



## Gravity: CCS811 Air Quality Sensor

SKU:SEN0318

### *INTRODUCTION*

Gravity: CCS811 Air Quality [Sensor](#) can measure the eCO<sub>2</sub> (equivalent CO<sub>2</sub>) and TVOC (Total Volatile Organic Compounds) density. It can be widely used in many applications, such as air quality detection, air purifiers, ventilation system and so on. This CCS811 air quality sensor uses AMS's unique micro-hot plate technology. Compared to conventional gas sensors, the heating wire is lower power consumption, heating faster, and smaller. Internally integrated ADCs and MCUs allow data to be collected, calculated and returned via IIC. The CCS811 supports a concentration alarm, which is triggered when the concentration exceeds the user-set threshold.

The CCS811 air quality sensor supports multiple modes, such as detect in every second, in every 10s, in every one minute, in every 250ms and sleep mode. These modes are optimized for low power consumption during the sensor measurement, so the CCS811 is also suitable for portable applications.

**NOTE:** The chip has stretched the clock in IIC. So, it is not compatible with some controllers, such as [Raspberry Pi](#).

## *FEATURES*

- Short warm-up time
- Low power consumption
- High integrated MCUs and ADCs
- IAQ threshold alert

## *APPLICATIONS*

- Air quality detection in cars
- Indoor air quality detections
- Air purifiers
- Smart home
- Ventilation system

## *SPECIFICATION*

- Operating Voltage: 3.3V~5.5V
- Current in Sleep: 0.7uA
- Warm-up Time: <15s
- IIC Address: 0x5A (in default) / 0x5B
- Operating Temperature Range: -40°C~85°C
- Operating Humidity Range: 0ppb~1100ppb
- Dimension: 22\*31mm / 0.87\*1.22inch

## *SHIPPING LIST*

- Gravity: CCS811 Air Quality Sensor x1
- Gravity-4P I2C/UART Wire x1
- 2.54-4P Black Pin x2