BME688 ENVIRONMENTAL SENSOR

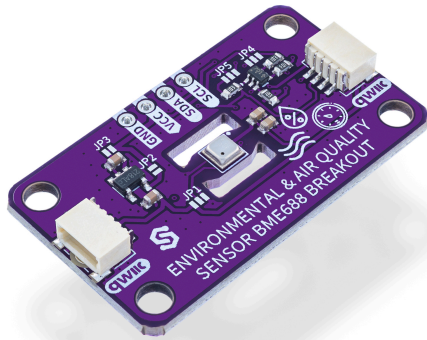|	
Weight	10 g

DESCRIPTION

This is our most advanced multi-purpose environmental sensor yet, built around the cutting-edge Bosch BME688. It combines precise environmental monitoring with gas analysis capabilities, measuring organic compounds (VOCs), volatile sulfur compounds (VSCs), carbon monoxide, and hydrogen in the parts-per-billion (ppb) range alongside temperature, humidity, and barometric pressure.

Our Arduino and MicroPython libraries focus on providing reliable environmental data and basic gas detection, but you can supercharge your project by using the Bosch BME-AI Studio software for advanced AI features. Our breakout communicates exclusively via the I2C interface (up to 3.4 MHz), making integration straightforward with any microcontroller platform.

Designed for both industrial applications and makers, this breakout board includes dual Qwiic connectors for solderless, plug-and-play integration. Whether you are building an advanced air quality monitoring system, a smart HVAC controller, or conducting environmental research, the BME688 provides the precision and intelligence you need for comprehensive environmental sensing.
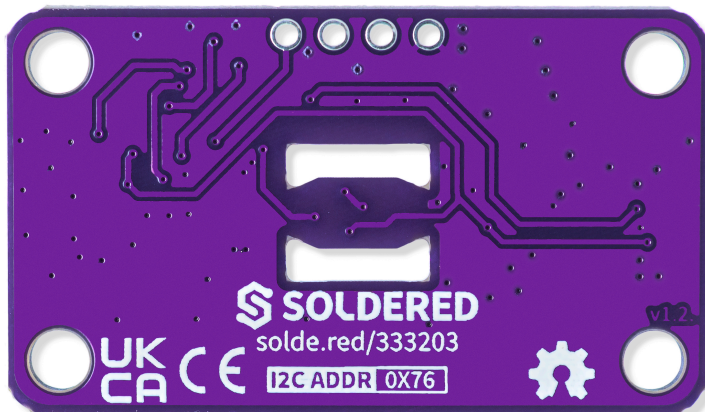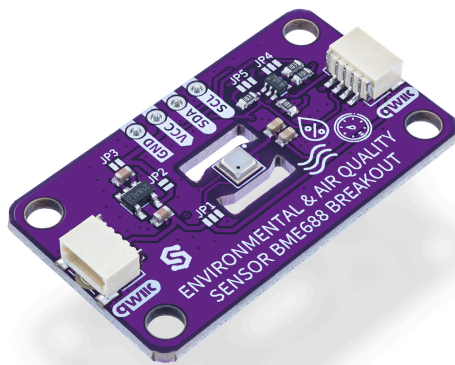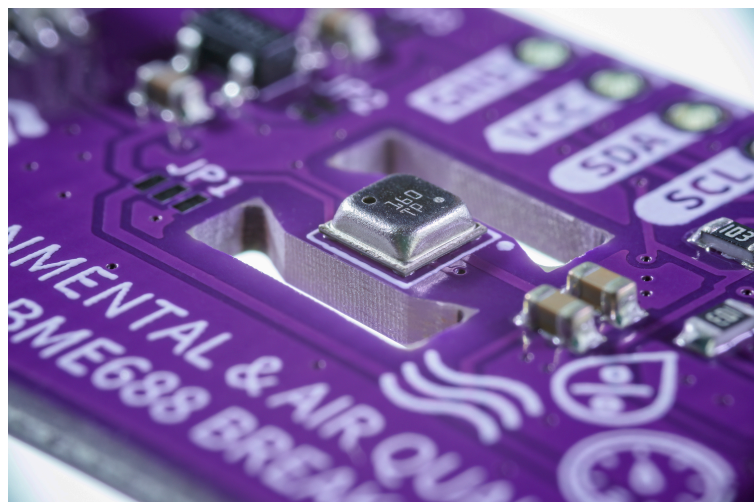
FEATURES

- Multi-Gas Detection: VOCs, VSCs, CO, H_2 in ppb range
- AI Gas Classification: Compatible with Bosch BME AI-Studio software
- Air Quality Index (AQI): Real-time air quality assessment
- CO_2-equivalent & bVOC-equivalent: Output in ppm for easy interpretation
- Temperature: -40°C to +85°C with ±1.0°C accuracy
- Humidity: 0-100% RH with ±3% accuracy
- Pressure: 300-1100 hPa with ±1 hPa accuracy

- Altitude Calculation: Derived from pressure measurements
- I2C Interface: Up to 3.4 MHz communication speed
- Dual Qwiic Connectors: Solderless, plug-and-play connectivity

USEFUL LINKS

OTHER IMAGES

Weight   10 g