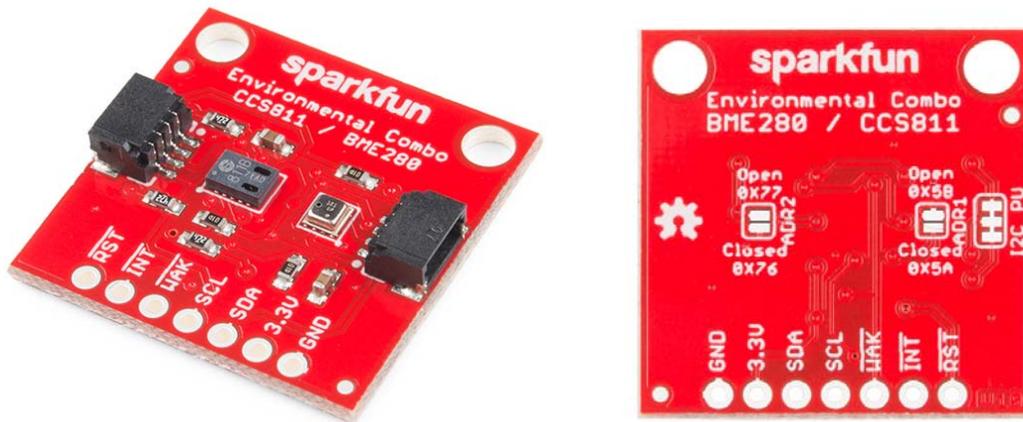




SparkFun Environmental Combo Breakout - CCS811/BME280 (Qwiic)

SEN-14348 RoHS



The SparkFun CCS811/BME280 Environmental Combo Breakout takes care of all your atmospheric-quality sensing needs with the popular CCS811 and BME280 ICs. This unique breakout provides a variety of environmental data, including barometric pressure, humidity, temperature, TVOCs and equivalent CO₂ (or eCO₂) levels. To make it even easier to use this breakout, all communication is enacted exclusively via I²C, utilizing our handy Qwiic system. However, we still have broken out 0.1" spaced pins in case you prefer to use a breadboard.

The CCS811 is an exceedingly popular sensor, providing readings for equivalent CO₂ (or eCO₂) in the parts per million (PPM) and total volatile organic compounds in the parts per billion (PPB). The CCS811 also has a feature that allows it to fine-tune its readings if it has access to the current humidity and temperature. Luckily for us, the BME280 provides humidity, temperature and barometric pressure! This allows the sensors to work together to give us more accurate readings than they'd be able to provide on their own. We also made it easy to interface with them via I²C.

The SparkFun Qwiic connect system is an ecosystem of I²C sensors, actuators, shields and cables that make prototyping faster and less prone to error. All Qwiic-enabled boards use a common 1mm pitch, 4-pin JST connector. This reduces the amount of required PCB space, and polarized connections mean you can't hook it up wrong.

FEATURES

- Qwiic-Connector Enabled
- Operation Voltage: 3.3V
- Total Volatile Organic Compound (TVOC) sensing from 0 to 1,187 parts per billion
- eCO₂ sensing from 400 to 8,192 parts per million
- Temp Range: -40C to 85C
- Humidity Range: 0–100% RH, =-3% from 20–80%
- Pressure Range: 30,000Pa to 110,000Pa, relative accuracy of 12Pa, absolute accuracy of 100Pa
- Altitude Range: 0 to 30,000 feet (9.2 km), relative accuracy of 3.3 feet (1m) at sea level, 6.6 (2m) at 30,000 feet

