SMD Practice Kit 300PCS

This kit contains 0805 resistors and capacitors Aluminum capacitors, resistor packs, oscillators, LED, SMD diode, SOP14 IC,SOP IC and TQFP44 IC.

There are total 12 SMD testing groups, all lined up by soldering levels from easy to difficult, each testing area can be tested individually. Testing result can be shown by the LED. This practice kit can practice soldering of various types of SMD components, it can improve your soldering skills, soldering speed and inspecting ability of circuit boards, and it is easy to know if there is poor soldering once the kit is powered up.

Instructions：

1.The power input port of the kit is J1 and J2 and the working power is AC6V.

After the soldering is complete, all the led can light up, at first, one group of the led flashes, then comes another group of led then another like water flows, finally all led light up, the circulation repeats again and again. If the corresponding led is not light up, you should check if everything is soldered properly.

2. The AC9V power through the rectification by D1-D4 diode and then through the filter capacitors to the voltage regulator chip 78M05 pin 1 (LED97 is always light up shows the rectifier circuit works normally), through the pin3 outputs DC5V supply to the entire test circuit work.

3.This test circuit is controlled by a microcontroller to work with 12 groups of 8-bit LEDs. Each group is composed of one 74HC573 and 74HC164, a group can control 8 LEDs, a total of 12 groups, Figure 1 is a group of control schematic, all the LEDs can light up and flash if it is soldered properly.

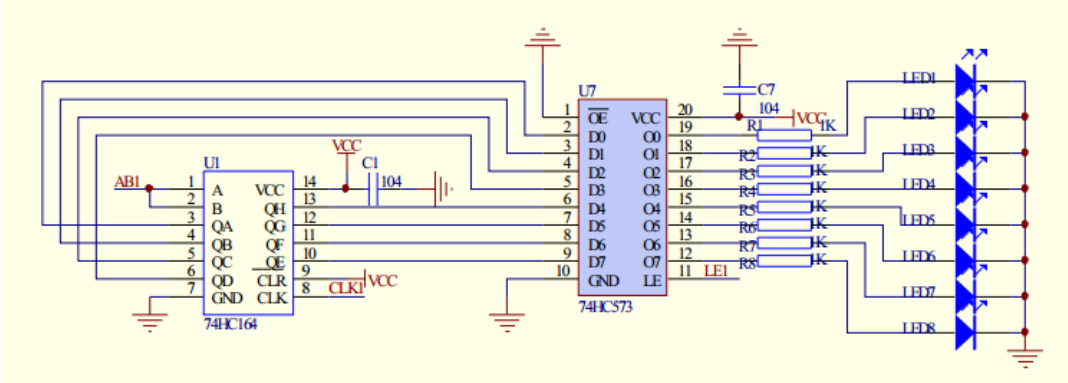

Figure 1

4 Each LED group in Figure 1 is controlled by the three signals AB1, CLK1 and LE1 and these signals are controlled by microcontroller. If there are LEDs from LED1-LED8 are not flashing, it means that the two IC pins, R1-R8, LED1-LED8 have incorrect soldering or false soldering. If the whole group does not flash, it means that AB1, CLK1, LE1 three signals do not work, first check whether the two ICs are soldered properly and then check the soldering of the 100 ohm resistor of the three signals circuit and the pins of the microcontroller that corresponds to the three signals.

5.If all the led groups do not work, check if there is DC5V output from 78M05(If t no voltage output, please check whether the rectifier circuit is soldered correctly),then check if the microcontroller is properly soldered and if its three working conditions is normal (Whether the power supply is 5V; 2. Whether the crystal is oscillating; 3. Whether the reset circuit is normal).

6.Below is the testing results if the kit is soldered correctly.

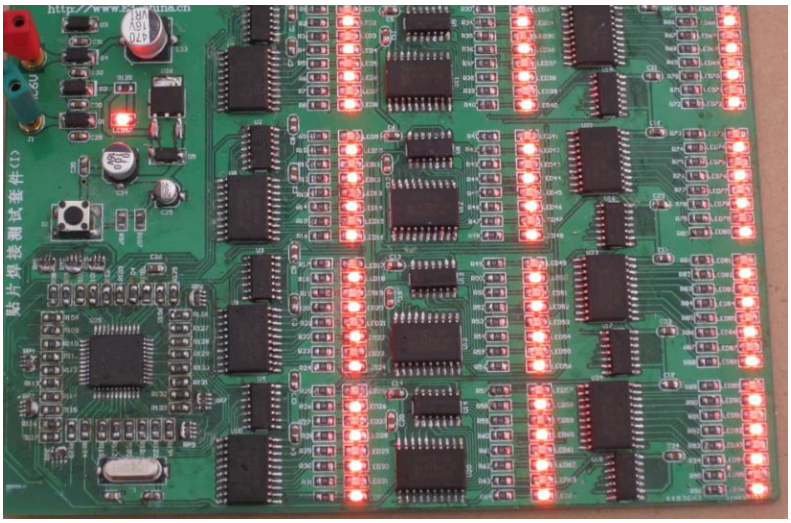

Figure 2 LED flashes

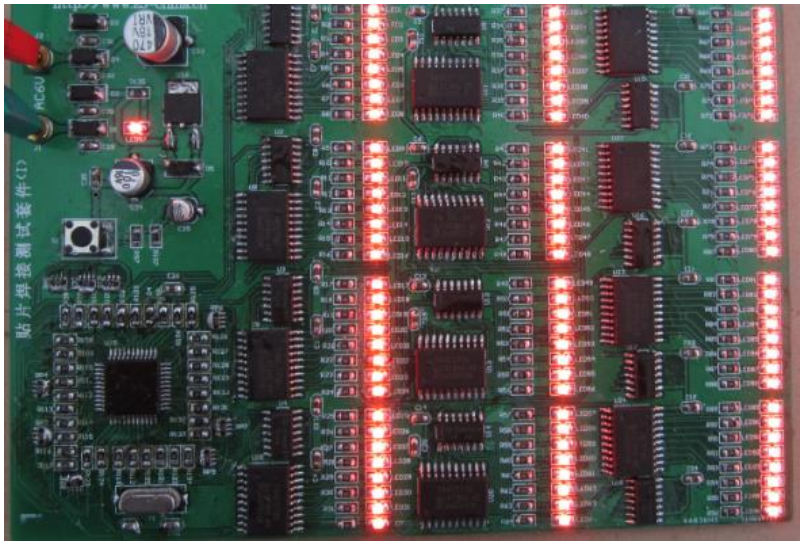

Figure 3 .All led light up