IC Programming service — Hitech Circuits Co., Limited

What Is IC Programming?

Integrated circuit (IC) programming is a type of computer programming in which software is created through code and then added to the IC. This normally is done by using a computer as a bridge for IC programming, because the computer can upload software into the IC. This is most commonly used for microcontrollers to control a certain device, but it also may be used for the main computer itself. There are many actions that can be coded through IC programming, and it comes down to what is being controlled.

Definition of IC(Integrated Circuit) Programmin

This is the process of loading a computer program into an IC circuit to run its function. In other words, it is a process of converting computer-encoded code into an IC that will utilize the serial communication protocol available in the device to achieve its goals. For the most part, it is considered the heart of the most important modern electronic circuits.

With IC programming, it all starts with software. Someone builds software made to control a device, and the software has to be added to the controller. If the program is not transferred, then there usually is no way for the controller to command the device to do anything, because it will not have the proper coding or procedures to exercise control. The programming normally is built with classic logic, and there tends to be many “if/then” statements.

After the IC programming is complete, the software must be added to the circuit. A separate microcontroller can sometimes be made to facilitate this task, but this is most commonly done through a computer. The computer, which also is commonly used to code the software, links with the IC and uploads the programming. This is true even if the circuit is within the computer itself.

Why do ICs need to be programmed?

From the available data, the need for IC(integrated circuit) programming is caused by the introduction of oversized circuits. Large circuits are a burden on designers and manufacturers, and to solve this problem, compact and tiny circuits that maintain the intended function need to be introduced. To meet this compact idea, the designers came up with the idea of an integrated circuit.

After integrated circuits were introduced, designers should ensure that they could communicate with other components, either as outputs or as inputs, which gave rise to integrated programming circuits as we see them today.

Nearly all instances of IC programming are done for microcontrollers, because microcontrollers typically are useless without their IC having software and instructions. Microcontrollers can conform to most instructions, are mobile and can be easily installed in most systems, so this tends to make the process easier. At the same time, computer circuits

also can have new programming added to their IC, which improves the functions of the computer but typically is harder because other programming already is on most circuits.
IC programming can create a large array of commands and instructions, and there are many programming languages that can be used for this. There usually is no limit to what the programming itself can command, but there is a limit to what the device can do. For example, if the IC programming is for a stepper motor — a motor that moves according to programmed steps — then the programming cannot command the motor to watch over computer documents for user edits, because the device is incapable of this command.
IC programming is the process of transferring a computer program into an integrated computer circuit. Hitech Circuits offers IC programming service to meet the increasing customer requests from electronics industry. Besides programming service, we also provide service for IC marking, taping & reeling, dry packing, and customized package… etc. to fulfill your demands.
To sum up, IC programming is programming and loading the code into the integrated circuit, which can be achieved by offline programming and online programming. It is done following the procedure and using the special tools discussed in this article.
If you need more information on IC programming and functional testing, please contact the Hitech Circuits team. They are known for their super service and turnaround.

IC chip programming steps and method

1. Connect the programmer cable first,install the corresponding IC socket into the writer socket, and turn on the computer and the programmer.

2. Run the programming software: Double-click the “GANG-08″with the mouse (different programming sockets correspond to different burning software).

3. Choose the IC brand. After the program startup screen appears, click the “Device”menu to call up the IC brand selection table. Then select the brand corresponding to the IC to be burned, and then click “OK”.

4. Select the IC Part No: The IC Part No produced by the company, click “Run”after selecting the IC Part No l. If you want to select a jumper for the programming socket at this time, follow the computer’s prompt to jumper and jumper the line, Then click “OK”. If there is no jumper on the programming socket, it will enter the programming interface directly.

5. Load the software to be burned: Click the menu “File”, select “Load File To Programmer Buffer”, then select the software click “Open”, then select “00”, and click OK.

6. Check the software checksum (Buffer Checksum): After the software is loaded, a four-digit checksum will appear after the Buffer Checksum. This code should correspond to the “Electronic Design Document Notice” checksumto indicate the need to burn The recorded

software is correct. If it is incorrect, it should be reported to the relevant department immediately for resolution.

7. Programming software: Click the “Program” button to load the IC into the IC socket, and then press the burning button on the burning socket. An “OK” will be displayed if the programming is successful, and the red “Error” will be displayed if the programming fails. The OK indicator light of each programming socket corresponds to the IC with the program. If it is on, it indicates that the IC programming is successful.

8. Make a mark, put a sticker on the IC that burned OK. If the burn failed, put it on another socket and program it again. Put it in the defective box if the IC is damaged, and make a mark.

IC chip programming Service

1. IC Programm

Support different IC types such as memory flash IC, MCU IC, CPLD&FPGA

Support different packages such as DIP, SOIC, TSOP, PGA… etc.

Provide different programming facilities:

a. Universal IC Programmer ProgMaster-U4/ ProgMaster-U8

b. Automatic IC Programming System DP2000

2. IC Marking

Support dot/number/character mark

Support variety marking colors

3. Taping & Reeling

4. Dry Packing

Support IC Types

1、Flash Series

eMMC: Toshiba, SanDisk, INAND, Kingston,Samsung,Hynix ENAND,Micron

NAND: Toshiba, Samsung, Hynix,Macronix,Micron, Spansion

MCP: By request

SD& Micro card: Toshiba, SanDisk, Samsung

SPI Flash (25 & 45 Type): Macronix, Micron,Spansion,Winbond EON,ISSI,ESMT, AMIC

EEPROM (24,93,95 Type): ST, On, Holtek, ACE, Atmel

Parallel Nor Flash (29,39, 49 Type): Macronix, Micron, Spansion, Winbond,SST

2. MCU Series

8bit, 8051 based, 16 bit, 32bit, M0 Nuvoton, ST, NXP, M0+Freescale, M3-ST

M4ST, TI, Freescal

3. CPLD& FPGA Series

Lattice,Altera