Sandat Electronics Ltd.

Evaluation kit for the All-in-one digital gas sensor

General Description

The demo kit is developed using a unique technology platform enabling sensor miniaturization, low-power consumption and ultra-fast response times fora wide range of applications.

The demo kit supports intelligent detection algorithms to process raw sensor data in order to represent CO, O2, H2S, LEL, VOCs and T/RH measurement in real world environments. The demo kit is a low-power digital gas sensor solution, which integrates a gas sensor solution for detecting low levels of gases typically found indoors or workplace, with a microcontroller unit (MCU) and an Analog-to-Digital converter to monitor the local environment and provide a standard digital interface.
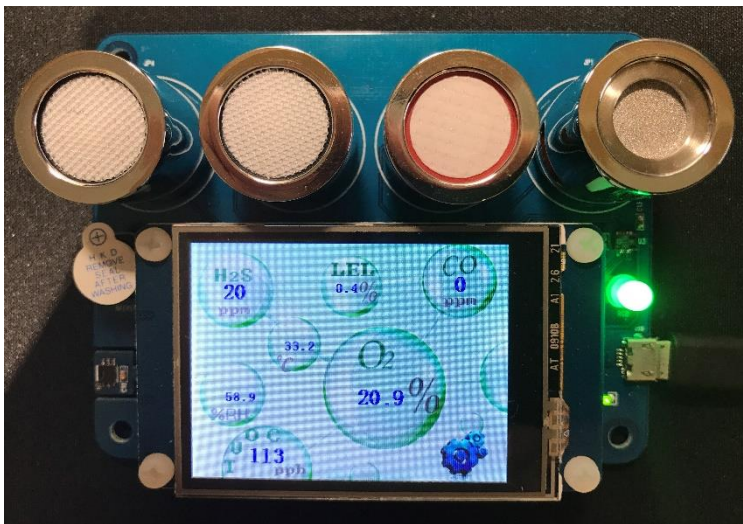

Figure 1: CCS_EVK04 Evaluation kit

Benefits

- **Direct connection to PC via USB**
- **Direct connection to host system via UART**
- **Simple software GUI for easy setup and data logging**
- **Determine effects of Temperature & Humidity**
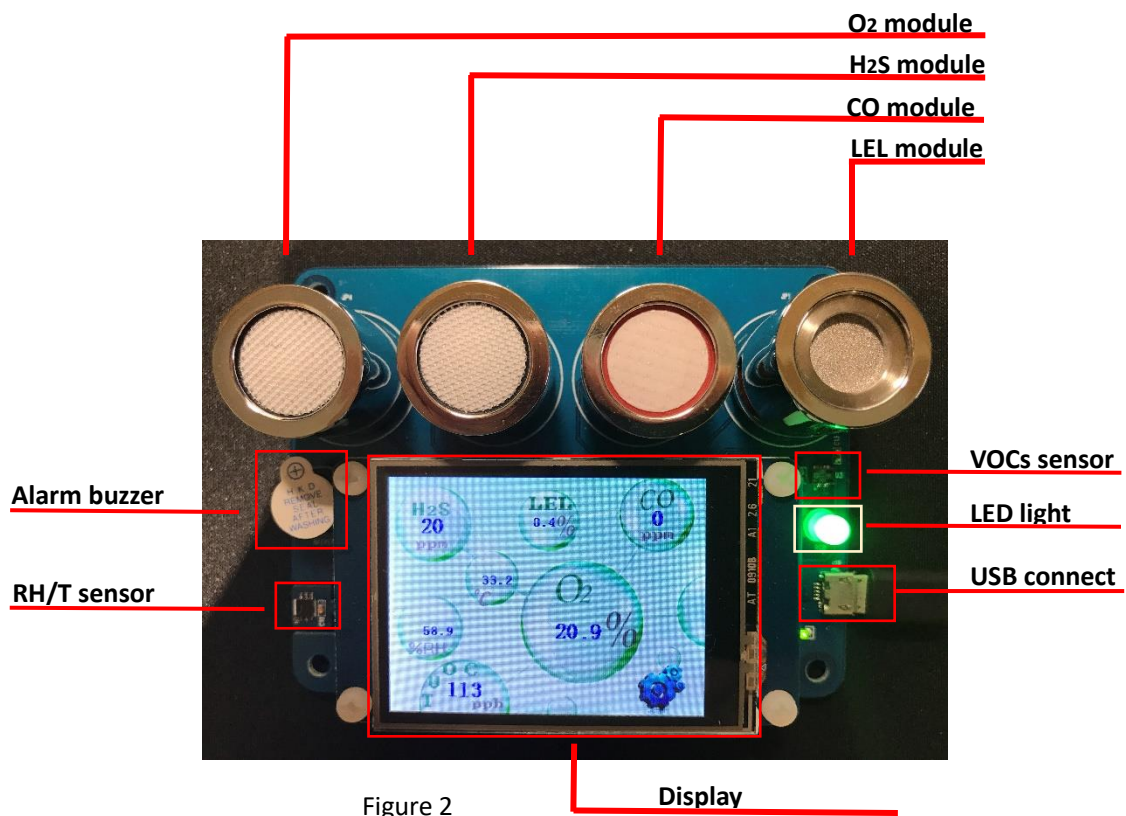- **Intelligent algorithms to output All gas levels**

Applications

- **Indoor air quality (IAQ) monitoring**
- **Outdoor air quality (IAQ) monitoring**

The evaluation kit includes the following:
H2S module
CO module
O2 module
LEL module
USB to micro-USB cable
User guide

Structural description

Figure 2

Operating procedures

1. After the module is powered on, it displays the main interface as below (Figure 3). After about 10 seconds to display the environmental data you can see in each specific data. They represent CO, O2, H2S, LEL, VOCs and T/RH measurement.
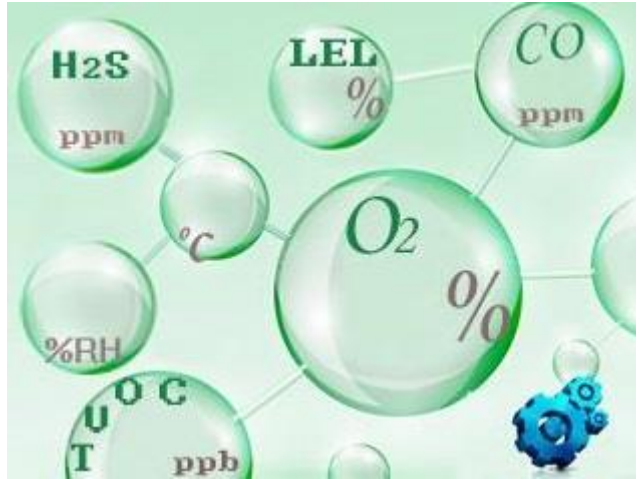

Figure 3

2. If you want to set the gas alarm value, you can click the right bottom button to enter the alarm value setting interface, as shown below

Set button

Figure 4

3. You can input the number to set the gas alarm level by clicking the block. Once you click the block, a pop-up window will show up with the original data. Delete the original data and input your upper limit and lower limit data. After inputting all the data you want, click [OK] to finish one gas limit. Repeat this step until all the gas limit data inputted. Double check all the data you input, click (OK) button to finish the alarm setting.
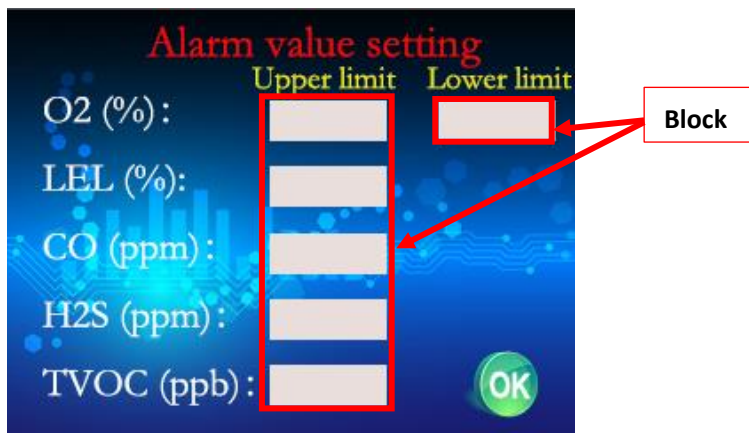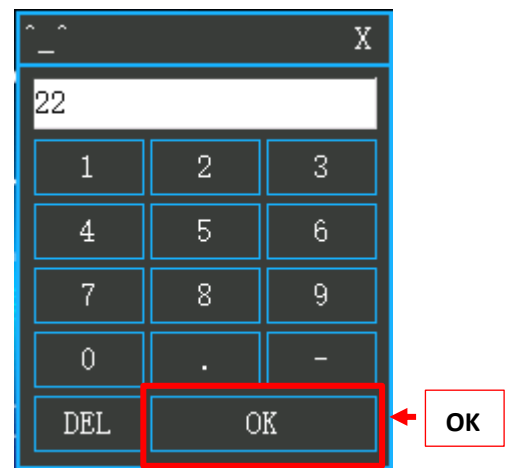

Figure 5

Block

OK

Pop-up window