

ABSTRACT

Digital IC is a complete electronic components (transistors, resistors , diodes, capacitors, etc) are included in one silicon chip where its function can be adapted to the function of the IC. When working with digital IC is often not known whether its function is in good condition or damaged. Writer opinion the device writer made can help user to know what is condition of IC gate, is it good or damaged. In other word, before the device is made many users assume if one of IC gate is damaged, IC can not be used anymore. But with this device, user can check where is location of damaged first. So user can choose good IC gate (can be used).

In this final project, writer will realize a tool that can be used to check the condition of IC, is it in a good condition or damaged. This tool can check any kind of IC series, 74LS10, 74LS11, 74LS14, 74LS27, 74LS32, 74LS37, 74LS86, 74LS132, and 74LS136.

On this final project test , communicating and checking is running good, signed by feedback OK (OK) and there is a gate logic XX (damaged) on LCD. IC to be tested is IC 74LS10 which one of its foot broken, for checking whether this tester can detect the damaged or no. From 10 times to check, there is only one error of determine damage location of IC, so we can concluded the accuracy of this tester is 90%. Needed 3 second to check an IC, started with IC locking on ZIF socket to the showing the result of the test to IC on LCD screen. From the result of this test can concluded that this device can work suit with its function appropriately and accurately.

Key words: ATMEGA 8535, DIP switch, LCD, IC, 74LS10, 74LS11, 74LS14, 74LS27, 74LS32, 74LS37, 74LS86, 74LS132, 74LS136