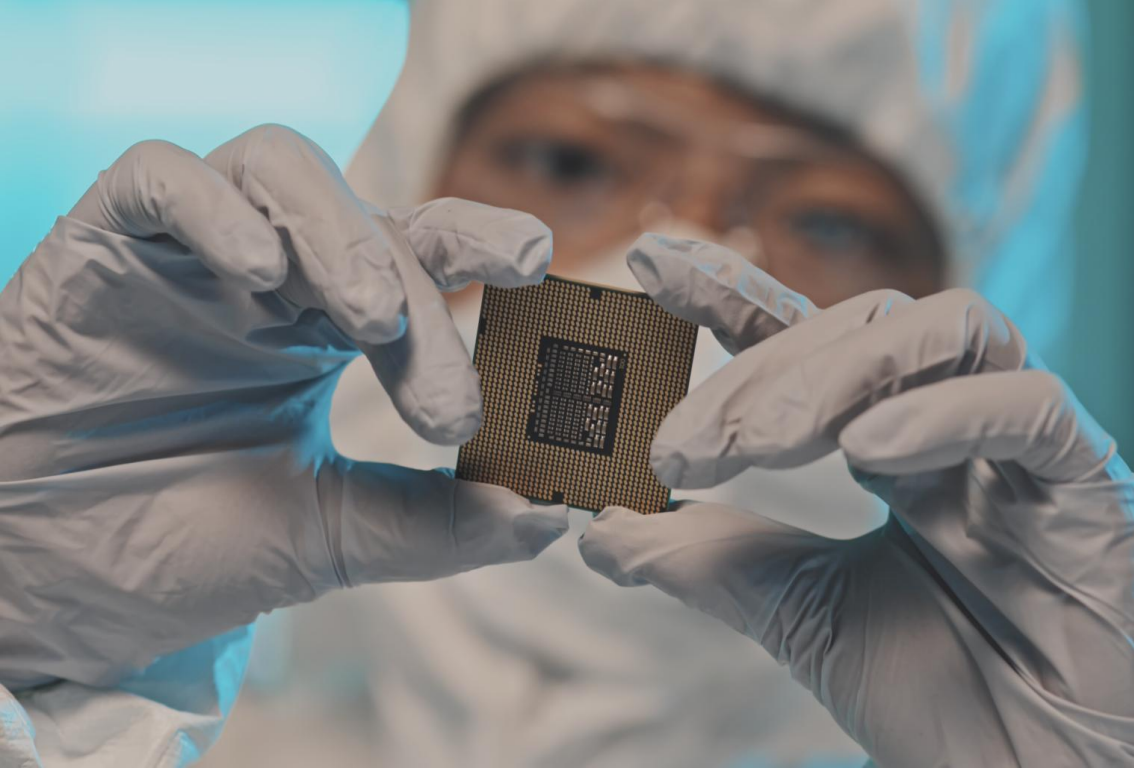




ICONE Identification of counterfeit components methods and management strategies, quality control





How can we avoid counterfeit chips for you? **Digital supplier dynamic control.**

- **Source control:**

Excellent supplier management can eliminate most fake chips, which is both the lowest cost and the most effective. For a company like ICONNE that has to manage more than 5,000 cooperative suppliers around the world, how should it do a good job in supplier evaluation?

Our business does this. As the types of components required by customers increase, the number of our suppliers continues to increase, the way of Digital management and AI data management is a necessary.

- **Track the long-term supply situation and make timely adjustments:**

We record the contact data of each supplier into the system, including on-schedule delivery, quality of delivered goods, and honesty and trustworthiness.

This is a trait of suppliers that we value very much. The data is detailed to the operating status of the company. However, not every supplier is reliable in the long term. We require procurement personnel to record changes in the operating status of each supplier, dynamically control the supplier's situation, and ensure that the supplier's situation is updated in real time to make our channels controllable. and stability. Every supplier transaction becomes data that we record and track its dynamics.

So digital management is very important. Many companies assess their suppliers once a year. When the other party supplies counterfeit chips, a large number of fake components may have entered the production line. Our dynamic data management can solve this problem.



- **Screen out inferior suppliers:**

To ensure that our channels are reliable and stable, So promptly discovering and eliminating unstable factors is our idea to maintain stable channels. When a supplier with normal cooperation suddenly have problem, we will promptly add it to the system blacklist to eliminate potential crises.

- **Reliable and strict supplier data records ,provide guarantee for the source of our components:**

We select and configure our inventory or order deployment based on the reliability level of the channel to ensure that each of our orders is supplied to customers with the safest and most reliable solution.

- **Accumulated and updated supplier data provides reliability:**

Especially during periods of component shortage, a large number of counterfeit and shoddy products will appear. This is where our huge amount of supplier data will play an important role. If there is a shortage in time, we can also effectively avoid counterfeit and shoddy chips from the source.



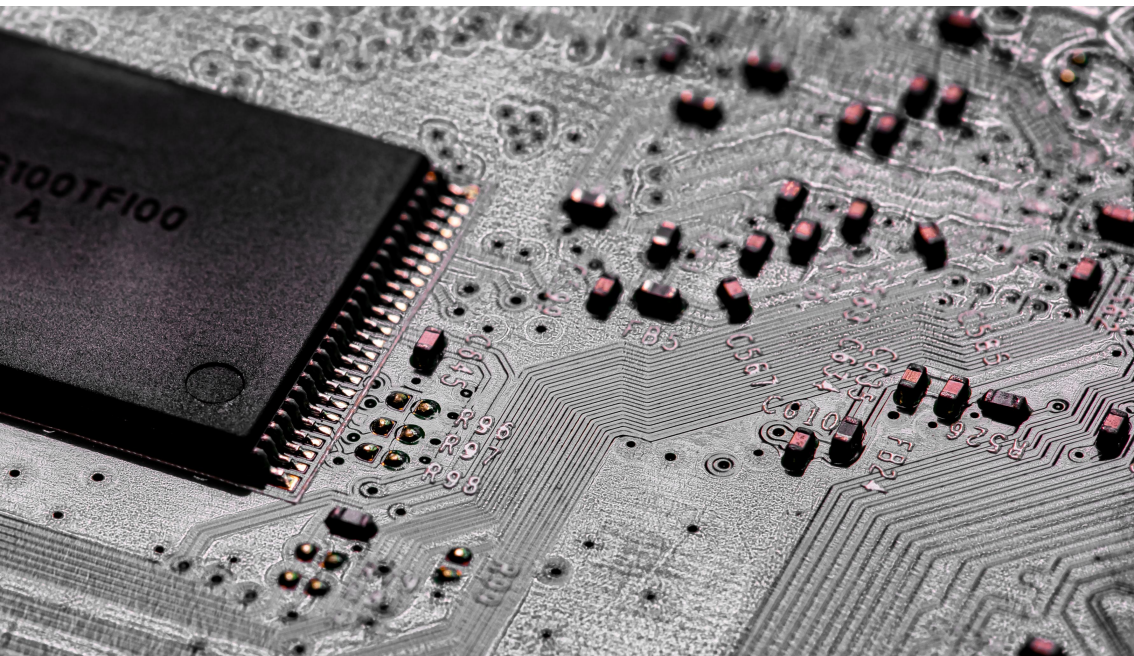
How can we avoid counterfeit chips for you? Sample library updated daily.

- We also have a key database that plays a role in systematically identifying counterfeit and shoddy components:

Identifying a large number of truly fake components is a very big challenge.

12 years we sold more than sixty million components, these components will become our gold sample library, provide reliable reference data for the next order, and the sample time, for our product appearance contrast detection provides strong data, our service customer groups for small and medium-sized manufacturers BOM single supply is given priority to, currently has been more than 3500 services.

small and medium manufacturers demand are frequent and diverse, so this is why our sample library is rich and extremely valuable in identifying fake components.



- **The value of fake and shoddy samples may be beyond your imagination:**

Fake and shoddy models are also at play.

Original sample is uncontrollable factors, fake components sample library can help us to eliminate doubt appearance of components, we consciously collect a large number of fake components sample library, this in our QC personnel training screening work.

so our QC personnel familiar with the appearance of the fake components and can exclude them in the first time, and we keep this library update, to adapt to the counterfeit components counterfeit imitation improvement. Including various types of refurbished scattered new chips.

The most difficult to identify or fake labeled elements, because their appearance is new and complete, we master a large number of fake models of such components, to our valuable reference to provide our screening work. Even if you have a lot of sample data, that doesn't mean you can identify all the fakes.



- Tag libraries also have value



Our sample library contains original and real chip shapes of various brands of components, integrated circuits, diodes and transistors, passive components, sensors, connectors, relays, etc.

Although labels cannot 100% identify counterfeit components, they have certain reference value.

At least it can help us identify some obvious counterfeit components. We have more than one hundred thousand tag databases. We are also assisting our QC personnel in appearance inspection.



- **Test reports we can provide:**

Since we have been focusing on providing BOM services to customers for 13 years, our sample library contains components of various brands, which can help us effectively identify fake chips, although there are still a large number of components that cannot be identified through appearance screening.

We can still conduct in-depth screening and analysis of the components through technical ways. Therefore, we can provide customers with the following testing solutions, free of charge at the early stage of the order. Provided to customers to reduce customer purchasing costs.

Test reports we can provide



- **Testing plan**

1.Appearance inspection report:

Our incoming material inspection appearance inspection process includes labels - outer box - internal auxiliary materials - chip MARKING inspection - pin inspection and wiping - chip body inspection - standard parts comparison.

2.Electrical performance testing:

Its principle is to test and analyze the electrical characteristics .of the chip through input and output signals to determine whether the chip can operate normally and whether there are potential problems. It also includes characteristic testing, power consumption testing, timing testing, etc.

3.XRAY comparison:

Obtain high-definition X-ray photos of the internal structure of incoming materials and compare them with X-ray photos of the internal structure of standard original parts. This method is suitable for most chips.

4. Functional testing:

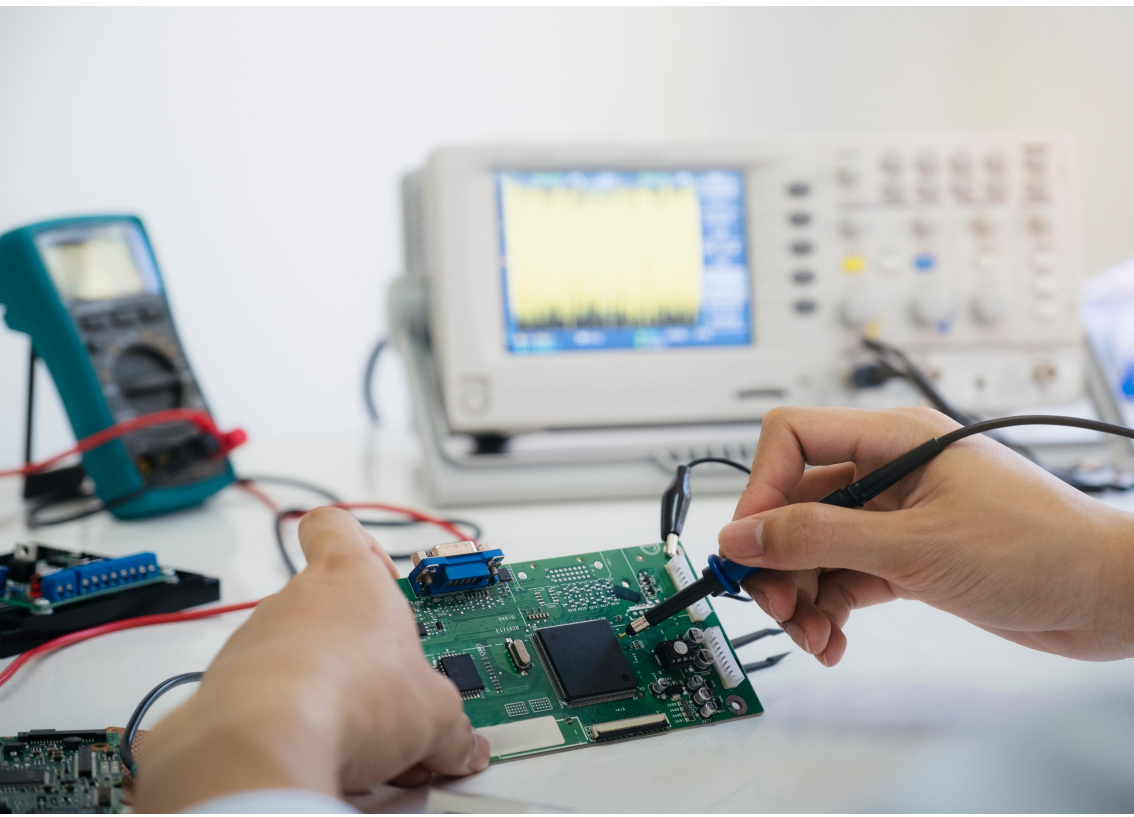
A method of comprehensively testing the functionality of a chip. By designing a series of test cases to cover various functions of the chip and verify the performance of the chip in different working way, we can understand whether the function of the chip is perfect.

5. Reliability testing:

Reliability testing is to test the chip under different environmental conditions to check the life and stability of the chip. This kind of testing often includes humidity testing, vibration testing, destructive testing, temperature cycle testing, etc. Through reliability testing, you can understand how the chip performs under various extreme conditions.

6. IC Programmer detection:

Use tools such as Programmer fixtures and emulators to test components. The software can read whether the component is a genuine model, and perform repeated erasing and burning operations to check for chip damage.



7.Ray analysis:

The X-ray source emits X-rays and irradiates the chip. Different materials in the chip have different signals such as scattering, reflection and absorption of X-rays. By measuring these signals, the structure and defect information inside the chip can be obtained.



We have served many customers who believe in the testing reports of testing agencies. In fact, they do not know that some components are very cleverly counterfeited and their components can escape many detection methods.

Therefore, the combination of real-time and dynamic counterfeit component data is of high value here. In many cases, for problems that cannot be solved technically, some inadvertent data provide the core help. Of course, for the sake of safety, we provide customers with comprehensive screening plan. Including appearance screening and in-depth screening combined with technical means, Obtain test report reference style.

Additional technical services provided, free programming services

Our programming services allow electronics manufacturers to outsource the programming of their components to us. This solves the programming costs and consumption caused by manufacturers due to insufficient equipment or inadequate personnel training, thereby improving the efficiency of the production line and saving costs for the company.

Outsource your component programming to us and benefit from lower costs, higher productivity and an integrated supply chain. Fast delivery means you can ensure your production is completed on time and your time is valuable. If you have any questions, please welcome us to contact our sales staff at any time, we are very looking forward to serving your needs, thanks for consulting.



ICONE-chip is an independent component distributor providing electronic component supply services to global electronic ODM/OEM/EMS customers with fast and efficient component supply. ICONE-chip has 18 years of experience in providing shortage support to customers. Reduce purchasing costs, and inventory management. With the support of a huge database, it implements strict quality management and supply chain management for customers, ensuring long-term high-quality and stable supply of components to customers, and providing high-quality services has always been the goal of ICONE-chip.

Three reasons to cooperate with ICONE-chip:

- **Lightning fast response, shipping and quote speed.**
- **High-quality quality control “Zero Risk”.**
- **Professional one-to-one service.**

At the same time, ICONE-chip supports online purchasing, and “ www.icon-chip.com ” provides customers with massive data, as well as professional Q&A.

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