

TM1638 8 Bit Button LED Segment Digital Control



Use TM1638 digital tube drive chip to drive common cathode LED digital tube.

This module for the chip TM1638, set the above three kinds of single chip microcomputer common peripheral circuit, the biggest characteristic is to simply take microcontroller three IO mouth can drive, scanning display and key scan don't need microcontroller intervention, only need to register to display data related to reading and writing or testing buttons, save MCU resources.

Features:

- Power supply : 5V
- 8 x Switches
- 8 x Leds
- 8 x Seven segment led
- Dimension :76X50mm

How does the board Function

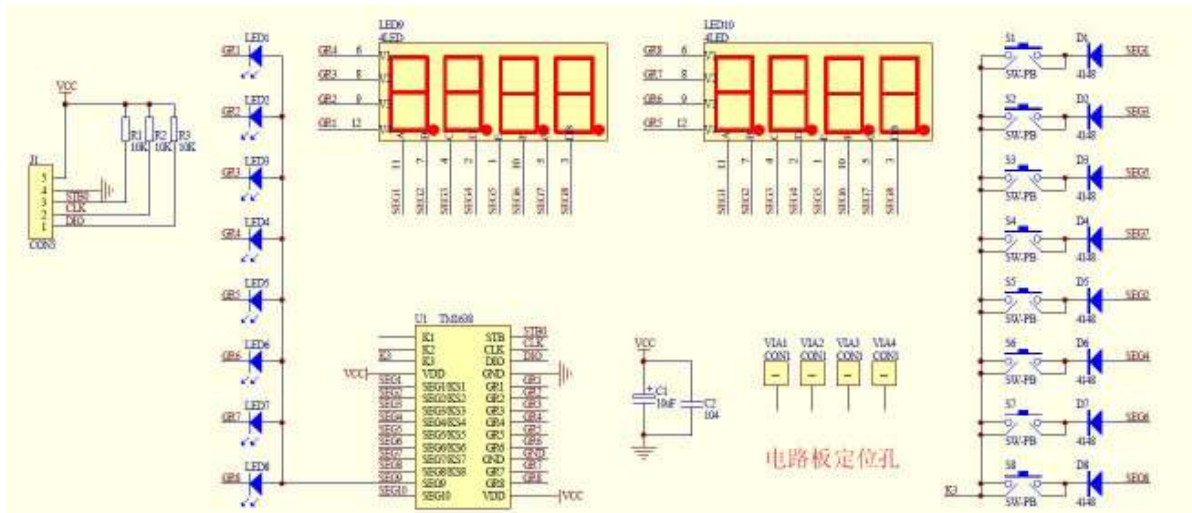
The board has just 3 control pins plus power and ground. The control pins are strobe, clock and data. The strobe and clock pins are only OUTPUT while the data pin can be both OUTPUT and INPUT. The strobe pin is used when sending data to the board – you set the strobe pin to LOW before you start sending data – one or more bytes – and then set the strobe pin back to HIGH. Note that there is just one data pin which means the data is being sent 1 bit at a time. This is where the clock pin comes into play.

When sending data you set the clock pin to LOW then you set the data pin and set the clock pin back to HIGH to commit the bit value. You are probably already familiar with this pattern (if not take a look at this post) – it is the standard way of sending data with shift registers and therefore we can just use the standard shiftOut function to send 8 bits of data with just one line of code.

The board has 4 functions

- Activate/deactivate board and initialize display
- Write a byte at specific address
- Write bytes starting from specific address
- Read buttons

Schematic:



Dimension:

