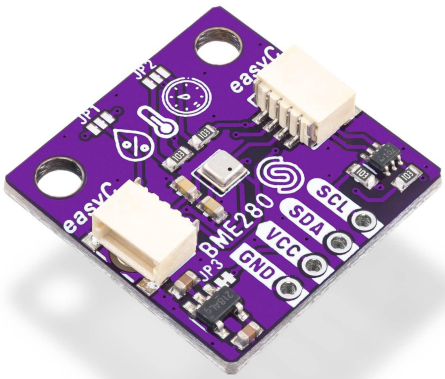
INTERFACE	I2C
QWIIC COMPATIBLE	Yes

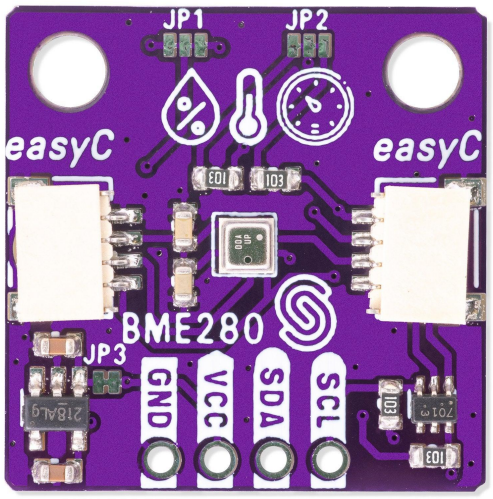
I2C ADDRESS DEFAULT	0x76
I2C ADDRESS CHANGEABLE	No
BREADBOARD COMPATIBLE	Yes
MEASUREMENT TYPES	Temperature, Humidity, Pressure
MEASUREMENT RANGE	Temperature -40 to 80 C; Humidity 0 to 100 %; Pressure 30 to 110 kPa
MEASUREMENT ACCURACY	Temperature +/-1 C; Humidity +/-2 %; Pressure +/-12 Pa
IC PART NUMBER	BME280
SUPPLY VOLTAGE MIN V	3.3
SUPPLY VOLTAGE MAX V	5
LOGIC LEVEL	3V3 Or 5V
OPERATING CURRENT (MA)	1 mA
SLEEP CURRENT UA	5

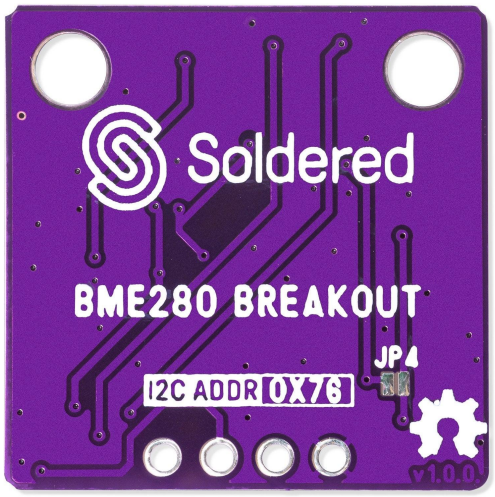
LINKS

Arduino Library	https://github.com/SolderedElectronics/Soldered-BME280-BME680-Gas-Sensor-Arduino-Library
Full Documentation	https://docs.soldered.com/bme280/overview/
Arduino: Get Started	https://docs.soldered.com/bme280/arduino/geting-started/
Hardware Details	https://docs.soldered.com/bme280/hardware/
Arduino Library Documentation	https://docs.soldered.com/bme280/arduino/examples/
MicroPython Module	https://github.com/SolderedElectronics/Soldered-BME280-MicroPython-Library
mim_package	https://checkmim.com/packages/solderedelectronics+Soldered-BME280-MicroPython-Library
Pinout	https://cms.soldered.com/products/333036/media/333036_pinout-png_de41b9.svg

GALLERY


JP1
JP2
easyC
easyC
BME280
JP3
SCL
SDA
VCC
GND


JP1
JP2
easyC
easyC
BME280
JP3
GND
VCC
SDA
SCL


Soldered
BME280 BREAKOUT
JP4
I2C ADDR 0X76
v1.0.0