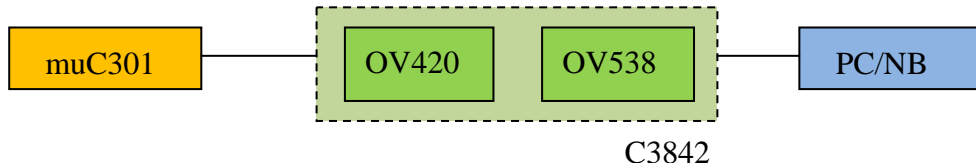


**Description**

muC301 is a small size CMOS image sensor module with features of low power and high image quality of 400x400 pixels.

The C3842 is specially designed for interface micro-camera module, muC301. It has built in a delicate DSP for the interface for muC301 as well as the USB2.0 transceiver. A demo program has been designed for evaluation purpose.

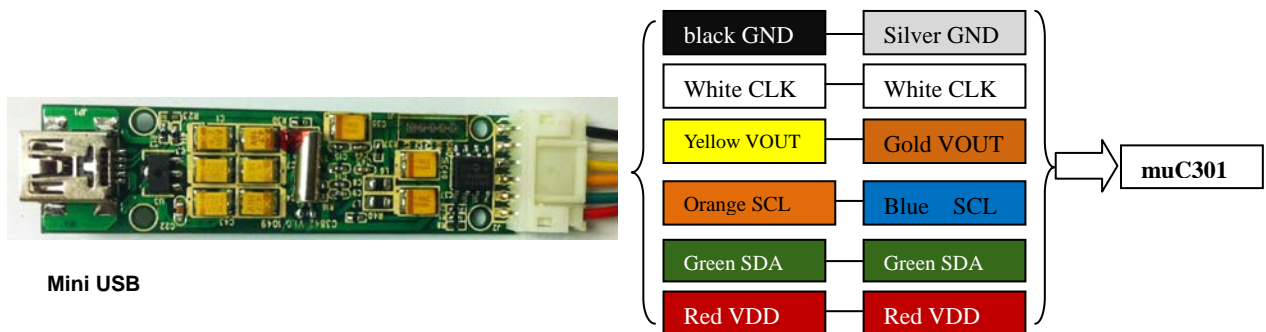
**Block Diagram**



**Electrical Characteristics** (at room temperature 25C)

Parameter	Condition	Typ	Unit
Operation Voltage	USB	5	V
Operation Current		110	mA

**Pin connection**

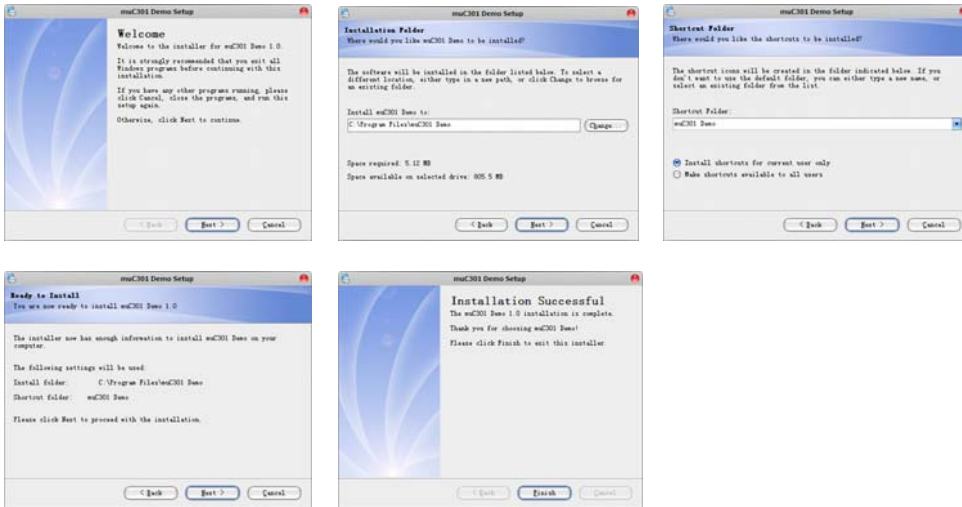


Note: For demo purpose we provide the 6pin connector for easier connection of sensor module (muC301) to the USB adapter board (C3842). In the real production application, user can remove the connector and direct solder the cable wires to the adapter board.

## Operation

### 1. Install the Demo Program

- Unzip the enclosed file C3842setup.rar
- Double click **setup.exe** and follow the instructions to finish installation



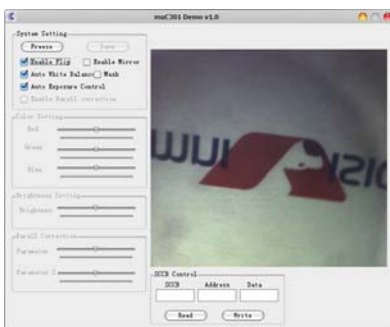
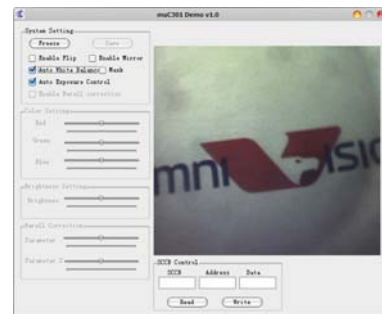
- A short cut will be added to the start menu accordingly.

### 2. Use demo program to control the module

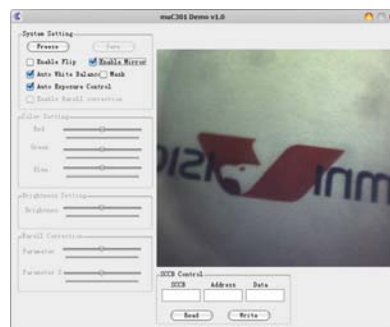
Before any operation, make sure the module is connected to PC thru mini-usb correctly. Open the application program (start->all programs->muC301 demo->muC301) , user will see the UI as bellow.

#### System setting

By default, user will see normal preview picture with auto white balance and auto exposure control. The resolution is 400x400. One can set flip, mirror and mask mode by checking the box. To enable color setting and brightness setting, please uncheck auto white balance and auto exposure control. Barell correction is work under freeze mode. One can adjust the barrel effect by pulling the bar to get the best effect.



Flip mode



Mirror mode

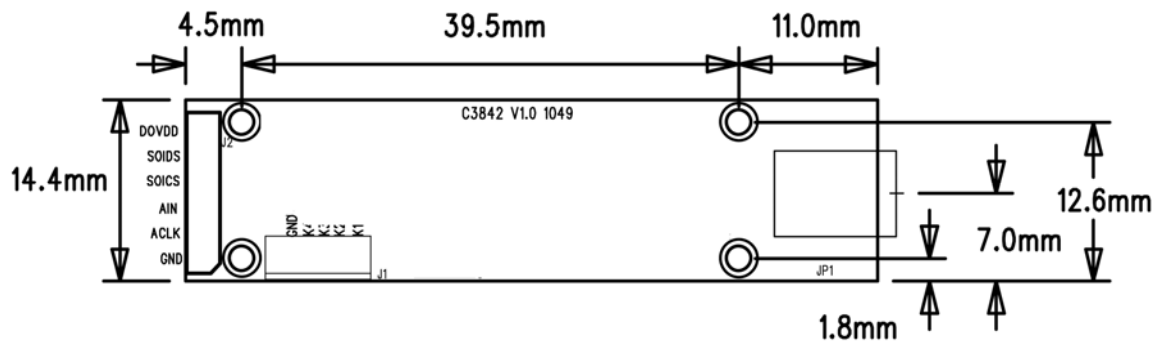


Mask mode

#### SCCB control

This is for internal engineers debug and test only.

## Board Dimension



## Sensor Specification

Imager CMOS imager sensor	OV6930
Optical Format	1/10.6"
Clock rate	4MHz
Max exposure	876 x T <sub>line</sub>
Video Output	Analog
Scan mode	Progressive
Data format	Raw RGB
Picture Element	400x400 pixel
Pixel size	3.0x3.0um
Effective image area	1224x1212um
S/N Ratio	38dB
Dynamic range	68dB
Operation Voltage	3.3VDC
Operation Current	15.4mA max
Connector	6pin cable
Connection	VDD,GND,CLK, VTO,SDA,SCL
Dimension	Sensor board: 2.65mm diameter Main board: 2.65x3mm