

EC Evaluation Kit INSTRUCTION

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1. Software Installation

This software is installation-free, require Win 7 or more advanced systems and “.NET Framework 4.0 “.

2. Connection and Software functional indication

2.1 The software package comprises the CP210x Universal Windows Driver version 11.3.0, which must be installed within the Windows Device Manager. If you need the newest driver version, please click the official website: <https://www.silabs.com>.

Then use USB to UART cable to connect the sensor module.

Open the software “SMART MODULE TEST”, select the corresponding serial port in Figure 2.1 & 2.2 for 7-Series and 4-Series Smart Module, default baud rate is 115200 for 7 series and 9600 for 4 series, then click button “Connect”.

2.2 Figures 2.1 and 2.2 show the main functions of the software interface. Please see the software function section for detailed operations.

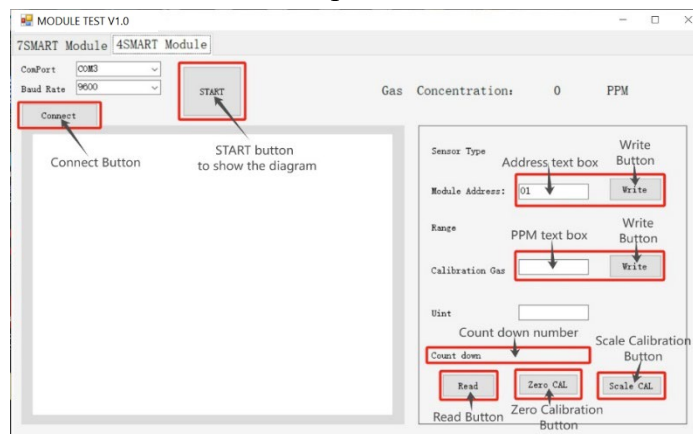


Figure 2.1

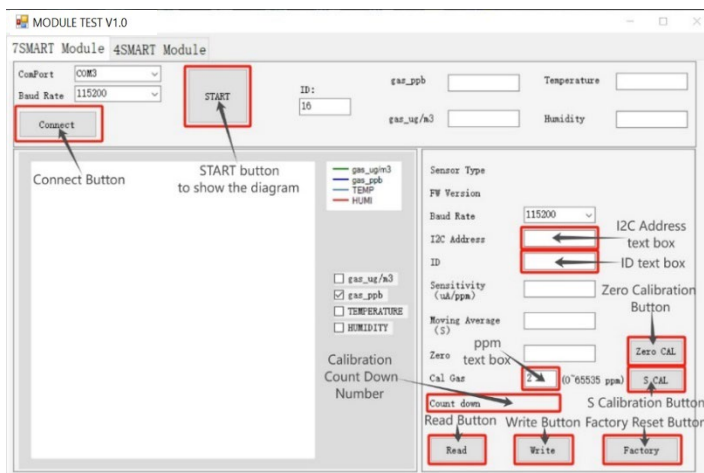


Figure 2.2

3. Software Function

3.1 Data Storage

During the process of data sampling, the collected data will be stored in the folder “data” automatically, using date as document title.

3.2 7-Series SMART Module ID Modify

Click button “Connect” and then click button “Read” to get the factory settings of the Smart Module. The parameter of the module would be shown on the panel. Default ID is 16, enter ID number in the text box, then click button “Write”, waiting “Write Success” panel show up, ID modify complete. The modified parameters take effect after module reset.

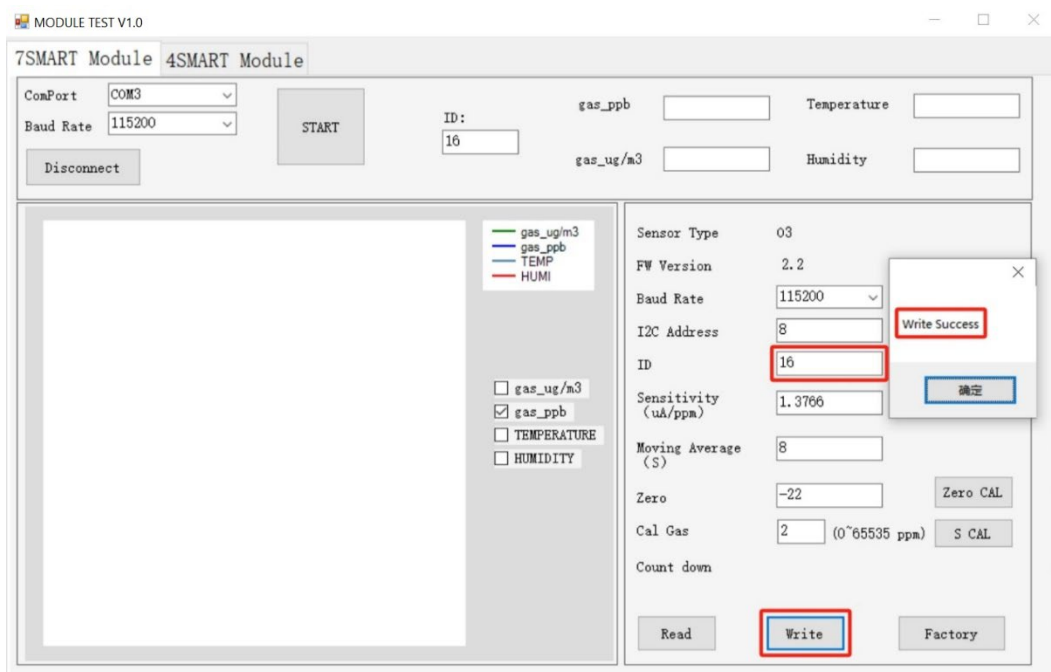


Figure 3.1

3.3 7-Series Smart Module I2C Address Modify

On the main interface, enter new I2C address in the text box which shown in Figure 3.2, then click button “Write”, waiting “Write Success” panel show up, the modified parameters take effect after module reset.

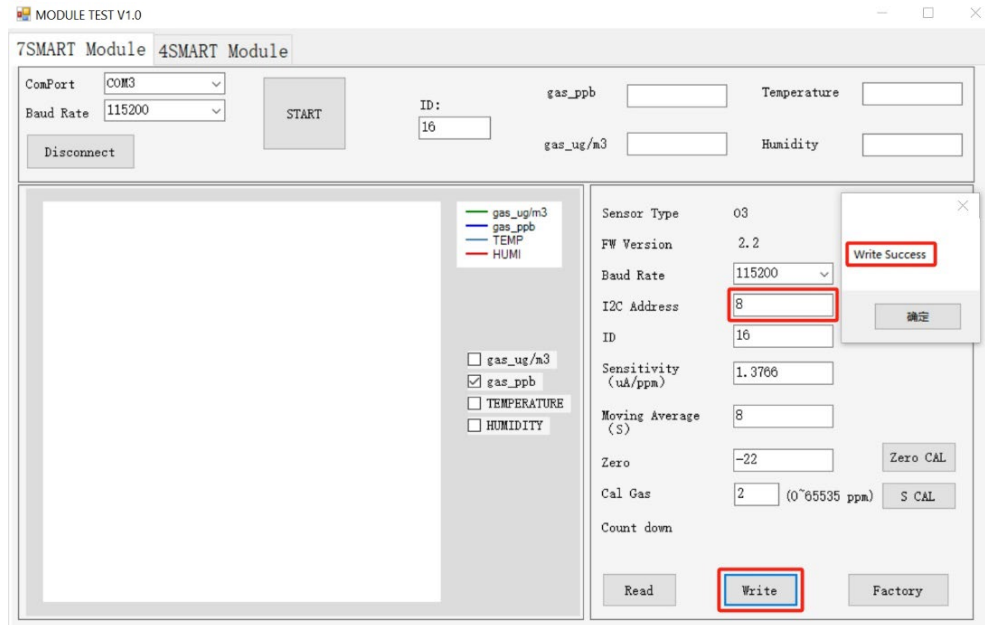


Figure 3.2

3.4 7-Series Smart Module Zero Calibration

Make sure the sensor module is in a very clean environment, after at least 15 minutes, then click button “Zero CAL”, waiting for “Zero calibration Complete” show up. Zero Calibration action complete which shown in figure 3.3.
(Avoid clicking any buttons while the calibration process is in progress.)

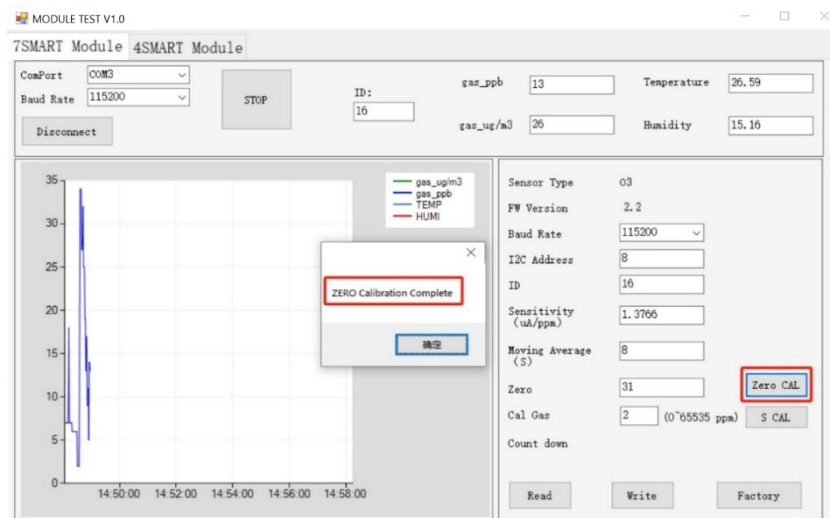


Figure 3.3

3.5 7-Series Smart Module Scale Calibration

As shown in figure 3.4, enter the calibration gas reading into the Cal Gas text box, then click S CAL button, wait for about 60 seconds, the “Count down” column would show a count down number, then wait for “GAS CALIBRATION SUCCESS” or “GAS CALIBRATION FAIL” show up. Scale Calibration complete.

(Avoid clicking any buttons while the calibration process is in progress.)

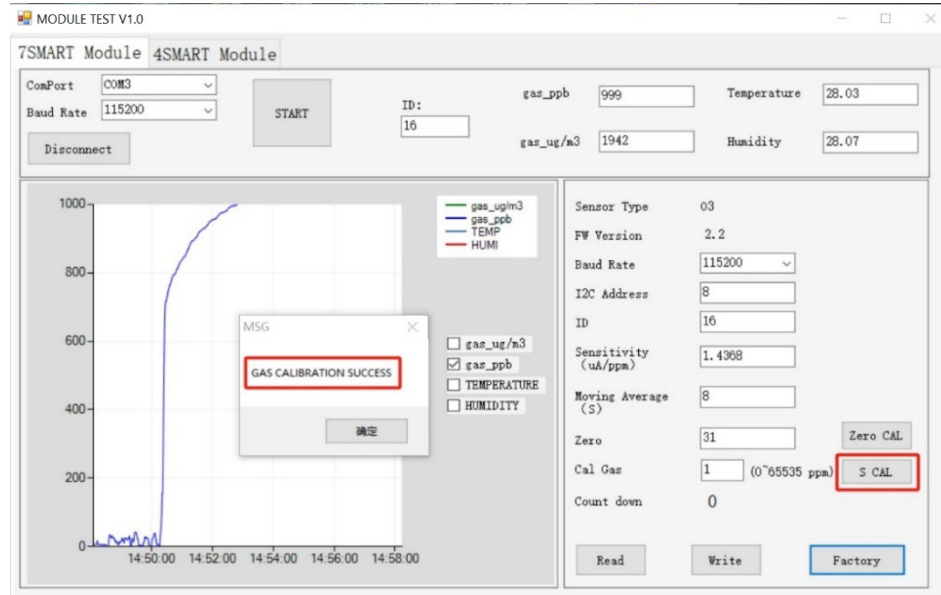


Figure 3.4

3.6 7-Series Smart Module Factory Setting

Click “Factory” button to recovery the parameters on the panel, then wait for “ Read complete ”show up.

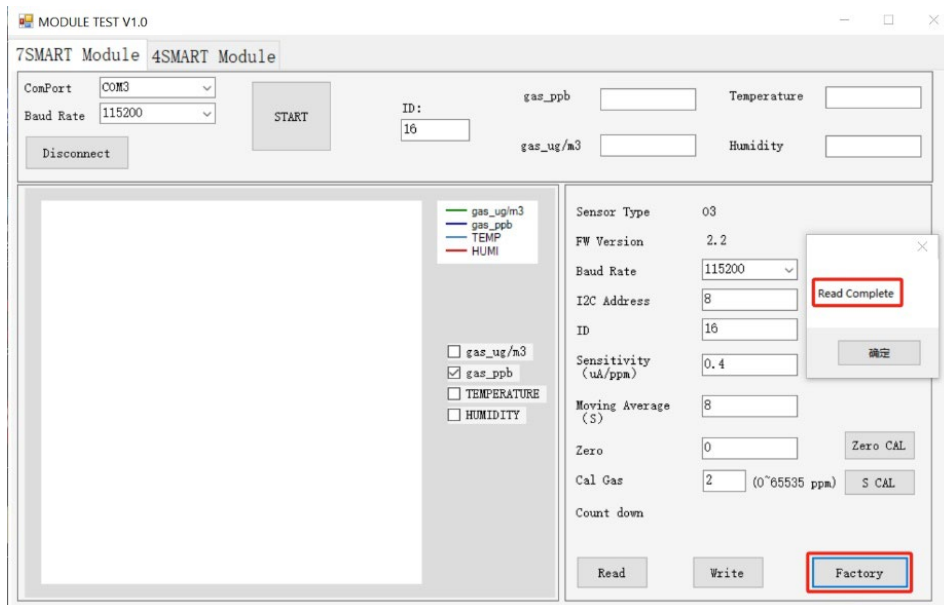


Figure 3.5

3.7 4-Series Smart Module Address

Click button “Connect” and then click button “Read” to get the factory settings of the Smart Module.. On the main interface, enter new module address in the text box which shown in Figure 3.6, then click button “ Write”, waiting “Write Success” panel show up, and then it takes effect after module reset.

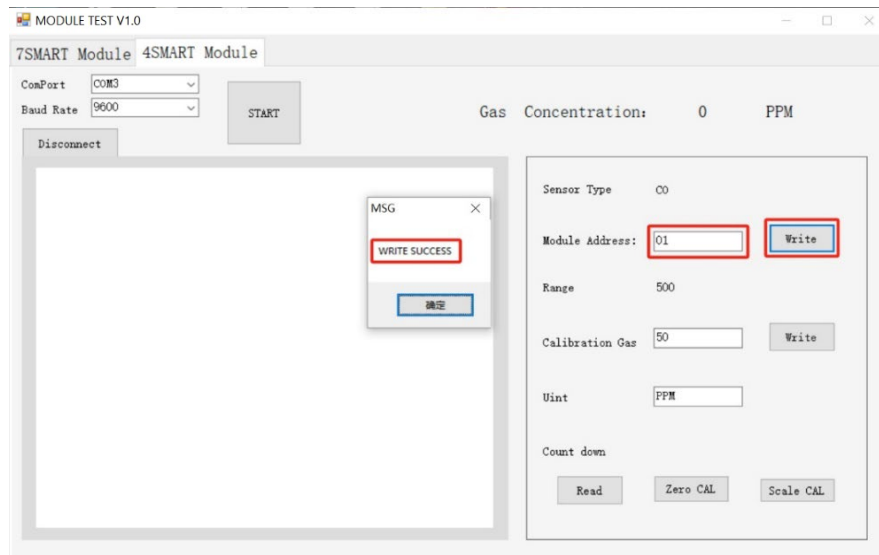


Figure 3.6

3.8 4-Series Smart Module Calibration Gas Modify

On the main interface, enter new calibration gas number in the text box which shown in Figure 3.7, then click button “ Write”, waiting “Write Success” panel show up, and then it take effect after module reset.

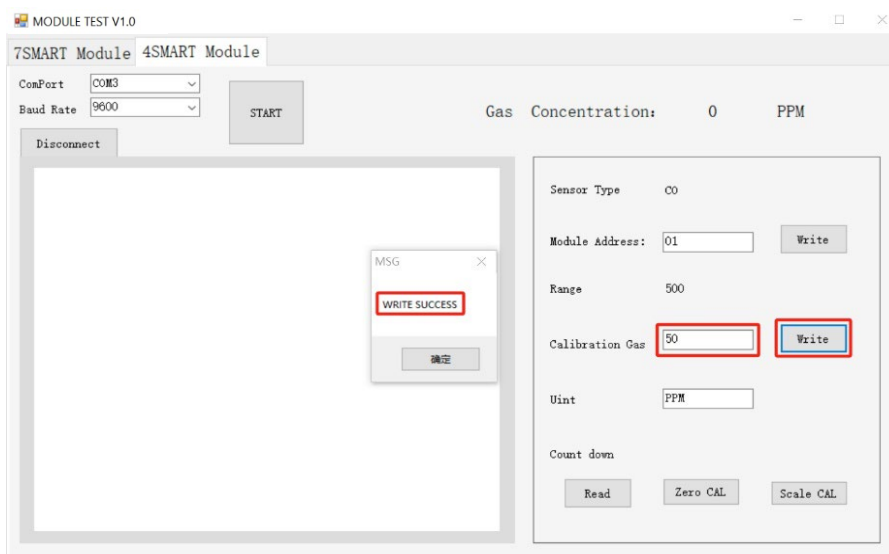


Figure 3.7

3.9 4-Series Smart Module Zero Calibration

Make sure the sensor module is in a very clean environment, after at least 15 minutes, then click button “Zero CAL”, waiting for “Zero calibration success” show up. Zero Calibration action complete which is shown in figure 3.8. (Avoid clicking any buttons while the calibration process is in progress.)

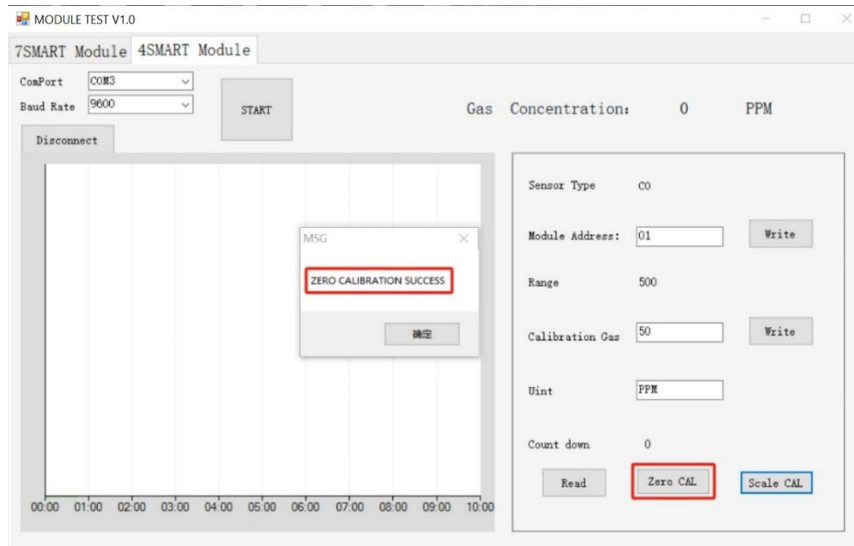


Figure 3.8

3.10 4-Series Smart Module Scale Calibration

As shown in figure 3.9, click S CAL button, wait for about 120 seconds, then wait for “GAS CALIBRATION SUCCESS” or “GAS CALIBRATION FAIL” show up. When “GAS CALIBRATION SUCCESS” shows up, Scale Calibration complete. (Avoid clicking any buttons while the calibration process is in progress.)

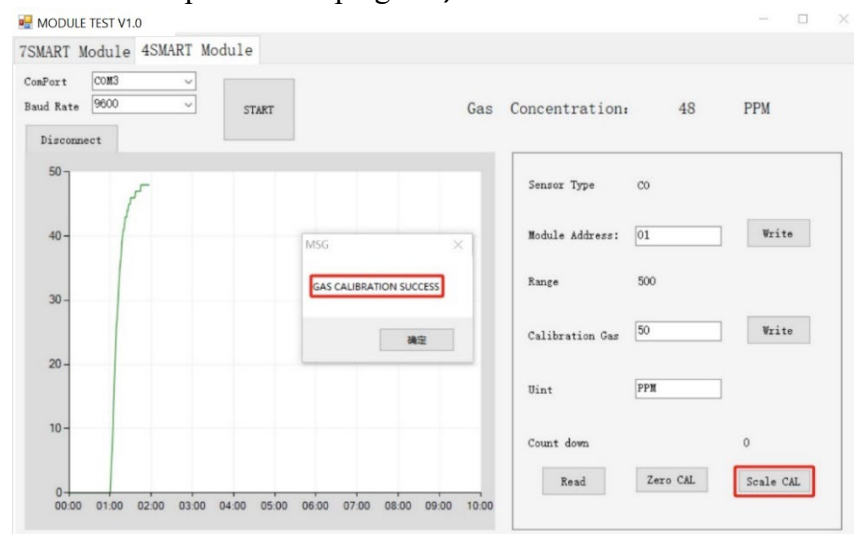


Figure 3.9